



# FortiAnalyzer - Dataset Reference

Version 5.6.6

**FORTINET DOCUMENT LIBRARY**

<https://docs.fortinet.com>

**FORTINET VIDEO GUIDE**

<https://video.fortinet.com>

**FORTINET BLOG**

<https://blog.fortinet.com>

**CUSTOMER SERVICE & SUPPORT**

<https://support.fortinet.com>

**FORTINET COOKBOOK**

<http://cookbook.fortinet.com>

**FORTINET TRAINING & CERTIFICATION PROGRAM**

<https://www.fortinet.com/support-and-training/training.html>

**NSE INSTITUTE**

<https://training.fortinet.com>

**FORTIGUARD CENTER**

<https://fortiguard.com/>

**END USER LICENSE AGREEMENT**

<https://www.fortinet.com/doc/legal/EULA.pdf>

**FEEDBACK**

Email: [techdocs@fortinet.com](mailto:techdocs@fortinet.com)



October 2, 2018

FortiAnalyzer 5.6.6 Dataset Reference

05-566-438683-20181002

# TABLE OF CONTENTS

|                                         |            |
|-----------------------------------------|------------|
| <b>Change Log</b> .....                 | <b>4</b>   |
| <b>Introduction</b> .....               | <b>5</b>   |
| Understanding datasets and macros ..... | 5          |
| <b>Dataset Reference List</b> .....     | <b>6</b>   |
| <b>Macro Reference List</b> .....       | <b>195</b> |

# Change Log

| Date       | Change Description |
|------------|--------------------|
| 2018-10-02 | Initial release.   |
|            |                    |
|            |                    |

# Introduction

This document provides information about the various types of FortiAnalyzer datasets.

## Understanding datasets and macros

FortiAnalyzer datasets are collections of log messages from monitored devices.

Charts in FortiAnalyzer are generated based on the datasets. To create a chart, you can use the predefined datasets, or you can create your own custom datasets by querying the log messages in the SQL database on the FortiAnalyzer unit. Both predefined and custom datasets can be cloned, but only custom datasets can be deleted. You can also view the SQL query for a dataset, and test the query against specific devices or log arrays.

You can create custom reports that contain macros that are created based on predefined and custom datasets. Macros are used to dynamically display the device log data as text in a report. They can be embedded within a text field of a paragraph in a report layout in XML format. Macros display a single value, such as a user name, highest session count, or highest bandwidth, and so on.

For more information about how to create datasets, charts, and macros, see the FortiAnalyzer *Administration Guide*.

# Dataset Reference List

The following tables list the available predefined data sets reported by FortiAnalyzer. For documentation and technical support reference purposes, these tables contain the dataset names, SQL query syntax for each dataset, and the log category of the dataset.

| Dataset Name                           | Description                | Log Category |
|----------------------------------------|----------------------------|--------------|
| Traffic-Bandwidth-Summary-Day-Of-Month | Traffic bandwidth timeline | traffic      |

```
select
    $flex_timescale(timestamp) as hindex,
    sum(traffic_out) as traffic_out,
    sum(traffic_in) as traffic_in
from
    ###(select $flex_timestamp as timestamp, sum(coalesce(sentbyte, 0)) as traffic_out, sum
        (coalesce(rcvdbyte, 0)) as traffic_in from $log where $filter and logid_to_int(logid)
        not in (4, 7, 14, 20) group by timestamp having sum(coalesce(sentbyte, 0)+coalesce
        (rcvdbyte, 0))>0 order by timestamp desc)### t group by hindex order by hindex
```

| Dataset Name                 | Description                | Log Category |
|------------------------------|----------------------------|--------------|
| Session-Summary-Day-Of-Month | Number of session timeline | traffic      |

```
select
    $flex_timescale(timestamp) as hindex,
    sum(sessions) as sessions
from
    ###(select $flex_timestamp as timestamp, count(*) as sessions from $log where $filter and
        logid_to_int(logid) not in (4, 7, 14, 20) group by timestamp order by timestamp
        desc)### t group by hindex order by hindex
```

| Dataset Name           | Description                                        | Log Category |
|------------------------|----------------------------------------------------|--------------|
| Top-Users-By-Bandwidth | Bandwidth application top users by bandwidth usage | traffic      |

```
select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out,
    count(*) as sessions
```

```

from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    user_src
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name         | Description                         | Log Category |
|----------------------|-------------------------------------|--------------|
| Top-App-By-Bandwidth | Top applications by bandwidth usage | traffic      |

```

select
    app_group_name(app) as app_group,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(app) is not null
group by
    app_group
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                | Description                      | Log Category |
|-----------------------------|----------------------------------|--------------|
| Top-User-Source-By-Sessions | Top user source by session count | traffic      |

```

select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    count(*) as sessions
from
    $log

```

```

where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    user_src
order by
    sessions desc

```

| Dataset Name        | Description                       | Log Category |
|---------------------|-----------------------------------|--------------|
| Top-App-By-Sessions | Top applications by session count | traffic      |

```

select
    app_group_name(app) as app_group,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(app) is not null
group by
    app_group
order by
    sessions desc

```

| Dataset Name                          | Description                       | Log Category |
|---------------------------------------|-----------------------------------|--------------|
| Top-Destination-Addresses-By-Sessions | Top destinations by session count | traffic      |

```

select
    coalesce(
        nullifna(
            root_domain(hostname)
        ),
        ipstr(dstip)
    ) as domain,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    domain
order by
    sessions desc

```

| Dataset Name                           | Description                         | Log Category |
|----------------------------------------|-------------------------------------|--------------|
| Top-Destination-Addresses-By-Bandwidth | Top destinations by bandwidth usage | traffic      |

```

select
    coalesce(
        nullifna(
            root_domain(hostname)

```



```

    ),
    ipstr(dstip)
) as domain,
sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth,
sum(
    coalesce(rcvdbyte, 0)
) as traffic_in,
sum(
    coalesce(sentbyte, 0)
) as traffic_out
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and coalesce(
    nullifna(
        root_domain(hostname)
    ),
    ipstr(`dstip`)
) is not null
group by
domain
having
sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
)> 0
order by
bandwidth desc

```

| Dataset Name         | Description            | Log Category |
|----------------------|------------------------|--------------|
| DHCP-Summary-By-Port | Event top dhcp summary | event        |

```

drop
    table if exists rpt_tmptbl_1;
drop
    table if exists rpt_tmptbl_2;
drop
    table if exists rpt_tmptbl_3; create temporary table rpt_tmptbl_1 as ###(select concat
        (interface, '.', devid) as intf, mac from $log where $last3day_period $filter and
        logid_to_int(logid) = 26001 and dhcp_msg = 'Ack' group by interface, devid, mac)###;
        create temporary table rpt_tmptbl_2 as ###(select concat(interface, '.', devid) as
        intf, mac from $log where $filter and logid_to_int(logid) = 26001 and dhcp_msg = 'Ack'
        group by interface, devid, mac)###; create temporary table rpt_tmptbl_3 as select
        distinct on (1) intf, cast(used*100.0/total as decimal(18,2)) as percent_of_allocated_
        ip from ###(select distinct on (1) concat(interface, '.', devid) as intf, used, total,
        itime from $log where $filter and logid_to_int(logid)=26003 and total>0 order by intf,
        itime desc)### t order by intf, itime desc; select t1.intf as interface, percent_of_
        allocated_ip, new_cli_count from rpt_tmptbl_3 t1 inner join (select intf, count(mac)
        as new_cli_count from rpt_tmptbl_2 where not exists (select 1 from rpt_tmptbl_1 where
        rpt_tmptbl_2.mac=rpt_tmptbl_1.mac) group by intf) t2 on t1.intf=t2.intf order by
        interface, percent_of_allocated_ip desc

```

| Dataset Name                 | Description                                | Log Category |
|------------------------------|--------------------------------------------|--------------|
| Top-Wifi-Client-By-Bandwidth | Traffic top WiFi client by bandwidth usage | traffic      |

```

select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  srcssid,
  devtype,
  coalesce(
    nullifna(`srcname`),
    `srcmac`
  ) as hostname_mac,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and (
    srcssid is not null
    or dstssid is not null
  )
group by
  user_src,
  srcssid,
  devtype,
  hostname_mac
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc

```

| Dataset Name                   | Description                    | Log Category |
|--------------------------------|--------------------------------|--------------|
| Traffic-History-By-Active-User | Traffic history by active user | traffic      |

```

select
  $flex_timescale(timestamp) as hodex,
  count(
    distinct(user_src)
  ) as total_user
from
  ###(select $flex_timestamp as timestamp, coalesce(nullifna(`user`), nullifna(`unauthuser`),
  ipstr(`srcip`)) as user_src from $log where $filter and logid_to_int(logid) not in (4,
  7, 14, 20) group by timestamp, user_src order by timestamp desc)### t group by hodex
  order by hodex

```

| Dataset Name                     | Description                          | Log Category |
|----------------------------------|--------------------------------------|--------------|
| Top-Allowed-Websites-By-Requests | UTM top allowed web sites by request | traffic      |

```
select
    hostname,
    catdesc,
    count(*) as requests
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and utmevent in (
        'webfilter', 'banned-word', 'web-content',
        'command-block', 'script-filter'
    )
    and hostname is not null
    and (
        utmaction not in ('block', 'blocked')
        or action != 'deny'
    )
group by
    hostname,
    catdesc
order by
    requests desc
```

| Dataset Name                 | Description                                        | Log Category |
|------------------------------|----------------------------------------------------|--------------|
| Top-50-Websites-By-Bandwidth | Webfilter top allowed web sites by bandwidth usage | webfilter    |

```
select
    domain,
    string_agg(distinct catdesc, ', ') as agg_catdesc,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    ###(select coalesce(nullifna(hostname), ipstr(`dstip`)) as domain, catdesc, sum(coalesce
        (sentbyte, 0)+coalesce(rcvbyte, 0)) as bandwidth, sum(coalesce(rcvbyte, 0)) as
        traffic_in, sum(coalesce(sentbyte, 0)) as traffic_out from $log-traffic where $filter
        and logid_to_int(logid) not in (4, 7, 14, 20) and utmaction!='blocked' and (countweb>0
        or ((logver is null or logver<52) and (hostname is not null or utmevent in
        ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-filter')))) group
        by domain, catdesc having sum(coalesce(sentbyte, 0)+coalesce(rcvbyte, 0))>0 order by
        bandwidth desc)### t group by domain, catdesc order by bandwidth desc
```

| Dataset Name         | Description                          | Log Category |
|----------------------|--------------------------------------|--------------|
| Top-Blocked-Websites | UTM top blocked web sites by request | traffic      |

```
select
    hostname,
    count(*) as requests
from
    $log
where
```

```

$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and utmevent in (
    'webfilter', 'banned-word', 'web-content',
    'command-block', 'script-filter'
)
and hostname is not null
and (
    utmaction in ('block', 'blocked')
    or action = 'deny'
)
group by
    hostname
order by
    requests desc

```

| Dataset Name             | Description                  | Log Category |
|--------------------------|------------------------------|--------------|
| Top-Web-Users-By-Request | UTM top web users by request | traffic      |

```

select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    devtype,
    srcname,
    count(*) as requests
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and utmevent in (
        'webfilter', 'banned-word', 'web-content',
        'command-block', 'script-filter'
    )
group by
    user_src,
    devtype,
    srcname
order by
    requests desc

```

| Dataset Name                      | Description                                 | Log Category |
|-----------------------------------|---------------------------------------------|--------------|
| Top-Allowed-WebSites-By-Bandwidth | UTM top allowed websites by bandwidth usage | traffic      |

```

select
    appid,
    hostname,
    catdesc,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    )

```

```

    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and utmevent in (
        'webfilter', 'banned-word', 'web-content',
        'command-block', 'script-filter'
    )
    and hostname is not null
group by
    appid,
    hostname,
    catdesc
having
    sum(
        coalesce(sentbyte, 0) + coalesce(rcvdbyte, 0)
    ) > 0
order by
    bandwidth desc

```

| Dataset Name          | Description               | Log Category |
|-----------------------|---------------------------|--------------|
| Top-Blocked-Web-Users | UTM top blocked web users | traffic      |

```

select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    devtype,
    srcname,
    count(*) as requests
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and utmevent in (
        'webfilter', 'banned-word', 'web-content',
        'command-block', 'script-filter'
    )
    and (
        utmaction in ('block', 'blocked')
        or action = 'deny'
    )
group by
    user_src,
    devtype,
    srcname
order by
    requests desc

```

| Dataset Name                  | Description                                | Log Category |
|-------------------------------|--------------------------------------------|--------------|
| Top-20-Web-Users-By-Bandwidth | Webfilter top web users by bandwidth usage | webfilter    |

```
select
  user_src,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
    sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0)) as traffic_out from $log-traffic where
    $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-filter')))) group by user_src having
    sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t group
  by user_src order by bandwidth desc
```

| Dataset Name               | Description                          | Log Category |
|----------------------------|--------------------------------------|--------------|
| Top-Web-Users-By-Bandwidth | UTM top web users by bandwidth usage | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  devtype,
  srcname,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth,
  sum(
    coalesce(rcvdbyte, 0)
  ) as traffic_in,
  sum(
    coalesce(sentbyte, 0)
  ) as traffic_out
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and utmevent in (
    'webfilter', 'banned-word', 'web-content',
    'command-block', 'script-filter'
  )
group by
  user_src,
  devtype,
  srcname
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
```

```
order by
    bandwidth desc
```

| Dataset Name                              | Description                                         | Log Category |
|-------------------------------------------|-----------------------------------------------------|--------------|
| Top-Video-Streaming-Websites-By-Bandwidth | UTM top video streaming websites by bandwidth usage | traffic      |

```
select
    appid,
    hostname,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and catdesc in ('Streaming Media and Download')
group by
    appid,
    hostname
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) > 0
order by
    bandwidth desc
```

| Dataset Name               | Description                        | Log Category |
|----------------------------|------------------------------------|--------------|
| Top-Email-Senders-By-Count | Default top email senders by count | traffic      |

```
select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    count(*) as requests
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and service in (
        'smtp', 'SMTP', '25/tcp', '587/tcp',
        'smtps', 'SMTPS', '465/tcp'
    )
group by
    user_src
```

```
order by
  requests desc
```

| Dataset Name                 | Description                          | Log Category |
|------------------------------|--------------------------------------|--------------|
| Top-Email-Receivers-By-Count | Default email top receivers by count | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as requests
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and service in (
    'pop3', 'POP3', '110/tcp', 'imap',
    'IMAP', '143/tcp', 'imaps', 'IMAPS',
    '993/tcp', 'pop3s', 'POP3S', '995/tcp'
  )
group by
  user_src
order by
  requests desc
```

| Dataset Name                   | Description                                  | Log Category |
|--------------------------------|----------------------------------------------|--------------|
| Top-Email-Senders-By-Bandwidth | Default email top senders by bandwidth usage | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and service in (
    'smtp', 'SMTP', '25/tcp', '587/tcp',
    'smtps', 'SMTPS', '465/tcp'
  )
group by
  user_src
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
```



bandwidth desc

| Dataset Name                     | Description                                    | Log Category |
|----------------------------------|------------------------------------------------|--------------|
| Top-Email-Receivers-By-Bandwidth | Default email top receivers by bandwidth usage | traffic      |

```

select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and service in (
    'pop3', 'POP3', '110/tcp', 'imap',
    'IMAP', '143/tcp', 'imaps', 'IMAPS',
    '993/tcp', 'pop3s', 'POP3S', '995/tcp'
  )
group by
  user_src
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc

```

| Dataset Name        | Description   | Log Category |
|---------------------|---------------|--------------|
| Top-Malware-By-Name | UTM top virus | virus        |

```

select
  virus,
  max(virusid_s) as virusid,
  (
    case when virus like 'Riskware%' then 'Spyware' when virus like 'Adware%' then 'Adware'
    else 'Virus' end
  ) as malware_type,
  sum(totalnum) as totalnum
from
  (
    ###(select virus, '' as virusid_s, count(*) as totalnum from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is
    not null group by virus, virusid_s order by totalnum desc)### union all ###(select
    virus, virusid_to_str(virusid, eventtype) as virusid_s, count(*) as totalnum from
    $log-virus where $filter and (eventtype is null or logver>=52) and nullifna(virus)
    is not null group by virus, virusid_s order by totalnum desc)###) t group by virus,
    malware_type order by totalnum desc

```

| Dataset Name      | Description   | Log Category |
|-------------------|---------------|--------------|
| Top-Virus-By-Name | UTM top virus | virus        |

```
select
  virus,
  max(virusid_s) as virusid,
  (
    case when virus like 'Riskware%' then 'Spyware' when virus like 'Adware%' then 'Adware'
    else 'Virus' end
  ) as malware_type,
  sum(totalnum) as totalnum
from
  (
    ###(select virus, '' as virusid_s, count(*) as totalnum from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is
    not null group by virus, virusid_s order by totalnum desc)### union all ###(select
    virus, virusid_to_str(virusid, eventtype) as virusid_s, count(*) as totalnum from
    $log-virus where $filter and (eventtype is null or logver>=52) and nullifna(virus)
    is not null group by virus, virusid_s order by totalnum desc)###) t group by virus,
    malware_type order by totalnum desc
```

| Dataset Name     | Description        | Log Category |
|------------------|--------------------|--------------|
| Top-Virus-Victim | UTM top virus user | traffic      |

```
select
  user_src,
  sum(totalnum) as totalnum
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
    src, count(*) as totalnum from $log-traffic where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and utmevent is not null and virus is not null group by user_
    src order by totalnum desc)### union all ###(select coalesce(nullifna(`user`), ipstr
    (`srcip`)) as user_src, count(*) as totalnum from $log-virus where $filter and
    (eventtype is null or logver>=52) and nullifna(virus) is not null group by user_src
    order by totalnum desc)###) t group by user_src order by totalnum desc
```

| Dataset Name      | Description           | Log Category |
|-------------------|-----------------------|--------------|
| Top-Attack-Source | UTM top attack source | attack       |

```
select
  coalesce(
    nullifna(`user`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as totalnum
from
  $log
where
  $filter
group by
  user_src
order by
  totalnum desc
```

| Dataset Name      | Description         | Log Category |
|-------------------|---------------------|--------------|
| Top-Attack-Victim | UTM top attack dest | attack       |

```

select
    dstip,
    count(*) as totalnum
from
    $log
where
    $filter
    and dstip is not null
group by
    dstip
order by
    totalnum desc

```

| Dataset Name                          | Description                                 | Log Category |
|---------------------------------------|---------------------------------------------|--------------|
| Top-Static-IPSEC-Tunnels-By-Bandwidth | Top static IPsec tunnels by bandwidth usage | event        |

```

select
    vpn_name,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    (
        select
            devid,
            vd,
            remip,
            tunnelid,
            vpn_name,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_in)- min(min_traffic_in) end
            ) as traffic_in,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_out)- min(min_traffic_out) end
            ) as traffic_out,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
                    else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_traffic_out) end
            ) as bandwidth
        from
            ###(select devid, vd, remip, vpn_trim(vpntunnel) as vpn_name, tunnelid, max(coalesce(sentbyte, 0)) as max_traffic_out, max(coalesce(rcvdbyte, 0)) as max_traffic_in, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce(rcvdbyte, 0)) as min_traffic_in, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0)) as e_time
            from $log where $filter and subtype='vpn' and tunneltype like 'ipsec%' and (tunnelip is null or tunnelip='0.0.0.0') and action in ('tunnel-stats', 'tunnel-down') and tunnelid is not null group by devid, vd, remip, vpn_name, tunnelid)###
    )

```

```
t group by devid, vd, remip, vpn_name, tunnelid) tt group by vpn_name having sum
(traffic_in+traffic_out)>0 order by bandwidth desc
```

| Dataset Name                          | Description                                 | Log Category |
|---------------------------------------|---------------------------------------------|--------------|
| Top-SSL-VPN-Tunnel-Users-By-Bandwidth | Top SSL VPN tunnel users by bandwidth usage | event        |

```
select
    user_src,
    remip as remote_ip,
    from_dtime(
        min(s_time)
    ) as start_time,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    (
        select
            devid,
            vd,
            remip,
            user_src,
            tunnelid,
            min(s_time) as s_time,
            max(e_time) as e_time,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
                    else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
                        traffic_out) end
            ) as bandwidth,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
                    in)- min(min_traffic_in) end
            ) as traffic_in,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
                    out)- min(min_traffic_out) end
            ) as traffic_out
        from
            ###(select devid, vd, remip, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src,
                tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0)) as e_time,
                min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce(rcvdbyte, 0)) as min_
                    traffic_in, max(coalesce(sentbyte, 0)) as max_traffic_out, max(coalesce(rcvdbyte,
                        0)) as max_traffic_in from $log where $filter and subtype='vpn' and
                    tunneltype='ssl-tunnel' and action in ('tunnel-stats', 'tunnel-down', 'tunnel-
                        up') and coalesce(nullifna(`user`), ipstr(`remip`)) is not null and tunnelid is
                        not null group by devid, vd, user_src, remip, tunnelid)### t group by devid, vd,
                        user_src, remip, tunnelid) tt group by user_src, remote_ip having sum
                        (bandwidth)>0 order by bandwidth desc
```

| Dataset Name                           | Description                                  | Log Category |
|----------------------------------------|----------------------------------------------|--------------|
| Top-Dial-Up-IPSEC-Tunnels-By-Bandwidth | Top dial up IPsec tunnels by bandwidth usage | event        |

```
select
```

```

vpn_name,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out
from
(
select
devid,
vd,
tunnelid,
remip,
vpn_name,
(
case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_in)- min(min_traffic_in) end
) as traffic_in,
(
case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_out)- min(min_traffic_out) end
) as traffic_out,
(
case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_traffic_out) end
) as bandwidth
) as bandwidth
from
###(select devid, vd, remip, vpn_trim(vpntunnel) as vpn_name, tunnelid, max(coalesce(sentbyte, 0)) as max_traffic_out, max(coalesce(rcvdbyte, 0)) as max_traffic_in, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce(rcvdbyte, 0)) as min_traffic_in, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0)) as e_time from $log where $filter and nullifna(vpntunnel) is not null and subtype='vpn' and tunneltype like 'ipsec%' and not (tunnelip is null or tunnelip='0.0.0.0') and action in ('tunnel-stats', 'tunnel-down') and tunnelid is not null group by devid, vd, remip, vpn_name, tunnelid)### t group by devid, vd, remip, vpn_name, tunnelid) tt group by vpn_name having sum(traffic_out+traffic_in)>0 order by bandwidth desc

```

| Dataset Name                         | Description                                | Log Category |
|--------------------------------------|--------------------------------------------|--------------|
| Top-Dial-Up-IPSEC-Users-By-Bandwidth | Top dial up IPsec users by bandwidth usage | event        |

```

select
coalesce(
xauthuser_agg,
user_agg,
ipstr('remip`)
) as user_src,
remip,
from_dtime(
min(s_time)
) as start_time,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out
from
(
select

```

```

devid,
vd,
string_agg(distinct xauthuser_agg, ' ') as xauthuser_agg,
string_agg(distinct user_agg, ' ') as user_agg,
remip,
tunnelid,
min(s_time) as s_time,
max(e_time) as e_time,
(
    case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
        else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
            traffic_out) end
) as bandwidth,
(
    case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
        in)- min(min_traffic_in) end
) as traffic_in,
(
    case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
        out)- min(min_traffic_out) end
) as traffic_out
from
    ###(select devid, vd, nullifna(`xauthuser`) as xauthuser_agg, nullifna(`user`) as
        user_agg, remip, tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime,
            0)) as e_time, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce
                (rcvdbyte, 0)) as min_traffic_in, max(coalesce(sentbyte, 0)) as max_traffic_out,
                max(coalesce(rcvdbyte, 0)) as max_traffic_in from $log where $filter and
                subtype='vpn' and tunneltype like 'ipsec%' and not (tunnelip is null or
                tunnelip='0.0.0.0') and action in ('tunnel-stats', 'tunnel-down', 'tunnel-up')
                and tunnelid is not null group by devid, vd, xauthuser_agg, user_agg, remip,
                tunnelid)### t group by devid, vd, remip, tunnelid) tt group by user_src, remip
                having sum(bandwidth)>0 order by bandwidth desc

```

| Dataset Name                        | Description                         | Log Category |
|-------------------------------------|-------------------------------------|--------------|
| Top-Dial-Up-IPSEC-Users-By-Duration | Top dial up IPsec users by duration | event        |

```

select
    coalesce(
        xauthuser_agg,
        user_agg,
        ipstr(`remip`)
    ) as user_src,
from_dtime(
    min(s_time)
) as start_time,
sum(duration) as duration,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out
from
    (
        select
            devid,
            vd,
            remip,
            string_agg(distinct xauthuser_agg, ' ') as xauthuser_agg,
            string_agg(distinct user_agg, ' ') as user_agg,

```

```

tunnelid,
min(s_time) as s_time,
max(e_time) as e_time,
(
    case when min(s_time)= max(e_time) then max(max_duration) else max(max_duration)-
        min(min_duration) end
) as duration,
(
    case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
        else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
            traffic_out) end
) as bandwidth,
(
    case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
        in)- min(min_traffic_in) end
) as traffic_in,
(
    case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
        out)- min(min_traffic_out) end
) as traffic_out
from
    ###(select devid, vd, remip, nullifna(`xauthuser`) as xauthuser_agg, nullifna(`user`)
        as user_agg, tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0))
        as e_time, max(coalesce(duration,0)) as max_duration, min(coalesce(duration,0))
        as min_duration, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce
            (rcvdbyte, 0)) as min_traffic_in, max(coalesce(sentbyte, 0)) as max_traffic_out,
            max(coalesce(rcvdbyte, 0)) as max_traffic_in from $log where $filter and
            subtype='vpn' and tunneltype like 'ipsec%' and not (tunnelip is null or
            tunnelip='0.0.0.0') and action in ('tunnel-stats', 'tunnel-down', 'tunnel-up')
            and tunnelid is not null and tunnelid!=0 group by devid, vd, remip, xauthuser_
            agg, user_agg, tunnelid order by tunnelid)### t group by devid, vd, remip,
            tunnelid) tt group by user_src having sum(bandwidth)>0 order by duration desc

```

| Dataset Name                            | Description                                   | Log Category |
|-----------------------------------------|-----------------------------------------------|--------------|
| Top-SSL-VPN-Web-Mode-Users-By-Bandwidth | Top SSL VPN web mode users by bandwidth usage | event        |

```

select
    user_src,
    remip as remote_ip,
    from_dtime(
        min(s_time)
    ) as start_time,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    (
        select
            devid,
            vd,
            user_src,
            remip,
            tunnelid,
            min(s_time) as s_time,
            max(e_time) as e_time,
            (

```

```

        case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
        else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
        traffic_out) end
    ) as bandwidth,
    (
        case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
        in)- min(min_traffic_in) end
    ) as traffic_in,
    (
        case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
        out)- min(min_traffic_out) end
    ) as traffic_out
from
    ###(select devid, vd, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src, remip,
        tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0)) as e_time,
        min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce(rcvdbyte, 0)) as min_
        traffic_in, max(coalesce(sentbyte, 0)) as max_traffic_out, max(coalesce(rcvdbyte,
        0)) as max_traffic_in from $log where $filter and subtype='vpn' and
        tunneltype='ssl-web' and action in ('tunnel-stats', 'tunnel-down', 'tunnel-up')
        and coalesce(nullifna(`user`), ipstr(`remip`)) is not null and tunnelid is not
        null group by devid, vd, user_src, remip, tunnelid)### t group by devid, vd,
        user_src, remip, tunnelid) tt group by user_src, remote_ip having sum
        (bandwidth)>0 order by bandwidth desc

```

| Dataset Name                           | Description                            | Log Category |
|----------------------------------------|----------------------------------------|--------------|
| Top-SSL-VPN-Web-Mode-Users-By-Duration | Top SSL VPN web mode users by duration | event        |

```

select
    user_src,
    remip as remote_ip,
    from_dtime(
        min(s_time)
    ) as start_time,
    (
        max(e_time)- min(s_time)
    ) as duration
from
    (
        select
            devid,
            vd,
            user_src,
            remip,
            tunnelid,
            min(s_time) as s_time,
            max(e_time) as e_time
        from
            ###(select devid, vd, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src, remip,
                tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0)) as e_time
                from $log where $filter and subtype='vpn' and tunneltype='ssl-web' and action in
                ('tunnel-stats', 'tunnel-down', 'tunnel-up') and coalesce(nullifna(`user`), ipstr
                (`remip`)) is not null and tunnelid is not null group by devid, vd, user_src,
                remip, tunnelid)### t group by devid, vd, user_src, remip, tunnelid) tt group by
                user_src, remote_ip order by duration desc

```



| Dataset Name                  | Description                   | Log Category |
|-------------------------------|-------------------------------|--------------|
| Top-SSL-VPN-Users-By-Duration | Top SSL VPN users by duration | event        |

```

select
    user_src,
    tunneltype,
    sum(duration) as duration,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    (
        select
            devid,
            vd,
            remip,
            user_src,
            tunneltype,
            tunnelid,
            (
                case when min(s_time)= max(e_time) then max(max_duration) else max(max_duration)-
                    min(min_duration) end
            ) as duration,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
                    in)- min(min_traffic_in) end
            ) as traffic_in,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
                    out)- min(min_traffic_out) end
            ) as traffic_out,
            (
                case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
                    else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
                    traffic_out) end
            ) as bandwidth
        from
            ###(select devid, vd, remip, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src,
                tunnelid, tunneltype, max(coalesce(duration,0)) as max_duration, min(coalesce
                    (duration,0)) as min_duration, max(coalesce(sentbyte, 0)) as max_traffic_out, max
                    (coalesce(rcvbyte, 0)) as max_traffic_in, min(coalesce(sentbyte, 0)) as min_
                    traffic_out, min(coalesce(rcvbyte, 0)) as min_traffic_in, min(coalesce(dtime,
                    0)) as s_time, max(coalesce(dtime, 0)) as e_time from $log where $filter and
                    subtype='vpn' and tunneltype like 'ssl%' and action in ('tunnel-up', 'tunnel-
                    stats', 'tunnel-down') and coalesce(nullifna(`user`), ipstr(`remip`)) is not null
                    and tunnelid is not null and tunnelid!=0 group by devid, vd, remip, user_src,
                    tunnelid, tunneltype)### t group by devid, vd, remip, user_src, tunnelid,
                    tunneltype) tt group by user_src, tunneltype having sum(traffic_out+traffic_in)>0
                    order by duration desc
    )

```

| Dataset Name                          | Description                       | Log Category |
|---------------------------------------|-----------------------------------|--------------|
| vpn-Top-Dial-Up-VPN-Users-By-Duration | Top dial up VPN users by duration | event        |

```

select
    coalesce(

```

```

        xauthuser_agg,
        user_agg,
        ipstr(`remip`)
    ) as user_src,
    t_type as tunneltype,
    from_dtime(
        min(s_time)
    ) as start_time,
    sum(duration) as duration,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
(
    select
        devid,
        vd,
        remip,
        string_agg(distinct xauthuser_agg, ' ') as xauthuser_agg,
        string_agg(distinct user_agg, ' ') as user_agg,
        t_type,
        tunnelid,
        min(s_time) as s_time,
        max(e_time) as e_time,
        (
            case when min(s_time)= max(e_time) then max(max_duration) else max(max_duration)-
                min(min_duration) end
        ) as duration,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
                else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
                traffic_out) end
        ) as bandwidth,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
                in)- min(min_traffic_in) end
        ) as traffic_in,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
                out)- min(min_traffic_out) end
        ) as traffic_out
    from
        ###(select devid, vd, remip, nullifna(`xauthuser`) as xauthuser_agg, nullifna(`user`)
            as user_agg, (case when tunneltype like 'ipsec%' then 'ipsec' else tunneltype
            end) as t_type, tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime,
            0)) as e_time, max(coalesce(duration,0)) as max_duration, min(coalesce
            (duration,0)) as min_duration, min(coalesce(sentbyte, 0)) as min_traffic_out, min
            (coalesce(rcvdbyte, 0)) as min_traffic_in, max(coalesce(sentbyte, 0)) as max_
            traffic_out, max(coalesce(rcvdbyte, 0)) as max_traffic_in from $log where $filter
            and subtype='vpn' and (tunneltype like 'ssl%' or (tunneltype like 'ipsec%' and
            not (tunnelip is null or tunnelip='0.0.0.0'))) and action in ('tunnel-stats',
            'tunnel-down', 'tunnel-up') and tunnelid is not null and tunnelid!=0 group by
            devid, vd, remip, xauthuser_agg, user_agg, t_type, tunnelid)### t group by devid,
            vd, remip, t_type, tunnelid) tt group by user_src, tunneltype having sum
            (bandwidth)>0 order by duration desc

```

| Dataset Name           | Description            | Log Category |
|------------------------|------------------------|--------------|
| vpn-User-Login-history | VPN user login history | event        |

```
select
    $flex_timescale(timestamp) as hodex,
    sum(total_num) as total_num
from
    (
        select
            timestamp,
            devid,
            vd,
            remip,
            tunnelid,
            sum(tunnelup) as total_num,
            max(traffic_in) as traffic_in,
            max(traffic_out) as traffic_out
        from
            ###(select $flex_timestamp as timestamp, devid, vd, remip, tunnelid, (case when
                action='tunnel-up' then 1 else 0 end) as tunnelup, max(coalesce(sentbyte, 0)) as
                traffic_out, max(coalesce(rcvdbyte, 0)) as traffic_in from $log where $filter and
                subtype='vpn' and (tunneltype like 'ipsec%' or tunneltype like 'ssl%') and action
                in ('tunnel-up', 'tunnel-stats', 'tunnel-down') and tunnelid is not null group by
                timestamp, action, devid, vd, remip, tunnelid order by timestamp desc)### t group
                by timestamp, devid, vd, remip, tunnelid having max(tunnelup) > 0 and max
                (traffic_in)+max(traffic_out)>0) t group by hodex order by total_num desc
```

| Dataset Name              | Description       | Log Category |
|---------------------------|-------------------|--------------|
| vpn-Failed-Login-Attempts | VPN failed logins | event        |

```
select
    f_user,
    tunneltype,
    sum(total_num) as total_num
from
    ###(select coalesce(nullifna(`xauthuser`), `user`) as f_user, tunneltype, count(*) as total_
        num from $log where $filter and subtype='vpn' and (tunneltype='ipsec' or left
        (tunneltype, 3)='ssl') and action in ('ssl-login-fail', 'ipsec-login-fail') and
        coalesce(nullifna(`xauthuser`), nullifna(`user`)) is not null group by f_user,
        tunneltype)### t group by f_user, tunneltype order by total_num desc
```

| Dataset Name             | Description              | Log Category |
|--------------------------|--------------------------|--------------|
| vpn-Authenticated-Logins | VPN authenticated logins | event        |

```
select
    coalesce(
        xauthuser_agg,
        user_agg,
        ipstr(`remip`)
    ) as f_user,
    t_type as tunneltype,
    from_dtime(
        min(s_time)
    ) as start_time,
    sum(total_num) as total_num,
```

```

sum(duration) as duration
from
(
select
string_agg(distinct xauthuser_agg, ' ') as xauthuser_agg,
string_agg(distinct user_agg, ' ') as user_agg,
t_type,
devid,
vd,
remip,
tunnelid,
min(s_time) as s_time,
max(e_time) as e_time,
(
case when min(s_time)= max(e_time) then max(max_duration) else max(max_duration)-
min(min_duration) end
) as duration,
(
case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
traffic_out) end
) as bandwidth,
(
case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
in)- min(min_traffic_in) end
) as traffic_in,
(
case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
out)- min(min_traffic_out) end
) as traffic_out,
sum(tunnelup) as total_num
from
###(select nullifna(`xauthuser`) as xauthuser_agg, nullifna(`user`) as user_agg,
devid, vd, remip, (case when tunneltype like 'ipsec%' then 'ipsec' else
tunneltype end) as t_type, tunnelid, sum((case when action='tunnel-up' then 1
else 0 end)) as tunnelup, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime,
0)) as e_time, max(coalesce(duration,0)) as max_duration, min(coalesce
(duration,0)) as min_duration, min(coalesce(sentbyte, 0)) as min_traffic_out, min
(coalesce(rcvdbyte, 0)) as min_traffic_in, max(coalesce(sentbyte, 0)) as max_
traffic_out, max(coalesce(rcvdbyte, 0)) as max_traffic_in from $log where $filter
and subtype='vpn' and (tunneltype like 'ipsec%' or tunneltype like 'ssl%') and
action in ('tunnel-up', 'tunnel-stats', 'tunnel-down') and tunnelid is not null
and tunnelid!=0 group by xauthuser_agg, user_agg, devid, vd, remip, t_type,
tunnelid)### t group by t_type, devid, vd, remip, tunnelid having max(tunnelup) >
0) tt group by f_user, tunneltype having sum(bandwidth) > 0 order by total_num
desc

```

| Dataset Name                        | Description             | Log Category |
|-------------------------------------|-------------------------|--------------|
| vpn-Traffic-Usage-Trend-VPN-Summary | VPN traffic usage trend | event        |

```

select
hodex,
sum(ssl_traffic_bandwidth) as ssl_bandwidth,
sum(ipsec_traffic_bandwidth) as ipsec_bandwidth
from
(
select

```

```

$flex_timescale(timestamp) as hodex,
devid,
vd,
remip,
tunnelid,
(
  case when t_type like 'ssl%' then (
    case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
    else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min
      (min_traffic_out) end
  ) else 0 end
) as ssl_traffic_bandwidth,
(
  case when t_type like 'ipsec%' then (
    case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
    else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min
      (min_traffic_out) end
  ) else 0 end
) as ipsec_traffic_bandwidth,
min(s_time) as s_time,
max(e_time) as e_time
from
  ###(select $flex_timestamp as timestamp, devid, vd, remip, tunnelid, (case when
    tunneltype like 'ipsec%' then 'ipsec' else tunneltype end) as t_type, max
    (coalesce(sentbyte, 0)) as max_traffic_out, max(coalesce(rcvdbyte, 0)) as max_
    traffic_in, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce(rcvdbyte,
    0)) as min_traffic_in, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime, 0))
    as e_time from $log where $filter and subtype='vpn' and (tunneltype like 'ipsec%'
    or tunneltype like 'ssl%') and action in ('tunnel-stats', 'tunnel-down') and
    tunnelid is not null and tunnelid!=0 group by timestamp, devid, vd, remip, t_
    type, tunnelid order by timestamp desc)### t group by hodex, devid, t_type, vd,
    remip, tunnelid) tt group by hodex order by hodex

```

| Dataset Name                                        | Description                                        | Log Category |
|-----------------------------------------------------|----------------------------------------------------|--------------|
| Top-S2S-IPSEC-Tunnels-By-Bandwidth-and-Availability | Top S2S IPsec tunnels by bandwidth usage and avail | event        |

```

select
  vpntunnel,
  tunneltype,
  sum(traffic_out) as traffic_out,
  sum(traffic_in) as traffic_in,
  sum(bandwidth) as bandwidth,
  sum(uptime) as uptime
from
  (
    select
      vpntunnel,
      tunneltype,
      tunnelid,
      devid,
      vd,
      sum(sent_end - sent_beg) as traffic_out,
      sum(rcvd_end - rcvd_beg) as traffic_in,
      sum(
        sent_end - sent_beg + rcvd_end - rcvd_beg
      ) as bandwidth,

```

```

sum(duration_end - duration_beg) as uptime
from
###(select tunnelid, tunneltype, vpntunnel, devid, vd, min(coalesce(sentbyte, 0)) as
sent_beg, max(coalesce(sentbyte, 0)) as sent_end, min(coalesce(rcvdbyte, 0)) as
rcvd_beg, max(coalesce(rcvdbyte, 0)) as rcvd_end, min(coalesce(duration, 0)) as
duration_beg, max(coalesce(duration, 0)) as duration_end from $log where $filter
and subtype='vpn' and action='tunnel-stats' and tunneltype like 'ipsec%' and
(tunnelip is null or tunnelip='0.0.0.0') and nullifna(`user`) is null and
tunnelid is not null and tunnelid!=0 group by tunnelid, tunneltype, vpntunnel,
devid, vd order by tunnelid)### t group by vpntunnel, tunneltype, tunnelid,
devid, vd order by bandwidth desc) t group by vpntunnel, tunneltype order by
bandwidth desc

```

| Dataset Name                                   | Description                                         | Log Category |
|------------------------------------------------|-----------------------------------------------------|--------------|
| Top-Dialup-IPSEC-By-Bandwidth-and-Availability | Top dialup IPsec users by bandwidth usage and avail | event        |

```

select
  user_src,
  remip,
  sum(traffic_out) as traffic_out,
  sum(traffic_in) as traffic_in,
  sum(bandwidth) as bandwidth,
  sum(uptime) as uptime
from
(
  select
    user_src,
    remip,
    tunnelid,
    devid,
    vd,
    sum(sent_end - sent_beg) as traffic_out,
    sum(rcvd_end - rcvd_beg) as traffic_in,
    sum(
      sent_end - sent_beg + rcvd_end - rcvd_beg
    ) as bandwidth,
    sum(duration_end - duration_beg) as uptime
  from
    ###(select tunnelid, coalesce(nullifna(`xauthuser`), nullifna(`user`), ipstr(`remip`))
    as user_src, remip, devid, vd, min(coalesce(sentbyte, 0)) as sent_beg, max
    (coalesce(sentbyte, 0)) as sent_end, min(coalesce(rcvdbyte, 0)) as rcvd_beg, max
    (coalesce(rcvdbyte, 0)) as rcvd_end, min(coalesce(duration, 0)) as duration_beg,
    max(coalesce(duration, 0)) as duration_end from $log where $filter and
    subtype='vpn' and action='tunnel-stats' and tunneltype like 'ipsec%' and not
    (tunnelip is null or tunnelip='0.0.0.0') and tunnelid is not null and tunnelid!=0
    group by tunnelid, user_src, remip, devid, vd order by tunnelid)### t group by
    user_src, remip, tunnelid, devid, vd order by bandwidth desc) t group by user_
    src, remip order by bandwidth desc

```

| Dataset Name                                      | Description                                       | Log Category |
|---------------------------------------------------|---------------------------------------------------|--------------|
| Top-SSL-Tunnel-Mode-By-Bandwidth-and-Availability | Top SSL tunnel users by bandwidth usage and avail | event        |

```

select
  user_src,
  remote_ip,

```

```

sum(traffic_out) as traffic_out,
sum(traffic_in) as traffic_in,
sum(bandwidth) as bandwidth,
sum(uptime) as uptime
from
(
  select
    user_src,
    remip as remote_ip,
    tunnelid,
    devid,
    vd,
    sum(sent_end - sent_beg) as traffic_out,
    sum(rcvd_end - rcvd_beg) as traffic_in,
    sum(
      sent_end - sent_beg + rcvd_end - rcvd_beg
    ) as bandwidth,
    sum(duration_end - duration_beg) as uptime
  from
    ###(select tunnelid, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src, remip,
      devid, vd, min(coalesce(sentbyte, 0)) as sent_beg, max(coalesce(sentbyte, 0)) as
      sent_end, min(coalesce(rcvdbyte, 0)) as rcvd_beg, max(coalesce(rcvdbyte, 0)) as
      rcvd_end, min(coalesce(duration, 0)) as duration_beg, max(coalesce(duration, 0))
      as duration_end from $log where $filter and subtype='vpn' and action='tunnel-
      stats' and tunneltype in ('ssl-tunnel', 'ssl') and coalesce(nullifna(`user`),
      ipstr(`remip`)) is not null and tunnelid is not null group by tunnelid, user_src,
      remip, devid, vd order by tunnelid)### t group by user_src, remote_ip, tunnelid,
      devid, vd order by bandwidth desc) t group by user_src, remote_ip order by
      bandwidth desc

```

| Dataset Name                                   | Description                                    | Log Category |
|------------------------------------------------|------------------------------------------------|--------------|
| Top-SSL-Web-Mode-By-Bandwidth-and-Availability | Top SSL web users by bandwidth usage and avail | event        |

```

select
  user_src,
  remote_ip,
  sum(traffic_out) as traffic_out,
  sum(traffic_in) as traffic_in,
  sum(bandwidth) as bandwidth,
  sum(uptime) as uptime
from
(
  select
    user_src,
    remip as remote_ip,
    tunnelid,
    devid,
    vd,
    sum(sent_end - sent_beg) as traffic_out,
    sum(rcvd_end - rcvd_beg) as traffic_in,
    sum(
      sent_end - sent_beg + rcvd_end - rcvd_beg
    ) as bandwidth,
    sum(duration_end - duration_beg) as uptime
  from

```

```

###(select tunnelid, coalesce(nullifna(`user`), ipstr(`remip`)) as user_src, remip,
    devid, vd, min(coalesce(sentbyte, 0)) as sent_beg, max(coalesce(sentbyte, 0)) as
    sent_end, min(coalesce(rcvdbyte, 0)) as rcvd_beg, max(coalesce(rcvdbyte, 0)) as
    rcvd_end, min(coalesce(duration, 0)) as duration_beg, max(coalesce(duration, 0))
    as duration_end from $log where $filter and subtype='vpn' and action='tunnel-
    stats' and tunneltype='ssl-web' and coalesce(nullifna(`user`), ipstr(`remip`)) is
    not null and tunnelid is not null group by tunnelid, user_src, remip, devid, vd
    order by tunnelid)### t group by user_src, remote_ip, tunnelid, devid, vd having
    sum(sent_end-sent_beg+rcvd_end-rcvd_beg)>0 order by bandwidth desc) t group by
    user_src, remote_ip order by bandwidth desc

```

| Dataset Name        | Description               | Log Category |
|---------------------|---------------------------|--------------|
| Admin-Login-Summary | Event admin login summary | event        |

```

select
    f_user,
    ui,
    sum(login) as total_num,
    sum(login_duration) as total_duration,
    sum(config_change) as total_change
from
    (
        select
            `user` as f_user,
            ui,
            (
                case when logid_to_int(logid)= 32001 then 1 else 0 end
            ) as login,
            (
                case when logid_to_int(logid)= 32003 then duration else 0 end
            ) as login_duration,
            (
                case when logid_to_int(logid)= 32003
                    and state is not null then 1 else 0 end
            ) as config_change
        from
            $log
        where
            $filter
            and nullifna(`user`) is not null
            and logid_to_int(logid) in (32001, 32003)
    ) t
group by
    f_user,
    ui
having
    sum(login)+ sum(config_change)> 0
order by
    total_num desc

```

| Dataset Name                | Description                       | Log Category |
|-----------------------------|-----------------------------------|--------------|
| Admin-Login-Summary-By-Date | Event admin login summary by date | event        |

```

select
    $flex_timescale(timestamp) as dom,
    sum(total_num) as total_num,

```



```

sum(total_change) as total_change
from
###(select timestamp, sum(login) as total_num, sum(config_change) as total_change from
    (select $flex_timestamp as timestamp, (case when logid_to_int(logid)=32001 then 1 else
    0 end) as login, (case when logid_to_int(logid)=32003 and state is not null then 1
    else 0 end) as config_change from $log where $filter and logid_to_int(logid) in
    (32001, 32003)) t group by timestamp having sum(login)+sum(config_change)>0 order by
    timestamp desc)### t group by dom order by dom

```

| Dataset Name               | Description                      | Log Category |
|----------------------------|----------------------------------|--------------|
| Admin-Failed-Login-Summary | Event admin failed login summary | event        |

```

select
    `user` as f_user,
    ui,
    count(status) as total_failed
from
    $log
where
    $filter
    and nullifna(`user`) is not null
    and logid_to_int(logid) = 32002
group by
    ui,
    f_user
order by
    total_failed desc

```

| Dataset Name               | Description                      | Log Category |
|----------------------------|----------------------------------|--------------|
| System-Summary-By-Severity | Event system summary by severity | event        |

```

select
    severity_tmp as severity,
    sum(total_num) as total_num
from
    ###(select (case when level in ('critical', 'alert', 'emergency') then 'Critical' when
    level='error' then 'High' when level='warning' then 'Medium' when level='notice' then
    'Low' else 'Info' end) as severity_tmp, count(*) as total_num from $log where $filter
    and subtype='system' group by severity_tmp order by total_num desc)### t group by
    severity order by total_num desc

```

| Dataset Name           | Description                  | Log Category |
|------------------------|------------------------------|--------------|
| System-Summary-By-Date | Event system summary by date | event        |

```

select
    $flex_timescale(timestamp) as dom,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium
from
    ###(select $flex_timestamp as timestamp, sum(case when level in ('critical', 'alert',
    'emergency') then 1 else 0 end) as critical, sum(case when level = 'error' then 1 else
    0 end) as high, sum(case when level = 'warning' then 1 else 0 end) as medium from $log
    where $filter and subtype='system' group by timestamp order by timestamp desc)### t
    group by dom order by dom

```

| Dataset Name                     | Description                  | Log Category |
|----------------------------------|------------------------------|--------------|
| Important-System-Summary-By-Date | Event system summary by date | event        |

```
select
    $flex_timescale(timestamp) as dom,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium
from
    ###(select $flex_timestamp as timestamp, sum(case when level in ('critical', 'alert',
    'emergency') then 1 else 0 end) as critical, sum(case when level = 'error' then 1 else
    0 end) as high, sum(case when level = 'warning' then 1 else 0 end) as medium from $log
    where $filter and subtype='system' group by timestamp order by timestamp desc)### t
    group by dom order by dom
```

| Dataset Name                    | Description                           | Log Category |
|---------------------------------|---------------------------------------|--------------|
| System-Critical-Severity-Events | Event system critical severity events | event        |

```
select
    msg_desc as msg,
    severity_tmp as severity,
    sum(count) as counts
from
    ###(select coalesce(nullifna(logdesc), msg) as msg_desc, (case when level in ('critical',
    'alert', 'emergency') then 'Critical' when level='error' then 'High' when
    level='warning' then 'Medium' when level='notice' then 'Low' else 'Info' end) as
    severity_tmp, count(*) as count from $log where $filter and subtype='system' group by
    msg_desc, severity_tmp order by count desc)### t where severity_tmp='Critical' group
    by msg, severity_tmp order by counts desc
```

| Dataset Name                | Description                       | Log Category |
|-----------------------------|-----------------------------------|--------------|
| System-High-Severity-Events | Event system high severity events | event        |

```
select
    msg_desc as msg,
    severity_tmp as severity,
    sum(count) as counts
from
    ###(select coalesce(nullifna(logdesc), msg) as msg_desc, (case when level in ('critical',
    'alert', 'emergency') then 'Critical' when level='error' then 'High' when
    level='warning' then 'Medium' when level='notice' then 'Low' else 'Info' end) as
    severity_tmp, count(*) as count from $log where $filter and subtype='system' group by
    msg_desc, severity_tmp order by count desc)### t where severity_tmp='High' group by
    msg, severity_tmp order by counts desc
```

| Dataset Name                  | Description                         | Log Category |
|-------------------------------|-------------------------------------|--------------|
| System-Medium-Severity-Events | Event system medium severity events | event        |

```
select
    msg_desc as msg,
    severity_tmp as severity,
    sum(count) as counts
from
```

```
###(select coalesce(nullifna(logdesc), msg) as msg_desc, (case when level in ('critical',
'alert', 'emergency') then 'Critical' when level='error' then 'High' when
level='warning' then 'Medium' when level='notice' then 'Low' else 'Info' end) as
severity_tmp, count(*) as count from $log where $filter and subtype='system' group by
msg_desc, severity_tmp order by count desc)### t where severity_tmp='Medium' group by
msg, severity_tmp order by counts desc
```

| Dataset Name                      | Description                   | Log Category |
|-----------------------------------|-------------------------------|--------------|
| utm-drilldown-Top-Traffic-Summary | UTM drilldown traffic summary | traffic      |

```
select
  srcip,
  srcname
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
  srcip, srcname, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from
  $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) group by user_src,
  srcip, srcname order by bandwidth desc)### t where $filter-drilldown group by srcip,
  srcname
```

| Dataset Name                       | Description                        | Log Category |
|------------------------------------|------------------------------------|--------------|
| utm-drilldown-Top-User-Destination | UTM drilldown top user destination | traffic      |

```
select
  appid,
  app,
  dstip,
  sum(sessions) as sessions,
  sum(bandwidth) as bandwidth
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
  appid, app, dstip, count(*) as sessions, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
0)) as bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20)
and dstip is not null and nullifna(app) is not null group by user_src, appid, app,
dstip having sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth
desc)### t where $filter-drilldown group by appid, app, dstip order by bandwidth desc
```

| Dataset Name                        | Description                         | Log Category |
|-------------------------------------|-------------------------------------|--------------|
| utm-drilldown-Email-Senders-Summary | UTM drilldown email senders summary | traffic      |

```
select
  sum(requests) as requests,
  sum(bandwidth) as bandwidth
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
  sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') group by
user_src, sender order by requests desc)### t where $filter-drilldown
```

| Dataset Name                          | Description                           | Log Category |
|---------------------------------------|---------------------------------------|--------------|
| utm-drilldown-Email-Receivers-Summary | UTM drilldown email receivers summary | traffic      |

```
select
    sum(requests) as requests,
    sum(bandwidth) as bandwidth
from
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
        recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
        bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
        recipient is not null and service in ('pop3', 'POP3', '110/tcp', 'imap', 'IMAP',
        '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S', '995/tcp') group by user_
        src, recipient order by requests desc)### t where $filter-drilldown
```

| Dataset Name                                    | Description                        | Log Category |
|-------------------------------------------------|------------------------------------|--------------|
| utm-drilldown-Top-Email-Recipients-By-Bandwidth | UTM drilldown top email recipients | traffic      |

```
select
    recipient,
    sum(bandwidth) as bandwidth
from
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
        recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
        bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
        service in ('pop3', 'POP3', '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS',
        '993/tcp', 'pop3s', 'POP3S', '995/tcp') group by user_src, recipient order by requests
        desc)### t where $filter-drilldown and recipient is not null group by recipient having
        sum(bandwidth)>0 order by bandwidth desc
```

| Dataset Name                                 | Description                     | Log Category |
|----------------------------------------------|---------------------------------|--------------|
| utm-drilldown-Top-Email-Senders-By-Bandwidth | UTM drilldown top email senders | traffic      |

```
select
    sender,
    sum(bandwidth) as bandwidth
from
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
        sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
        bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
        service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') group by
        user_src, sender order by requests desc)### t where $filter-drilldown and sender is
        not null group by sender having sum(bandwidth)>0 order by bandwidth desc
```

| Dataset Name                                    | Description                                      | Log Category |
|-------------------------------------------------|--------------------------------------------------|--------------|
| utm-drilldown-Top-Allowed-Websites-By-Bandwidth | UTM drilldown top allowed web sites by bandwidth | traffic      |

```
select
    appid,
    hostname,
    sum(bandwidth) as bandwidth
from
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
        appid, hostname, (case when utmaction in ('block', 'blocked') then 1 else 0 end) as
        blocked, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-
        traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or
        ((logver is null or logver<52) and (hostname is not null or utmevent in ('webfilter',
```

```
'banned-word', 'web-content', 'command-block', 'script-filter'))))) and hostname is not
null group by user_src, appid, hostname, blocked order by bandwidth desc)### t where
$filter-drilldown and blocked=0 group by appid, hostname order by bandwidth desc
```

| Dataset Name                                  | Description                                    | Log Category |
|-----------------------------------------------|------------------------------------------------|--------------|
| utm-drilldown-Top-Blocked-Websites-By-Request | UTM drilldown top blocked web sites by request | traffic      |

```
select
  appid,
  hostname,
  sum(requests) as requests
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
      src, appid, hostname, (case when utmaction='blocked' then 1 else 0 end) as blocked,
      count(*) as requests from $log-traffic where $filter and logid_to_int(logid) not in
      (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-
      block', 'script-filter') and hostname is not null group by user_src, appid,
      hostname, blocked order by requests desc)### union all ###(select coalesce(nullifna
      (`user`), ipstr(`srcip`)) as user_src, 0 as appid, hostname, (case when
      action='blocked' then 1 else 0 end) as blocked, count(*) as requests from $log-
      webfilter where $filter and (eventtype is null or logver>=52) and hostname is not
      null group by user_src, appid, hostname, blocked order by requests desc)###) t where
      $filter-drilldown and blocked=1 group by appid, hostname order by requests desc
```

| Dataset Name                    | Description             | Log Category |
|---------------------------------|-------------------------|--------------|
| utm-drilldown-Top-Virus-By-Name | UTM drilldown top virus | traffic      |

```
select
  virus,
  sum(totalnum) as totalnum
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
      src, virus, count(*) as totalnum from $log-traffic where $filter and logid_to_int
      (logid) not in (4, 7, 14, 20) and utmevent is not null and virus is not null group
      by user_src, virus order by totalnum desc)### union all ###(select coalesce(nullifna
      (`user`), ipstr(`srcip`)) as user_src, virus, count(*) as totalnum from $log-virus
      where $filter and (eventtype is null or logver>=52) and nullifna(virus) is not null
      group by user_src, virus order by totalnum desc)###) t where $filter-drilldown group
      by virus order by totalnum desc
```

| Dataset Name              | Description                       | Log Category |
|---------------------------|-----------------------------------|--------------|
| utm-drilldown-Top-Attacks | UTM drilldown top attacks by name | attack       |

```
select
  attack,
  sum(attack_count) as attack_count
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, attack, count(*) as
    attack_count from $log where $filter and nullifna(attack) is not null group by user_
    src, attack order by attack_count desc)### t where $filter-drilldown group by attack
    order by attack_count desc
```

| Dataset Name                    | Description                             | Log Category |
|---------------------------------|-----------------------------------------|--------------|
| utm-drilldown-Top-Vulnerability | UTM drilldown top vulnerability by name | netscan      |

```
select
  vuln,
  sum(totalnum) as totalnum
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, vuln, count(*) as
    totalnum from $log where $filter and action='vuln-detection' and vuln is not null
    group by user_src, vuln order by totalnum desc)### t where $filter-drilldown group by
    vuln order by totalnum desc
```

| Dataset Name                       | Description                                       | Log Category |
|------------------------------------|---------------------------------------------------|--------------|
| utm-drilldown-Top-App-By-Bandwidth | UTM drilldown top applications by bandwidth usage | traffic      |

```
select
  appid,
  app,
  sum(bandwidth) as bandwidth
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
    appid, app, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as
    sessions from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
    nullifna(app) is not null group by user_src, appid, app order by sessions desc)### t
    where $filter-drilldown group by appid, app having sum(bandwidth)>0 order by bandwidth
    desc
```

| Dataset Name                      | Description                                     | Log Category |
|-----------------------------------|-------------------------------------------------|--------------|
| utm-drilldown-Top-App-By-Sessions | UTM drilldown top applications by session count | traffic      |

```
select
  appid,
  app,
  sum(sessions) as sessions
from
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src,
    appid, app, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as
    sessions from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
    nullifna(app) is not null group by user_src, appid, app order by sessions desc)### t
    where $filter-drilldown group by appid, app order by sessions desc
```

| Dataset Name            | Description                                | Log Category |
|-------------------------|--------------------------------------------|--------------|
| Top5-Users-By-Bandwidth | UTM drilldown top users by bandwidth usage | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as dldn_user,
  count(*) as session,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth,
```

```

sum(
    coalesce(sentbyte, 0)
) as traffic_out,
sum(
    coalesce(rcvdbyte, 0)
) as traffic_in
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    dldn_user
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                                | Description                         | Log Category |
|---------------------------------------------|-------------------------------------|--------------|
| bandwidth-app-Top-App-By-Bandwidth-Sessions | Top applications by bandwidth usage | traffic      |

```

select
    app_group_name(app) as app_group,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(app) is not null
group by
    app_group
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                        | Description                                    | Log Category |
|-------------------------------------|------------------------------------------------|--------------|
| bandwidth-app-Category-By-Bandwidth | Application risk application usage by category | traffic      |

```

select
    appcat,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(appcat) is not null
group by
    appcat
order by
    bandwidth desc

```

| Dataset Name                                  | Description                                        | Log Category |
|-----------------------------------------------|----------------------------------------------------|--------------|
| bandwidth-app-Top-Users-By-Bandwidth-Sessions | Bandwidth application top users by bandwidth usage | traffic      |

```

select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    user_src
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                                | Description                                         | Log Category |
|---------------------------------------------|-----------------------------------------------------|--------------|
| bandwidth-app-Traffic-By-Active-User-Number | Bandwidth application traffic by active user number | traffic      |

```

select

```



```

$flex_timescale(timestamp) as hodex,
count(
    distinct(user_src)
) as total_user
from
###(select $flex_timestamp as timestamp, coalesce(nullifna(`user`), nullifna(`unauthuser`),
ipstr(`srcip`)) as user_src from $log where $filter and logid_to_int(logid) not in (4,
7, 14, 20) group by timestamp, user_src order by timestamp desc)### t group by hodex
order by hodex

```

| Dataset Name                                 | Description                                                | Log Category |
|----------------------------------------------|------------------------------------------------------------|--------------|
| bandwidth-app-Top-Dest-By-Bandwidth-Sessions | Bandwidth application top dest by bandwidth usage sessions | traffic      |

```

select
    coalesce(
        nullifna(
            root_domain(hostname)
        ),
        ipstr(`dstip`)
    ) as domain,
    sum(
        coalesce(sentbyte, 0) + coalesce(rcvdbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,
    sum(
        coalesce(sentbyte, 0)
    ) as traffic_out,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    domain
order by
    bandwidth desc

```

| Dataset Name                                     | Description                            | Log Category |
|--------------------------------------------------|----------------------------------------|--------------|
| bandwidth-app-Top-Policies-By-Bandwidth-Sessions | Top policies by bandwidth and sessions | traffic      |

```

select
    coalesce(
        cast(poluuid as text),
        cast(policyid as text)
    ) as polid,
    sum(
        coalesce(rcvdbyte, 0) + coalesce(sentbyte, 0)
    ) as bandwidth,
    sum(
        coalesce(rcvdbyte, 0)
    ) as traffic_in,

```

```

        sum(
            coalesce(sentbyte, 0)
        ) as traffic_out,
        count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
group by
    polid
order by
    bandwidth desc

```

| Dataset Name                     | Description                              | Log Category |
|----------------------------------|------------------------------------------|--------------|
| bandwidth-app-Traffic-Statistics | Bandwidth application traffic statistics | traffic      |

```

drop
table if exists rpt_tmptbl_1; create temporary table rpt_tmptbl_1(
    total_sessions varchar(255),
    total_bandwidth varchar(255),
    ave_session varchar(255),
    ave_bandwidth varchar(255),
    active_date varchar(255),
    total_users varchar(255),
    total_app varchar(255),
    total_dest varchar(255)
); insert into rpt_tmptbl_1 (
    total_sessions, total_bandwidth,
    ave_session, ave_bandwidth
)
select
    format_numeric_no_decimal(
        sum(sessions)
    ) as total_sessions,
    bandwidth_unit(
        sum(bandwidth)
    ) as total_bandwidth,
    format_numeric_no_decimal(
        cast(
            sum(sessions)/ $days_num as decimal(18, 0)
        )
    ) as ave_session,
    bandwidth_unit(
        cast(
            sum(bandwidth)/ $days_num as decimal(18, 0)
        )
    ) as ave_bandwidth
from
    ###(select count(*) as sessions, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
        bandwidth from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20))### t;
    update rpt_tmptbl_1 set active_date=t1.dom from (select dom, sum(sessions) as sessions
    from ###(select $DAY_OF_MONTH as dom, count(*) as sessions from $log where $filter and
    logid_to_int(logid) not in (4, 7, 14, 20) group by dom order by sessions desc)### t
    group by dom order by sessions desc limit 1) as t1; update rpt_tmptbl_1 set total_
    users=t2.totalnum from (select format_numeric_no_decimal(count(distinct(user_src))) as
    totalnum from ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr

```

```
(`srcip`) as user_src, count(*) as count from $log where $filter and logid_to_int
(logid) not in (4, 7, 14, 20) group by user_src order by count desc)### t) as t2;
update rpt_tmptbl_1 set total_app=t3.totalnum from (select format_numeric_no_decimal
(count(distinct(app_grp))) as totalnum from ###(select app_group_name(app) as app_grp,
count(*) as count from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
20) and nullifna(app) is not null group by app_grp order by count desc)### t) as t3;
update rpt_tmptbl_1 set total_dest=t4.totalnum from (select format_numeric_no_decimal
(count(distinct(dstip))) as totalnum from ###(select dstip, count(*) as count from
$log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and dstip is not null
group by dstip order by count desc)### t) as t4; select 'Total Sessions' as summary,
total_sessions as stats from rpt_tmptbl_1 union all select 'Total Bytes Transferred'
as summary, total_bandwidth as stats from rpt_tmptbl_1 union all select 'Most Active
Date By Sessions' as summary, active_date as stats from rpt_tmptbl_1 union all select
'Total Users' as summary, total_users as stats from rpt_tmptbl_1 union all select
'Total Applications' as summary, total_app as stats from rpt_tmptbl_1 union all select
'Total Destinations' as summary, total_dest as stats from rpt_tmptbl_1 union all
select 'Average Sessions Per Day' as summary, ave_session as stats from rpt_tmptbl_1
union all select 'Average Bytes Per Day' as summary, ave_bandwidth as stats from rpt_
tmptbl_1
```

| Dataset Name                        | Description                                    | Log Category |
|-------------------------------------|------------------------------------------------|--------------|
| Score-Summary-For-All-Users-Devices | Reputation score summary for all users devices | traffic      |

```
select
  $flex_timescale(timestamp) as hindex,
  sum(scores) as scores
from
  ###(select $flex_timestamp as timestamp, sum(crscore%65536) as scores from $log where
  $filter and logid_to_int(logid) not in (4, 7, 14, 20) and crscore is not null group by
  timestamp having sum(crscore%65536)>0 order by timestamp desc)### t group by hindex
  order by hindex
```

| Dataset Name                              | Description                                          | Log Category |
|-------------------------------------------|------------------------------------------------------|--------------|
| Number-Of-Incidents-For-All-Users-Devices | Reputation number of incidents for all users devices | traffic      |

```
select
  $flex_timescale(timestamp) as hindex,
  sum(scores) as scores,
  sum(totalnum) as totalnum
from
  ###(select $flex_timestamp as timestamp, sum(crscore%65536) as scores, count(*) as totalnum
  from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and crscore is
  not null group by timestamp having sum(crscore%65536)>0 order by timestamp desc)### t
  group by hindex order by hindex
```

| Dataset Name                   | Description                    | Log Category |
|--------------------------------|--------------------------------|--------------|
| Top-Users-By-Reputation-Scores | Reputation top users by scores | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(crscore % 65536) as scores
```

```

from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and crscore is not null
group by
    user_src
having
    sum(crscore % 65536) > 0
order by
    scores desc

```

| Dataset Name                     | Description                      | Log Category |
|----------------------------------|----------------------------------|--------------|
| Top-Devices-By-Reputation-Scores | Reputation top devices by scores | traffic      |

```

select
    devtype,
    coalesce(
        nullifna(`srcname`),
        nullifna(`srcmac`),
        ipstr(`srcip`)
    ) as dev_src,
    sum(crscore % 65536) as scores
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and crscore is not null
group by
    devtype,
    dev_src
having
    sum(crscore % 65536) > 0
order by
    scores desc

```

| Dataset Name                    | Description                                | Log Category |
|---------------------------------|--------------------------------------------|--------------|
| Top-Users-With-Increased-Scores | Reputation top users with increased scores | traffic      |

```

drop
    table if exists rpt_tmptbl_1;
drop
    table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select coalesce
    (nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as f_user, sum
    (crscore%65536) as sum_rp_score from $log where $pre_period $filter and logid_to_int
    (logid) not in (4, 7, 14, 20) and crscore is not null group by f_user having sum
    (crscore%65536)>0 order by sum_rp_score desc)###; create temporary table rpt_tmptbl_2
    as ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as f_
    user, sum(crscore%65536) as sum_rp_score from $log where $filter and logid_to_int
    (logid) not in (4, 7, 14, 20) and crscore is not null group by f_user having sum
    (crscore%65536)>0 order by sum_rp_score desc)###; select t1.f_user, sum(t1.sum_rp_
    score) as t1_sum_score, sum(t2.sum_rp_score) as t2_sum_score, (sum(t2.sum_rp_score)-
    sum(t1.sum_rp_score)) as delta from rpt_tmptbl_1 as t1 inner join rpt_tmptbl_2 as t2

```

```
on t1.f_user=t2.f_user where t2.sum_rp_score > t1.sum_rp_score group by t1.f_user
order by delta desc
```

| Dataset Name                      | Description                                  | Log Category |
|-----------------------------------|----------------------------------------------|--------------|
| Top-Devices-With-Increased-Scores | Reputation top devices with increased scores | traffic      |

```
drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select coalesce
    (nullifna(`srcname`),nullifna(`srcmac`), ipstr(`srcip`)) as f_device, devtype, sum
    (crscore%65536) as sum_rp_score from $log where $pre_period $filter and logid_to_int
    (logid) not in (4, 7, 14, 20) and crscore is not null group by f_device, devtype
    having sum(crscore%65536)>0 order by sum_rp_score desc)###; create temporary table
    rpt_tmptbl_2 as ###(select coalesce(nullifna(`srcname`),nullifna(`srcmac`), ipstr
    (`srcip`)) as f_device, devtype, sum(crscore%65536) as sum_rp_score from $log where
    $filter and logid_to_int(logid) not in (4, 7, 14, 20) and crscore is not null group by
    f_device, devtype having sum(crscore%65536)>0 order by sum_rp_score desc)###; select
    t1.f_device, t1.devtype , sum(t1.sum_rp_score) as t1_sum_score, sum(t2.sum_rp_score)
    as t2_sum_score, (sum(t2.sum_rp_score)-sum(t1.sum_rp_score)) as delta from rpt_tmptbl_
    1 as t1 inner join rpt_tmptbl_2 as t2 on t1.f_device=t2.f_device and
    t1.devtype=t2.devtype where t2.sum_rp_score > t1.sum_rp_score group by t1.f_device,
    t1.devtype order by delta desc
```

| Dataset Name        | Description                | Log Category |
|---------------------|----------------------------|--------------|
| Attacks-By-Severity | Threat attacks by severity | attack       |

```
select
  (
    case when severity = 'critical' then 'Critical' when severity = 'high' then 'High' when
      severity = 'medium' then 'Medium' when severity = 'low' then 'Low' when severity =
        'info' then 'Info' end
  ) as severity,
  count(*) as totalnum
from
  $log
where
  $filter
group by
  severity
order by
  totalnum desc
```

| Dataset Name         | Description                 | Log Category |
|----------------------|-----------------------------|--------------|
| Top-Attacks-Detected | Threat top attacks detected | attack       |

```
select
  attack,
  attackid,
  cve,
  severity,
  sum(attack_count) as attack_count
from
  ###(select attack, attackid, t1.severity, cve, (case when t1.severity = 'critical' then 1
    when t1.severity = 'high' then 2 when t1.severity = 'medium' then 3 when t1.severity =
    'low' then 4 else 5 end) as severity_level, count(*) as attack_count from $log t1 left
```

```
join (select name, cve, vuln_type from ips_mdata) t2 on t1.attack=t2.name where
$filter and nullifna(attack) is not null group by attack, attackid, t1.severity,
severity_level, cve order by severity_level, attack_count desc)### t group by attack,
attackid, severity, severity_level, cve order by severity_level, attack_count desc
```

| Dataset Name        | Description                | Log Category |
|---------------------|----------------------------|--------------|
| Top-Attacks-Blocked | Threat top attacks blocked | attack       |

```
select
  attack,
  count(*) as attack_count
from
  $log
where
  $filter
  and nullifna(attack) is not null
  and action not in ('detected', 'pass_session')
group by
  attack
order by
  attack_count desc
```

| Dataset Name     | Description             | Log Category |
|------------------|-------------------------|--------------|
| Top-Virus-Source | Threat top virus source | traffic      |

```
select
  srcip,
  hostname,
  sum(totalnum) as totalnum
from
  (
    ###(select srcip, hostname, count(*) as totalnum from $log-traffic where $filter and
    logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is not
    null group by srcip, hostname order by totalnum desc)### union all ###(select srcip
    , ipstr(`dstip`) as hostname, count(*) as totalnum from $log-virus where $filter and
    (eventtype is null or logver>=52) and nullifna(virus) is not null group by srcip,
    hostname order by totalnum desc)###) t group by srcip, hostname order by totalnum
    desc
```

| Dataset Name             | Description               | Log Category |
|--------------------------|---------------------------|--------------|
| Intrusion-in-Last-7-Days | Threat intrusion timeline | attack       |

```
select
  $flex_timescale(timestamp) as hodex,
  sum(totalnum) as totalnum
from
  ###(select $flex_timestamp as timestamp, count(*) as totalnum from $log where $filter group
  by timestamp order by timestamp desc)### t group by hodex order by hodex
```

| Dataset Name    | Description           | Log Category |
|-----------------|-----------------------|--------------|
| Virus-Time-Line | Threat virus timeline | virus        |

```
select
  $flex_datetime(timestamp) as hodex,
  sum(totalnum) as totalnum
```

```

from
(
    ###(select $flex_timestamp as timestamp, count(*) as totalnum from $log-traffic where
    $filter and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and
    virus is not null group by timestamp order by timestamp desc)### union all ###
    (select $flex_timestamp as timestamp, count(*) as totalnum from $log-virus where
    $filter and (eventtype is null or logver>=52) and nullifna(virus) is not null group
    by timestamp order by timestamp desc)###) t group by hodex order by hodex

```

| Dataset Name        | Description                | Log Category |
|---------------------|----------------------------|--------------|
| Top-Spyware-Victims | Threat top spyware victims | virus        |

```

select
    user_src,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, virus, count(*) as
    totalnum from $log where $filter group by user_src, virus order by totalnum desc)### t
    where virus like 'Riskware%' group by user_src order by totalnum desc

```

| Dataset Name        | Description                | Log Category |
|---------------------|----------------------------|--------------|
| Top-Spyware-by-Name | Threat top spyware by name | virus        |

```

select
    virus,
    max(virusid_s) as virusid,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, virus, virusid_to_str
    (virusid, eventtype) as virusid_s, count(*) as totalnum from $log where $filter group
    by user_src, virus, virusid_s order by totalnum desc)### t where virus like
    'Riskware%' group by virus order by totalnum desc

```

| Dataset Name       | Description               | Log Category |
|--------------------|---------------------------|--------------|
| Top-Spyware-Source | Threat top spyware source | traffic      |

```

select
    srcip,
    hostname,
    count(*) as totalnum
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and virus like 'Riskware%'
group by
    srcip,
    hostname
order by
    totalnum desc

```

| Dataset Name      | Description             | Log Category |
|-------------------|-------------------------|--------------|
| Spyware-Time-Line | Threat spyware timeline | virus        |

```
select
    $flex_timescale(timestamp) as hodex,
    sum(totalnum) as totalnum
from
    ###(select $flex_timestamp as timestamp, count(*) as totalnum from $log where $filter and
        virus like 'Riskware%' group by timestamp order by timestamp desc)### t group by hodex
    order by hodex
```

| Dataset Name       | Description               | Log Category |
|--------------------|---------------------------|--------------|
| Top-Adware-Victims | Threat top adware victims | virus        |

```
select
    user_src,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, virus, count(*) as
        totalnum from $log where $filter group by user_src, virus order by totalnum desc)### t
    where virus like 'Adware%' group by user_src order by totalnum desc
```

| Dataset Name       | Description               | Log Category |
|--------------------|---------------------------|--------------|
| Top-Adware-by-Name | Threat top adware by name | virus        |

```
select
    virus,
    max(virusid_s) as virusid,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, virus, virusid_to_str
        (virusid, eventtype) as virusid_s, count(*) as totalnum from $log where $filter group
        by user_src, virus, virusid_s order by totalnum desc)### t where virus like 'Adware%'
    group by virus order by totalnum desc
```

| Dataset Name      | Description              | Log Category |
|-------------------|--------------------------|--------------|
| Top-Adware-Source | Threat top adware source | traffic      |

```
select
    srcip,
    hostname,
    count(*) as totalnum
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and virus like 'Adware%'
group by
    srcip,
    hostname
order by
    totalnum desc
```

| Dataset Name     | Description            | Log Category |
|------------------|------------------------|--------------|
| Adware-Time-Line | Threat adware timeline | virus        |

```
select
```



```

    $flex_timescale(timestamp) as hosex,
    sum(totalnum) as totalnum
from
    ###(select $flex_timestamp as timestamp, count(*) as totalnum from $log where $filter and
        virus like 'Adware%' group by timestamp order by timestamp desc)### t group by hosex
    order by hosex

```

| Dataset Name                    | Description                            | Log Category |
|---------------------------------|----------------------------------------|--------------|
| Intrusions-Timeline-By-Severity | Threat intrusions timeline by severity | attack       |

```

select
    $flex_timescale(timestamp) as timescale,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium,
    sum(low) as low,
    sum(info) as info
from
    ###(select $flex_timestamp as timestamp, sum(case when severity = 'critical' then 1 else 0
        end) as critical, sum(case when severity = 'high' then 1 else 0 end) as high, sum(case
        when severity = 'medium' then 1 else 0 end) as medium, sum(case when severity =
        'notice' then 1 else 0 end) as low, sum(case when severity = 'info' or severity =
        'debug' then 1 else 0 end) as info from $log where $filter group by timestamp order by
        timestamp desc)### t group by timescale order by timescale

```

| Dataset Name                              | Description                            | Log Category |
|-------------------------------------------|----------------------------------------|--------------|
| Important-Intrusions-Timeline-By-Severity | Threat intrusions timeline by severity | attack       |

```

select
    $flex_timescale(timestamp) as timescale,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium,
    sum(low) as low,
    sum(info) as info
from
    ###(select $flex_timestamp as timestamp, sum(case when severity = 'critical' then 1 else 0
        end) as critical, sum(case when severity = 'high' then 1 else 0 end) as high, sum(case
        when severity = 'medium' then 1 else 0 end) as medium, sum(case when severity =
        'notice' then 1 else 0 end) as low, sum(case when severity = 'info' or severity =
        'debug' then 1 else 0 end) as info from $log where $filter group by timestamp order by
        timestamp desc)### t group by timescale order by timescale

```

| Dataset Name            | Description                    | Log Category |
|-------------------------|--------------------------------|--------------|
| Top-Intrusions-By-Types | Threat top intrusions by types | attack       |

```

select
    vuln_type,
    count(*) as totalnum
from
    $log t1
    left join (
        select
            name,
            cve,

```

```

        vuln_type
    from
        ips_mdata
    ) t2 on t1.attack = t2.name
where
    $filter
    and vuln_type is not null
group by
    vuln_type
order by
    totalnum desc

```

| Dataset Name                 | Description                         | Log Category |
|------------------------------|-------------------------------------|--------------|
| Critical-Severity-Intrusions | Threat critical severity intrusions | attack       |

```

select
    attack,
    attackid,
    cve,
    vuln_type,
    count(*) as totalnum
from
    $log t1
    left join (
        select
            name,
            cve,
            vuln_type
        from
            ips_mdata
    ) t2 on t1.attack = t2.name
where
    $filter
    and t1.severity = 'critical'
    and nullifna(attack) is not null
group by
    attack,
    attackid,
    cve,
    vuln_type
order by
    totalnum desc

```

| Dataset Name             | Description                     | Log Category |
|--------------------------|---------------------------------|--------------|
| High-Severity-Intrusions | Threat high severity intrusions | attack       |

```

select
    attack,
    attackid,
    vuln_type,
    cve,
    count(*) as totalnum
from
    $log t1
    left join (
        select

```

```

        name,
        cve,
        vuln_type
    from
        ips_mdata
    ) t2 on t1.attack = t2.name
where
    $filter
    and t1.severity = 'high'
    and nullifna(attack) is not null
group by
    attack,
    attackid,
    vuln_type,
    cve
order by
    totalnum desc

```

| Dataset Name               | Description                       | Log Category |
|----------------------------|-----------------------------------|--------------|
| Medium-Severity-Intrusions | Threat medium severity intrusions | attack       |

```

select
    attack,
    vuln_type,
    cve,
    count(*) as totalnum
from
    $log t1
    left join (
        select
            name,
            cve,
            vuln_type
        from
            ips_mdata
    ) t2 on t1.attack = t2.name
where
    $filter
    and t1.severity = 'medium'
    and nullifna(attack) is not null
group by
    attack,
    vuln_type,
    cve
order by
    totalnum desc

```

| Dataset Name          | Description                  | Log Category |
|-----------------------|------------------------------|--------------|
| Top-Intrusion-Victims | Threat top intrusion victims | attack       |

```

select
    victim,
    sum(cri_num) as critical,
    sum(high_num) as high,
    sum(med_num) as medium,
    sum(cri_num + high_num + med_num) as totalnum

```

```

from
  ###(select dstip as victim, sum((case when severity='critical' then 1 else 0 end)) as cri_
    num, sum(case when severity='high' then 1 else 0 end) as high_num, sum(case when
    severity='medium' then 1 else 0 end) as med_num from $log where $filter and severity
    in ('critical', 'high', 'medium') group by victim)### t group by victim order by
    totalnum desc

```

| Dataset Name          | Description                  | Log Category |
|-----------------------|------------------------------|--------------|
| Top-Intrusion-Sources | Threat top intrusion sources | attack       |

```

select
  source,
  sum(cri_num) as critical,
  sum(high_num) as high,
  sum(med_num) as medium,
  sum(cri_num + high_num + med_num) as totalnum
from
  ###(select srcip as source, sum(case when severity='critical' then 1 else 0 end) as cri_num,
    sum(case when severity='high' then 1 else 0 end) as high_num, sum(case when
    severity='medium' then 1 else 0 end) as med_num from $log where $filter and severity
    in ('critical', 'high', 'medium') group by source)### t group by source order by
    totalnum desc

```

| Dataset Name           | Description                   | Log Category |
|------------------------|-------------------------------|--------------|
| Top-Blocked-Intrusions | Threat top blocked intrusions | attack       |

```

select
  attack,
  attackid,
  (
    case when t1.severity = 'critical' then 'Critical' when t1.severity = 'high' then 'High'
      when t1.severity = 'medium' then 'Medium' when t1.severity = 'low' then 'Low' when
      t1.severity = 'info' then 'Info' end
  ) as severity_name,
  count(*) as totalnum,
  vuln_type,
  (
    case when t1.severity = 'critical' then 0 when t1.severity = 'high' then 1 when
      t1.severity = 'medium' then 2 when t1.severity = 'low' then 3 when t1.severity =
      'info' then 4 else 5 end
  ) as severity_number
from
  $log t1
  left join (
    select
      name,
      cve,
      vuln_type
    from
      ips_mdata
  ) t2 on t1.attack = t2.name
where
  $filter
  and nullifna(attack) is not null
  and action not in ('detected', 'pass_session')
group by

```

```

    attack,
    attackid,
    t1.severity,
    vuln_type
order by
    severity_number,
    totalnum desc

```

| Dataset Name             | Description                     | Log Category |
|--------------------------|---------------------------------|--------------|
| Top-Monitored-Intrusions | Threat top monitored intrusions | attack       |

```

select
    attack,
    attackid,
    (
        case when t1.severity = 'critical' then 'Critical' when t1.severity = 'high' then 'High'
              when t1.severity = 'medium' then 'Medium' when t1.severity = 'low' then 'Low' when
                t1.severity = 'info' then 'Info' end
    ) as severity_name,
    count(*) as totalnum,
    vuln_type,
    (
        case when t1.severity = 'critical' then 0 when t1.severity = 'high' then 1 when
              t1.severity = 'medium' then 2 when t1.severity = 'low' then 3 when t1.severity =
                'info' then 4 else 5 end
    ) as severity_number
from
    $log t1
left join (
    select
        name,
        cve,
        vuln_type
    from
        ips_mdata
) t2 on t1.attack = t2.name
where
    $filter
    and nullifna(attack) is not null
    and action in ('detected', 'pass_session')
group by
    attack,
    attackid,
    t1.severity,
    vuln_type
order by
    severity_number,
    totalnum desc

```

| Dataset Name            | Description                    | Log Category |
|-------------------------|--------------------------------|--------------|
| Attacks-Over-HTTP-HTTPs | Threat attacks over HTTP HTTPs | attack       |

```

select
    attack,
    attackid,
    (

```

```

        case when severity = 'critical' then 'Critical' when severity = 'high' then 'High' when
            severity = 'medium' then 'Medium' when severity = 'low' then 'Low' when severity =
            'info' then 'Info' end
    ) as severity,
    count(*) as totalnum,
    (
        case when severity = 'critical' then 0 when severity = 'high' then 1 when severity =
            'medium' then 2 when severity = 'low' then 3 when severity = 'info' then 4 else 5
        end
    ) as severity_number
from
    $log
where
    $filter
    and severity in ('critical', 'high', 'medium')
    and upper(service) in ('HTTP', 'HTTPS')
group by
    attack,
    attackid,
    severity,
    severity_number
order by
    severity_number,
    totalnum desc

```

| Dataset Name                                   | Description                                               | Log Category |
|------------------------------------------------|-----------------------------------------------------------|--------------|
| default-AP-Detection-Summary-by-Status-OffWire | Default access point detection summary by status off-wire | event        |

```

select
    (
        case apstatus when 1 then 'rogue' when 2 then 'accepted' when 3 then 'suppressed' else
            'others' end
    ) as ap_full_status,
    count(*) as totalnum
from
    (
        select
            apstatus,
            bssid,
            ssid
        from
            ###(select apstatus, bssid, ssid, count(*) as subtotal from $log where $filter and
                apstatus is not null and apstatus!=0 and bssid is not null and onwire='no' and
                logid_to_int(logid) in (43527, 43521, 43525, 43563, 43564, 43565, 43566, 43569,
                43570, 43571, 43582, 43583, 43584, 43585) group by apstatus, bssid, ssid order by
                subtotal desc)### t group by apstatus, bssid, ssid) t group by ap_full_status
        order by totalnum desc
    )

```

| Dataset Name                                         | Description                                               | Log Category |
|------------------------------------------------------|-----------------------------------------------------------|--------------|
| default-AP-Detection-Summary-by-Status-OffWire_table | Default access point detection summary by status off-wire | event        |

```

select
    (

```

```

        case apstatus when 1 then 'rogue' when 2 then 'accepted' when 3 then 'suppressed' else
            'others' end
    ) as ap_full_status,
    count(*) as totalnum
from
(
    select
        apstatus,
        bssid,
        ssid
    from
        ###(select apstatus, bssid, ssid, count(*) as subtotal from $log where $filter and
            apstatus is not null and apstatus!=0 and bssid is not null and onwire='no' and
            logid_to_int(logid) in (43527, 43521, 43525, 43563, 43564, 43565, 43566, 43569,
            43570, 43571, 43582, 43583, 43584, 43585) group by apstatus, bssid, ssid order by
            subtotal desc)### t group by apstatus, bssid, ssid) t group by ap_full_status
            order by totalnum desc

```

| Dataset Name                                  | Description                                              | Log Category |
|-----------------------------------------------|----------------------------------------------------------|--------------|
| default-AP-Detection-Summary-by-Status-OnWire | Default access point detection summary by status on-wire | event        |

```

select
(
    case apstatus when 1 then 'rogue' when 2 then 'accepted' when 3 then 'suppressed' else
        'others' end
    ) as ap_full_status,
    count(*) as totalnum
from
(
    select
        apstatus,
        bssid,
        ssid
    from
        ###(select apstatus, bssid, ssid, count(*) as subtotal from $log where $filter and
            apstatus is not null and apstatus!=0 and bssid is not null and onwire='yes' and
            logid_to_int(logid) in (43527, 43521, 43525, 43563, 43564, 43565, 43566, 43569,
            43570, 43571, 43582, 43583, 43584, 43585) group by apstatus, bssid, ssid order by
            subtotal desc)### t group by apstatus, bssid, ssid) t group by ap_full_status
            order by totalnum desc

```

| Dataset Name                                        | Description                                              | Log Category |
|-----------------------------------------------------|----------------------------------------------------------|--------------|
| default-AP-Detection-Summary-by-Status-OnWire_table | Default access point detection summary by status on-wire | event        |

```

select
(
    case apstatus when 1 then 'rogue' when 2 then 'accepted' when 3 then 'suppressed' else
        'others' end
    ) as ap_full_status,
    count(*) as totalnum
from
(
    select
        apstatus,

```

```

        bssid,
        ssid
    from
        ###(select apstatus, bssid, ssid, count(*) as subtotal from $log where $filter and
            apstatus is not null and apstatus!=0 and bssid is not null and onwire='yes' and
            logid_to_int(logid) in (43527, 43521, 43525, 43563, 43564, 43565, 43566, 43569,
            43570, 43571, 43582, 43583, 43584, 43585) group by apstatus, bssid, ssid order by
            subtotal desc)### t group by apstatus, bssid, ssid) t group by ap_full_status
        order by totalnum desc

```

| Dataset Name               | Description                          | Log Category |
|----------------------------|--------------------------------------|--------------|
| default-Managed-AP-Summary | Default managed access point summary | event        |

```

select
(
    case when (
        action like '%join%'
        and logid_to_int(logid) in (43522, 43551)
    ) then 'Authorized' else 'Unauthorized' end
) as ap_status,
count(*) as totalnum
from
    $log
where
    $filter
    and logid_to_int(logid) in (43522, 43551)
group by
    ap_status
order by
    totalnum desc

```

| Dataset Name                     | Description                          | Log Category |
|----------------------------------|--------------------------------------|--------------|
| default-Managed-AP-Summary_table | Default managed access point summary | event        |

```

select
(
    case when (
        action like '%join%'
        and logid_to_int(logid) in (43522, 43551)
    ) then 'Authorized' else 'Unauthorized' end
) as ap_status,
count(*) as totalnum
from
    $log
where
    $filter
    and logid_to_int(logid) in (43522, 43551)
group by
    ap_status
order by
    totalnum desc

```

| Dataset Name                    | Description                               | Log Category |
|---------------------------------|-------------------------------------------|--------------|
| default-Unclassified-AP-Summary | Default unclassified access point summary | event        |



```

select
(
    case onwire when 'no' then 'off-wire' when 'yes' then 'on-wire' else 'others' end
) as ap_status,
count(*) as totalnum
from
###(select onwire, ssid, bssid, count(*) as subtotal from $log where $filter and apstatus=0
    and bssid is not null and logid_to_int(logid) in (43521, 43525, 43527, 43563, 43564,
    43565, 43566, 43569, 43570, 43571, 43582, 43583, 43584, 43585) group by onwire, ssid,
    bssid order by subtotal desc)### t group by ap_status order by totalnum desc

```

| Dataset Name                              | Description                               | Log Category |
|-------------------------------------------|-------------------------------------------|--------------|
| default-Unclassified-AP-Summary_<br>table | Default unclassified access point summary | event        |

```

select
(
    case onwire when 'no' then 'off-wire' when 'yes' then 'on-wire' else 'others' end
) as ap_status,
count(*) as totalnum
from
###(select onwire, ssid, bssid, count(*) as subtotal from $log where $filter and apstatus=0
    and bssid is not null and logid_to_int(logid) in (43521, 43525, 43527, 43563, 43564,
    43565, 43566, 43569, 43570, 43571, 43582, 43583, 43584, 43585) group by onwire, ssid,
    bssid order by subtotal desc)### t group by ap_status order by totalnum desc

```

| Dataset Name                        | Description                                    | Log Category |
|-------------------------------------|------------------------------------------------|--------------|
| default-selected-AP-Details-OffWire | Default selected access point details off-wire | event        |

```

select
(
    case apstatus when 0 then 'unclassified' when 1 then 'rogue' when 2 then 'accepted' when
    3 then 'suppressed' else 'others' end
) as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
rssi,
channel,
radioband,
from_dtime(
    min(dtime)
) as first_seen,
from_dtime(
    max(dtime)
) as last_seen,
detectionmethod,
itime,
onwire as on_wire
from
$log
where
$filter
and apstatus is not null

```

```

    and bssid is not null
    and onwire = 'no'
    and logid_to_int(logid) in (
        43521, 43563, 43564, 43565, 43566, 43569,
        43570, 43571
    )
group by
    ap_full_status,
    devid,
    vd,
    ssid,
    bssid,
    manuf,
    rssi,
    channel,
    radioband,
    detectionmethod,
    itime,
    onwire,
    apstatus

```

| Dataset Name                       | Description                                   | Log Category |
|------------------------------------|-----------------------------------------------|--------------|
| default-selected-AP-Details-OnWire | Default selected access point details on-wire | event        |

```

select
(
    case apstatus when 0 then 'unclassified' when 1 then 'rogue' when 2 then 'accepted' when
        3 then 'suppressed' else 'others' end
) as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
rssi,
channel,
radioband,
from_dtime(
    min(dtime)
) as first_seen,
from_dtime(
    max(dtime)
) as last_seen,
detectionmethod,
itime,
onwire as on_wire
from
    $log
where
    $filter
    and apstatus is not null
    and bssid is not null
    and onwire = 'yes'
    and logid_to_int(logid) in (
        43521, 43563, 43564, 43565, 43566, 43569,
        43570, 43571
    )
)

```

```
group by
  ap_full_status,
  devid,
  vd,
  ssid,
  bssid,
  manuf,
  rssi,
  channel,
  radioband,
  detectionmethod,
  itime,
  onwire,
  apstatus
```

| Dataset Name                  | Description                   | Log Category |
|-------------------------------|-------------------------------|--------------|
| event-Wireless-Client-Details | Event wireless client details | event        |

```
drop
  table if exists rpt_tmptbl_1; create temporary table rpt_tmptbl_1 as
select
  ip,
  lower(mac) as lmac,
  sn,
  ssid,
  channel,
  radioband,
  min(dtime) as first,
  max(dtime) as last
from
  $log - event
where
  $filter
  and ip is not null
  and mac is not null
  and sn is not null
  and ssid is not null
group by
  ip,
  lmac,
  sn,
  ssid,
  channel,
  radioband
order by
  ip;
select
  user_src,
  ip,
  lmac,
  sn,
  ssid,
  channel,
  radioband,
  from_dtime(first) as first_seen,
  from_dtime(last) as last_seen,
```

```

cast(
    volume as decimal(18, 2)
) as bandwidth
from
(
    select
        *
    from
        rpt_tmptbl_1
    inner join (
        select
            user_src,
            srcip,
            sum(volume) as volume
        from
            ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
                user_src, srcip, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as volume
            from $log-traffic where $filter-time and logid_to_int(logid) not in (4, 7,
                14) and srcip is not null group by user_src, srcip having sum(coalesce
                (sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by volume desc)### t group by
                user_src, srcip order by user_src, srcip) t on rpt_tmptbl_1.ip = t.srcip) t
        order by volume desc

```

| Dataset Name                    | Description                      | Log Category |
|---------------------------------|----------------------------------|--------------|
| event-Wireless-Accepted-Offwire | Event wireless accepted off-wire | event        |

```

select
    'accepted' as ap_full_status,
    devid,
    vd,
    ssid,
    bssid,
    manuf,
    channel,
    radioband,
    from_dtime(
        max(last_seen)
    ) as last_seen,
    detectionmethod,
    snclosest,
    'no' as on_wire
from
    ###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
        onwire, logid, apstatus, max(dtime) as last_seen from $log where $filter and bssid is
        not null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
        43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
        detectionmethod, snclosest, onwire, logid, apstatus order by last_seen desc)### t
    where apstatus=2 and onwire='no' group by devid, vd, ssid, bssid, manuf, channel,
        radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                   | Description                     | Log Category |
|--------------------------------|---------------------------------|--------------|
| event-Wireless-Accepted-Onwire | Event wireless accepted on-wire | event        |

```

select
    'accepted' as ap_full_status,
    devid,

```

```

vd,
ssid,
bssid,
manuf,
channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'yes' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, apstatus, max(dtime) as last_seen from $log where $filter and bssid is not
null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, apstatus order by last_seen desc)### t where
apstatus=2 and onwire='yes' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                 | Description                   | Log Category |
|------------------------------|-------------------------------|--------------|
| event-Wireless-Rogue-Offwire | Event wireless rogue off-wire | event        |

```

select
'rogue' as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'no' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, logid, apstatus, max(dtime) as last_seen from $log where $filter and bssid is
not null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, logid, apstatus order by last_seen desc)### t
where apstatus=1 and onwire='no' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                | Description                  | Log Category |
|-----------------------------|------------------------------|--------------|
| event-Wireless-Rogue-Onwire | Event wireless rogue on-wire | event        |

```

select
'rogue' as ap_full_status,
devid,
vd,
ssid,

```

```

bssid,
manuf,
channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'yes' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, apstatus, max(dtime) as last_seen from $log where $filter and bssid is not
null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, apstatus order by last_seen desc)### t where
apstatus=1 and onwire='yes' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                      | Description                        | Log Category |
|-----------------------------------|------------------------------------|--------------|
| event-Wireless-Suppressed-Offwire | Event wireless suppressed off-wire | event        |

```

select
'suppressed' as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'no' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, logid, apstatus, max(dtime) as last_seen from $log where $filter and bssid is
not null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, logid, apstatus order by last_seen desc)### t
where apstatus=3 and onwire='no' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                     | Description                       | Log Category |
|----------------------------------|-----------------------------------|--------------|
| event-Wireless-Suppressed-Onwire | Event wireless suppressed on-wire | event        |

```

select
'suppressed' as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,

```

```

channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'yes' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, apstatus, max(dtime) as last_seen from $log where $filter and bssid is not
null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, apstatus order by last_seen desc)### t where
apstatus=3 and onwire='yes' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                        | Description                          | Log Category |
|-------------------------------------|--------------------------------------|--------------|
| event-Wireless-Unclassified-Offwire | Event wireless unclassified off-wire | event        |

```

select
'unclassified' as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
channel,
radioband,
from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'no' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, logid, apstatus, max(dtime) as last_seen from $log where $filter and bssid is
not null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, logid, apstatus order by last_seen desc)### t
where apstatus=0 and onwire='no' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                       | Description                         | Log Category |
|------------------------------------|-------------------------------------|--------------|
| event-Wireless-Unclassified-Onwire | Event wireless unclassified on-wire | event        |

```

select
'unclassified' as ap_full_status,
devid,
vd,
ssid,
bssid,
manuf,
channel,
radioband,

```

```

from_dtime(
    max(last_seen)
) as last_seen,
detectionmethod,
snclosest,
'yes' as on_wire
from
###(select devid, vd, ssid, bssid, manuf, channel, radioband, detectionmethod, snclosest,
onwire, apstatus, max(dtime) as last_seen from $log where $filter and bssid is not
null and logid_to_int(logid) in (43521, 43525, 43563, 43564, 43565, 43566, 43569,
43570, 43571) group by devid, vd, ssid, bssid, manuf, channel, radioband,
detectionmethod, snclosest, onwire, apstatus order by last_seen desc)### t where
apstatus=0 and onwire='yes' group by devid, vd, ssid, bssid, manuf, channel,
radioband, detectionmethod, snclosest order by last_seen desc

```

| Dataset Name                                    | Description                                           | Log Category |
|-------------------------------------------------|-------------------------------------------------------|--------------|
| default-Top-IPSEC-Vpn-Dial-Up-User-By-Bandwidth | Default top IPsec VPN dial up user by bandwidth usage | event        |

```

select
    coalesce(
        xauthuser_agg,
        user_agg,
        ipstr('remip`)
    ) as user_src,
from_dtime(
    min(s_time)
) as start_time,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out
from
(
    select
        devid,
        vd,
        string_agg(distinct xauthuser_agg, ' ') as xauthuser_agg,
        string_agg(distinct user_agg, ' ') as user_agg,
        remip,
        tunnelid,
        min(s_time) as s_time,
        max(e_time) as e_time,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
                else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
                    traffic_out) end
        ) as bandwidth,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
                in)- min(min_traffic_in) end
        ) as traffic_in,
        (
            case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
                out)- min(min_traffic_out) end
        ) as traffic_out
    from

```



```

###(select devid, vd, nullifna(`xauthuser`) as xauthuser_agg, nullifna(`user`) as
  user_agg, remip, tunnelid, min(coalesce(dtime, 0)) as s_time, max(coalesce(dtime,
  0)) as e_time, min(coalesce(sentbyte, 0)) as min_traffic_out, min(coalesce
  (rcvdbyte, 0)) as min_traffic_in, max(coalesce(sentbyte, 0)) as max_traffic_out,
  max(coalesce(rcvdbyte, 0)) as max_traffic_in from $log where $filter and
  subtype='vpn' and tunneltype like 'ipsec%' and not (tunnelip is null or
  tunnelip='0.0.0.0') and action in ('tunnel-stats', 'tunnel-down', 'tunnel-up')
  and tunnelid is not null and tunnelid!=0 group by devid, vd, xauthuser_agg, user_
  agg, remip, tunnelid order by tunnelid)### t group by devid, vd, remip, tunnelid)
  tt group by user_src having sum(bandwidth)>0 order by bandwidth desc

```

| Dataset Name                                        | Description                                               | Log Category |
|-----------------------------------------------------|-----------------------------------------------------------|--------------|
| default-Top-Sources-Of-SSL-VPN-Tunnels-By-Bandwidth | Default top sources of SSL VPN tunnels by bandwidth usage | event        |

```

select
  remip as remote_ip,
  sum(bandwidth) as bandwidth
from
  (
    select
      devid,
      vd,
      remip,
      tunnelid,
      (
        case when min(s_time)= max(e_time) then max(max_traffic_in) else max(max_traffic_
        in)- min(min_traffic_in) end
      ) as traffic_in,
      (
        case when min(s_time)= max(e_time) then max(max_traffic_out) else max(max_traffic_
        out)- min(min_traffic_out) end
      ) as traffic_out,
      (
        case when min(s_time)= max(e_time) then max(max_traffic_in)+ max(max_traffic_out)
        else max(max_traffic_in)- min(min_traffic_in)+ max(max_traffic_out)- min(min_
        traffic_out) end
      ) as bandwidth
    from
      ###(select devid, vd, remip, tunnelid, max(coalesce(sentbyte, 0)) as max_traffic_out,
        max(coalesce(rcvdbyte, 0)) as max_traffic_in, min(coalesce(sentbyte, 0)) as min_
        traffic_out, min(coalesce(rcvdbyte, 0)) as min_traffic_in, min(coalesce(dtime,
        0)) as s_time, max(coalesce(dtime, 0)) as e_time from $log where $filter and
        subtype='vpn' and tunneltype like 'ssl%' and action in ('tunnel-stats', 'tunnel-
        down') and remip is not null and tunnelid is not null group by devid, vd, remip,
        tunnelid order by tunnelid)### t group by devid, vd, remip, tunnelid) tt group by
        remote_ip having sum(traffic_in+traffic_out)>0 order by bandwidth desc

```

| Dataset Name                               | Description                                | Log Category |
|--------------------------------------------|--------------------------------------------|--------------|
| webfilter-Web-Activity-Summary-By-Requests | Webfilter web activity summary by requests | webfilter    |

```

select
  $flex_timescale(timestamp) as hodex,
  sum(allowed_request) as allowed_request,
  sum(blocked_request) as blocked_request
from

```

```
(
  ###(select $flex_timestamp as timestamp, sum(case when utmaction!='blocked' then 1 else 0
    end) as allowed_request, sum(case when utmaction='blocked' then 1 else 0 end) as
    blocked_request from $log-traffic where $filter and logid_to_int(logid) not in (4,
    7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-
    block', 'script-filter') group by timestamp order by timestamp desc)### union all
  ###(select $flex_timestamp as timestamp, sum(case when action!='blocked' then 1 else
    0 end) as allowed_request, sum(case when action='blocked' then 1 else 0 end) as
    blocked_request from $log-webfilter where $filter and (eventtype is null or
    logver>=52) group by timestamp order by timestamp desc)###) t group by hodex order
    by hodex
```

| Dataset Name                  | Description                   | Log Category |
|-------------------------------|-------------------------------|--------------|
| traffic-Browsing-Time-Summary | Traffic browsing time summary | traffic      |

```
select
  $flex_timescale(timestamp) as hodex,
  cast(
    ebtr_value(
      ebtr_agg_flat(browsetime),
      null,
      $timespan
    ) / 60.0 as decimal(18, 2)
  ) as browsetime
from
  ###(select $flex_timestamp as timestamp, ebtr_agg_flat($browse_time) as browsetime from $log
    where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and $browse_time is not
    null group by timestamp order by timestamp desc)### t group by hodex order by hodex
```

| Dataset Name                           | Description                            | Log Category |
|----------------------------------------|----------------------------------------|--------------|
| traffic-Browsing-Time-Summary-Enhanced | Traffic browsing time summary enhanced | traffic      |

```
select
  $flex_timescale(timestamp) as hodex,
  cast(
    ebtr_value(
      ebtr_agg_flat(browsetime),
      null,
      $timespan
    ) / 60.0 as decimal(18, 2)
  ) as browsetime
from
  ###(select $flex_timestamp as timestamp, ebtr_agg_flat($browse_time) as browsetime from $log
    where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and $browse_time is not
    null group by timestamp order by timestamp desc)### t group by hodex order by hodex
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| webfilter-Top-Web-Users-By-Blocked-Requests | Webfilter top web users by blocked requests | webfilter    |

```
select
  user_src,
  sum(requests) as requests
from
```

```
(
  ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, count(*) as requests from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-filter') and coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) is not null and utmaction='blocked' group by user_src order by requests desc)### union all ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, count(*) as requests from $log-webfilter where $filter and (eventtype is null or logver>=52) and coalesce(nullifna(`user`), ipstr(`srcip`)) is not null and action='blocked' group by user_src order by requests desc)###) t group by user_src order by requests desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| webfilter-Top-Web-Users-By-Allowed-Requests | Webfilter top web users by allowed requests | webfilter    |

```
select
  user_src,
  sum(requests) as requests
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, count(*) as requests from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-filter') and coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) is not null and utmaction!='blocked' group by user_src order by requests desc)### union all ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, count(*) as requests from $log-webfilter where $filter and (eventtype is null or logver>=52) and coalesce(nullifna(`user`), ipstr(`srcip`)) is not null and action!='blocked' group by user_src order by requests desc)###) t group by user_src order by requests desc
```

| Dataset Name                           | Description                            | Log Category |
|----------------------------------------|----------------------------------------|--------------|
| traffic-Top-Web-Users-By-Browsing-Time | Traffic top web users by browsing time | traffic      |

```
select
  user_src,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select user_src, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth, sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0)) as traffic_out from $log where $filter and $browse_time is not null group by user_src) t group by user_src order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group by user_src order by browsetime desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| webfilter-Top-Blocked-Web-Sites-By-Requests | Webfilter top blocked web sites by requests | webfilter    |

```
select
    domain,
    catdesc,
    sum(requests) as requests
from
    (
        ###(select hostname as domain, catdesc, count(*) as requests from $log-traffic where
            $filter and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter',
            'banned-word', 'web-content', 'command-block', 'script-filter') and hostname is not
            null and utmaction='blocked' group by domain, catdesc order by requests desc)###
        union all ###(select hostname as domain, catdesc, count(*) as requests from $log-
        webfilter where $filter and (eventtype is null or logver>=52) and hostname is not
        null and catdesc is not null and action='blocked' group by domain, catdesc order by
        requests desc)###) t group by domain, catdesc order by requests desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| webfilter-Top-Allowed-Web-Sites-By-Requests | Webfilter top allowed web sites by requests | webfilter    |

```
select
    domain,
    string_agg(distinct catdesc, ', ') as agg_catdesc,
    sum(requests) as requests
from
    (
        ###(select hostname as domain, catdesc, count(*) as requests from $log-traffic where
            $filter and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter',
            'banned-word', 'web-content', 'command-block', 'script-filter') and hostname is not
            null and utmaction!='blocked' group by domain, catdesc order by requests desc)###
        union all ###(select hostname as domain, catdesc, count(*) as requests from $log-
        webfilter where $filter and (eventtype is null or logver>=52) and hostname is not
        null and catdesc is not null and action!='blocked' group by domain, catdesc order by
        requests desc)###) t group by domain order by requests desc
```

| Dataset Name                                        | Description                                               | Log Category |
|-----------------------------------------------------|-----------------------------------------------------------|--------------|
| webfilter-Top-Video-Streaming-Websites-By-Bandwidth | Webfilter top video streaming websites by bandwidth usage | webfilter    |

```
select
    domain,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    ###(select coalesce(nullifna(root_domain(hostname)), 'other') as domain, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as
    traffic_in, sum(coalesce(sentbyte, 0)) as traffic_out from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or
    logver<52) and (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-
    content', 'command-block', 'script-filter')))) and catdesc in ('Streaming Media and
```

```
Download') group by domain having sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0
order by bandwidth desc)### t group by domain order by bandwidth desc
```

| Dataset Name                         | Description                          | Log Category |
|--------------------------------------|--------------------------------------|--------------|
| webfilter-Top-Blocked-Web-Categories | Webfilter top blocked web categories | webfilter    |

```
select
  catdesc,
  sum(requests) as requests
from
  (
    ###(select catdesc, count(*) as requests from $log-traffic where $filter and logid_to_int
      (logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-
        content', 'command-block', 'script-filter') and catdesc is not null and
        utmaction='blocked' group by catdesc order by requests desc)### union all ###(select
        catdesc, count(*) as requests from $log-webfilter where $filter and (eventtype is
        null or logver>=52) and catdesc is not null and action='blocked' group by catdesc
        order by requests desc)###) t group by catdesc order by requests desc
```

| Dataset Name                         | Description                          | Log Category |
|--------------------------------------|--------------------------------------|--------------|
| webfilter-Top-Allowed-Web-Categories | Webfilter top allowed web categories | webfilter    |

```
select
  catdesc,
  sum(requests) as requests
from
  (
    ###(select catdesc, count(*) as requests from $log-traffic where $filter and logid_to_int
      (logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-
        content', 'command-block', 'script-filter') and catdesc is not null and
        utmaction!='blocked' group by catdesc order by requests desc)### union all ###
      (select catdesc, count(*) as requests from $log-webfilter where $filter and
        (eventtype is null or logver>=52) and catdesc is not null and action!='blocked'
        group by catdesc order by requests desc)###) t group by catdesc order by requests
      desc
```

| Dataset Name                          | Description                        | Log Category |
|---------------------------------------|------------------------------------|--------------|
| traffic-Top-50-Sites-By-Browsing-Time | Traffic top sites by browsing time | traffic      |

```
select
  hostname,
  string_agg(distinct catdesc, ', ') as agg_catdesc,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select hostname, catdesc, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as
    bandwidth, sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
    hostname, catdesc, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
    (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
```

```
not in (4, 7, 14, 20) and hostname is not null and $browse_time is not null group by
hostname, catdesc) t group by hostname, catdesc order by ebtr_value(ebtr_agg_flat
(browsetime), null, null) desc)### t group by hostname order by browsetime desc
```

| Dataset Name                                   | Description                                 | Log Category |
|------------------------------------------------|---------------------------------------------|--------------|
| traffic-Top-50-Sites-By-Browsing-Time-Enhanced | Traffic top sites by browsing time enhanced | traffic      |

```
select
  hostname,
  string_agg(distinct catdesc, ', ') as agg_catdesc,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select hostname, catdesc, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as
    bandwidth, sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
    hostname, catdesc, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
    (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and hostname is not null and $browse_time is not null group by
    hostname, catdesc) t group by hostname, catdesc order by ebtr_value(ebtr_agg_flat
    (browsetime), null, null) desc)### t group by hostname order by browsetime desc
```

| Dataset Name                               | Description                           | Log Category |
|--------------------------------------------|---------------------------------------|--------------|
| traffic-Top-10-Categories-By-Browsing-Time | Traffic top category by browsing time | traffic      |

```
select
  catdesc,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth
from
  ###(select catdesc, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth
    from (select catdesc, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter and logid_
    to_int(logid) not in (4, 7, 14, 20) and catdesc is not null and $browse_time is not
    null group by catdesc) t group by catdesc order by ebtr_value(ebtr_agg_flat
    (browsetime), null, null) desc)### t group by catdesc order by browsetime desc
```

| Dataset Name                                        | Description                                    | Log Category |
|-----------------------------------------------------|------------------------------------------------|--------------|
| traffic-Top-10-Categories-By-Browsing-Time-Enhanced | Traffic top category by browsing time enhanced | traffic      |

```
select
  catdesc,
```

```

    ebtr_value(
        ebtr_agg_flat(browsetime),
        null,
        $timespan
    ) as browsetime,
    sum(bandwidth) as bandwidth
from
    ###(select catdesc, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth
        from (select catdesc, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce
            (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter and logid_
            to_int(logid) not in (4, 7, 14, 20) and catdesc is not null and $browse_time is not
            null group by catdesc) t group by catdesc order by ebtr_value(ebtr_agg_flat
            (browsetime), null, null) desc)### t group by catdesc order by browsetime desc

```

| Dataset Name                                       | Description                                        | Log Category |
|----------------------------------------------------|----------------------------------------------------|--------------|
| traffic-Top-Destination-Countries-By-Browsing-Time | Traffic top destination countries by browsing time | traffic      |

```

select
    dstcountry,
    ebtr_value(
        ebtr_agg_flat(browsetime),
        null,
        $timespan
    ) as browsetime,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    ###(select dstcountry, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
        sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
        dstcountry, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
        0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
        (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
        not in (4, 7, 14, 20) and $browse_time is not null group by dstcountry) t group by
        dstcountry order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group
        by dstcountry order by browsetime desc

```

| Dataset Name                                                | Description                                                 | Log Category |
|-------------------------------------------------------------|-------------------------------------------------------------|--------------|
| traffic-Top-Destination-Countries-By-Browsing-Time-Enhanced | Traffic top destination countries by browsing time enhanced | traffic      |

```

select
    dstcountry,
    ebtr_value(
        ebtr_agg_flat(browsetime),
        null,
        $timespan
    ) as browsetime,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    ###(select dstcountry, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
        sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
        dstcountry, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,

```

```
0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
(coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
not in (4, 7, 14, 20) and $browse_time is not null group by dstcountry) t group by
dstcountry order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group
by dstcountry order by browsetime desc
```

| Dataset Name                 | Description                  | Log Category |
|------------------------------|------------------------------|--------------|
| webfilter-Top-Search-Phrases | Webfilter top search phrases | webfilter    |

```
select
  keyword,
  count(*) as requests
from
  $log
where
  $filter
  and keyword is not null
group by
  keyword
order by
  requests desc
```

| Dataset Name               | Description             | Log Category |
|----------------------------|-------------------------|--------------|
| Top-10-Users-Browsing-Time | Estimated browsing time | traffic      |

```
select
  user_src,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime
from
  ###(select user_src, ebtr_agg_flat(browsetime) as browsetime from (select coalesce(nullifna
    ('user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, ebtr_agg_flat($browse_
    time) as browsetime from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
    20) and $browse_time is not null group by user_src) t group by user_src order by ebtr_
    value(ebtr_agg_flat(browsetime), null, null) desc)### t group by user_src order by
    browsetime desc
```

| Dataset Name                        | Description                      | Log Category |
|-------------------------------------|----------------------------------|--------------|
| Top-10-Users-Browsing-Time-Enhanced | Estimated browsing time enhanced | traffic      |

```
select
  user_src,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime
from
  ###(select user_src, ebtr_agg_flat(browsetime) as browsetime from (select coalesce(nullifna
    ('user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, ebtr_agg_flat($browse_
    time) as browsetime from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
```



```
20) and $browse_time is not null group by user_src) t group by user_src order by ebtr_
value(ebtr_agg_flat(browsetime), null, null) desc)### t group by user_src order by
browsetime desc
```

| Dataset Name            | Description             | Log Category |
|-------------------------|-------------------------|--------------|
| Estimated-Browsing-Time | Estimated browsing time | traffic      |

```
select
  user_src,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime
from
  ###(select user_src, ebtr_agg_flat(browsetime) as browsetime from (select coalesce(nullifna
    ('user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, ebtr_agg_flat($browse_
    time) as browsetime from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
    20) and $browse_time is not null group by user_src) t group by user_src order by ebtr_
    value(ebtr_agg_flat(browsetime), null, null) desc)### t group by user_src order by
    browsetime desc
```

| Dataset Name                     | Description                      | Log Category |
|----------------------------------|----------------------------------|--------------|
| Estimated-Browsing-Time-Enhanced | Estimated browsing time enhanced | traffic      |

```
select
  user_src,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime
from
  ###(select user_src, ebtr_agg_flat(browsetime) as browsetime from (select coalesce(nullifna
    ('user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, ebtr_agg_flat($browse_
    time) as browsetime from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
    20) and $browse_time is not null group by user_src) t group by user_src order by ebtr_
    value(ebtr_agg_flat(browsetime), null, null) desc)### t group by user_src order by
    browsetime desc
```

| Dataset Name             | Description                         | Log Category |
|--------------------------|-------------------------------------|--------------|
| wifi-Top-AP-By-Bandwidth | Top access point by bandwidth usage | traffic      |

```
select
  coalesce(ap, srcintf) as ap_srcintf,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and (
    srcssid is not null
    or dstssid is not null
```

```

)
group by
  ap_srcintf
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc

```

| Dataset Name          | Description                | Log Category |
|-----------------------|----------------------------|--------------|
| wifi-Top-AP-By-Client | Top access point by client | traffic      |

```

select
  ap_srcintf as srcintf,
  count(distinct srcmac) as totalnum
from
  ###(select coalesce(ap, srcintf) as ap_srcintf, srcssid, osname, osversion, devtype, srcmac,
    count(*) as subtotal from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
    20) and (srcssid is not null or dstssid is not null) and srcmac is not null group by
    ap_srcintf, srcssid, osname, osversion, devtype, srcmac order by subtotal desc)### t
  group by srcintf order by totalnum desc

```

| Dataset Name               | Description                  | Log Category |
|----------------------------|------------------------------|--------------|
| wifi-Top-SSID-By-Bandwidth | Top SSIDs by bandwidth usage | traffic      |

```

select
  srcssid,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and srcssid is not null
group by
  srcssid
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc

```

| Dataset Name            | Description         | Log Category |
|-------------------------|---------------------|--------------|
| wifi-Top-SSID-By-Client | Top SSIDs by client | traffic      |

```

select
  srcssid,
  count(distinct srcmac) as totalnum
from
  ###(select srcintf, srcssid, osname, osversion, devtype, srcmac, count(*) as subtotal from
    $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (srcssid is not

```

```

null or dstssid is not null) and srcmac is not null group by srcintf, srcssid, osname,
osversion, devtype, srcmac order by subtotal desc)### t where srcssid is not null
group by srcssid order by totalnum desc

```

| Dataset Name              | Description                              | Log Category |
|---------------------------|------------------------------------------|--------------|
| wifi-Top-App-By-Bandwidth | Top WiFi applications by bandwidth usage | traffic      |

```

select
  appid,
  app,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and (
    srcssid is not null
    or dstssid is not null
  )
  and nullifna(app) is not null
group by
  appid,
  app
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc

```

| Dataset Name                 | Description                        | Log Category |
|------------------------------|------------------------------------|--------------|
| wifi-Top-Client-By-Bandwidth | Top WiFi client by bandwidth usage | traffic      |

```

select
  (
    coalesce(srcname, srcmac, 'unknown') || ' (' || coalesce(devtype, 'unknown') || ', ' ||
    coalesce(osname, '') || (
      case when osversion is null then '' else ' ' || osversion end
    ) || ')'
  ) as client,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and (
    srcssid is not null
    or dstssid is not null
  )
group by

```

```

client
having
sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
)> 0
order by
    bandwidth desc

```

| Dataset Name             | Description                    | Log Category |
|--------------------------|--------------------------------|--------------|
| wifi-Top-OS-By-Bandwidth | Top WiFi os by bandwidth usage | traffic      |

```

select
(
    coalesce(osname, 'unknown') || ' ' || coalesce(osversion, '')
) as os,
sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and (
        srcssid is not null
        or dstssid is not null
    )
group by
    os
having
sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
)> 0
order by
    bandwidth desc

```

| Dataset Name               | Description                | Log Category |
|----------------------------|----------------------------|--------------|
| wifi-Top-OS-By-WiFi-Client | Top WiFi os by WiFi client | traffic      |

```

select
(
    coalesce(osname, 'unknown') || ' ' || coalesce(osversion, '')
) as os,
count(distinct srcmac) as totalnum
from
    ###(select srcintf, srcssid, osname, osversion, devtype, srcmac, count(*) as subtotal from
        $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (srcssid is not
        null or dstssid is not null) and srcmac is not null group by srcintf, srcssid, osname,
        osversion, devtype, srcmac order by subtotal desc)### t group by os order by totalnum
    desc

```

| Dataset Name                 | Description                        | Log Category |
|------------------------------|------------------------------------|--------------|
| wifi-Top-Device-By-Bandwidth | Top WiFi device by bandwidth usage | traffic      |

```

select

```

```

    devtype,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and (
        srcssid is not null
        or dstssid is not null
    )
    and devtype is not null
group by
    devtype
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name              | Description               | Log Category |
|---------------------------|---------------------------|--------------|
| wifi-Top-Device-By-Client | Top WiFi device by client | traffic      |

```

select
    devtype,
    count(distinct srcmac) as totalnum
from
    ###(select srcintf, srcssid, osname, osversion, devtype, srcmac, count(*) as subtotal from
        $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (srcssid is not
        null or dstssid is not null) and srcmac is not null group by srcintf, srcssid, osname,
        osversion, devtype, srcmac order by subtotal desc)### t where devtype is not null
    group by devtype order by totalnum desc

```

| Dataset Name         | Description          | Log Category |
|----------------------|----------------------|--------------|
| wifi-Overall-Traffic | WiFi overall traffic | traffic      |

```

select
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and (
        srcssid is not null
        or dstssid is not null
    )

```

| Dataset Name             | Description              | Log Category |
|--------------------------|--------------------------|--------------|
| wifi-Num-Distinct-Client | WiFi num distinct client | traffic      |

```
select
  count(distinct srcmac) as totalnum
from
  ###(select srcintf, srcssid, osname, osversion, devtype, srcmac, count(*) as subtotal from
    $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (srcssid is not
    null or dstssid is not null) and srcmac is not null group by srcintf, srcssid, osname,
    osversion, devtype, srcmac order by subtotal desc)### t
```

| Dataset Name                            | Description                          | Log Category |
|-----------------------------------------|--------------------------------------|--------------|
| Top30-Subnets-by-Bandwidth-and-Sessions | Top subnets by application bandwidth | traffic      |

```
select
  ip_subnet(`srcip`) as subnet,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth,
  sum(
    coalesce(rcvdbyte, 0)
  ) as traffic_in,
  sum(
    coalesce(sentbyte, 0)
  ) as traffic_out,
  count(*) as sessions
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  subnet
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc
```

| Dataset Name                           | Description                   | Log Category |
|----------------------------------------|-------------------------------|--------------|
| Top30-Subnets-by-Application-Bandwidth | Top applications by bandwidth | traffic      |

```
select
  ip_subnet(`srcip`) as subnet,
  app_group_name(app) as app_group,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(app) is not null
group by
  subnet,
```

```

    app_group
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                          | Description                  | Log Category |
|---------------------------------------|------------------------------|--------------|
| Top30-Subnets-by-Application-Sessions | Top applications by sessions | traffic      |

```

select
    ip_subnet(`srcip`) as subnet,
    app_group_name(app) as app_group,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(app) is not null
group by
    subnet,
    app_group
order by
    sessions desc

```

| Dataset Name                       | Description                                | Log Category |
|------------------------------------|--------------------------------------------|--------------|
| Top30-Subnets-by-Website-Bandwidth | Top websites and web category by bandwidth | traffic      |

```

select
    subnet,
    website,
    sum(bandwidth) as bandwidth
from
    ###(select ip_subnet(`srcip`) as subnet, hostname as website, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-traffic where $filter and hostname is
    not null and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is
    null or logver<52) and (hostname is not null or utmevent in ('webfilter', 'banned-
    word', 'web-content', 'command-block', 'script-filter')))) group by subnet, website
    order by bandwidth desc)### t group by subnet, website order by bandwidth desc

```

| Dataset Name                  | Description                               | Log Category |
|-------------------------------|-------------------------------------------|--------------|
| Top30-Subnets-by-Website-Hits | Top websites and web category by sessions | traffic      |

```

select
    subnet,
    website,
    sum(hits) as hits
from
    (
        ###(select ip_subnet(`srcip`) as subnet, hostname as website, count(*) as hits from $log-
        traffic where $filter and hostname is not null and logid_to_int(logid) not in (4, 7,
        14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block',

```

```
'script-filter') group by subnet, website order by hits desc)### union all ###
(select ip_subnet(`srcip`) as subnet, hostname as website, count(*) as hits from
$log-webfilter where $filter and hostname is not null and (eventtype is null or
logver>=52) group by subnet, website order by hits desc)###) t group by subnet,
website order by hits desc
```

| Dataset Name                               | Description            | Log Category |
|--------------------------------------------|------------------------|--------------|
| Top30-Subnets-with-Top10-User-by-Bandwidth | Top users by bandwidth | traffic      |

```
select
  ip_subnet(`srcip`) as subnet,
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and srcip is not null
group by
  subnet,
  user_src
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc
```

| Dataset Name                              | Description           | Log Category |
|-------------------------------------------|-----------------------|--------------|
| Top30-Subnets-with-Top10-User-by-Sessions | Top users by sessions | traffic      |

```
select
  ip_subnet(`srcip`) as subnet,
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as sessions
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  subnet,
  user_src
```



```
order by
  sessions desc
```

| Dataset Name                                      | Description                                      | Log Category |
|---------------------------------------------------|--------------------------------------------------|--------------|
| app-Top-20-Category-and-Applications-by-Bandwidth | Top category and applications by bandwidth usage | traffic      |

```
select
  appcat,
  app,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  appcat,
  app
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc
```

| Dataset Name                                    | Description                              | Log Category |
|-------------------------------------------------|------------------------------------------|--------------|
| app-Top-20-Category-and-Applications-by-Session | Top category and applications by session | traffic      |

```
select
  appcat,
  app,
  count(*) as sessions
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  appcat,
  app
order by
  sessions desc
```

| Dataset Name                                  | Description                                 | Log Category |
|-----------------------------------------------|---------------------------------------------|--------------|
| app-Top-500-Allowed-Applications-by-Bandwidth | Top allowed applications by bandwidth usage | traffic      |

```
select
  from_itime(itime) as timestamp,
  coalesce(
```

```

        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    appcat,
    app,
    coalesce(
        root_domain(hostname),
        ipstr(dstip)
    ) as destination,
    sum(
        coalesce(`sentbyte`, 0) + coalesce(`rcvdbyte`, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and action in ('accept', 'close', 'timeout')
group by
    timestamp,
    user_src,
    appcat,
    app,
    destination
order by
    bandwidth desc

```

| Dataset Name                                | Description                         | Log Category |
|---------------------------------------------|-------------------------------------|--------------|
| app-Top-500-Blocked-Applications-by-Session | Top blocked applications by session | traffic      |

```

select
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    appcat,
    app,
    count(*) as sessions
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and action in (
        'deny', 'blocked', 'reset', 'dropped'
    )
group by
    user_src,
    appcat,
    app
order by
    sessions desc

```

| Dataset Name                      | Description                       | Log Category |
|-----------------------------------|-----------------------------------|--------------|
| web-Detailed-Website-Browsing-Log | Web detailed website browsing log | traffic      |

```
select
    from_dtime(dtime) as timestamp,
    catdesc,
    hostname as website,
    status,
    sum(bandwidth) as bandwidth
from
    ###(select dtime, catdesc, hostname, cast(utmaction as text) as status, sum(coalesce
        (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-traffic where $filter and
        hostname is not null and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or
        ((logver is null or logver<52) and (hostname is not null or utmevent in ('webfilter',
        'banned-word', 'web-content', 'command-block', 'script-filter')))) group by dtime,
        catdesc, hostname, utmaction order by dtime desc)### t group by dtime, catdesc,
        website, status order by dtime desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| web-Hourly-Category-and-Website-Hits-Action | Web hourly category and website hits action | traffic      |

```
select
    hod,
    website,
    sum(hits) as hits
from
    (
        ###(select $hour_of_day as hod, (hostname || ' (' || coalesce(`catdesc`, 'Unknown') ||
        ')') as website, count(*) as hits from $log-traffic where $filter and hostname is
        not null and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter',
        'banned-word', 'web-content', 'command-block', 'script-filter') group by hod,
        website order by hod, hits desc)### union all ###(select $hour_of_day as hod,
        (hostname || ' (' || coalesce(`catdesc`, 'Unknown') || ')') as website , count(*) as
        hits from $log-webfilter where $filter and hostname is not null and (eventtype is
        null or logver>=52) group by hod, website order by hod, hits desc)###) t group by
        hod, website order by hod, hits desc
```

| Dataset Name                                  | Description                                      | Log Category |
|-----------------------------------------------|--------------------------------------------------|--------------|
| web-Top-20-Category-and-Websites-by-Bandwidth | Web top category and websites by bandwidth usage | traffic      |

```
select
    website,
    catdesc,
    sum(bandwidth) as bandwidth
from
    ###(select hostname as website, catdesc, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
    bandwidth from $log-traffic where $filter and hostname is not null and logid_to_int
    (logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and
    (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content',
    'command-block', 'script-filter')))) group by website, catdesc order by bandwidth
    desc)### t group by website, catdesc order by bandwidth desc
```

| Dataset Name                                | Description                              | Log Category |
|---------------------------------------------|------------------------------------------|--------------|
| web-Top-20-Category-and-Websites-by-Session | Web top category and websites by session | traffic      |

```
select
  website,
  catdesc,
  sum(sessions) as hits
from
  (
    ###(select hostname as website, catdesc, count(*) as sessions from $log-traffic where
      $filter and hostname is not null and logid_to_int(logid) not in (4, 7, 14, 20) and
      utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-
      filter') group by website, catdesc order by sessions desc)### union all ###(select
      hostname as website, catdesc, count(*) as sessions from $log-webfilter where $filter
      and hostname is not null and (eventtype is null or logver>=52) group by hostname,
      catdesc order by sessions desc)###) t group by website, catdesc order by hits desc
```

| Dataset Name                              | Description                                 | Log Category |
|-------------------------------------------|---------------------------------------------|--------------|
| web-Top-500-Website-Sessions-by-Bandwidth | Web top website sessions by bandwidth usage | traffic      |

```
select
  from_dtime(dtime) as timestamp,
  user_src,
  website,
  catdesc,
  cast(
    sum(dura)/ 60 as decimal(18, 2)
  ) as dura,
  sum(bandwidth) as bandwidth
from
  ###(select dtime, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
    user_src, hostname as website, catdesc, sum(coalesce(duration, 0)) as dura, sum
    (coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter and
    hostname is not null and logid_to_int(logid) not in (4, 7, 14, 20) and action in
    ('accept','close','timeout') group by dtime, user_src, website, catdesc having sum
    (coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t group by
    dtime, user_src, website, catdesc order by bandwidth desc
```

| Dataset Name                                  | Description                                     | Log Category |
|-----------------------------------------------|-------------------------------------------------|--------------|
| web-Top-500-User-Visted-Websites-by-Bandwidth | Web top user visted websites by bandwidth usage | traffic      |

```
select
  website,
  catdesc,
  sum(bandwidth) as bandwidth
from
  ###(select hostname as website, catdesc, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
    bandwidth from $log-traffic where $filter and hostname is not null and logid_to_int
    (logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and
    (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content',
    'command-block', 'script-filter')))) group by hostname, catdesc having sum(coalesce
```

```
(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t group by website,
catdesc order by bandwidth desc
```

| Dataset Name                                | Description                             | Log Category |
|---------------------------------------------|-----------------------------------------|--------------|
| web-Top-500-User-Visted-Websites-by-Session | Web top user visted websites by session | traffic      |

```
select
    website,
    catdesc,
    sum(sessions) as sessions
from
    (
        ###(select hostname as website, catdesc, count(*) as sessions from $log-traffic where
        $filter and hostname is not null and logid_to_int(logid) not in (4, 7, 14, 20) and
        utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-
        filter') group by hostname, catdesc order by sessions desc)### union all ###(select
        hostname as website, catdesc, count(*) as sessions from $log-webfilter where $filter
        and hostname is not null and (eventtype is null or logver>=52) group by hostname,
        catdesc order by sessions desc)###) t group by website, catdesc order by sessions
        desc
```

| Dataset Name                  | Description               | Log Category |
|-------------------------------|---------------------------|--------------|
| fct-Installed-Feature-Summary | Installed Feature Summary | fct-event    |

```
select
    clientfeature,
    count(*) as totalnum
from
    $log
where
    $filter
    and clientfeature is not null
group by
    clientfeature
order by
    totalnum desc
```

| Dataset Name                   | Description  | Log Category |
|--------------------------------|--------------|--------------|
| fct-Device-by-Operating-System | Device by OS | fct-event    |

```
select
    os,
    count(distinct hostname) as totalnum
from
    ###(select hostname, os, fctver from $log where $filter group by hostname, os, fctver)### t
    where os is not null group by os order by totalnum desc
```

| Dataset Name                      | Description         | Log Category |
|-----------------------------------|---------------------|--------------|
| fct-Installed-FortiClient-Version | FortiClient Version | fct-event    |

```
select
    fctver as fctver_short,
    count(distinct hostname) as totalnum
from
```

```
###(select hostname, os, fctver from $log where $filter group by hostname, os, fctver)### t
where fctver is not null group by fctver order by totalnum desc
```

| Dataset Name                    | Description                 | Log Category |
|---------------------------------|-----------------------------|--------------|
| fct-Endpoint-Profile-Deployment | Endpoint Profile Deployment | fct-event    |

```
select
  profile,
  count(distinct hostname) as totalnum
from
  ###(select hostname, coalesce(nullifna(usingpolicy), 'No Profile') as profile from $log
  where $filter group by hostname, profile)### t group by profile order by totalnum desc
```

| Dataset Name       | Description    | Log Category |
|--------------------|----------------|--------------|
| fct-Client-Summary | Client Summary | fct-event    |

```
select
  hostname,
  deviceip,
  os,
  profile,
  hostuser,
  fctver
from
  ###(select hostname, deviceip, os, nullifna(usingpolicy) as profile, nullifna(`user`) as
  hostuser, fctver from $log where $filter and os is not null group by hostname,
  deviceip, os, profile, hostuser, fctver)### t group by hostname, deviceip, os,
  profile, hostuser, fctver
```

| Dataset Name            | Description         | Log Category |
|-------------------------|---------------------|--------------|
| fct-Total-Threats-Found | Total Threats Found | fct-traffic  |

```
select
  utmevent_s as utmevent,
  count(distinct threat) as totalnum
from
  ###(select coalesce(nullifna(lower(utmevent)), 'unknown') as utmevent_s, threat from $log
  where $filter and threat is not null and utmaction='blocked' group by utmevent_s,
  threat)### t group by utmevent order by totalnum desc
```

| Dataset Name                  | Description             | Log Category |
|-------------------------------|-------------------------|--------------|
| fct-Top10-AV-Threats-Detected | Top AV Threats Detected | fct-traffic  |

```
select
  threat,
  sum(totalnum) as totalnum
from
  (
    ###(select threat, count(*) as totalnum from $log-fct-traffic where $filter and threat is
    not null and lower(utmevent)='antivirus' group by threat order by totalnum desc)###
    union all ###(select virus as threat, count(*) as totalnum from $log-fct-event where
    $filter and virus is not null group by threat order by totalnum desc)###) t group by
    threat order by totalnum desc
```

| Dataset Name                           | Description                      | Log Category |
|----------------------------------------|----------------------------------|--------------|
| fct-Top10-Infected-Devices-with-Botnet | Top Infected Devices with Botnet | fct-traffic  |

```
select
    hostname,
    count(*) as totalnum
from
    $log
where
    $filter
    and hostname is not null
    and lower(utmevent) in ('webfilter', 'appfirewall')
    and lower(threat) like '%botnet%'
group by
    hostname
order by
    totalnum desc
```

| Dataset Name                                  | Description                             | Log Category |
|-----------------------------------------------|-----------------------------------------|--------------|
| fct-Top10-Infected-Devices-with-Virus-Malware | Top Infected Devices with Virus Malware | fct-traffic  |

```
select
    hostname,
    sum(totalnum) as totalnum
from
    (
        ###(select hostname, count(*) as totalnum from $log-fct-traffic where $filter and
            hostname is not null and lower(utmevent) in ('antivirus', 'antimalware') group by
            hostname order by totalnum desc)### union all ###(select hostname, count(*) as
            totalnum from $log-fct-event where $filter and hostname is not null and virus is not
            null group by hostname order by totalnum desc)###) t group by hostname order by
            totalnum desc
```

| Dataset Name                             | Description                              | Log Category |
|------------------------------------------|------------------------------------------|--------------|
| fct-All-Antivirus-Antimalware-Detections | All Antivirus and Antimalware Detections | fct-traffic  |

```
select
    threat,
    hostname,
    hostuser,
    utmaction
from
    (
        ###(select threat, hostname, coalesce(nullifna(`user`), 'Unknown') as hostuser, utmaction
            from $log-fct-traffic where $filter and lower(utmevent) in ('antivirus',
            'antimalware') group by threat, hostname, hostuser, utmaction order by threat)###
        union all ###(select virus as threat, hostname, coalesce(nullifna(`user`),
            'Unknown') as hostuser, action as utmaction from $log-fct-event where $filter and
            virus is not null group by threat, hostname, hostuser, utmaction order by
            threat)###) t group by threat, hostname, hostuser, utmaction order by threat
```

| Dataset Name              | Description           | Log Category |
|---------------------------|-----------------------|--------------|
| fct-Web-Filter-Violations | Web Filter Violations | fct-traffic  |

```
select
    remotename,
    hostname,
    coalesce(
        nullifna(`user`),
        'Unknown'
    ) as hostuser,
    utmaction,
    count(*) as totalnum
from
    $log
where
    $filter
    and lower(utmevent)= 'webfilter'
    and utmaction = 'blocked'
group by
    remotename,
    hostname,
    hostuser,
    utmaction
order by
    totalnum desc
```

| Dataset Name             | Description          | Log Category |
|--------------------------|----------------------|--------------|
| fct-Application-Firewall | Application Firewall | fct-traffic  |

```
select
    threat,
    hostname,
    hostuser,
    utmaction
from
    ###(select threat, hostname, coalesce(nullifna(`user`), 'Unknown') as hostuser, utmaction
        from $log where $filter and lower(utmevent)='appfirewall' and utmaction='blocked'
        group by threat, hostname, hostuser, utmaction)### t1 left join app_mdata t2 on
    t1.threat=t2.name group by threat, risk, hostname, hostuser, utmaction order by risk
    desc
```

| Dataset Name          | Description       | Log Category |
|-----------------------|-------------------|--------------|
| fct-Errors-and-Alerts | Errors and Alerts | fct-event    |

```
select
    msg,
    hostname,
    coalesce(
        nullifna(`user`),
        'Unknown'
    ) as hostuser
from
    $log
where
```



```

$filter
and level in ('error', 'alert')
group by
  msg,
  hostname,
  hostuser

```

| Dataset Name               | Description            | Log Category |
|----------------------------|------------------------|--------------|
| fct-Threats-by-Top-Devices | Threats by Top Devices | fct-traffic  |

```

select
  hostname,
  count(*) as totalnum
from
  $log
where
  $filter
  and hostname is not null
  and utmevent is not null
  and utmaction = 'blocked'
group by
  hostname
order by
  totalnum desc

```

| Dataset Name                    | Description                             | Log Category |
|---------------------------------|-----------------------------------------|--------------|
| fct-vuln-Device-Vulnerabilities | Vulnerabilities Detected by User/Device | fct-netscan  |

```

select
  vulnseverity,
  count(distinct vulnname) as totalnum
from
  ###(select vulnseverity, vulnname from $log where $filter and nullifna(vulnseverity) is not
  null and nullifna(vulnname) is not null group by vulnseverity, vulnname)### t group by
  vulnseverity order by totalnum desc

```

| Dataset Name                           | Description                               | Log Category |
|----------------------------------------|-------------------------------------------|--------------|
| fct-vuln-Category-Type-Vulnerabilities | Vulnerabilities Detected by Category Type | fct-netscan  |

```

select
  vulncat,
  count(distinct vulnname) as totalnum
from
  ###(select vulncat, vulnname from $log where $filter and nullifna(vulncat) is not null and
  nullifna(vulnname) is not null group by vulncat, vulnname)### t group by vulncat order
  by totalnum desc

```

| Dataset Name                   | Description                      | Log Category |
|--------------------------------|----------------------------------|--------------|
| fct-vuln-Vulnerabilities-by-OS | Fortidient Vulnerabilities by OS | fct-netscan  |

```

select
  os,
  count(distinct vulnname) as totalnum
from

```

```
###(select os, vulnname from $log where $filter and nullifna(os) is not null and nullifna
(vulnname) is not null group by os, vulnname)### t group by os order by totalnum desc
```

| Dataset Name                           | Description                                   | Log Category |
|----------------------------------------|-----------------------------------------------|--------------|
| fct-vuln-Vulnerabilities-by-Risk-Level | Number Vulnerability by Device and Risk Level | fct-netscan  |

```
select
  vulnseverity,
  (
    case when vulnseverity = 'Critical' then 5 when vulnseverity = 'High' then 4 when
      vulnseverity = 'Medium' then 3 when vulnseverity = 'Low' then 2 when vulnseverity =
        'Info' then 1 else 0 end
  ) as severity_number,
  count(distinct vulnname) as vuln_num,
  count(distinct devid) as dev_num
from
  ###(select vulnseverity, devid, vulnname from $log where $filter and nullifna(vulnseverity)
    is not null and nullifna(vulnname) is not null and nullifna(devid) is not null group
    by vulnseverity, vulnname, devid)### t group by vulnseverity order by dev_num desc,
    severity_number desc
```

| Dataset Name                  | Description                                   | Log Category |
|-------------------------------|-----------------------------------------------|--------------|
| fct-vuln-Device-by-Risk-Level | Number Vulnerability by Device and Risk Level | fct-netscan  |

```
select
  vulnseverity,
  (
    case when vulnseverity = 'Critical' then 5 when vulnseverity = 'High' then 4 when
      vulnseverity = 'Medium' then 3 when vulnseverity = 'Low' then 2 when vulnseverity =
        'Info' then 1 else 0 end
  ) as severity_number,
  count(distinct vulnname) as vuln_num,
  count(distinct devid) as dev_num
from
  ###(select vulnseverity, devid, vulnname from $log where $filter and nullifna(vulnseverity)
    is not null and nullifna(vulnname) is not null and nullifna(devid) is not null group
    by vulnseverity, vulnname, devid)### t group by vulnseverity order by dev_num desc,
    severity_number desc
```

| Dataset Name                 | Description         | Log Category |
|------------------------------|---------------------|--------------|
| fct-vuln-Vulnerability-Trend | Vulnerability Trend | fct-netscan  |

```
select
  $flex_timescale(timestamp) as hodex,
  count(distinct vulnname) as total_num
from
  ###(select $flex_timestamp as timestamp, vulnname from $log where $filter and nullifna
    (vulnname) is not null group by timestamp, vulnname order by timestamp desc)### t
    group by hodex order by hodex
```

| Dataset Name                          | Description                                         | Log Category |
|---------------------------------------|-----------------------------------------------------|--------------|
| fct-vuln-Details-by-Risk-Level-Device | Vulnerability Details for Each Risk Level by Device | fct-netscan  |

```
select
  hostname,
```

```

os,
vulnseverity,
count(distinct vulnname) as vuln_num,
count(distinct products) as products,
count(distinct cve_id) as cve_count
from
###(select hostname, os, vulnname, vulnseverity, vulnid from $log where $filter and vulnname
is not null and vulnseverity is not null and hostname is not null group by hostname,
os, vulnname, vulnseverity, vulnid)### t1 left join fct_mdata t2 on
t1.vulnid=t2.vid::int group by hostname, os, vulnseverity order by vuln_num desc,
hostname

```

| Dataset Name                    | Description                          | Log Category |
|---------------------------------|--------------------------------------|--------------|
| fct-vuln-Details-by-Device-User | Vulnerability Details by Device User | fct-netscan  |

```

select
hostname,
(
,
' || vulnname || '
,
) as vulnname,
vulnseverity,
vulncat,
string_agg(distinct products, ',') as products,
string_agg(distinct cve_id, ',') as cve_list,
(
'Remediation Info'
) as vendor_link
from
###(select hostname, vulnname, vulnseverity, vulncat, vulnid from $log where $filter and
vulnname is not null and hostname is not null group by hostname, vulnname,
vulnseverity, vulncat, vulnid)### t1 inner join fct_mdata t2 on t1.vulnid=t2.vid::int
group by hostname, vulnname, vulnseverity, vulncat order by hostname

```

| Dataset Name                   | Description                                 | Log Category |
|--------------------------------|---------------------------------------------|--------------|
| fct-vuln-Remediation-by-Device | Remediate The Vulnerability Found on Device | fct-netscan  |

```

select
hostname,
(
,
' || vulnname || '
,
) as vulnname,
vulnseverity,
string_agg(distinct vendor_link, ',') as vendor_link
from
###(select hostname, vulnname, vulnseverity, vulnid from $log where $filter and vulnname is
not null and hostname is not null group by hostname, vulnname, vulnseverity,
vulnid)### t1 inner join fct_mdata t2 on t1.vulnid=t2.vid::int group by hostname,
vulnname, vulnseverity order by vulnseverity, hostname

```

| Dataset Name                          | Description                  | Log Category |
|---------------------------------------|------------------------------|--------------|
| fct-vuln-Remediation-by-Vulnerability | Remediation by Vulnerability | fct-netscan  |

```

select
  (
    ' || vulnname || '
    ' || 'Description
' || description || '

' || 'Affected Products
' || products || '

' || 'Impact
' || impact || '

' || 'Recommended Actions
' || vendor_link || '

,
  ) as remediation
from
  ###(select devid, vulnname, vulnseverity, (case vulnseverity when 'low' then 1 when 'info'
    then 2 when 'medium' then 3 when 'high' then 4 when 'critical' then 5 else 0 end) as
    severity_level, vulnid from $log where $filter and vulnname is not null group by
    devid, vulnname, vulnseverity, severity_level, vulnid order by severity_level)### t1
    inner join fct_mdata t2 on t1.vulnid=t2.vid::int group by remediation order by
    remediation

```

| Dataset Name                                       | Description                               | Log Category |
|----------------------------------------------------|-------------------------------------------|--------------|
| fct-vuln-Top-30-Targeted-High-Risk-Vulnerabilities | Top 30 Targeted High Risk Vulnerabilities | fct-netscan  |

```

select
  t3.cve_id,
  score,
  string_agg(distinct products, ',') as products,
  (
    'Mitigation Information'
  ) as vendor_link
from
  ###(select vulnid from $log where $filter group by vulnid)### t1 inner join fct_mdata t2 on
    t2.vid=t1.vulnid::text inner join fct_cve_score t3 on strpos(t2.cve_id, t3.cve_id) > 0
    group by t3.cve_id, score order by score desc, t3.cve_id

```

| Dataset Name       | Description                     | Log Category |
|--------------------|---------------------------------|--------------|
| os-Detect-OS-Count | Detected operation system count | traffic      |

```

select
  (
    coalesce(osname, 'Unknown')
  ) as os,
  count(*) as totalnum
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  os
order by
  totalnum desc

```

| Dataset Name                        | Description                                 | Log Category |
|-------------------------------------|---------------------------------------------|--------------|
| drilldown-Top-App-By-Sessions-Table | Drilldown top applications by session count | traffic      |

```

select
  appid,
  app,
  sum(sessions) as sessions
from
  ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
  user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
  (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
  and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
  srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
  nullifna(app) is not null group by appid, app order by sessions desc

```

| Dataset Name                      | Description                                 | Log Category |
|-----------------------------------|---------------------------------------------|--------------|
| drilldown-Top-App-By-Sessions-Bar | Drilldown top applications by session count | traffic      |

```

select
  appid,
  app,
  sum(sessions) as sessions
from
  ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
  user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
  (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
  and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
  srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
  nullifna(app) is not null group by appid, app order by sessions desc

```

| Dataset Name                         | Description                                   | Log Category |
|--------------------------------------|-----------------------------------------------|--------------|
| drilldown-Top-App-By-Bandwidth-Table | Drilldown top applications by bandwidth usage | traffic      |

```

select
  appid,
  app,
  sum(bandwidth) as bandwidth
from

```

```
###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
nullifna(app) is not null group by appid, app having sum(bandwidth)>0 order by
bandwidth desc
```

| Dataset Name                       | Description                                   | Log Category |
|------------------------------------|-----------------------------------------------|--------------|
| drilldown-Top-App-By-Bandwidth-Bar | Drilldown top applications by bandwidth usage | traffic      |

```
select
  appid,
  app,
  sum(bandwidth) as bandwidth
from
  ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
  user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
  (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
  and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
  srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
  nullifna(app) is not null group by appid, app having sum(bandwidth)>0 order by
  bandwidth desc
```

| Dataset Name                                | Description                                | Log Category |
|---------------------------------------------|--------------------------------------------|--------------|
| drilldown-Top-Destination-By-Sessions-Table | Drilldown top destination by session count | traffic      |

```
select
  dstip,
  sum(sessions) as sessions
from
  ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
  user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
  (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
  and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
  srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
  dstip is not null group by dstip order by sessions desc
```

| Dataset Name                                 | Description                                  | Log Category |
|----------------------------------------------|----------------------------------------------|--------------|
| drilldown-Top-Destination-By-Bandwidth-Table | Drilldown top destination by bandwidth usage | traffic      |

```
select
  dstip,
  sum(bandwidth) as bandwidth
from
  ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
  user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
  (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
  and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
  srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
  dstip is not null group by dstip having sum(bandwidth)>0 order by bandwidth desc
```

| Dataset Name                         | Description                         | Log Category |
|--------------------------------------|-------------------------------------|--------------|
| drilldown-Top-User-By-Sessions-Table | Drilldown top user by session count | traffic      |

```
select
    user_src,
    sum(sessions) as sessions
from
    ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
    user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
    and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
    srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
    user_src is not null group by user_src order by sessions desc
```

| Dataset Name                       | Description                         | Log Category |
|------------------------------------|-------------------------------------|--------------|
| drilldown-Top-User-By-Sessions-Bar | Drilldown top user by session count | traffic      |

```
select
    user_src,
    sum(sessions) as sessions
from
    ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
    user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
    and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
    srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
    user_src is not null group by user_src order by sessions desc
```

| Dataset Name                          | Description                           | Log Category |
|---------------------------------------|---------------------------------------|--------------|
| drilldown-Top-User-By-Bandwidth-Table | Drilldown top user by bandwidth usage | traffic      |

```
select
    user_src,
    sum(bandwidth) as bandwidth
from
    ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
    user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
    and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
    srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
    user_src is not null group by user_src having sum(bandwidth)>0 order by bandwidth desc
```

| Dataset Name                        | Description                           | Log Category |
|-------------------------------------|---------------------------------------|--------------|
| drilldown-Top-User-By-Bandwidth-Bar | Drilldown top user by bandwidth usage | traffic      |

```
select
    user_src,
    sum(bandwidth) as bandwidth
from
    ###(select appid, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as
    user_src, dstip, srcintf, dstintf, policyid, count(*) as sessions, sum(coalesce
    (sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var
    and logid_to_int(logid) not in (4, 7, 14, 20) group by appid, app, user_src, dstip,
```

```
srcintf, dstintf, policyid order by sessions desc)### t where $filter-drilldown and
user_src is not null group by user_src having sum(bandwidth)>0 order by bandwidth desc
```

| Dataset Name                          | Description                     | Log Category |
|---------------------------------------|---------------------------------|--------------|
| drilldown-Top-Web-User-By-Visit-Table | Drilldown top web user by visit | traffic      |

```
select
  user_src,
  sum(requests) as visits
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
      src, hostname, count(*) as requests from $log-traffic where $filter-exclude-var and
      logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-
      word', 'web-content', 'command-block', 'script-filter') and hostname is not null
      group by user_src, hostname order by requests desc)### union all ###(select coalesce
      (nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, count(*) as requests from
      $log-webfilter where $filter-exclude-var and (eventtype is null or logver>=52) and
      hostname is not null group by user_src, hostname order by requests desc)###) t where
      $filter-drilldown and user_src is not null group by user_src order by visits desc
```

| Dataset Name                        | Description                     | Log Category |
|-------------------------------------|---------------------------------|--------------|
| drilldown-Top-Web-User-By-Visit-Bar | Drilldown top web user by visit | traffic      |

```
select
  user_src,
  sum(requests) as visits
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
      src, hostname, count(*) as requests from $log-traffic where $filter-exclude-var and
      logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-
      word', 'web-content', 'command-block', 'script-filter') and hostname is not null
      group by user_src, hostname order by requests desc)### union all ###(select coalesce
      (nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, count(*) as requests from
      $log-webfilter where $filter-exclude-var and (eventtype is null or logver>=52) and
      hostname is not null group by user_src, hostname order by requests desc)###) t where
      $filter-drilldown and user_src is not null group by user_src order by visits desc
```

| Dataset Name                           | Description                      | Log Category |
|----------------------------------------|----------------------------------|--------------|
| drilldown-Top-Website-By-Request-Table | Drilldown top website by request | traffic      |

```
select
  hostname,
  sum(requests) as visits
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
      src, hostname, count(*) as requests from $log-traffic where $filter-exclude-var and
      logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-
      word', 'web-content', 'command-block', 'script-filter') and hostname is not null
      group by user_src, hostname order by requests desc)### union all ###(select coalesce
      (nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, count(*) as requests from
      $log-webfilter where $filter-exclude-var and (eventtype is null or logver>=52) and
```



hostname is not null group by user\_src, hostname order by requests desc)###) t where \$filter-drilldown and hostname is not null group by hostname order by visits desc

| Dataset Name                         | Description                      | Log Category |
|--------------------------------------|----------------------------------|--------------|
| drilldown-Top-Website-By-Request-Bar | Drilldown top website by request | traffic      |

```
select
    hostname,
    sum(requests) as visits
from
    (
        ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_src, hostname, count(*) as requests from $log-traffic where $filter-exclude-var and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-filter') and hostname is not null group by user_src, hostname order by requests desc)### union all ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, count(*) as requests from $log-webfilter where $filter-exclude-var and (eventtype is null or logver>=52) and hostname is not null group by user_src, hostname order by requests desc)###) t where $filter-drilldown and hostname is not null group by hostname order by visits desc
```

| Dataset Name                         | Description                          | Log Category |
|--------------------------------------|--------------------------------------|--------------|
| drilldown-Top-Email-Sender-By-Volume | Drilldown top email sender by volume | traffic      |

```
select
    sender,
    sum(bandwidth) as volume
from
    (
        ###(select sender, recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-traffic where $filter-exclude-var and logid_to_int(logid) not in (4, 7, 14, 20) and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') and utmevent in ('general-email-log', 'spamfilter') group by sender, recipient order by requests desc)### union all ###(select `from` as sender, `to` as recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-emailfilter where $filter-exclude-var and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') and eventtype is null group by `from`, `to` order by requests desc)###) t where $filter-drilldown and sender is not null group by sender having sum(bandwidth)>0 order by volume desc
```

| Dataset Name                                 | Description                                  | Log Category |
|----------------------------------------------|----------------------------------------------|--------------|
| drilldown-Top-Email-Send-Recipient-By-Volume | Drilldown top email send recipient by volume | traffic      |

```
select
    recipient,
    sum(bandwidth) as volume
from
    (
        ###(select sender, recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-traffic where $filter-exclude-var and logid_to_int(logid) not in (4, 7, 14, 20) and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') and utmevent in ('general-email-log', 'spamfilter') group by sender, recipient order by requests desc)### union all ###
```

```
(select `from` as sender, `to` as recipient, count(*) as requests, sum(coalesce
(sentbyte, 0)+coalesce(rcvbyte, 0)) as bandwidth from $log-emailfilter where
$filter-exclude-var and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps',
'SMTPS', '465/tcp') and eventtype is null group by `from`, `to` order by requests
desc)###) t where $filter-drilldown and recipient is not null group by recipient
having sum(bandwidth)>0 order by volume desc
```

| Dataset Name                        | Description                         | Log Category |
|-------------------------------------|-------------------------------------|--------------|
| drilldown-Top-Email-Sender-By-Count | Drilldown top email sender by count | traffic      |

```
select
  sender,
  sum(requests) as requests
from
  (
    ###(select sender, recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
    (rcvbyte, 0)) as bandwidth from $log-traffic where $filter-exclude-var and logid_
    to_int(logid) not in (4, 7, 14, 20) and service in ('smtp', 'SMTP', '25/tcp',
    '587/tcp', 'smtps', 'SMTPS', '465/tcp') and utmevent in ('general-email-log',
    'spamfilter') group by sender, recipient order by requests desc)### union all ###
    (select `from` as sender, `to` as recipient, count(*) as requests, sum(coalesce
    (sentbyte, 0)+coalesce(rcvbyte, 0)) as bandwidth from $log-emailfilter where
    $filter-exclude-var and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps',
    'SMTPS', '465/tcp') and eventtype is null group by `from`, `to` order by requests
    desc)###) t where $filter-drilldown and sender is not null group by sender order by
    requests desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| drilldown-Top-Email-Send-Recipient-By-Count | Drilldown top email send recipient by count | traffic      |

```
select
  recipient,
  sum(requests) as requests
from
  (
    ###(select sender, recipient, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
    (rcvbyte, 0)) as bandwidth from $log-traffic where $filter-exclude-var and logid_
    to_int(logid) not in (4, 7, 14, 20) and service in ('smtp', 'SMTP', '25/tcp',
    '587/tcp', 'smtps', 'SMTPS', '465/tcp') and utmevent in ('general-email-log',
    'spamfilter') group by sender, recipient order by requests desc)### union all ###
    (select `from` as sender, `to` as recipient, count(*) as requests, sum(coalesce
    (sentbyte, 0)+coalesce(rcvbyte, 0)) as bandwidth from $log-emailfilter where
    $filter-exclude-var and service in ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps',
    'SMTPS', '465/tcp') and eventtype is null group by `from`, `to` order by requests
    desc)###) t where $filter-drilldown and recipient is not null group by recipient
    order by requests desc
```

| Dataset Name                            | Description                            | Log Category |
|-----------------------------------------|----------------------------------------|--------------|
| drilldown-Top-Email-Recipient-By-Volume | Drilldown top email receiver by volume | traffic      |

```
select
  recipient,
  sum(bandwidth) as volume
from
```

```
(
  ###(select recipient, sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
    (rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var and logid_to_int
    (logid) not in (4, 7, 14, 20) and service in ('pop3', 'POP3', '110/tcp', 'imap',
    'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S', '995/tcp') and
    utmevent in ('general-email-log', 'spamfilter') group by recipient, sender order by
    requests desc)### union all ###(select `to` as recipient, `from` as sender, count(*)
    as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from
    $log-emailfilter where $filter-exclude-var and service in ('pop3', 'POP3',
    '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S',
    '995/tcp') and eventtype is null group by `to`, `from` order by requests desc)###) t
  where $filter-drilldown and recipient is not null group by recipient having sum
    (bandwidth)>0 order by volume desc
```

| Dataset Name                                 | Description                                  | Log Category |
|----------------------------------------------|----------------------------------------------|--------------|
| drilldown-Top-Email-Receive-Sender-By-Volume | Drilldown top email receive sender by volume | traffic      |

```
select
  sender,
  sum(bandwidth) as volume
from
  (
    ###(select recipient, sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
      (rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var and logid_to_int
      (logid) not in (4, 7, 14, 20) and service in ('pop3', 'POP3', '110/tcp', 'imap',
      'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S', '995/tcp') and
      utmevent in ('general-email-log', 'spamfilter') group by recipient, sender order by
      requests desc)### union all ###(select `to` as recipient, `from` as sender, count(*)
      as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from
      $log-emailfilter where $filter-exclude-var and service in ('pop3', 'POP3',
      '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S',
      '995/tcp') and eventtype is null group by `to`, `from` order by requests desc)###) t
    where $filter-drilldown and sender is not null group by sender having sum
      (bandwidth)>0 order by volume desc
```

| Dataset Name                           | Description                           | Log Category |
|----------------------------------------|---------------------------------------|--------------|
| drilldown-Top-Email-Recipient-By-Count | Drilldown top email receiver by count | traffic      |

```
select
  recipient,
  sum(requests) as requests
from
  (
    ###(select recipient, sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
      (rcvdbyte, 0)) as bandwidth from $log where $filter-exclude-var and logid_to_int
      (logid) not in (4, 7, 14, 20) and service in ('pop3', 'POP3', '110/tcp', 'imap',
      'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S', '995/tcp') and
      utmevent in ('general-email-log', 'spamfilter') group by recipient, sender order by
      requests desc)### union all ###(select `to` as recipient, `from` as sender, count(*)
      as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from
      $log-emailfilter where $filter-exclude-var and service in ('pop3', 'POP3',
      '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S',
      '995/tcp') and eventtype is null group by `to`, `from` order by requests desc)###) t
    where $filter-drilldown and recipient is not null group by recipient order by
      requests desc
```

| Dataset Name                                | Description                                 | Log Category |
|---------------------------------------------|---------------------------------------------|--------------|
| drilldown-Top-Email-Receive-Sender-By-Count | Drilldown top email receive sender by count | traffic      |

```
select
  sender,
  sum(requests) as requests
from
  (
    ###(select recipient, sender, count(*) as requests, sum(coalesce(sentbyte, 0)+coalesce
      (rcvbyte, 0)) as bandwidth from $log where $filter-exclude-var and logid_to_int
      (logid) not in (4, 7, 14, 20) and service in ('pop3', 'POP3', '110/tcp', 'imap',
      'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S', '995/tcp') and
      utmevent in ('general-email-log', 'spamfilter') group by recipient, sender order by
      requests desc)### union all ###(select `to` as recipient, `from` as sender, count(*)
      as requests, sum(coalesce(sentbyte, 0)+coalesce(rcvbyte, 0)) as bandwidth from
      $log-emailfilter where $filter-exclude-var and service in ('pop3', 'POP3',
      '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp', 'pop3s', 'POP3S',
      '995/tcp') and eventtype is null group by `to`, `from` order by requests desc)###) t
    where $filter-drilldown and sender is not null group by sender order by requests
    desc
```

| Dataset Name                     | Description               | Log Category |
|----------------------------------|---------------------------|--------------|
| drilldown-Top-Attack-Destination | Drilldown top attack dest | attack       |

```
select
  dstip,
  sum(totalnum) as totalnum
from
  ###(select srcip, dstip, count(*) as totalnum from $log where $filter-exclude-var group by
    srcip, dstip order by totalnum desc)### t where $filter-drilldown and dstip is not
    null group by dstip order by totalnum desc
```

| Dataset Name                | Description                 | Log Category |
|-----------------------------|-----------------------------|--------------|
| drilldown-Top-Attack-Source | Drilldown top attack source | attack       |

```
select
  srcip,
  sum(totalnum) as totalnum
from
  ###(select srcip, dstip, count(*) as totalnum from $log where $filter-exclude-var group by
    srcip, dstip order by totalnum desc)### t where $filter-drilldown and srcip is not
    null group by srcip order by totalnum desc
```

| Dataset Name              | Description               | Log Category |
|---------------------------|---------------------------|--------------|
| drilldown-Top-Attack-List | Drilldown top attack list | attack       |

```
select
  from_itime(itime) as timestamp,
  attack,
  srcip,
  dstip
from
```

```
###(select itime, attack, srcip, dstip from $log where $filter-exclude-var order by itime desc)### t where $filter-drilldown order by timestamp desc
```

| Dataset Name        | Description   | Log Category |
|---------------------|---------------|--------------|
| drilldown-Top-Virus | UTM top virus | virus        |

```
select
  virus,
  max(virusid_s) as virusid,
  (
    case when virus like 'Riskware%' then 'Spyware' when virus like 'Adware%' then 'Adware'
    else 'Virus' end
  ) as malware_type,
  sum(totalnum) as totalnum
from
  (
    ###(select virus, '' as virusid_s, count(*) as totalnum from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is
    not null group by virus, virusid_s order by totalnum desc)### union all ###(select
    virus, virusid_to_str(virusid, eventtype) as virusid_s, count(*) as totalnum from
    $log-virus where $filter and (eventtype is null or logver>=52) and nullifna(virus)
    is not null group by virus, virusid_s order by totalnum desc)###) t group by virus,
    malware_type order by totalnum desc
```

| Dataset Name           | Description            | Log Category |
|------------------------|------------------------|--------------|
| drilldown-Virus-Detail | Drilldown virus detail | traffic      |

```
select
  from_itime(itime) as timestamp,
  virus,
  user_src,
  dstip,
  hostname,
  recipient
from
  (
    ###(select itime, virus, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr
    (`srcip`)) as user_src, dstip, hostname, recipient from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is
    not null order by itime desc)### union all ###(select itime, virus, coalesce
    (nullifna(`user`), ipstr(`srcip`)) as user_src, dstip, cast(' ' as char) as
    hostname, cast(' ' as char) as recipient from $log-virus where $filter and
    (eventtype is null or logver>=52) and nullifna(virus) is not null order by itime
    desc)###) t where $filter-drilldown order by timestamp desc
```

| Dataset Name                                     | Description                                      | Log Category |
|--------------------------------------------------|--------------------------------------------------|--------------|
| user-drilldown-Top-Blocked-Web-Sites-By-Requests | User drilldown top blocked web sites by requests | webfilter    |

```
select
  hostname,
  sum(requests) as requests
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, action, count
  (*) as requests from $log where $filter and hostname is not null group by user_src,
```

```
hostname, action order by requests desc)### t where $filter-drilldown and
action='blocked' group by hostname order by requests desc
```

| Dataset Name                                     | Description                                      | Log Category |
|--------------------------------------------------|--------------------------------------------------|--------------|
| user-drilldown-Top-Allowed-Web-Sites-By-Requests | User drilldown top allowed web sites by requests | webfilter    |

```
select
  hostname,
  sum(requests) as requests
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, hostname, action, count
    (*) as requests from $log where $filter and hostname is not null group by user_src,
    hostname, action order by requests desc)### t where $filter-drilldown and
    action!='blocked' group by hostname order by requests desc
```

| Dataset Name                              | Description                               | Log Category |
|-------------------------------------------|-------------------------------------------|--------------|
| user-drilldown-Top-Blocked-Web-Categories | User drilldown top blocked web categories | webfilter    |

```
select
  catdesc,
  sum(requests) as requests
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, catdesc, action, count(*)
    as requests from $log where $filter and catdesc is not null group by user_src,
    catdesc, action order by requests desc)### t where $filter-drilldown and
    action='blocked' group by catdesc order by requests desc
```

| Dataset Name                              | Description                               | Log Category |
|-------------------------------------------|-------------------------------------------|--------------|
| user-drilldown-Top-Allowed-Web-Categories | User drilldown top allowed web categories | webfilter    |

```
select
  catdesc,
  sum(requests) as requests
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, catdesc, action, count(*)
    as requests from $log where $filter and catdesc is not null group by user_src,
    catdesc, action order by requests desc)### t where $filter-drilldown and
    action!='blocked' group by catdesc order by requests desc
```

| Dataset Name               | Description                        | Log Category |
|----------------------------|------------------------------------|--------------|
| user-drilldown-Top-Attacks | User drilldown top attacks by name | attack       |

```
select
  attack,
  sum(attack_count) as attack_count
from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, attack, (case when
    severity in ('critical', 'high') then 1 else 0 end) as high_severity, count(*) as
    attack_count from $log where $filter and nullifna(attack) is not null group by user_
    src, attack, high_severity order by attack_count desc)### t where $filter-drilldown
    group by attack order by attack_count desc
```

| Dataset Name                             | Description                              | Log Category |
|------------------------------------------|------------------------------------------|--------------|
| user-drilldown-Top-Attacks-High-Severity | User drilldown top attacks high severity | attack       |

```
select
    attack,
    sum(attack_count) as attack_count
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, attack, (case when
        severity in ('critical', 'high') then 1 else 0 end) as high_severity, count(*) as
        attack_count from $log where $filter and nullifna(attack) is not null group by user_
        src, attack, high_severity order by attack_count desc)### t where $filter-drilldown
        and high_severity=1 group by attack order by attack_count desc
```

| Dataset Name                     | Description              | Log Category |
|----------------------------------|--------------------------|--------------|
| user-drilldown-Top-Virus-By-Name | User drilldown top virus | virus        |

```
select
    virus,
    max(virusid_s) as virusid,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, virus, virusid_to_str
        (virusid, eventtype) as virusid_s, count(*) as totalnum from $log where $filter and
        nullifna(virus) is not null group by user_src, virus, virusid_s order by totalnum
        desc)### t where $filter-drilldown group by virus order by totalnum desc
```

| Dataset Name                                  | Description                                   | Log Category |
|-----------------------------------------------|-----------------------------------------------|--------------|
| user-drilldown-Top-Virus-Receivers-Over-Email | User drilldown top virus receivers over email | virus        |

```
select
    receiver,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, `to` as receiver, count
        (*) as totalnum from $log where $filter and subtype='infected' and (service in
        ('smtp', 'SMTP', '25/tcp', '587/tcp', 'smtps', 'SMTPS', '465/tcp') or service in
        ('pop3', 'POP3', '110/tcp', 'imap', 'IMAP', '143/tcp', 'imaps', 'IMAPS', '993/tcp',
        'pop3s', 'POP3S', '995/tcp')) and nullifna(virus) is not null group by user_src,
        receiver order by totalnum desc)### t where $filter-drilldown group by receiver order
        by totalnum desc
```

| Dataset Name                                      | Description                                       | Log Category |
|---------------------------------------------------|---------------------------------------------------|--------------|
| user-drilldown-Count-Spam-Activity-by-Hour-of-Day | User drilldown count spam activity by hour of day | emailfilter  |

```
select
    hourstamp,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, $hour_of_day as
        hourstamp, count(*) as totalnum from $log where $filter and `to` is not null and
```

```

    action in ('detected', 'blocked') group by user_src, hourstamp order by hourstamp)###
    t where $filter-drilldown group by hourstamp order by hourstamp

```

| Dataset Name                    | Description                     | Log Category |
|---------------------------------|---------------------------------|--------------|
| user-drilldown-Top-Spam-Sources | User drilldown top spam sources | emailfilter  |

```

select
    mf_sender,
    sum(totalnum) as totalnum
from
    ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as user_src, `from` as mf_sender,
        count(*) as totalnum from $log where $filter and `from` is not null and action in
        ('detected', 'blocked') group by user_src, mf_sender order by totalnum desc)### t
    where $filter-drilldown group by mf_sender order by totalnum desc

```

| Dataset Name    | Description     | Log Category |
|-----------------|-----------------|--------------|
| event-Usage-CPU | Event usage CPU | event        |

```

select
    hourstamp,
    cast(
        sum(cpu_usage) / sum(num) as decimal(6, 2)
    ) as cpu_avg_usage
from
    ###(select $hour_of_day as hourstamp, sum(cpu) as cpu_usage, count(*) as num from $log where
        $filter and subtype='system' and action='perf-stats' group by hourstamp)### t group by
        hourstamp order by hourstamp

```

| Dataset Name       | Description        | Log Category |
|--------------------|--------------------|--------------|
| event-Usage-Memory | Event usage memory | event        |

```

select
    hourstamp,
    cast(
        sum(mem_usage) / sum(num) as decimal(6, 2)
    ) as mem_avg_usage
from
    ###(select $hour_of_day as hourstamp, sum(mem) as mem_usage, count(*) as num from $log where
        $filter and subtype='system' and action='perf-stats' group by hourstamp)### t group by
        hourstamp order by hourstamp

```

| Dataset Name         | Description          | Log Category |
|----------------------|----------------------|--------------|
| event-Usage-Sessions | Event usage sessions | event        |

```

select
    hourstamp,
    cast(
        sum(sess_usage) / sum(num) as decimal(10, 2)
    ) as sess_avg_usage
from
    ###(select $hour_of_day as hourstamp, sum(totalsession) as sess_usage, count(*) as num from
        $log where $filter and subtype='system' and action='perf-stats' group by hourstamp)###
    t group by hourstamp order by hourstamp

```



| Dataset Name             | Description              | Log Category |
|--------------------------|--------------------------|--------------|
| event-Usage-CPU-Sessions | Event usage CPU sessions | event        |

```
select
  hourstamp,
  cast(
    sum(sess_usage)/ sum(num) as decimal(10, 2)
  ) as sess_avg_usage,
  cast(
    sum(cpu_usage)/ sum(num) as decimal(6, 2)
  ) as cpu_avg_usage
from
  ###(select $hour_of_day as hourstamp, sum(cpu) as cpu_usage, sum(totalsession) as sess_
    usage, count(*) as num from $log where $filter and subtype='system' and action='perf-
    stats' group by hourstamp)### t group by hourstamp order by hourstamp
```

| Dataset Name                    | Description                  | Log Category |
|---------------------------------|------------------------------|--------------|
| App-Risk-Top-Users-By-Bandwidth | Top users by bandwidth usage | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  srcip,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth,
  sum(
    coalesce(rcvdbyte, 0)
  ) as traffic_in,
  sum(
    coalesce(sentbyte, 0)
  ) as traffic_out
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and srcip is not null
group by
  user_src,
  srcip
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  )> 0
order by
  bandwidth desc
```

| Dataset Name                         | Description                                       | Log Category |
|--------------------------------------|---------------------------------------------------|--------------|
| App-Risk-Top-User-Source-By-Sessions | Application risk top user source by session count | traffic      |

```

select
  srcip,
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as sessions
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and srcip is not null
group by
  srcip,
  user_src
order by
  sessions desc

```

| Dataset Name                                | Description                                     | Log Category |
|---------------------------------------------|-------------------------------------------------|--------------|
| App-Risk-Top-Users-By-Reputation-Scores-Bar | Application risk reputation top users by scores | traffic      |

```

select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(crsscore % 65536) as scores
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and crsscore is not null
group by
  user_src
having
  sum(crsscore % 65536) > 0
order by
  scores desc

```

| Dataset Name                              | Description                                       | Log Category |
|-------------------------------------------|---------------------------------------------------|--------------|
| App-Risk-Top-Devices-By-Reputation-Scores | Application risk reputation top devices by scores | traffic      |

```

select
  devtype,
  coalesce(
    nullifna(`srcname`),
    nullifna(`srcmac`),
    ipstr(`srcip`)
  ) as dev_src,

```

```

sum(crsscore % 65536) as scores
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and crsscore is not null
group by
devtype,
dev_src
having
sum(crsscore % 65536) > 0
order by
scores desc

```

| Dataset Name                                    | Description                                    | Log Category |
|-------------------------------------------------|------------------------------------------------|--------------|
| App-Risk-Application-Usage-By-Category-With-Pie | Application risk application usage by category | traffic      |

```

select
appcat,
sum(
coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and nullifna(appcat) is not null
group by
appcat
order by
bandwidth desc

```

| Dataset Name                   | Description                                    | Log Category |
|--------------------------------|------------------------------------------------|--------------|
| App-Risk-App-Usage-by-Category | Application risk application usage by category | traffic      |

```

select
appcat,
sum(
coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and nullifna(appcat) is not null
group by
appcat
order by
bandwidth desc

```

| Dataset Name                   | Description                             | Log Category |
|--------------------------------|-----------------------------------------|--------------|
| Top-20-Categories-By-Bandwidth | Webfilter categories by bandwidth usage | webfilter    |

```
select
  catdesc,
  sum(bandwidth) as bandwidth
from
  ###(select catdesc, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth from $log-
    traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and (countweb>0 or
    ((logver is null or logver<52) and (hostname is not null or utmevent in ('webfilter',
    'banned-word', 'web-content', 'command-block', 'script-filter')))) and catdesc is not
    null group by catdesc order by bandwidth desc)### t group by catdesc order by
    bandwidth desc
```

| Dataset Name                                   | Description                           | Log Category |
|------------------------------------------------|---------------------------------------|--------------|
| App-Risk-Key-Applications-Crossing-The-Network | Application risk application activity | traffic      |

```
select
  app_group_name(app) as app_group,
  appcat,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth,
  count(*) as num_session
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(app) is not null
group by
  app_group,
  appcat
order by
  bandwidth desc
```

| Dataset Name                            | Description                                     | Log Category |
|-----------------------------------------|-------------------------------------------------|--------------|
| App-Risk-Applications-Running-Over-HTTP | Application risk applications running over HTTP | traffic      |

```
select
  app_group_name(app) as app_group,
  service,
  count(*) as sessions,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(app) is not null
```

```

    and service in (
        '80/tcp', '443/tcp', 'HTTP', 'HTTPS',
        'http', 'https'
    )
group by
    app_group,
    service
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name                                            | Description                                    | Log Category |
|---------------------------------------------------------|------------------------------------------------|--------------|
| App-Risk-Top-Web-Sites-Visited-By-Network-Users-Pie-Cha | Application risk web browsing summary category | traffic      |

```

select
    catdesc,
    sum(num_sess) as num_sess,
    sum(bandwidth) as bandwidth
from
    ###(select catdesc, count(*) as num_sess, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))
        as bandwidth from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14,
        20) and (countweb>0 or ((logver is null or logver<52) and (hostname is not null or
        utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-
        filter')))) and catdesc is not null group by catdesc order by num_sess desc)### t
    group by catdesc order by num_sess desc

```

| Dataset Name                                    | Description                                    | Log Category |
|-------------------------------------------------|------------------------------------------------|--------------|
| App-Risk-Top-Web-Sites-Visited-By-Network-Users | Application risk web browsing summary category | traffic      |

```

select
    catdesc,
    sum(num_sess) as num_sess,
    sum(bandwidth) as bandwidth
from
    ###(select catdesc, count(*) as num_sess, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))
        as bandwidth from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14,
        20) and (countweb>0 or ((logver is null or logver<52) and (hostname is not null or
        utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block', 'script-
        filter')))) and catdesc is not null group by catdesc order by num_sess desc)### t
    group by catdesc order by num_sess desc

```

| Dataset Name                            | Description                                              | Log Category |
|-----------------------------------------|----------------------------------------------------------|--------------|
| App-Risk-Web-Browsing-Hostname-Category | Application risk web browsing activity hostname category | traffic      |

```

select
    domain,
    catdesc,
    sum(visits) as visits
from

```

```
(
  ###(select coalesce(nullifna(hostname), ipstr(`dstip`)) as domain, catdesc, count(*) as
    visits from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20)
    and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block',
    'script-filter') and catdesc is not null group by domain, catdesc order by visits
  desc)### union all ###(select coalesce(nullifna(hostname), ipstr(`dstip`)) as
    domain, catdesc, count(*) as visits from $log-webfilter where $filter and (eventtype
    is null or logver>=52) and catdesc is not null group by domain, catdesc order by
    visits desc)###) t group by domain, catdesc order by visits desc
```

| Dataset Name                               | Description                                        | Log Category |
|--------------------------------------------|----------------------------------------------------|--------------|
| Top-Destination-Countries-By-Browsing-Time | Traffic top destination countries by browsing time | traffic      |

```
select
  dstcountry,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select dstcountry, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
    dstcountry, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
    (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and $browse_time is not null group by dstcountry) t group by
    dstcountry order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group
    by dstcountry order by browsetime desc
```

| Dataset Name                                        | Description                                                 | Log Category |
|-----------------------------------------------------|-------------------------------------------------------------|--------------|
| Top-Destination-Countries-By-Browsing-Time-Enhanced | Traffic top destination countries by browsing time enhanced | traffic      |

```
select
  dstcountry,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select dstcountry, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
    dstcountry, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
    (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and $browse_time is not null group by dstcountry) t group by
    dstcountry order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group
    by dstcountry order by browsetime desc
```

| Dataset Name                                    | Description                          | Log Category |
|-------------------------------------------------|--------------------------------------|--------------|
| App-Risk-Traffic-Top-Hostnames-By-Browsing-Time | Traffic top domains by browsing time | traffic      |

```
select
  hostname,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select hostname, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select hostname,
    ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte, 0)+coalesce
    (rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce
    (sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid) not in
    (4, 7, 14, 20) and hostname is not null and $browse_time is not null group by
    hostname) t group by hostname order by ebtr_value(ebtr_agg_flat(browsetime), null,
    null) desc)### t group by hostname order by browsetime desc
```

| Dataset Name                                             | Description                                   | Log Category |
|----------------------------------------------------------|-----------------------------------------------|--------------|
| App-Risk-Traffic-Top-Hostnames-By-Browsing-Time-Enhanced | Traffic top domains by browsing time enhanced | traffic      |

```
select
  hostname,
  ebtr_value(
    ebtr_agg_flat(browsetime),
    null,
    $timespan
  ) as browsetime,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out
from
  ###(select hostname, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select hostname,
    ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte, 0)+coalesce
    (rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce
    (sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid) not in
    (4, 7, 14, 20) and hostname is not null and $browse_time is not null group by
    hostname) t group by hostname order by ebtr_value(ebtr_agg_flat(browsetime), null,
    null) desc)### t group by hostname order by browsetime desc
```

| Dataset Name                                     | Description                         | Log Category |
|--------------------------------------------------|-------------------------------------|--------------|
| App-Risk-Top-Threat-Vectors-Crossing-The-Network | Application risk top threat vectors | attack       |

```
select
  severity,
  count(*) as totalnum
```

```

from
  $log
where
  $filter
group by
  severity
order by
  totalnum desc

```

| Dataset Name                                              | Description                                  | Log Category |
|-----------------------------------------------------------|----------------------------------------------|--------------|
| App-Risk-Top-Critical-Threat-Vectors-Crossing-The-Network | Application risk top critical threat vectors | attack       |

```

select
  attack,
  severity,
  ref,
  count(*) as totalnum
from
  $log
where
  $filter
  and severity = 'critical'
  and nullifna(attack) is not null
group by
  attack,
  severity,
  ref
order by
  totalnum desc

```

| Dataset Name                                          | Description                              | Log Category |
|-------------------------------------------------------|------------------------------------------|--------------|
| App-Risk-Top-High-Threat-Vectors-Crossing-The-Network | Application risk top high threat vectors | attack       |

```

select
  attack,
  severity,
  ref,
  count(*) as totalnum
from
  $log
where
  $filter
  and severity = 'high'
  and nullifna(attack) is not null
group by
  attack,
  severity,
  ref
order by
  totalnum desc

```



| Dataset Name                                            | Description                                | Log Category |
|---------------------------------------------------------|--------------------------------------------|--------------|
| App-Risk-Top-Medium-Threat-Vectors-Crossing-The-Network | Application risk top medium threat vectors | attack       |

```

select
    attack,
    severity,
    ref,
    count(*) as totalnum
from
    $log
where
    $filter
    and severity = 'medium'
    and nullifna(attack) is not null
group by
    attack,
    severity,
    ref
order by
    totalnum desc

```

| Dataset Name                                         | Description                             | Log Category |
|------------------------------------------------------|-----------------------------------------|--------------|
| App-Risk-Top-Low-Threat-Vectors-Crossing-The-Network | Application risk top low threat vectors | attack       |

```

select
    attack,
    severity,
    ref,
    count(*) as totalnum
from
    $log
where
    $filter
    and severity = 'low'
    and nullifna(attack) is not null
group by
    attack,
    severity,
    ref
order by
    totalnum desc

```

| Dataset Name                                          | Description                              | Log Category |
|-------------------------------------------------------|------------------------------------------|--------------|
| App-Risk-Top-Info-Threat-Vectors-Crossing-The-Network | Application risk top info threat vectors | attack       |

```

select
    attack,
    severity,
    ref,
    count(*) as totalnum
from

```

```

$log
where
  $filter
  and severity = 'info'
  and nullifna(attack) is not null
group by
  attack,
  severity,
  ref
order by
  totalnum desc

```

| Dataset Name               | Description   | Log Category |
|----------------------------|---------------|--------------|
| App-Risk-Top-Virus-By-Name | UTM top virus | virus        |

```

select
  virus,
  max(virusid_s) as virusid,
  (
    case when virus like 'Riskware%' then 'Spyware' when virus like 'Adware%' then 'Adware'
    else 'Virus' end
  ) as malware_type,
  sum(totalnum) as totalnum
from
  (
    ###(select virus, '' as virusid_s, count(*) as totalnum from $log-traffic where $filter
    and logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is
    not null group by virus, virusid_s order by totalnum desc)### union all ###(select
    virus, virusid_to_str(virusid, eventtype) as virusid_s, count(*) as totalnum from
    $log-virus where $filter and (eventtype is null or logver>=52) and nullifna(virus)
    is not null group by virus, virusid_s order by totalnum desc)###) t group by virus,
    malware_type order by totalnum desc

```

| Dataset Name              | Description        | Log Category |
|---------------------------|--------------------|--------------|
| App-Risk-Top-Virus-Victim | UTM top virus user | traffic      |

```

select
  user_src,
  sum(totalnum) as totalnum
from
  (
    ###(select coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
    src, count(*) as totalnum from $log-traffic where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and utmevent is not null and virus is not null group by user_
    src order by totalnum desc)### union all ###(select coalesce(nullifna(`user`), ipstr
    (`srcip`)) as user_src, count(*) as totalnum from $log-virus where $filter and
    (eventtype is null or logver>=52) and nullifna(virus) is not null group by user_src
    order by totalnum desc)###) t group by user_src order by totalnum desc

```

| Dataset Name                              | Description                    | Log Category |
|-------------------------------------------|--------------------------------|--------------|
| App-Risk-Data-Loss-Prevention-Type-Events | Application risk DLP UTM event | traffic      |

```

select
  utmsubtype,
  sum(number) as number

```

```

from
(
    ###(select utmsubtype, count(*) as number from $log-traffic where $filter and logid_to_
    int(logid) not in (4, 7, 14, 20) and utmevent='dlp' and utmsubtype is not null group
    by utmsubtype order by number desc)### union all ###(select subtype::text as
    utmsubtype, count(*) as number from $log-dlp where $filter and subtype is not null
    group by subtype order by number desc)###) t group by utmsubtype order by number
    desc

```

| Dataset Name                      | Description                               | Log Category |
|-----------------------------------|-------------------------------------------|--------------|
| App-Risk-Vulnerability-Discovered | Application risk vulnerability discovered | netscan      |

```

select
    vuln,
    vulnref as ref,
    vulncat,
    severity,
    count(*) as totalnum
from
    $log
where
    $filter
    and vuln is not null
group by
    vuln,
    vulnref,
    vulncat,
    severity
order by
    totalnum desc

```

| Dataset Name                | Description                       | Log Category |
|-----------------------------|-----------------------------------|--------------|
| App-Risk-Malware-Discovered | Application risk virus discovered | traffic      |

```

select
    dom,
    sum(totalnum) as totalnum
from
(
    ###(select $DAY_OF_MONTH as dom, count(*) as totalnum from $log-traffic where $filter and
    logid_to_int(logid) not in (4, 7, 14, 20) and utmevent is not null and virus is not
    null group by dom order by totalnum desc)### union all ###(select $DAY_OF_MONTH as
    dom, count(*) as totalnum from $log-virus where $filter and nullifna(virus) is not
    null and (eventtype is null or logver>=52) group by dom order by totalnum desc)###)
    t group by dom order by totalnum desc

```

| Dataset Name                            | Description                                     | Log Category |
|-----------------------------------------|-------------------------------------------------|--------------|
| App-Risk-Breakdown-Of-Risk-Applications | Application risk breakdown of risk applications | traffic      |

```

select
    unnest(
        string_to_array(behavior, ',')
    ) as d_behavior,
    count(*) as number

```

```

from
  $log t1
  inner join app_mdata t2 on t1.appid = t2.id
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  d_behavior
order by
  number desc

```

| Dataset Name                                     | Description                                              | Log Category |
|--------------------------------------------------|----------------------------------------------------------|--------------|
| App-Risk-Number-Of-Applications-By-Risk-Behavior | Application risk number of applications by risk behavior | traffic      |

```

select
  risk as d_risk,
  unnest(
    string_to_array(behavior, ',')
  ) as f_behavior,
  count(*) as number
from
  $log t1
  inner join app_mdata t2 on t1.appid = t2.id
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  risk,
  f_behavior
order by
  risk desc,
  number desc

```

| Dataset Name                   | Description                            | Log Category |
|--------------------------------|----------------------------------------|--------------|
| App-Risk-High-Risk-Application | Application risk high risk application | traffic      |

```

select
  risk as d_risk,
  behavior as d_behavior,
  t2.id,
  t2.name,
  t2.app_cat,
  t2.technology,
  sum(
    coalesce(sentbyte, 0) + coalesce(rcvdbyte, 0)
  ) as bandwidth,
  count(*) as sessions
from
  $log t1
  inner join app_mdata t2 on t1.appid = t2.id
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and behavior is not null
group by

```

```

t2.id
order by
  risk desc,
  sessions desc

```

| Dataset Name                              | Description                       | Log Category |
|-------------------------------------------|-----------------------------------|--------------|
| Apprisk-Ctrl-Severe-High-Risk-Application | Severe and high risk applications | traffic      |

```

select
  appcat,
  count(distinct app) as total_num
from
  ###(select appcat, app from $log where $filter and app is not null and appcat is not null
    and logid_to_int(logid) not in (4, 7, 14, 20) and apprisk in ('critical', 'high')
    group by appcat, app)### t group by appcat order by total_num desc

```

| Dataset Name                    | Description       | Log Category |
|---------------------------------|-------------------|--------------|
| Apprisk-Ctrl-Threats-Prevention | Threat Prevention | app-ctrl     |

```

select
  threat_name,
  count(distinct threats) as total_num
from
  (
    ###(select cast('Malware & Botnet C&C' as char(32)) as threat_name, app as threats from
      $log-app-ctrl where $filter and lower(appcat)='botnet' group by app)### union all
    ###(select cast('Malware & Botnet C&C' as char(32)) as threat_name, virus as threats
      from $log-virus where $filter and nullifna(virus) is not null group by virus)###
    union all ###(select cast('Malicious & Phishing Sites' as char(32)) as threat_name,
      hostname as threats from $log-webfilter where $filter and cat in (26, 61) group by
      hostname)### union all ###(select cast('Critical & High Intrusion Attacks' as char
      (32)) as threat_name, attack as total_num from $log-attack where $filter and
      severity in ('critical', 'high') group by attack)###) t group by threat_name order
    by total_num desc

```

| Dataset Name                           | Description                            | Log Category |
|----------------------------------------|----------------------------------------|--------------|
| Apprisk-Ctrl-Application-Vulnerability | Application vulnerabilities discovered | attack       |

```

select
  attack,
  attackid,
  vuln_type,
  cve,
  severity_number,
  count(distinct dstip) as victims,
  count(distinct srcip) as sources,
  sum(totalnum) as totalnum
from
  ###(select attack, attackid, vuln_type, t2.cve, (case when t1.severity='critical' then 5
    when t1.severity='high' then 4 when t1.severity='medium' then 3 when t1.severity='low'
    then 2 when t1.severity='info' then 1 else 0 end) as severity_number, dstip, srcip,
    count(*) as totalnum from $log t1 left join (select name, cve, vuln_type from ips_
    mdata) t2 on t1.attack=t2.name where $filter and nullifna(attack) is not null and
    t1.severity is not null group by attack, attackid, vuln_type, t2.cve, t1.severity,

```

```
dstip, srcip)### t group by attack, attackid, vuln_type, severity_number, cve order
by severity_number desc, totalnum desc
```

| Dataset Name                                    | Description                       | Log Category |
|-------------------------------------------------|-----------------------------------|--------------|
| Apprisk-Ctrl-Breakdown-Of-High-Risk-Application | Severe and high risk applications | traffic      |

```
select
  appcat,
  count(distinct app) as total_num
from
  ###(select appcat, app from $log where $filter and app is not null and appcat is not null
    and logid_to_int(logid) not in (4, 7, 14, 20) and apprisk in ('critical', 'high')
    group by appcat, app)### t group by appcat order by total_num desc
```

| Dataset Name                              | Description                            | Log Category |
|-------------------------------------------|----------------------------------------|--------------|
| Apprisk-Ctrl-Top-20-High-Risk-Application | Application risk high risk application | traffic      |

```
select
  risk as d_risk,
  count(distinct user_src) as users,
  id,
  name,
  app_cat,
  technology,
  sum(bandwidth) as bandwidth,
  sum(sessions) as sessions
from
  ###(select lower(app) as lowapp, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr
    (`srcip`)) as user_src, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth,
    count(*) as sessions from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
    20) group by lowapp, user_src order by bandwidth desc)### t1 inner join app_mdata t2
    on t1.lowapp=lower(t2.name) where risk>='4' group by id, name, app_cat, technology,
    risk order by d_risk desc, sessions desc
```

| Dataset Name                                  | Description                            | Log Category |
|-----------------------------------------------|----------------------------------------|--------------|
| Apprisk-Ctrl-High-Risk-Application-Behavioral | Application Behavioral Characteristics | traffic      |

```
select
  behavior,
  round(
    sum(total_num) * 100 / sum(
      sum(total_num)
    ) over (),
    2
  ) as percentage
from
  ###(select (case when lower(appcat)='botnet' then 'malicious' when lower
    (appcat)='remote.access' then 'tunneling' when lower(appcat) in ('storage.backup',
    'video/audio') then 'bandwidth-consuming' when lower(appcat)='p2p' then 'peer-to-peer'
    when lower(appcat)='proxy' then 'proxy' end) as behavior, count(*) as total_num from
    $log where $filter and lower(appcat) in ('botnet', 'remote.access', 'storage.backup',
    'video/audio', 'p2p', 'proxy') and logid_to_int(logid) not in (4, 7, 14, 20) and
```

```
apprisk in ('critical', 'high') group by appcat)### t group by behavior order by
percentage desc
```

| Dataset Name                                      | Description                          | Log Category |
|---------------------------------------------------|--------------------------------------|--------------|
| Apprisk-Ctrl-Key-Application-Crossing-The-Network | Key Application Crossing The Network | traffic      |

```
select
  risk as d_risk,
  count(distinct user_src) as users,
  id,
  name,
  app_cat,
  technology,
  sum(bandwidth) as bandwidth,
  sum(sessions) as sessions
from
  ###(select app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as user_
    src, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as
    sessions from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) group
    by app, user_src order by bandwidth desc)### t1 inner join app_mdata t2 on
    t1.app=t2.name group by id, app, app_cat, technology, risk order by bandwidth desc
```

| Dataset Name                                             | Description                                    | Log Category |
|----------------------------------------------------------|------------------------------------------------|--------------|
| Apprisk-Ctrl-Risk-Application-Usage-By-Category-With-Pie | Application risk application usage by category | traffic      |

```
select
  appcat,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(appcat) is not null
group by
  appcat
order by
  bandwidth desc
```

| Dataset Name                                 | Description                                                 | Log Category |
|----------------------------------------------|-------------------------------------------------------------|--------------|
| Apprisk-Ctrl-Category-Breakdown-By-Bandwidth | Category breakdown of all applications, sorted by bandwidth | traffic      |

```
select
  appcat,
  count(distinct app) as app_num,
  count(distinct f_user) as user_num,
  sum(bandwidth) as bandwidth,
  sum(num_session) as num_session
from
```

```
###(select appcat, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`))
as f_user, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as
num_session from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
nullifna(appcat) is not null group by appcat, app, f_user)### t group by appcat order
by bandwidth desc
```

| Dataset Name                                   | Description                        | Log Category |
|------------------------------------------------|------------------------------------|--------------|
| Apprisk-Ctrl-Top-Web-Applications-by-Bandwidth | Top 25 Web Categories by Bandwidth | traffic      |

```
select
  d_risk,
  id,
  name,
  technology,
  count(distinct f_user) as user_num,
  sum(bandwidth) as bandwidth,
  sum(num_session) as num_session
from
  ###(select risk as d_risk, t2.id, t2.name, t2.technology, coalesce(nullifna(t1.`user`),
  nullifna(t1.`unauthuser`), ipstr(t1.`srcip`)) as f_user, sum(coalesce(sentbyte,
  0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as num_session from $log t1 inner
  join app_mdata t2 on t1.appid=t2.id where $filter and logid_to_int(logid) not in (4,
  7, 14, 20) and nullifna(app) is not null and service in ('80/tcp', '443/tcp', 'HTTP',
  'HTTPS', 'http', 'https') group by risk, t2.id, t2.name, t2.technology, f_user)### t
  group by d_risk, id, name, technology order by bandwidth desc
```

| Dataset Name                            | Description                   | Log Category |
|-----------------------------------------|-------------------------------|--------------|
| Apprisk-Ctrl-Top-Web-Categories-Visited | Top 25 Web Categories Visited | traffic      |

```
select
  catdesc,
  count(distinct f_user) as user_num,
  sum(sessions) as sessions,
  sum(bandwidth) as bandwidth
from
  ###(select catdesc, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as f_
  user, count(*) as sessions, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
  bandwidth from $log-traffic where $filter and catdesc is not null and logid_to_int
  (logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and
  (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content',
  'command-block', 'script-filter')))) group by f_user, catdesc order by sessions
  desc)### t group by catdesc order by sessions desc
```

| Dataset Name                             | Description                                                               | Log Category |
|------------------------------------------|---------------------------------------------------------------------------|--------------|
| Apprisk-Ctrl-Common-Virus-Botnet-Spyware | Common virus disvocered, the botnet communications and the spyware/adware | traffic      |

```
select
  virus_s as virus,
  (
    case when lower(appcat)= 'botnet' then 'Botnet C&C' else (
      case when virus_s like 'Riskware%' then 'Spyware' when virus_s like 'Adware%' then
        'Adware' else 'Virus' end
    ) end
```



```

) as malware_type,
appid,
app,
count(distinct dstip) as victims,
count(distinct srcip) as source,
sum(total_num) as total_num
from
(
  ###(select app as virus_s, appcat, appid, app, dstip, srcip, count(*) as total_num from
    $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and lower
    (appcat)='botnet' group by virus_s, appcat, appid, dstip, srcip, app order by total_
    num desc)### union all ###(select unnest(string_to_array(virus, ',')) as virus_s,
    appcat, appid, app, dstip, srcip, count(*) as total_num from $log-traffic where
    $filter and logid_to_int(logid) not in (4, 7, 14, 20) and virus is not null group by
    virus_s, appcat, appid, dstip, srcip, app order by total_num desc)###) t group by
    virus, appid, app, malware_type order by total_num desc

```

| Dataset Name                              | Description                              | Log Category |
|-------------------------------------------|------------------------------------------|--------------|
| Apprisk-Ctrl-Zero-Day-Detected-On-Network | Zero-day malware detected on the network | traffic      |

```

select
  virus_s,
  appid,
  app,
  count(distinct dstip) as victims,
  count(distinct srcip) as source,
  sum(total_num) as total_num
from
  ###(select unnest(string_to_array(virus, ',')) as virus_s, appid, app, dstip, srcip, count
    (*) as total_num from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20)
    and virus like '%PossibleThreat.SB%' group by virus_s, dstip, srcip, appid, app )### t
    where virus_s like '%PossibleThreat.SB%' group by virus_s, appid, app order by total_
    num desc

```

| Dataset Name                                      | Description                          | Log Category |
|---------------------------------------------------|--------------------------------------|--------------|
| Apprisk-Ctrl-Files-Analyzed-By-FortiCloud-Sandbox | Files analyzed by FortiCloud Sandbox | virus        |

```

select
  $DAY_OF_MONTH as dom,
  count(*) as total_num
from
  $log
where
  $filter
  and nullifna(filename) is not null
  and logid_to_int(logid)= 9233
group by
  dom
order by
  dom

```

| Dataset Name                                                | Description                          | Log Category |
|-------------------------------------------------------------|--------------------------------------|--------------|
| Apprisk-Ctrl-Malicious-Files-Detected-By-FortiCloud-Sandbox | Files detected by FortiCloud Sandbox | virus        |

```
select
  filename,
  analyticscksum,
  count(distinct dstip) as victims,
  count(distinct srcip) as source
from
  ###(select filename, analyticscksum, dstip, srcip from $log where $filter and filename is
    not null and logid_to_int(logid)=9233 and analyticscksum is not null group by
    filename, analyticscksum, srcip, dstip)### t group by filename, analyticscksum order
    by victims desc, source desc
```

| Dataset Name                                 | Description                                     | Log Category |
|----------------------------------------------|-------------------------------------------------|--------------|
| Apprisk-Ctrl-File-Transferred-By-Application | File transferred by applications on the network | app-ctrl     |

```
select
  appid,
  app,
  filename,
  cloudaction,
  max(filesize) as filesize
from
  $log
where
  $filter
  and filesize is not null
  and clouduser is not null
  and filename is not null
group by
  cloudaction,
  appid,
  app,
  filename
order by
  filesize desc
```

| Dataset Name                     | Description                      | Log Category |
|----------------------------------|----------------------------------|--------------|
| appctrl-Top-Blocked-SCCP-Callers | Appctrl top blocked SCCP callers | app-ctrl     |

```
select
  srcname as caller,
  count(*) as totalnum
from
  $log
where
  $filter
  and lower(appcat)= 'voip'
  and app = 'sccp'
  and action = 'block'
  and srcname is not null
```

```
group by
  caller
order by
  totalnum desc
```

| Dataset Name                    | Description                     | Log Category |
|---------------------------------|---------------------------------|--------------|
| appctrl-Top-Blocked-SIP-Callers | Appctrl top blocked SIP callers | app-ctrl     |

```
select
  srcname as caller,
  count(*) as totalnum
from
  $log
where
  $filter
  and srcname is not null
  and lower(appcat)= 'voip'
  and app = 'sip'
  and action = 'block'
group by
  caller
order by
  totalnum desc
```

| Dataset Name                                | Description                  | Log Category |
|---------------------------------------------|------------------------------|--------------|
| security-Top20-High-Risk-Application-In-Use | High risk application in use | traffic      |

```
select
  d_risk,
  count(distinct f_user) as users,
  name,
  app_cat,
  technology,
  sum(bandwidth) as bandwidth,
  sum(sessions) as sessions
from
  ###(select risk as d_risk, coalesce(nullifna(t1.`user`), nullifna(t1.`unauthuser`), ipstr
    (t1.`srcip`)) as f_user, t2.name, t2.app_cat, t2.technology, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as sessions from $log t1 inner join
    app_mdata t2 on t1.appid=t2.id where $filter and risk>='4' and logid_to_int(logid) not
    in (4, 7, 14, 20) group by f_user, t2.name, t2.app_cat, t2.technology, risk)### t
  group by d_risk, name, app_cat, technology order by d_risk desc, sessions desc
```

| Dataset Name                               | Description                       | Log Category |
|--------------------------------------------|-----------------------------------|--------------|
| security-High-Risk-Application-By-Category | High risk application by category | traffic      |

```
select
  app_cat,
  count(distinct app) as total_num
from
  ###(select app_cat, app from $log t1 inner join app_mdata t2 on t1.appid=t2.id where $filter
    and risk>='4' and logid_to_int(logid) not in (4, 7, 14, 20) group by app_cat, app)###
  t group by app_cat order by total_num desc
```

| Dataset Name                                       | Description                                    | Log Category |
|----------------------------------------------------|------------------------------------------------|--------------|
| security-Top10-Application-Categories-By-Bandwidth | Application risk application usage by category | traffic      |

```
select
    appcat,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(appcat) is not null
group by
    appcat
order by
    bandwidth desc
```

| Dataset Name                             | Description                                                 | Log Category |
|------------------------------------------|-------------------------------------------------------------|--------------|
| Security-Category-Breakdown-By-Bandwidth | Category breakdown of all applications, sorted by bandwidth | traffic      |

```
select
    appcat,
    count(distinct app) as app_num,
    count(distinct f_user) as user_num,
    sum(bandwidth) as bandwidth,
    sum(num_session) as num_session
from
    ###(select appcat, app, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`))
        as f_user, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as
        num_session from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
        nullifna(appcat) is not null group by appcat, app, f_user)### t group by appcat order
        by bandwidth desc
```

| Dataset Name                                 | Description                       | Log Category |
|----------------------------------------------|-----------------------------------|--------------|
| security-Top25-Web-Applications-By-Bandwidth | Top Web Applications by Bandwidth | traffic      |

```
select
    d_risk,
    name,
    app_cat,
    technology,
    count(distinct f_user) as users,
    sum(bandwidth) as bandwidth,
    sum(num_session) as sessions
from
    ###(select risk as d_risk, t2.app_cat, t2.name, t2.technology, coalesce(nullifna(t1.`user`),
        nullifna(t1.`unauthuser`), ipstr(t1.`srcip`)) as f_user, sum(coalesce(sentbyte,
        0)+coalesce(rcvdbyte, 0)) as bandwidth, count(*) as num_session from $log t1 inner
        join app_mdata t2 on t1.appid=t2.id where $filter and logid_to_int(logid) not in (4,
```

```
7, 14, 20) and nullifna(app) is not null and service in ('80/tcp', '443/tcp', 'HTTP',
'HTTPS', 'http', 'https') group by risk, t2.app_cat, t2.name, t2.technology, f_
user)### t group by d_risk, name, app_cat, technology order by bandwidth desc
```

| Dataset Name                          | Description                   | Log Category |
|---------------------------------------|-------------------------------|--------------|
| Security-Top25-Web-Categories-Visited | Top 25 Web Categories Visited | traffic      |

```
select
  catdesc,
  count(distinct f_user) as user_num,
  sum(sessions) as sessions,
  sum(bandwidth) as bandwidth
from
  ###(select catdesc, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as f_
  user, count(*) as sessions, sum(coalesce(sentbyte, 0)+coalesce(rcvbyte, 0)) as
  bandwidth from $log-traffic where $filter and catdesc is not null and logid_to_int
  (logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and
  (hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content',
  'command-block', 'script-filter')))) group by f_user, catdesc order by sessions
  desc)### t group by catdesc order by sessions desc
```

| Dataset Name                                | Description                            | Log Category |
|---------------------------------------------|----------------------------------------|--------------|
| security-Top25-Malware-Virus-Botnet-Spyware | Malware: viruses, Bots, Spyware/Adware | traffic      |

```
select
  virus_s as virus,
  (
    case when lower(appcat)= 'botnet' then 'Botnet C&C' else (
      case when virus_s like 'Riskware%' then 'Spyware' when virus_s like 'Adware%' then
        'Adware' else 'Virus' end
    ) end
  ) as malware_type,
  count(distinct dstip) as victims,
  count(distinct srcip) as source,
  sum(total_num) as total_num
from
  (
    ###(select app as virus_s, appcat, dstip, srcip, count(*) as total_num from $log-traffic
    where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and lower
    (appcat)='botnet' group by virus_s, appcat, dstip, srcip order by total_num desc)###
    union all ###(select unnest(string_to_array(virus, ',')) as virus_s, appcat, dstip,
    srcip, count(*) as total_num from $log-traffic where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and virus is not null group by virus_s, appcat, dstip, srcip
    order by total_num desc)###) t group by virus, malware_type order by total_num desc
```

| Dataset Name                         | Description                      | Log Category |
|--------------------------------------|----------------------------------|--------------|
| security-Top10-Malware-Virus-Spyware | Malware: viruses, Spyware/Adware | virus        |

```
select
  virus,
  max(virusid_s) as virusid,
  malware_type,
```

```

count(distinct dstip) as victims,
count(distinct srcip) as source,
sum(total_num) as total_num
from
###(select virus, virusid_to_str(virusid, eventtype) as virusid_s, srcip, dstip, (case when
virus like 'Riskware%' then 'Spyware' when virus like 'Adware%' then 'Adware' else
'Virus' end) as malware_type, count(*) as total_num from $log where $filter and
nullifna(virus) is not null group by virus, virusid_s, srcip, dstip order by total_num
desc)### t group by virus, malware_type order by total_num desc

```

| Dataset Name                  | Description     | Log Category |
|-------------------------------|-----------------|--------------|
| security-Top10-Malware-Botnet | Malware: Botnet | appctrl      |

```

select
app,
appid,
malware_type,
count(distinct dstip) as victims,
count(distinct srcip) as source,
sum(total_num) as total_num
from
###(select app, appid, cast('Botnet C&C' as char(32)) as malware_type, srcip, dstip, count
(*) as total_num from $log where $filter and lower(appcat)='botnet' and nullifna(app)
is not null group by app, appid, malware_type, srcip, dstip order by total_num
desc)### t group by app, appid, malware_type order by total_num desc

```

| Dataset Name                      | Description        | Log Category |
|-----------------------------------|--------------------|--------------|
| security-Top10-Victims-of-Malware | Victims of Malware | virus        |

```

select
coalesce(
nullifna(`user`),
nullifna(`unauthuser`),
ipstr(`srcip`)
) as user_src,
virus as malware,
count(*) as total_num
from
$log
where
$filter
and virus is not null
group by
user_src,
malware
order by
total_num desc

```

| Dataset Name                            | Description              | Log Category |
|-----------------------------------------|--------------------------|--------------|
| security-Top10-Victims-of-Phishing-Site | Victims of Phishing Site | webfilter    |

```

select
coalesce(
nullifna(`user`),

```

```

        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    (
        lower(service) || '://' || hostname || url
    ) as phishing_site,
    count(*) as total_num
from
    $log
where
    $filter
    and lower(service) in ('http', 'https')
    and hostname is not null
    and cat in (26, 61)
group by
    user_src,
    phishing_site
order by
    total_num desc

```

| Dataset Name                            | Description             | Log Category |
|-----------------------------------------|-------------------------|--------------|
| security-Top25-Malicious-Phishing-Sites | Malicious Phishing Site | webfilter    |

```

select
    phishing_site,
    count(distinct dstip) as victims,
    count(distinct srcip) as source,
    sum(total) as total_num
from
    ###(select (lower(service) || '://' || hostname || url) as phishing_site, dstip, srcip,
        count(*) as total from $log where $filter and lower(service) in ('http', 'https') and
        hostname is not null and cat in (26, 61) group by phishing_site, dstip, srcip order by
        total desc)### t group by phishing_site order by total_num desc

```

| Dataset Name                       | Description                            | Log Category |
|------------------------------------|----------------------------------------|--------------|
| security-Application-Vulnerability | Application vulnerabilities discovered | attack       |

```

select
    attack,
    attackid,
    vuln_type,
    cve,
    severity_number,
    count(distinct dstip) as victims,
    count(distinct srcip) as sources,
    sum(totalnum) as totalnum
from
    ###(select attack, attackid, vuln_type, t2.cve, (case when t1.severity='critical' then 5
        when t1.severity='high' then 4 when t1.severity='medium' then 3 when t1.severity='low'
        then 2 when t1.severity='info' then 1 else 0 end) as severity_number, dstip, srcip,
        count(*) as totalnum from $log t1 left join (select name, cve, vuln_type from ips_
        mdata) t2 on t1.attack=t2.name where $filter and nullifna(attack) is not null and
        t1.severity is not null group by attack, attackid, vuln_type, t2.cve, t1.severity,
        dstip, srcip )### t group by attack, attackid, vuln_type, severity_number, cve order
        by severity_number desc, totalnum desc

```

| Dataset Name                                  | Description                          | Log Category |
|-----------------------------------------------|--------------------------------------|--------------|
| security-Files-Analyzed-By-FortiCloud-Sandbox | Files analyzed by FortiCloud Sandbox | virus        |

```
select
    $day_of_week as dow,
    count(*) as total_num
from
    $log
where
    $filter
    and nullifna(filename) is not null
    and logid_to_int(logid)= 9233
group by
    dow
order by
    dow
```

| Dataset Name                          | Description                              | Log Category |
|---------------------------------------|------------------------------------------|--------------|
| Security-Zero-Day-Detected-On-Network | Zero-day malware detected on the network | traffic      |

```
select
    virus_s,
    app,
    count(distinct dstip) as victims,
    count(distinct srcip) as source,
    sum(total_num) as total_num
from
    ###(select unnest(string_to_array(virus, ',')) as virus_s, app, dstip, srcip, count(*) as
    total_num from $log where $filter and logid_to_int(logid) not in (4, 7, 14, 20) and
    virus like '%PossibleThreat.SB%' group by virus_s, dstip, srcip, app)### t group by
    virus_s, app order by total_num desc
```

| Dataset Name                             | Description                             | Log Category |
|------------------------------------------|-----------------------------------------|--------------|
| security-Data-Loss-Incidents-By-Severity | Data loss incidents summary by severity | dlp          |

```
select
    initcap(severity :: text) as s_severity,
    count(*) as total_num
from
    $log
where
    $filter
    and severity is not null
group by
    s_severity
order by
    total_num desc
```

| Dataset Name                        | Description                | Log Category |
|-------------------------------------|----------------------------|--------------|
| security-Data-Loss-Files-By-Service | Data Loss Files By Service | dlp          |



```

select
  filename,
  (
    case direction when 'incoming' then 'Download' when 'outgoing' then 'Upload' end
  ) as action,
  max(filesize) as filesize,
  service
from
  $log
where
  $filter
  and filesize is not null
group by
  filename,
  direction,
  service
order by
  filesize desc

```

| Dataset Name                              | Description                      | Log Category |
|-------------------------------------------|----------------------------------|--------------|
| security-Endpoint-Security-Events-Summary | Endpoint Security Events summary | fct-traffic  |

```

select
  (
    case utmevent when 'antivirus' then 'Malware incidents' when 'webfilter' then
      'Malicious/phishing websites' when 'appfirewall' then 'Risk applications' when 'dlp'
      then 'Data loss incidents' when 'netscan' then 'Vulnerability detected' else
      'Others' end
  ) as events,
  count(*) as total_num
from
  $log
where
  $filter
  and utmevent is not null
group by
  events
order by
  total_num desc

```

| Dataset Name                                        | Description                             | Log Category |
|-----------------------------------------------------|-----------------------------------------|--------------|
| security-Top-Endpoing-Running-High-Risk-Application | Endpoints Running High Risk Application | fct-traffic  |

```

select
  coalesce(
    nullifna(`user`),
    ipstr(`srcip`),
    'Unknown'
  ) as f_user,
  coalesce(
    nullifna(hostname),
    'Unknown'
  ) as host_name,
  threat as app,

```

```

        t2.app_cat as appcat,
        risk as d_risk
from
    $log t1
    inner join app_mdata t2 on t1.threat = t2.name
where
    $filter
    and utmevent = 'appfirewall'
    and risk >= '4'
group by
    f_user,
    host_name,
    t1.threat,
    t2.app_cat,
    t2.risk
order by
    risk desc

```

| Dataset Name                                 | Description                     | Log Category |
|----------------------------------------------|---------------------------------|--------------|
| security-Top-Endpoints-Infected-With-Malware | Endpoints Infected With Malware | fct-event    |

```

select
    coalesce(
        nullifna(`user`),
        ipstr(`deviceip`),
        'Unknown'
    ) as f_user,
    coalesce(
        nullifna(hostname),
        'Unknown'
    ) as host_name,
    virus,
    file
from
    $log
where
    $filter
    and clientfeature = 'av'
    and virus is not null
group by
    f_user,
    host_name,
    virus,
    file

```

| Dataset Name                                | Description                   | Log Category |
|---------------------------------------------|-------------------------------|--------------|
| security-Top-Endpoints-With-Web-Violateions | Endpoints With Web Violations | fct-traffic  |

```

select
    f_user,
    host_name,
    remotename,
    sum(total_num) as total_num

```

```

from
  ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as f_user, coalesce(nullifna
    (hostname), 'Unknown') as host_name, remotename, count(*) as total_num from $log where
    $filter and utmevent='webfilter' and remotename is not null and utmaction='blocked'
    group by f_user, host_name, remotename order by total_num desc)### t group by f_user,
    host_name, remotename order by total_num desc

```

| Dataset Name                                    | Description                        | Log Category |
|-------------------------------------------------|------------------------------------|--------------|
| security-Top-Endpoints-With-Data-Loss-Incidents | Endpoints With Data Loss Incidents | fct-event    |

```

select
  f_user,
  host_name,
  msg,
  sum(total_num) as total_num
from
  ###(select coalesce(nullifna(`user`), ipstr(`deviceip`), 'Unknown') as f_user, coalesce
    (nullifna(hostname), 'Unknown') as host_name, msg, count(*) as total_num from $log
    where $filter and clientfeature='dlp' group by f_user, host_name, msg order by total_
    num desc)### t group by f_user, host_name, msg order by total_num desc

```

| Dataset Name                                               | Description                                                | Log Category |
|------------------------------------------------------------|------------------------------------------------------------|--------------|
| content-Count-Total-SCCP-Call-Registrations-by-Hour-of-Day | Content count total SCCP call registrations by hour of day | content      |

```

select
  $hour_of_day as hourstamp,
  count(*) as totalnum
from
  $log
where
  $filter
  and proto = 'sccp'
  and kind = 'register'
group by
  hourstamp
order by
  hourstamp

```

| Dataset Name                                           | Description                                            | Log Category |
|--------------------------------------------------------|--------------------------------------------------------|--------------|
| content-Count-Total-SCCP-Calls-Duration-by-Hour-of-Day | Content count total SCCP calls duration by hour of day | content      |

```

select
  $hour_of_day as hourstamp,
  sum(duration) as sccp_usage
from
  $log
where
  $filter
  and proto = 'sccp'
  and kind = 'call-info'
  and status = 'end'
group by

```

```

    hourstamp
order by
    hourstamp

```

| Dataset Name                              | Description                               | Log Category |
|-------------------------------------------|-------------------------------------------|--------------|
| content-Count-Total-SCCP-Calls-per-Status | Content count total SCCP calls per status | content      |

```

select
    status,
    count(*) as totalnum
from
    $log
where
    $filter
    and proto = 'sccp'
    and kind = 'call-info'
group by
    status
order by
    totalnum desc

```

| Dataset Name                                              | Description                                               | Log Category |
|-----------------------------------------------------------|-----------------------------------------------------------|--------------|
| content-Count-Total-SIP-Call-Registrations-by-Hour-of-Day | Content count total SIP call registrations by hour of day | content      |

```

select
    $hour_of_day as hourstamp,
    count(*) as totalnum
from
    $log
where
    $filter
    and proto = 'sip'
    and kind = 'register'
group by
    hourstamp
order by
    hourstamp

```

| Dataset Name                             | Description                              | Log Category |
|------------------------------------------|------------------------------------------|--------------|
| content-Count-Total-SIP-Calls-per-Status | Content count total SIP calls per status | content      |

```

select
    status,
    count(*) as totalnum
from
    $log
where
    $filter
    and proto = 'sip'
    and kind = 'call'
group by

```

```

    status
order by
    totalnum desc

```

| Dataset Name                             | Description                              | Log Category |
|------------------------------------------|------------------------------------------|--------------|
| content-Dist-Total-SIP-Calls-by-Duration | Content dist total SIP calls by duration | content      |

```

select
    (
        case when duration < 60 then 'LESS_ONE_MIN' when duration < 600 then 'LESS_TEN_MIN' when
            duration < 3600 then 'LESS_ONE_HOUR' when duration >= 3600 then 'MORE_ONE_HOUR' else
            'unknown' end
    ) as f_duration,
    count(*) as totalnum
from
    $log
where
    $filter
    and proto = 'sip'
    and kind = 'call'
    and status = 'end'
group by
    f_duration
order by
    totalnum desc

```

| Dataset Name               | Description                | Log Category |
|----------------------------|----------------------------|--------------|
| Botnet-Activity-By-Sources | Botnet activity by sources | traffic      |

```

select
    app,
    coalesce(
        nullifna(`user`),
        nullifna(`unauthuser`),
        ipstr(`srcip`)
    ) as user_src,
    count(*) as events
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and appcat = 'Botnet'
    and nullifna(app) is not null
group by
    app,
    user_src
order by
    events desc

```

| Dataset Name          | Description           | Log Category |
|-----------------------|-----------------------|--------------|
| Botnet-Infected-Hosts | Botnet infected hosts | traffic      |

```

select

```

```

coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
) as user_src,
devtype,
coalesce(srcname, srcmac) as host_mac,
count(*) as events
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and appcat = 'Botnet'
group by
    user_src,
    devtype,
    host_mac
order by
    events desc

```

| Dataset Name    | Description     | Log Category |
|-----------------|-----------------|--------------|
| Detected-Botnet | Detected botnet | traffic      |

```

select
    app,
    count(*) as events
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and appcat = 'Botnet'
    and nullifna(app) is not null
group by
    app
order by
    events desc

```

| Dataset Name   | Description    | Log Category |
|----------------|----------------|--------------|
| Botnet-Sources | Botnet sources | traffic      |

```

select
    dstip,
    root_domain(hostname) as domain,
    count(*) as events
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and appcat = 'Botnet'
    and dstip is not null
group by
    dstip,
    domain

```

```
order by
  events desc
```

| Dataset Name   | Description    | Log Category |
|----------------|----------------|--------------|
| Botnet-Victims | Botnet victims | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as events
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and appcat = 'Botnet'
  and srcip is not null
group by
  user_src
order by
  events desc
```

| Dataset Name    | Description     | Log Category |
|-----------------|-----------------|--------------|
| Botnet-Timeline | Botnet timeline | traffic      |

```
select
  $flex_datetime(timestamp) as hodex,
  sum(events) as events
from
  (
    ###(select $flex_timestamp as timestamp, count(*) as events from $log where $filter and
      logid_to_int(logid) not in (4, 7, 14, 20) and appcat='Botnet' group by timestamp
      order by timestamp desc)### union all ###(select $flex_timestamp as timestamp, count
      (*) as events from $log-dns where $filter and (botnetdomain is not null or botnetip
      is not null) group by timestamp order by timestamp)###) t group by hodex order by
      hodex
```

| Dataset Name                | Description                 | Log Category |
|-----------------------------|-----------------------------|--------------|
| Application-Session-History | Application session history | traffic      |

```
select
  $flex_timescale(timestamp) as hodex,
  sum(counter) as counter
from
  ###(select $flex_timestamp as timestamp, count(*) as counter from $log where $filter and
    logid_to_int(logid) not in (4, 7, 14, 20) group by timestamp order by timestamp
    desc)### t group by hodex order by hodex
```

| Dataset Name           | Description                | Log Category |
|------------------------|----------------------------|--------------|
| Application-Usage-List | Detailed application usage | traffic      |

```
select
```

```

appid,
app,
appcat,
(
  case when (
    utmaction in ('block', 'blocked')
    or action = 'deny'
  ) then 'Blocked' else 'Allowed' end
) as custaction,
sum(
  coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth,
count(*) as num_session
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and nullifna(app) is not null
and policyid != 0
group by
appid,
app,
appcat,
custaction
order by
bandwidth desc

```

| Dataset Name               | Description                | Log Category |
|----------------------------|----------------------------|--------------|
| PCI-DSS-Compliance-Summary | PCI DSS Compliance Summary | event        |

```

select
  status,
  num_reason as requirements,
  cast(
    num_reason * 100.0 /(
      sum(num_reason) over()
    ) as decimal(18, 2)
  ) as percent
from
(
  select
    (
      case when fail_count > 0 then 'Non-Compliant' else 'Compliant' end
    ) as status,
    count(distinct reason) as num_reason
  from
    (
      select
        ftnt_pci_id,
        (
          sum(fail_count) over (partition by ftnt_pci_id)
        ) as fail_count,
        reason
      from

```



```

###(select ftnt_pci_id, (case when result='fail' then 1 else 0 end) as fail_
count, reason from $log t1 inner join pci_dss_mdata t2 on
t1.reason=t2.ftnt_id where $filter and subtype='compliance-check' group by
ftnt_pci_id, result, reason)### t) t group by status) t order by status

```

| Dataset Name                                   | Description                                    | Log Category |
|------------------------------------------------|------------------------------------------------|--------------|
| PCI-DSS-Non-Compliant-Requirements-By-Severity | PCI DSS Non-Compliant Requirements by Severity | event        |

with query as (

```

select
*
from
(
select
ftnt_pci_id,
severity,
(
sum(fail_count) over (partition by ftnt_pci_id)
) as fail_count,
reason
from
###(select ftnt_pci_id, t2.severity, (case when result='fail' then 1 else 0 end) as
fail_count, reason from $log t1 inner join pci_dss_mdata t2 on
t1.reason=t2.ftnt_id where $filter and subtype='compliance-check' group by
ftnt_pci_id, t2.severity, result, reason)### t) t where fail_count>0) select
t.severity, count(distinct t.reason) as requirements from (select distinct on
(1) reason, severity from query order by reason, (case lower(severity) when
'high' then 4 when 'critical' then 3 when 'medium' then 2 when 'low' then 1
else 0 end) desc) t group by t.severity order by requirements desc

```

| Dataset Name                               | Description                                | Log Category |
|--------------------------------------------|--------------------------------------------|--------------|
| PCI-DSS-Compliant-Requirements-By-Severity | PCI DSS Compliant Requirements by Severity | event        |

with query as (

```

select
*
from
(
select
ftnt_pci_id,
severity,
(
sum(fail_count) over (partition by ftnt_pci_id)
) as fail_count,
reason
from
###(select ftnt_pci_id, t2.severity, (case when result='fail' then 1 else 0 end) as
fail_count, reason from $log t1 inner join pci_dss_mdata t2 on
t1.reason=t2.ftnt_id where $filter and subtype='compliance-check' group by
ftnt_pci_id, t2.severity, result, reason)### t) t where fail_count=0) select
t.severity, count(distinct t.reason) as requirements from (select distinct on
(1) reason, severity from query order by reason, (case lower(severity) when
'high' then 4 when 'critical' then 3 when 'medium' then 2 when 'low' then 1
else 0 end) desc) t group by t.severity order by requirements desc

```

| Dataset Name                                    | Description                                     | Log Category |
|-------------------------------------------------|-------------------------------------------------|--------------|
| PCI-DSS-Fortinet-Security-Best-Practice-Summary | PCI DSS Fortinet Security Best Practice Summary | event        |

```

select
    status,
    num_reason as practices,
    cast(
        num_reason * 100.0 / (
            sum(num_reason) over()
        ) as decimal(18, 2)
    ) as percent
from
    (
        select
            (
                case when result = 'fail' then 'Failed' else 'Passed' end
            ) as status,
            count(distinct reason) as num_reason
        from
            ###(select result, reason from $log where $filter and subtype='compliance-check' and
                result in ('fail','pass') group by result, reason)### t group by status) t order
            by status desc
    )

```

| Dataset Name                                                | Description                                                 | Log Category |
|-------------------------------------------------------------|-------------------------------------------------------------|--------------|
| PCI-DSS-Failed-Fortinet-Security-Best-Practices-By-Severity | PCI DSS Failed Fortinet Security Best Practices by Severity | event        |

```

select
    status,
    num_reason as practices,
    cast(
        num_reason * 100.0 / (
            sum(num_reason) over()
        ) as decimal(18, 2)
    ) as percent
from
    (
        select
            initcap(status) as status,
            count(distinct reason) as num_reason
        from
            ###(select status, reason from $log where $filter and subtype='compliance-check' and
                result='fail' group by status, reason)### t group by status) t order by status
    )

```

| Dataset Name                                                | Description                                                 | Log Category |
|-------------------------------------------------------------|-------------------------------------------------------------|--------------|
| PCI-DSS-Passed-Fortinet-Security-Best-Practices-By-Severity | PCI DSS Passed Fortinet Security Best Practices by Severity | event        |

```

select
    status,
    num_reason as practices,
    cast(
        num_reason * 100.0 / (

```

```

        sum(num_reason) over()
    ) as decimal(18, 2)
) as percent
from
(
    select
        initcap(status) as status,
        count(distinct reason) as num_reason
    from
        ###(select status, reason from $log where $filter and subtype='compliance-check' and
            result='pass' group by status, reason)### t group by status) t order by status

```

| Dataset Name                            | Description                             | Log Category |
|-----------------------------------------|-----------------------------------------|--------------|
| PCI-DSS-Requirements-Compliance-Details | PCI DSS Requirements Compliance Details | event        |

```

select
    ftnt_pci_id,
    left(
        string_agg(distinct ftnt_id, ','),
        120
    ) as practice,
    (
        case when sum(fail_count)> 0 then 'Non-Compliant' else 'Compliant' end
    ) as compliance,
    pci_requirement
from
    ###(select ftnt_pci_id, ftnt_id, (case when result='fail' then 1 else 0 end) as fail_count,
        pci_requirement from $log t1 inner join pci_dss_mdata t2 on t1.reason=t2.ftnt_id where
        $filter and subtype='compliance-check' group by ftnt_pci_id, ftnt_id, result, pci_
        requirement)### t group by ftnt_pci_id, pci_requirement order by ftnt_pci_id

```

| Dataset Name                                    | Description                                     | Log Category |
|-------------------------------------------------|-------------------------------------------------|--------------|
| PCI-DSS-Fortinet-Security-Best-Practice-Details | PCI DSS Fortinet Security Best Practice Details | event        |

```

select
    reason as ftnt_id,
    msg,
    initcap(status) as status,
    module
from
    $log
where
    $filter
    and subtype = 'compliance-check'
group by
    reason,
    status,
    module,
    msg
order by
    ftnt_id

```

| Dataset Name               | Description                  | Log Category |
|----------------------------|------------------------------|--------------|
| DLP-Email-Activity-Details | Email DLP Violations Summary | dlp          |

```

select
  from_itime(itime) as timestamp,
  `from` as sender,
  `to` as receiver,
  regexp_replace(filename, '.*/', '') as filename,
  filesize,
  profile,
  action,
  direction
from
  $log
where
  $filter
  and (
    service in (
      'smtp', 'SMTP', '25/tcp', '587/tcp',
      'smtps', 'SMTPS', '465/tcp'
    )
    or service in (
      'pop3', 'POP3', '110/tcp', 'imap',
      'IMAP', '143/tcp', 'imaps', 'IMAPS',
      '993/tcp', 'pop3s', 'POP3S', '995/tcp'
    )
  )
order by
  timestamp desc

```

| Dataset Name    | Description                | Log Category |
|-----------------|----------------------------|--------------|
| Email-DLP-Chart | Email DLP Activity Summary | dlp          |

```

select
  profile,
  count(*) as total_num
from
  $log
where
  $filter
  and (
    service in (
      'smtp', 'SMTP', '25/tcp', '587/tcp',
      'smtps', 'SMTPS', '465/tcp'
    )
    or service in (
      'pop3', 'POP3', '110/tcp', 'imap',
      'IMAP', '143/tcp', 'imaps', 'IMAPS',
      '993/tcp', 'pop3s', 'POP3S', '995/tcp'
    )
  )
group by
  profile
order by
  total_num desc

```

| Dataset Name             | Description                | Log Category |
|--------------------------|----------------------------|--------------|
| DLP-Web-Activity-Details | Web DLP Violations Summary | dlp          |

```
select
  from_itime(itime) as timestamp,
  srcip,
  dstip,
  hostname,
  profile,
  filename,
  filesize,
  action,
  direction
from
  $log
where
  $filter
  and lower(service) in ('http', 'https')
order by
  timestamp desc
```

| Dataset Name  | Description              | Log Category |
|---------------|--------------------------|--------------|
| Web-DLP-Chart | Web DLP Activity Summary | dlp          |

```
select
  profile,
  count(*) as total_num
from
  $log
where
  $filter
  and lower(service) in ('http', 'https')
group by
  profile
order by
  total_num desc
```

| Dataset Name             | Description                | Log Category |
|--------------------------|----------------------------|--------------|
| DLP-FTP-Activity-Details | Web DLP Violations Summary | dlp          |

```
select
  from_itime(itime) as timestamp,
  srcip,
  dstip,
  filename,
  profile,
  filesize,
  action,
  direction
from
  $log
where
  $filter
  and lower(service) in ('ftp', 'ftps')
```

```
order by
    timestamp desc
```

| Dataset Name  | Description              | Log Category |
|---------------|--------------------------|--------------|
| FTP-DLP-Chart | FTP DLP Activity Summary | dlp          |

```
select
    profile,
    count(*) as total_num
from
    $log
where
    $filter
    and lower(service) in ('ftp', 'ftps')
group by
    profile
order by
    total_num desc
```

| Dataset Name            | Description                     | Log Category |
|-------------------------|---------------------------------|--------------|
| top-users-by-browsetime | Top Users by website browsetime | traffic      |

```
select
    user_src,
    domain,
    ebtr_value(
        ebtr_agg_flat(browsetime),
        null,
        $timespan
    ) as browsetime
from
    ###(select user_src, domain, ebtr_agg_flat(browsetime) as browsetime from (select coalesce
        (nullifna(`user`), ipstr(`srcip`)) as user_src, coalesce(nullifna(hostname), ipstr
        (`dstip`)) as domain, ebtr_agg_flat($browse_time) as browsetime from $log where
        $filter and $browse_time is not null group by user_src, domain) t group by user_src,
        domain order by ebtr_value(ebtr_agg_flat(browsetime), null, null) desc)### t group by
        user_src, domain order by browsetime desc
```

| Dataset Name                     | Description                        | Log Category |
|----------------------------------|------------------------------------|--------------|
| wifi-usage-by-hour-authenticated | Wifi Usage by Hour - Authenticated | event        |

```
select
    hod,
    count(distinct stamac) as totalnum
from
    ###(select $HOUR_OF_DAY as hod, stamac from $log where $filter and subtype='wireless' and
        action='client-authentication' group by hod, stamac)### t group by hod order by hod
```

| Dataset Name                      | Description                         | Log Category |
|-----------------------------------|-------------------------------------|--------------|
| wifi-usage-authenticated-timeline | Wifi Usage Timeline - Authenticated | event        |

```
select
    $flex_timescale(timestamp) as hodex,
    count(distinct stamac) as totalnum
```

```

from
  ###(select $flex_timestamp as timestamp, stamac from $log where $filter and
    subtype='wireless' and action='client-authentication' group by timestamp, stamac order
    by timestamp desc)### t group by hodex order by hodex

```

| Dataset Name              | Description                                     | Log Category |
|---------------------------|-------------------------------------------------|--------------|
| app-top-user-by-bandwidth | Top 10 Applications Bandwidth by User Drilldown | traffic      |

```

select
  app,
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  sum(
    coalesce(`sentbyte`, 0)+ coalesce(`rcvdbyte`, 0)
  ) as bandwidth
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(app) is not null
group by
  app,
  user_src
order by
  bandwidth desc

```

| Dataset Name            | Description                                   | Log Category |
|-------------------------|-----------------------------------------------|--------------|
| app-top-user-by-session | Top 10 Application Sessions by User Drilldown | traffic      |

```

select
  app,
  coalesce(
    nullifna(`user`),
    nullifna(`unauthuser`),
    ipstr(`srcip`)
  ) as user_src,
  count(*) as sessions
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and nullifna(app) is not null
group by
  app,
  user_src
order by
  sessions desc

```

| Dataset Name                      | Description               | Log Category |
|-----------------------------------|---------------------------|--------------|
| traffic-Interface-Bandwidth-Usage | Interface Bandwidth Usage | traffic      |

with qry as (

```

select
  dom as dom_s,
  devid as devid_s,
  vd as vd_s,
  srcintf,
  dstintf,
  total_sent,
  total_rcvd
from
  ###(select $DAY_OF_MONTH as dom, devid, vd, srcintf, dstintf, sum(coalesce(sentbyte, 0))
    as total_sent, sum(coalesce(rcvdbyte, 0)) as total_rcvd, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as total from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and nullifna(srcintf) is not null and nullifna(dstintf) is not
    null group by dom, devid, vd, srcintf, dstintf having sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0))>0 order by total desc)### t) select dom, unnest(array
    ['download', 'upload']) as type, unnest(array[sum(download), sum(upload)]) as
    bandwidth from (select coalesce(t1.dom_s, t2.dom_s) as dom, coalesce(t1.devid_s,
    t2.devid_s) as devid, coalesce(t1.vd_s, t2.vd_s) as vd, coalesce(t1.srcintf,
    t2.dstintf) as intf, sum(coalesce(t1.total_sent, 0)+coalesce(t2.total_rcvd, 0)) as
    download, sum(coalesce(t2.total_sent, 0)+coalesce(t1.total_rcvd, 0)) as upload from
    qry t1 full join qry t2 on t1.dom_s=t2.dom_s and t1.srcintf=t2.dstintf group by dom,
    devid, vd, intf) t where $filter-drilldown group by dom order by dom

```

| Dataset Name                                   | Description                        | Log Category |
|------------------------------------------------|------------------------------------|--------------|
| ctap-SB-Files-Needing-Inspection-vs-<br>Others | Files Needing Inspection vs Others | virus        |

```

select
  (
    case when suffix in (
      'bat', 'cmd', 'exe', 'jar', 'msi', 'vbs',
      '7z', 'zip', 'gzip', 'lzw', 'tar',
      'rar', 'cab', 'doc', 'docx', 'xls',
      'xlsx', 'ppt', 'pptx', 'pdf', 'swf',
      'lnk', 'js'
    ) then 'Higher Risk File Types' else 'Excluded Files' end
  ) as files,
  sum(total_num) as total_num
from
  ###(select file_name_ext(filename) as suffix, count(*) as total_num from $log where $filter
    and dtype='fortisandbox' and nullifna(filename) is not null group by suffix order by
    total_num desc)### t group by files order by total_num desc

```

| Dataset Name                    | Description             | Log Category |
|---------------------------------|-------------------------|--------------|
| ctap-SB-Breakdown-of-File-Types | Breakdown of File Types | virus        |

```

select
  (
    case when suffix in (
      'exe', 'msi', 'upx', 'vbs', 'bat', 'cmd',
      'dll', 'ps1', 'jar'
    ) then 'Executable Files' when suffix in ('pdf') then 'Adobe PDF' when suffix in ('swf')
      then 'Adobe Flash' when suffix in (
        'doc', 'docx', 'rtf', 'dotx', 'docm',
        'dotm', 'dot'
      ) then 'Microsoft Word' when suffix in (
        'xls', 'xlsx', 'xltx', 'xlsm', 'xlsb',

```



```

        'xlam', 'xlt'
    ) then 'Microsoft Excel' when suffix in (
        'ppsx', 'ppt', 'pptx', 'potx', 'sldx',
        'pptm', 'ppsm', 'potm', 'ppam', 'sldm',
        'pps', 'pot'
    ) then 'Microsoft PowerPoint' when suffix in ('msg') then 'Microsoft Outlook' when suffix
        in ('htm', 'js', 'url', 'lnk') then 'Web Files' when suffix in (
        'cab', 'tgz', 'z', '7z', 'tar', 'lzh',
        'kgb', 'rar', 'zip', 'gz', 'xz', 'bz2'
    ) then 'Archive Files' when suffix in ('apk') then 'Android Files' else 'Others' end
    ) as filetype,
    sum(total_num) as total_num
from
    ###(select file_name_ext(filename) as suffix, count(*) as total_num from $log where $filter
        and dtype='fortisandbox' and nullifna(filename) is not null group by suffix order by
        total_num desc)### t group by filetype order by total_num desc

```

| Dataset Name                       | Description | Log Category |
|------------------------------------|-------------|--------------|
| ctap-SB-Top-Sandbox-Malicious-Exes |             | virus        |

```

select
    (
        case fsaverdict when 'malicious' then 5 when 'high risk' then 4 when 'medium risk' then 3
            when 'low risk' then 2 else 1 end
    ) as risk,
    filename,
    service,
    count(*) as total_num
from
    $log
where
    $filter
    and dtype = 'fortisandbox'
    and file_name_ext(filename)= 'exe'
    and fsaverdict not in ('clean', 'submission failed')
group by
    filename,
    risk,
    service
order by
    risk desc,
    total_num desc,
    filename

```

| Dataset Name                                  | Description                           | Log Category |
|-----------------------------------------------|---------------------------------------|--------------|
| ctap-SB-Sources-of-Sandbox-Discovered-Malware | Sources of Sandbox Discovered Malware | virus        |

```

select
    srcip,
    count(*) as total_num
from
    $log
where
    $filter
    and dtype = 'fortisandbox'

```

```

    and nullifna(filename) is not null
    and fsaverdict not in ('clean', 'submission failed')
group by
    srcip
order by
    total_num desc

```

| Dataset Name                            | Description                            | Log Category |
|-----------------------------------------|----------------------------------------|--------------|
| ctap-apprisk-ctrl-High-Risk-Application | Application risk high risk application | traffic      |

```

select
    risk as d_risk,
    count(distinct user_src) as users,
    id,
    name,
    app_cat,
    technology,
    sum(bandwidth) as bandwidth,
    sum(sessions) as sessions
from
    ###(select lower(app) as lowapp, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr
        (`srcip`)) as user_src, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth,
        count(*) as sessions from $log where $filter and logid_to_int(logid) not in (4, 7, 14,
        20) group by lowapp, user_src order by bandwidth desc)### t1 inner join app_mdata t2
    on t1.lowapp=lower(t2.name) where risk>='4' group by id, name, app_cat, technology,
    risk order by d_risk desc, sessions desc

```

| Dataset Name                                | Description                            | Log Category |
|---------------------------------------------|----------------------------------------|--------------|
| ctap-apprisk-ctrl-Application-Vulnerability | Application vulnerabilities discovered | attack       |

```

select
    attack,
    attackid,
    vuln_type,
    cve,
    severity_number,
    count(distinct dstip) as victims,
    count(distinct srcip) as sources,
    sum(totalnum) as totalnum
from
    ###(select attack, attackid, vuln_type, t2.cve, (case when t1.severity='critical' then 5
        when t1.severity='high' then 4 when t1.severity='medium' then 3 when t1.severity='low'
        then 2 when t1.severity='info' then 1 else 0 end) as severity_number, dstip, srcip,
        count(*) as totalnum from $log t1 left join (select name, cve, vuln_type from ips_
        mdata) t2 on t1.attack=t2.name where $filter and nullifna(attack) is not null and
        t1.severity is not null group by attack, attackid, vuln_type, t2.cve, t1.severity,
        dstip, srcip )### t group by attack, attackid, vuln_type, severity_number, cve order
    by severity_number desc, totalnum desc

```

| Dataset Name                                  | Description                 | Log Category |
|-----------------------------------------------|-----------------------------|--------------|
| ctap-apprisk-ctrl-Common-Virus-Botnet-Spyware | Common Virus Botnet Spyware | app-ctrl     |

```

select

```

```

malware as virus,
(
  case when lower(appcat)= 'botnet' then 'Botnet C&C' else (
    case when malware like 'Riskware%' then 'Spyware' when malware like 'Adware%' then
      'Adware' else 'Virus' end
  ) end
) as malware_type,
appid,
app,
count(distinct dstip) as victims,
count(distinct srcip) as source,
sum(total_num) as total_num
from
(
  ###(select app as malware, appcat, appid, app, dstip, srcip, count(*) as total_num from
    $log-app-ctrl where $filter and lower(appcat)='botnet' group by malware, appcat,
    appid, app, dstip, srcip, app order by total_num desc)### union all ###(select virus
    as malware, 'null' as appcat, 0 as appid, service as app, dstip, srcip, count(*) as
    total_num from $log-virus where $filter and virus is not null group by malware,
    appcat, app, appid, dstip, srcip order by total_num desc)###) t group by malware,
    malware_type, app, appid order by total_num desc

```

| Dataset Name                                   | Description                      | Log Category |
|------------------------------------------------|----------------------------------|--------------|
| ctap-App-Risk-Reputation-Top-Devices-By-Scores | Reputation Top Devices By-Scores | traffic      |

```

select
  coalesce(
    nullifna(`srcname`),
    ipstr(`srcip`),
    nullifna(`srcmac`)
  ) as dev_src,
  sum(crscore % 65536) as scores
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and crscore is not null
group by
  dev_src
having
  sum(crscore % 65536) > 0
order by
  scores desc

```

| Dataset Name                | Description            | Log Category |
|-----------------------------|------------------------|--------------|
| ctap-HTTP-SSL-Traffic-Ratio | HTTP SSL Traffic Ratio | traffic      |

```

select
(
  case when service in ('80/tcp', 'HTTP', 'http') then 'HTTP' else 'HTTPS' end
) as service,
sum(
  coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth

```

```

from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(app) is not null
    and service in (
        '80/tcp', '443/tcp', 'HTTP', 'HTTPS',
        'http', 'https'
    )
group by
    service
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc

```

| Dataset Name              | Description          | Log Category |
|---------------------------|----------------------|--------------|
| ctap-Top-Source-Countries | Top Source Countries | traffic      |

```

select
    srccountry,
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    ) as bandwidth
from
    $log
where
    $filter
    and logid_to_int(logid) not in (4, 7, 14, 20)
    and nullifna(srccountry) is not null
    and srccountry <> 'Reserved'
group by
    srccountry
having
    sum(
        coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
    )> 0
order by
    bandwidth desc,
    srccountry

```

| Dataset Name   | Description    | Log Category |
|----------------|----------------|--------------|
| ctap-SaaS-Apps | CTAP SaaS Apps | traffic      |

```

select
    app_group,
    sum(bandwidth) as bandwidth
from
    ###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
    0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
    as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
    (coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner

```

```
join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where behavior like '%Cloud%'
group by app_group order by bandwidth desc
```

| Dataset Name   | Description    | Log Category |
|----------------|----------------|--------------|
| ctap-iaaS-Apps | CTAP IaaS Apps | traffic      |

```
select
    app_group,
    sum(bandwidth) as bandwidth
from
    ###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
    0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
    as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
    (coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner
    join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where app_cat='Cloud.IT' group
    by app_group order by bandwidth desc
```

| Dataset Name  | Description   | Log Category |
|---------------|---------------|--------------|
| ctap-RAS-Apps | CTAP RAS Apps | traffic      |

```
select
    name as app_group,
    sum(bandwidth) as bandwidth
from
    ###(select lower(app_group_name(app)) as app_group, sum(coalesce(sentbyte, 0)+coalesce
    (rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce
    (sentbyte, 0)) as traffic_out, count(*) as sessions from $log where $filter and logid_
    to_int(logid) not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group_
    having sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)###
    t1 inner join app_mdata t2 on t1.app_group=lower(t2.name) where app_
    cat='Remote.Access' group by name order by bandwidth desc
```

| Dataset Name    | Description     | Log Category |
|-----------------|-----------------|--------------|
| ctap-Proxy-Apps | CTAP Proxy Apps | traffic      |

```
select
    name as app_group,
    sum(bandwidth) as bandwidth
from
    ###(select lower(app_group_name(app)) as app_group, sum(coalesce(sentbyte, 0)+coalesce
    (rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce
    (sentbyte, 0)) as traffic_out, count(*) as sessions from $log where $filter and logid_
    to_int(logid) not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group_
    having sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)###
    t1 inner join app_mdata t2 on t1.app_group=lower(t2.name) where app_cat='Proxy' group
    by name order by bandwidth desc
```

| Dataset Name                          | Description                                     | Log Category |
|---------------------------------------|-------------------------------------------------|--------------|
| ctap-Top-SocialMedia-App-By-Bandwidth | Top SocialMedia Applications by Bandwidth Usage | traffic      |

```
select
    app_group,
    sum(bandwidth) as bandwidth,
```

```

sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out,
sum(sessions) as sessions
from
###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner
join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where app_cat='Social.Media'
group by app_group order by bandwidth desc

```

| Dataset Name                        | Description                                   | Log Category |
|-------------------------------------|-----------------------------------------------|--------------|
| ctap-Top-Streaming-App-By-Bandwidth | Top Streaming applications by bandwidth usage | traffic      |

```

select
app_group,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out,
sum(sessions) as sessions
from
###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner
join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where app_cat='Video/Audio'
group by app_group order by bandwidth desc

```

| Dataset Name                   | Description                              | Log Category |
|--------------------------------|------------------------------------------|--------------|
| ctap-Top-Game-App-By-Bandwidth | Top Game applications by bandwidth usage | traffic      |

```

select
app_group,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out,
sum(sessions) as sessions
from
###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner
join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where app_cat='Game' group by
app_group order by bandwidth desc

```

| Dataset Name                  | Description                             | Log Category |
|-------------------------------|-----------------------------------------|--------------|
| ctap-Top-P2P-App-By-Bandwidth | Top P2P applications by bandwidth usage | traffic      |

```

select
app_group,
sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,

```

```

sum(traffic_out) as traffic_out,
sum(sessions) as sessions
from
###(select app_group_name(app) as app_group, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte,
0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum(coalesce(sentbyte, 0))
as traffic_out, count(*) as sessions from $log where $filter and logid_to_int(logid)
not in (4, 7, 14, 20) and nullifna(app) is not null group by app_group having sum
(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0))>0 order by bandwidth desc)### t1 inner
join app_mdata t2 on lower(t1.app_group)=lower(t2.name) where app_cat='P2P' group by
app_group order by bandwidth desc

```

| Dataset Name                                 | Description                   | Log Category |
|----------------------------------------------|-------------------------------|--------------|
| ctap-apprisk-ctrl-Top-Web-Categories-Visited | Top 25 Web Categories Visited | traffic      |

```

select
catdesc,
count(distinct f_user) as user_num,
sum(sessions) as sessions,
sum(bandwidth) as bandwidth
from
###(select catdesc, coalesce(nullifna(`user`), nullifna(`unauthuser`), ipstr(`srcip`)) as f_
user, count(*) as sessions, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as
bandwidth from $log-traffic where $filter and catdesc is not null and logid_to_int
(logid) not in (4, 7, 14, 20) and (countweb>0 or ((logver is null or logver<52) and
(hostname is not null or utmevent in ('webfilter', 'banned-word', 'web-content',
'command-block', 'script-filter')))) group by f_user, catdesc order by sessions
desc)### t group by catdesc order by sessions desc

```

| Dataset Name                                 | Description                                     | Log Category |
|----------------------------------------------|-------------------------------------------------|--------------|
| ctap-App-Risk-Applications-Running-Over-HTTP | Application risk applications running over HTTP | traffic      |

```

select
app_group_name(app) as app_group,
service,
count(*) as sessions,
sum(
coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
) as bandwidth
from
$log
where
$filter
and logid_to_int(logid) not in (4, 7, 14, 20)
and nullifna(app) is not null
and service in (
'80/tcp', '443/tcp', 'HTTP', 'HTTPS',
'http', 'https'
)
group by
app_group,
service
having
sum(
coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)

```

```

    )> 0
order by
    bandwidth desc

```

| Dataset Name                                          | Description                                              | Log Category |
|-------------------------------------------------------|----------------------------------------------------------|--------------|
| ctap-App-Risk-Web-Browsing-Activity-Hostname-Category | Application risk web browsing activity hostname category | traffic      |

```

select
    domain,
    catdesc,
    sum(visits) as visits
from
    (
        ###(select coalesce(nullifna(hostname), ipstr(`dstip`)) as domain, catdesc, count(*) as
        visits from $log-traffic where $filter and logid_to_int(logid) not in (4, 7, 14, 20)
        and utmevent in ('webfilter', 'banned-word', 'web-content', 'command-block',
        'script-filter') and catdesc is not null group by domain, catdesc order by visits
        desc)### union all ###(select coalesce(nullifna(hostname), ipstr(`dstip`)) as
        domain, catdesc, count(*) as visits from $log-webfilter where $filter and (eventtype
        is null or logver>=52) and catdesc is not null group by domain, catdesc order by
        visits desc)###) t group by domain, catdesc order by visits desc

```

| Dataset Name                    | Description                        | Log Category |
|---------------------------------|------------------------------------|--------------|
| ctap-Top-Sites-By-Browsing-Time | Traffic top sites by browsing time | traffic      |

```

select
    hostname,
    string_agg(distinct catdesc, ', ') as agg_catdesc,
    ebtr_value(
        ebtr_agg_flat(browsetime),
        null,
        $timespan
    ) as browsetime,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out
from
    ###(select hostname, catdesc, ebtr_agg_flat(browsetime) as browsetime, sum(bandwidth) as
    bandwidth, sum(traffic_in) as traffic_in, sum(traffic_out) as traffic_out from (select
    hostname, catdesc, ebtr_agg_flat($browse_time) as browsetime, sum(coalesce(sentbyte,
    0)+coalesce(rcvdbyte, 0)) as bandwidth, sum(coalesce(rcvdbyte, 0)) as traffic_in, sum
    (coalesce(sentbyte, 0)) as traffic_out from $log where $filter and logid_to_int(logid)
    not in (4, 7, 14, 20) and hostname is not null and $browse_time is not null group by
    hostname, catdesc) t group by hostname, catdesc order by ebtr_value(ebtr_agg_flat
    (browsetime), null, null) desc)### t group by hostname order by browsetime desc

```

| Dataset Name                | Description            | Log Category |
|-----------------------------|------------------------|--------------|
| ctap-Average-Bandwidth-Hour | Average Bandwidth Hour | traffic      |

```

select
    hourstamp,
    sum(bandwidth)/ count(distinct daystamp) as bandwidth
from
    ###(select to_char(from_dtime(dtime), 'HH24:00') as hourstamp, to_char(from_dtime(dtime),
    'DD Mon') as daystamp, sum(coalesce(sentbyte, 0)+coalesce(rcvdbyte, 0)) as bandwidth

```



```
from $log where $filter group by hourstamp, daystamp having sum(coalesce(sentbyte,
0)+coalesce(rcvdbyte, 0))>0 order by hourstamp)### t group by hourstamp order by
hourstamp
```

| Dataset Name             | Description         | Log Category |
|--------------------------|---------------------|--------------|
| ctap-Top-Bandwidth-Hosts | Top Bandwidth Hosts | traffic      |

```
select
  hostname,
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) as bandwidth
from
  $log - traffic
where
  $filter
  and hostname is not null
  and logid_to_int(logid) not in (4, 7, 14, 20)
group by
  hostname
having
  sum(
    coalesce(sentbyte, 0)+ coalesce(rcvdbyte, 0)
  ) > 0
order by
  bandwidth desc
```

| Dataset Name                | Description                                | Log Category |
|-----------------------------|--------------------------------------------|--------------|
| saas-Application-Discovered | All Applications Discovered on the Network | traffic      |

```
select
  (
    case is_saas when 1 then 'SaaS Apps' else 'Other Apps' end
  ) as app_type,
  count(distinct app_s) as total_num
from
  ###(select app_s, (case when saas_s>=10 then 1 else 0 end) as is_saas from (select unnest
  (apps) as app_s, unnest(saasinfo) as saas_s from $log where $filter and apps is not
  null) t group by app_s, is_saas)### t group by is_saas order by is_saas
```

| Dataset Name                      | Description                             | Log Category |
|-----------------------------------|-----------------------------------------|--------------|
| saas-SaaS-Application-by-Category | Number of SaaS Applications by Category | traffic      |

```
select
  (
    case saas_cat when 0 then 'Sanctioned' else 'Unsanctioned' end
  ) as saas_cat_str,
  count(distinct app_s) as num_saas_app
from
  ###(select app_s, saas_s%10 as saas_cat, sum(sentbyte+rcvdbyte) as bandwidth, count(*) as
  total_app from (select unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce
  (sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte from $log where $filter
  and apps is not null) t where saas_s>=10 group by app_s, saas_cat order by bandwidth
  desc)### t where saas_cat in (0, 1) group by saas_cat order by saas_cat
```

| Dataset Name                       | Description                              | Log Category |
|------------------------------------|------------------------------------------|--------------|
| saas-SaaS-Application-by-Bandwidth | Number of SaaS Applications by Bandwidth | traffic      |

```
select
(
case saas_cat when 0 then 'Sanctioned' else 'Tolerated' end
) as saas_cat_str,
sum(bandwidth) as bandwidth
from
###(select app_s, saas_s%10 as saas_cat, sum(sentbyte+rcvdbyte) as bandwidth, count(*) as
total_app from (select unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce
(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte from $log where $filter
and apps is not null) t where saas_s>=10 group by app_s, saas_cat order by bandwidth
desc)### t where saas_cat in (0, 2) group by saas_cat order by saas_cat
```

| Dataset Name                     | Description                            | Log Category |
|----------------------------------|----------------------------------------|--------------|
| saas-SaaS-Application-by-Session | Number of SaaS Applications by Session | traffic      |

```
select
(
case saas_cat when 0 then 'Sanctioned' else 'Tolerated' end
) as saas_cat_str,
sum(total_app) as total_app
from
###(select app_s, saas_s%10 as saas_cat, sum(sentbyte+rcvdbyte) as bandwidth, count(*) as
total_app from (select unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce
(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte from $log where $filter
and apps is not null) t where saas_s>=10 group by app_s, saas_cat order by bandwidth
desc)### t where saas_cat in (0, 2) group by saas_cat order by saas_cat
```

| Dataset Name                  | Description                            | Log Category |
|-------------------------------|----------------------------------------|--------------|
| saas-SaaS-App-Users-vs-Others | Number of Users of SaaS Apps vs Others | traffic      |

```
select
(
case is_saas when 0 then 'Other Apps' else 'SaaS Apps' end
) as app_type,
count(distinct saasuser) as total_user
from
###(select saasuser, saas_s/10 as is_saas from (select coalesce(nullifna(`user`), nullifna
(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`)) as saasuser, unnest
(saasinfo) as saas_s from $log where $filter and apps is not null) t group by
saasuser, is_saas)### t group by app_type
```

| Dataset Name        | Description                  | Log Category |
|---------------------|------------------------------|--------------|
| saas-SaaS-App-Users | Number of Users of SaaS Apps | traffic      |

```
select
(
case saas_cat when 0 then 'Sanctioned' when 1 then 'Unsanctioned' else 'Others' end
) as app_type,
count(distinct saasuser) as total_user
from
```

```
###(select saasuser, saas_s%10 as saas_cat from (select coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`)) as saasuser, unnest(saasinfo) as saas_s from $log where $filter and apps is not null) t where saas_s>=10 group by saasuser, saas_cat)### t group by saas_cat order by saas_cat
```

| Dataset Name                            | Description                             | Log Category |
|-----------------------------------------|-----------------------------------------|--------------|
| saas-Top-SaaS-User-by-Bandwidth-Session | Top SaaS Users by Bandwidth and Session | traffic      |

```
select
  saasuser,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out,
  sum(sessions) as sessions,
  sum(session_block) as session_block,
  (
    sum(sessions)- sum(session_block)
  ) as session_pass,
  count(distinct app_s) as total_app
from
  ###(select saasuser, app_s, sum(sentbyte+rcvdbyte) as bandwidth, sum(rcvdbyte) as traffic_in, sum(sentbyte) as traffic_out, count(*) as sessions, sum(is_blocked) as session_block from (select coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`)) as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset', 'dropped')) THEN 1 ELSE 0 END) as is_blocked from $log where $filter and apps is not null) t where saas_s>=10 group by saasuser, app_s order by bandwidth desc)### t group by saasuser order by bandwidth desc
```

| Dataset Name                                | Description                              | Log Category |
|---------------------------------------------|------------------------------------------|--------------|
| saas-Top-Category-by-SaaS-Application-Usage | Top Categories by SaaS Application Usage | traffic      |

```
select
  app_cat,
  (
    case saas_cat when 0 then 'Sanctioned' else 'Unsanctioned' end
  ) as saas_cat_str,
  count(distinct app_s) as total_app
from
  ###(select app_s, saas_s%10 as saas_cat from (select unnest(apps) as app_s, unnest(saasinfo) as saas_s from $log where $filter and apps is not null) t where saas_s>=10 group by app_s, saas_cat)### t1 inner join app_mdata t2 on t1.app_s=t2.name where saas_cat in (0, 1) group by app_cat, saas_cat order by total_app desc
```

| Dataset Name                             | Description                            | Log Category |
|------------------------------------------|----------------------------------------|--------------|
| saas-Top-SaaS-Category-by-Number-of-User | Top SaaS Categories by Number of Users | traffic      |

```
select
  app_cat,
  (
    case saas_cat when 0 then 'Sanctioned' else 'Unsanctioned' end
```

```

    ) as saas_cat_str,
    count(distinct saasuser) as total_user
from
    ###(select app_s, saas_s%10 as saas_cat, saasuser from (select unnest(apps) as app_s, unnest
    (saasinfo) as saas_s, coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna
    (`unauthuser`), srcname, ipstr(`srcip`)) as saasuser from $log where $filter and apps
    is not null) t where saas_s>=10 group by app_s, saas_cat, saasuser)### t1 inner join
    app_mdata t2 on t1.app_s=t2.name where saas_cat in (0, 1) group by app_cat, saas_cat
    order by total_user desc

```

| Dataset Name                                | Description                              | Log Category |
|---------------------------------------------|------------------------------------------|--------------|
| saas-Top-User-by-Number-of-SaaS-Application | Top Users by Number of SaaS Applications | traffic      |

```

select
    saasuser,
    (
        case saas_cat when 0 then 'Sanctioned' else 'Unsanctioned' end
    ) as saas_cat_str,
    count(distinct app_s) as total_app
from
    ###(select app_s, saas_s%10 as saas_cat, saasuser from (select unnest(apps) as app_s, unnest
    (saasinfo) as saas_s, coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna
    (`unauthuser`), srcname, ipstr(`srcip`)) as saasuser from $log where $filter and apps
    is not null) t where saas_s>=10 group by app_s, saas_cat, saasuser)### t where saas_
    cat in (0, 1) group by saasuser, saas_cat order by total_app desc

```

| Dataset Name                                   | Description                                     | Log Category |
|------------------------------------------------|-------------------------------------------------|--------------|
| saas-Top-SaaS-Application-by-Bandwidth-Session | Top SaaS Applications by Sessions and Bandwidth | traffic      |

```

select
    t2.id as app_id,
    app_s,
    app_cat,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out,
    sum(sessions) as sessions,
    sum(session_block) as session_block,
    (
        sum(sessions)- sum(session_block)
    ) as session_pass
from
    ###(select app_s, sum(sentbyte+rcvdbyte) as bandwidth, sum(rcvdbyte) as traffic_in, sum
    (sentbyte) as traffic_out, count(*) as sessions, sum(is_blocked) as session_block from
    (select unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce(sentbyte, 0) as
    sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action IN ('deny', 'ip-conn',
    'dns') OR (utmaction IN ('block', 'blocked', 'reset', 'dropped')) THEN 1 ELSE 0 END)
    as is_blocked from $log where $filter and apps is not null) t where saas_s>=10 group
    by app_s)### t1 inner join app_mdata t2 on t1.app_s=t2.name group by app_id, app_s,
    app_cat order by bandwidth desc

```

| Dataset Name                                     | Description                                  | Log Category |
|--------------------------------------------------|----------------------------------------------|--------------|
| saas-Top-Tolerated-SaaS-Application-by-Bandwidth | Top Tolerated SaaS Applications by Bandwidth | traffic      |

```
select
  app_s,
  sum(sentbyte + rcvdbyte) as bandwidth
from
  (
    select
      unnest(apps) as app_s,
      unnest(saasinfo) as saas_s,
      coalesce(sentbyte, 0) as sentbyte,
      coalesce(rcvdbyte, 0) as rcvdbyte
    from
      $log
    where
      $filter
      and apps is not null
  ) t
where
  saas_s = 12
group by
  app_s
order by
  bandwidth desc
```

| Dataset Name                                  | Description                     | Log Category |
|-----------------------------------------------|---------------------------------|--------------|
| saas-drilldown-Top-Tolerated-SaaS-Application | Top Tolerated SaaS Applications | traffic      |

```
select
  app_s,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out,
  sum(sessions) as sessions,
  sum(session_block) as session_block,
  (
    sum(sessions) - sum(session_block)
  ) as session_pass
from
  ###(select saasuser, app_s, sum(sentbyte+rcvdbyte) as bandwidth, sum(rcvdbyte) as traffic_in,
  sum(sentbyte) as traffic_out, count(*) as sessions, sum(is_blocked) as session_block
  from (select coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna(`unauthuser`),
  srcname, ipstr(`srcip`)) as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s,
  coalesce(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte,
  (CASE WHEN (action IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset', 'dropped'))
  THEN 1 ELSE 0 END) as is_blocked
  from $log where $filter and apps is not null) t where saas_s=12
  group by saasuser, app_s order by bandwidth desc)### t where $filter-drilldown
  group by app_s order by bandwidth desc
```

| Dataset Name                                          | Description                              | Log Category |
|-------------------------------------------------------|------------------------------------------|--------------|
| saas-Top-User-by-Tolerated-SaaS-Application-Drilldown | Top Users by Tolerated SaaS Applications | traffic      |

```
select
  saasuser,
  count(distinct app_s) as total_app
from
  ###(select saasuser, app_s, sum(sentbyte+rcvdbyte) as bandwidth, sum(rcvdbyte) as traffic_in, sum(sentbyte) as traffic_out, count(*) as sessions, sum(is_blocked) as session_block from (select coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`)) as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset', 'dropped')) THEN 1 ELSE 0 END) as is_blocked from $log where $filter and apps is not null) t where saas_s=12 group by saasuser, app_s order by bandwidth desc)### t group by saasuser order by total_app desc
```

| Dataset Name                                            | Description                               | Log Category |
|---------------------------------------------------------|-------------------------------------------|--------------|
| saas-drilldown-Top-File-Sharing-SaaS-Application-Detail | Top File Sharing SaaS Applications Detail | traffic      |

```
select
  saasuser,
  sum(bandwidth) as bandwidth,
  sum(traffic_in) as traffic_in,
  sum(traffic_out) as traffic_out,
  sum(sessions) as sessions,
  sum(session_block) as session_block,
  (
    sum(sessions)- sum(session_block)
  ) as session_pass
from
  ###(select app_group_name(app_s) as app_group, saasuser, sum(sentbyte+rcvdbyte) as bandwidth, sum(rcvdbyte) as traffic_in, sum(sentbyte) as traffic_out, count(*) as sessions, sum(is_blocked) as session_block from (select coalesce(nullifna(`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`)) as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce(sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset', 'dropped')) THEN 1 ELSE 0 END) as is_blocked from $log where $filter and apps is not null) t where saas_s>=10 group by app_group, saasuser order by bandwidth desc)### t where $filter-drilldown group by saasuser order by sessions desc
```

| Dataset Name                           | Description                   | Log Category |
|----------------------------------------|-------------------------------|--------------|
| saas-Top-File-Sharing-SaaS-Application | Top File Sharing Applications | traffic      |

```
select
  t2.id as appid,
  (
    case t2.risk when '5' then 'Critical' when '4' then 'High' when '3' then 'Medium' when '2' then 'Info' else 'Low' end
  ) as risk,
  app_group,
```

```

bandwidth,
traffic_in,
traffic_out,
sessions,
session_block,
session_pass,
total_user
from
(
  select
    app_group,
    count(distinct saasuser) as total_user,
    sum(bandwidth) as bandwidth,
    sum(traffic_in) as traffic_in,
    sum(traffic_out) as traffic_out,
    sum(sessions) as sessions,
    sum(session_block) as session_block,
    (
      sum(sessions)- sum(session_block)
    ) as session_pass
  from
    ###(select app_group_name(app_s) as app_group, saasuser, sum(sentbyte+rcvdbyte) as
      bandwidth, sum(rcvdbyte) as traffic_in, sum(sentbyte) as traffic_out, count(*) as
      sessions, sum(is_blocked) as session_block from (select coalesce(nullifna
        (`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`))
      as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce
        (sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action
        IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset',
        'dropped')) THEN 1 ELSE 0 END) as is_blocked from $log where $filter and apps is
        not null) t where saas_s>=10 group by app_group, saasuser order by bandwidth
        desc)### t group by app_group) t1 inner join app_mdata t2 on lower(t1.app_
        group)=lower(t2.name) where t2.app_cat='Storage.Backup' order by total_user desc,
        bandwidth desc

```

| Dataset Name                                     | Description                   | Log Category |
|--------------------------------------------------|-------------------------------|--------------|
| saas-Top-File-Sharing-SaaS-Application-Drilldown | Top File Sharing Applications | traffic      |

```

select
  t2.id as appid,
  (
    case t2.risk when '5' then 'Critical' when '4' then 'High' when '3' then 'Medium' when
      '2' then 'Info' else 'Low' end
  ) as risk,
  app_group,
  bandwidth,
  traffic_in,
  traffic_out,
  sessions,
  session_block,
  session_pass,
  total_user
from
(
  select
    app_group,
    count(distinct saasuser) as total_user,

```

```

sum(bandwidth) as bandwidth,
sum(traffic_in) as traffic_in,
sum(traffic_out) as traffic_out,
sum(sessions) as sessions,
sum(session_block) as session_block,
(
    sum(sessions)- sum(session_block)
) as session_pass
from
###(select app_group_name(app_s) as app_group, saasuser, sum(sentbyte+rcvdbyte) as
    bandwidth, sum(rcvdbyte) as traffic_in, sum(sentbyte) as traffic_out, count(*) as
    sessions, sum(is_blocked) as session_block from (select coalesce(nullifna
    (`user`), nullifna(`clouduser`), nullifna(`unauthuser`), srcname, ipstr(`srcip`))
    as saasuser, unnest(apps) as app_s, unnest(saasinfo) as saas_s, coalesce
    (sentbyte, 0) as sentbyte, coalesce(rcvdbyte, 0) as rcvdbyte, (CASE WHEN (action
    IN ('deny', 'ip-conn', 'dns') OR (utmaction IN ('block', 'blocked', 'reset',
    'dropped')) THEN 1 ELSE 0 END) as is_blocked from $log where $filter and apps is
    not null) t where saas_s>=10 group by app_group, saasuser order by bandwidth
    desc)### t group by app_group) t1 inner join app_mdata t2 on lower(t1.app_
    group)=lower(t2.name) where t2.app_cat='Storage.Backup' order by total_user desc,
    bandwidth desc

```

| Dataset Name             | Description        | Log Category |
|--------------------------|--------------------|--------------|
| aware-Device-By-Location | Device by Location | traffic      |

```

select
    srccountry,
    count(distinct devid) as device_count
from
    ###(select srccountry, devid from $log where $filter and logid_to_int(logid) not in (4, 7,
    14, 20) and nullifna(srccountry) is not null group by srccountry, devid)### t group by
    srccountry order by device_count desc

```

| Dataset Name                         | Description                    | Log Category |
|--------------------------------------|--------------------------------|--------------|
| aware-Top-Endpoint-Operating-Systems | Top Endpoint Operating Systems | fct-traffic  |

```

select
    os1 as os,
    count(distinct hostname) as total_num
from
    ###(select split_part(os, ',', 1) as os1, hostname from $log where $filter and nullifna(os)
    is not null group by os1, hostname)### t group by os order by total_num desc

```

| Dataset Name                            | Description                       | Log Category |
|-----------------------------------------|-----------------------------------|--------------|
| aware-Top-Endpoint-Applications-Windows | Top Endpoint Applications Windows | fct-traffic  |

```

select
    split_part(srcname, '.', 1) as srcname1,
    count(*) as total_num
from
    $log
where
    $filter
    and nullifna(srcname) is not null

```



```

    and lower(os) like '%windows%'
group by
    srcname
order by
    total_num desc

```

| Dataset Name                        | Description                   | Log Category |
|-------------------------------------|-------------------------------|--------------|
| aware-Top-Endpoint-Applications-Mac | Top Endpoint Applications Mac | fct-traffic  |

```

select
    srcname,
    count(*) as total_num
from
    $log
where
    $filter
    and nullifna(srcname) is not null
    and lower(os) like '%mac os%'
group by
    srcname
order by
    total_num desc

```

| Dataset Name             | Description        | Log Category |
|--------------------------|--------------------|--------------|
| aware-Summary-Of-Changes | Summary of Changes | event        |

```

select
    regexp_replace(msg, '^[^ ]*$', '') as msg_trim,
    count(*) as total_num
from
    $log
where
    $filter
    and logid_to_int(logid)= 44547
group by
    msg_trim
order by
    total_num desc

```

| Dataset Name         | Description    | Log Category |
|----------------------|----------------|--------------|
| aware-Change-Details | Change Details | event        |

```

select
    $calendar_time as timestamp,
    `user`,
    ui,
    msg
from
    $log
where
    $filter
    and logid_to_int(logid)= 44547
order by
    timestamp desc

```

| Dataset Name                      | Description                 | Log Category |
|-----------------------------------|-----------------------------|--------------|
| aware-Vulnerabilities-By-Severity | Vulnerabilities by Security | fct-netscan  |

```
select
    vulnseverity,
    count(distinct vulnname) as vuln_num
from
    ###(select vulnseverity, vulnname from $log where $filter and nullifna(vulnname) is not null
        and nullifna(vulnseverity) is not null group by vulnseverity, vulnname)### t group by
        vulnseverity order by vuln_num desc
```

| Dataset Name                | Description           | Log Category |
|-----------------------------|-----------------------|--------------|
| aware-Vulnerabilities-Trend | Vulnerabilities Trend | fct-netscan  |

```
select
    $flex_timescale(timestamp) as timescale,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium,
    sum(low) as low
from
    ###(select $flex_timestamp as timestamp, sum(case when lower(vulnseverity) = 'critical' then
        1 else 0 end) as critical, sum(case when lower(vulnseverity) = 'high' then 1 else 0
        end) as high, sum(case when lower(vulnseverity) = 'medium' then 1 else 0 end) as
        medium, sum(case when lower(vulnseverity) = 'notice' then 1 else 0 end) as Low from
        $log where $filter group by timestamp order by timestamp desc)### t group by timescale
        order by timescale
```

| Dataset Name                       | Description                  | Log Category |
|------------------------------------|------------------------------|--------------|
| aware-Top-Critical-Vulnerabilities | Top Critical Vulnerabilities | fct-netscan  |

```
select
    hostname,
    vulnname,
    vulnseverity,
    vulncat,
    count (*) as total_num
from
    $log
where
    $filter
    and nullifna(hostname) is not null
    and nullifna(vulnname) is not null
    and lower(vulnseverity) = 'critical'
group by
    hostname,
    vulnname,
    vulnseverity,
    vulncat
order by
    total_num desc
```

| Dataset Name                    | Description               | Log Category |
|---------------------------------|---------------------------|--------------|
| aware-Top-Device-Attack-Targets | Top Device Attack Targets | fct-netscan  |

```
select
    hostname,
    count(*) as total_num
from
    $log
where
    $filter
    and nullifna(hostname) is not null
    and nullifna(vulnname) is not null
group by
    hostname
order by
    total_num desc
```

| Dataset Name             | Description        | Log Category |
|--------------------------|--------------------|--------------|
| aware-Top-Attack-Targets | Top Attack Targets | fct-netscan  |

```
select
    hostname,
    os1 as os,
    count(distinct vulnname) as vuln_num,
    vulnseverity,
    (
        case when lower(vulnseverity) = 'critical' then 5 when lower(vulnseverity) = 'high' then
            4 when lower(vulnseverity) = 'medium' then 3 when lower(vulnseverity) = 'low' then 2
            else 0 end
    ) as severity_num,
    string_agg(distinct cve_id, ',') as cve_agg
from
    ###(select hostname, split_part(os, ',', 1) as os1, vulnname, vulnseverity, vulnid from $log
    where $filter and nullifna(vulnname) is not null and nullifna(vulnseverity) is not
    null group by hostname, os1, vulnname, vulnseverity, vulnid)### t1 left join fct_mdata
    t2 on t1.vulnid=t2.vid::int group by hostname, os, vulnseverity order by severity_num
    desc, vuln_num desc
```

| Dataset Name              | Description         | Log Category |
|---------------------------|---------------------|--------------|
| aware-Threats-By-Severity | Threats by Severity | attack       |

```
select
    severity,
    sum(total_num) as total_num
from
    (
        ###(select crlevel::text as severity, count(*) as total_num from $log-virus where $filter
        and nullifna(virus) is not null and crlevel is not null group by severity)### union
        all ###(select severity::text as severity, count(*) as total_num from $log-attack
        where $filter and nullifna(attack) is not null and severity is not null group by
        severity)### union all ###(select apprisk::text as severity, count(*) as total_num
        from $log-app-ctrl where $filter and lower(appcat)='botnet' and apprisk is not null
        group by severity)###) t group by severity order by total_num desc
```

| Dataset Name                   | Description              | Log Category |
|--------------------------------|--------------------------|--------------|
| aware-Threats-Type-By-Severity | Threats Type by Severity | virus        |

```
select
    threat_type,
    sum(critical) as critical,
    sum(high) as high,
    sum(medium) as medium,
    sum(low) as low
from
    (
        ###(select 'Malware' as threat_type, sum(case when crlevel = 'critical' then 1 else 0
        end) as critical, sum(case when crlevel = 'high' then 1 else 0 end) as high, sum
        (case when crlevel = 'medium' then 1 else 0 end) as medium, sum(case when crlevel =
        'low' then 1 else 0 end) as low from $log-virus where $filter and nullifna(virus) is
        not null group by threat_type)### union all ###(select 'Intrusions' as threat_type,
        sum(case when severity = 'critical' then 1 else 0 end) as critical, sum(case when
        severity = 'high' then 1 else 0 end) as high, sum(case when severity = 'medium' then
        1 else 0 end) as medium, sum(case when severity = 'low' then 1 else 0 end) as low
        from $log-attack where $filter and nullifna(attack) is not null group by threat_
        type)### union all ###(select 'Botnets' as threat_type, sum(case when apprisk =
        'critical' then 1 else 0 end) as critical, sum(case when apprisk = 'high' then 1
        else 0 end) as high, sum(case when apprisk = 'medium' then 1 else 0 end) as medium,
        sum(case when apprisk = 'low' then 1 else 0 end) as low from $log-app-ctrl where
        $filter and lower(appcat)='botnet' group by threat_type)###) t group by threat_type
```

| Dataset Name         | Description    | Log Category |
|----------------------|----------------|--------------|
| aware-Threats-By-Day | Threats by Day | virus        |

```
select
    daystamp,
    sum(total_num) as total_num
from
    (
        ###(select $day_of_week as daystamp, count(*) as total_num from $log-virus where $filter
        and nullifna(virus) is not null group by daystamp)### union all ###(select $day_of_
        week as daystamp, count(*) as total_num from $log-attack where $filter and nullifna
        (attack) is not null group by daystamp)### union all ###(select $day_of_week as
        daystamp, count(*) as total_num from $log-app-ctrl where $filter and lower
        (appcat)='botnet' group by daystamp)###) t group by daystamp order by daystamp
```

| Dataset Name               | Description    | Log Category |
|----------------------------|----------------|--------------|
| aware-Threats-By-Day-Radar | Threats by Day | virus        |

```
select
    daystamp,
    sum(total_num) as total_num
from
    (
        ###(select $day_of_week as daystamp, count(*) as total_num from $log-virus where $filter
        and nullifna(virus) is not null group by daystamp)### union all ###(select $day_of_
        week as daystamp, count(*) as total_num from $log-attack where $filter and nullifna
        (attack) is not null group by daystamp)### union all ###(select $day_of_week as
        daystamp, count(*) as total_num from $log-app-ctrl where $filter and lower
        (appcat)='botnet' group by daystamp)###) t group by daystamp order by daystamp
```

| Dataset Name                  | Description             | Log Category |
|-------------------------------|-------------------------|--------------|
| aware-Count-Of-Malware-Events | Count of Malware Events | virus        |

```
select
    virus,
    count(*) as total_num
from
    $log
where
    $filter
    and nullifna(virus) is not null
group by
    virus
order by
    total_num desc
```

| Dataset Name               | Description          | Log Category |
|----------------------------|----------------------|--------------|
| aware-Top-Malware-By-Count | Top Malware by Count | app-ctrl     |

```
select
    virus,
    malware_type,
    risk_level,
    count(distinct dstip) as victim,
    count(distinct srcip) as source,
    sum(total_num) as total_num
from
    (
        ###(select app as virus, 'Botnet C&C' as malware_type, apprisk::text as risk_level,
            dstip, srcip, count(*) as total_num from $log-app-ctrl where $filter and lower
            (appcat)='botnet' and nullifna(apprisk::text) is not null group by app, malware_
            type, apprisk, dstip, srcip order by total_num desc)### union all ###(select virus,
            'Virus' as malware_type, crlevel::text as risk_level, dstip, srcip, count(*) as
            total_num from $log-virus where $filter and nullifna(virus) is not null and crlevel
            is not null group by virus, malware_type, crlevel, dstip, srcip order by total_num
            desc)###) t group by virus, malware_type, risk_level order by total_num desc
```

| Dataset Name                    | Description               | Log Category |
|---------------------------------|---------------------------|--------------|
| aware-Top-Failed-Login-Attempts | Top Failed Login Attempts | event        |

```
select
    `user` as f_user,
    ui,
    dstip,
    count(status) as total_failed
from
    $log
where
    $filter
    and nullifna(`user`) is not null
    and logid_to_int(logid) = 32002
group by
    ui,
    f_user,
    dstip
```

```
order by
  total_failed desc
```

| Dataset Name                 | Description            | Log Category |
|------------------------------|------------------------|--------------|
| aware-Top-Denied-Connections | Top Denied Connections | traffic      |

```
select
  coalesce(
    nullifna(`user`),
    ipstr(`srcip`)
  ) as user_src,
  service || '(' || ipstr(srcip) || ')' as interface,
  dstip,
  count(*) as total_num
from
  $log
where
  $filter
  and logid_to_int(logid) not in (4, 7, 14, 20)
  and action = 'deny'
group by
  user_src,
  interface,
  dstip
order by
  total_num desc
```

| Dataset Name                              | Description                         | Log Category |
|-------------------------------------------|-------------------------------------|--------------|
| aware-Failed-Compliance-Checked-By-Device | Failed Compliance Checked by Device | event        |

```
select
  devid,
  'Failed' as results,
  count(distinct reason) as total_num
from
  ###(select devid, reason from $log where $filter and subtype='compliance-check' and
  result='fail' group by devid, reason)### t group by devid, results order by total_num
  desc
```

| Dataset Name                | Description           | Log Category |
|-----------------------------|-----------------------|--------------|
| aware-Ioc-Blacklist-Summary | IOC Blacklist Summary | app-ctrl     |

```
select
  coalesce(
    nullifna(epname),
    nullifna(
      ipstr(`srcip`)
    ),
    'Unknown'
  ) as epname,
  total_bl,
  threats
from
  (
```

```

select
    t1.epname,
    t1.srcip,
    t2.total_bl,
    t2.total_cs,
    t2.max_verdict,
    t2.max_cs,
    t2.threats
from
    $ADOMTBL_PLHD_PBD_EP t1
    inner join (
        select
            t1.epid,
            total_bl,
            total_cs,
            max_verdict,
            max_cs,
            threats
        from
            (
                select
                    epid,
                    sum(bl_count) as total_bl,
                    sum(cs_count) as total_cs,
                    max(verdict) as max_verdict,
                    max(cs_score) as max_cs
                from
                    (
                        select
day_st as itime,
epid,
bl_count,
cs_count,
verdict,
cs_score

                                from
$ADOMTBL_PLHD_PBD_STSUM
                                ) t
                        where
                            $filter
                            and $filter - drilldown
                        group by
                            epid
                    ) t1
            inner join (
                select
                    epid,
                    string_agg(name, ',') as threats
                from
                    (
                        select

```

```

epid,
thid

                                from

(
select
day_st as itime,
epid,
unnest(threatid) as thid
from
$ADOMTBL_PLHD_PBD_STSUM
)t

                                where

$filter
and $filter - drilldown

                                group by

epid,
thid

                                ) t1
                                inner join td_threat_name_mdata t2 on t1.thid = t2.id
                                group by
                                epid
                                ) t2 on t1.epid = t2.epid
                                ) t2 on t1.epid = t2.epid
) t
where
total_bl > 0
order by
total_bl desc

```

| Dataset Name                      | Description                 | Log Category |
|-----------------------------------|-----------------------------|--------------|
| aware-loc-Potential-Breach-By-Day | IOC Potential Breach by Day | app-ctrl     |

```

select
number,
day_st as itime
from
(
select
count(epid) as number,
to_char(
from_itime(itime),
'Day'
) as day_st
from
(
select

```



```

        epid,
        day_st as itime
    from
        $ADOMTBL_PLHD_PBD_STSUM
    where
        cs_count > 0
    ) t
    where
        $filter
        and $filter - drilldown
    group by
        day_st
    ) tt
order by
    itime

```

| Dataset Name                          | Description                 | Log Category |
|---------------------------------------|-----------------------------|--------------|
| aware-loc-Potential-Breach-By-Day-Bar | IOC Potential Breach by Day | app-ctrl     |

```

select
    number,
    day_st as itime
from
    (
        select
            count(epid) as number,
            to_char(
                from_itime(itime),
                'Day'
            ) as day_st
        from
            (
                select
                    epid,
                    day_st as itime
                from
                    $ADOMTBL_PLHD_PBD_STSUM
                where
                    cs_count > 0
            ) t
        where
            $filter
            and $filter - drilldown
        group by
            day_st
    ) tt
order by
    itime

```

| Dataset Name                | Description           | Log Category |
|-----------------------------|-----------------------|--------------|
| aware-loc-Suspicion-Summary | IOC Suspicion Summary | app-ctrl     |

```

select
    coalesce(
        nullifna(epname),

```

```

        nullifna(
            ipstr(`srcip`)
        ),
        'Unknown'
    ) as epname,
    total_cs,
    max_cs,
    max_verdict,
    threats
from
    (
        select
            t1.epname,
            t1.srcip,
            t2.total_bl,
            t2.total_cs,
            t2.max_verdict,
            t2.max_cs,
            t2.threats
        from
            $ADOMTBL_PLHD_PBD_EP t1
        inner join (
            select
                t1.epid,
                total_bl,
                total_cs,
                max_verdict,
                max_cs,
                threats
            from
                (
                    select
                        epid,
                        sum(bl_count) as total_bl,
                        sum(cs_count) as total_cs,
                        max(verdict) as max_verdict,
                        max(cs_score) as max_cs
                    from
                        (
                            select
                                day_st as itime,
                                epid,
                                bl_count,
                                cs_count,
                                verdict,
                                cs_score

                                from

                                $ADOMTBL_PLHD_PBD_STSUM

                                ) t
                    where
                        $filter
                        and $filter - drilldown
                )
            )
        )
    )

```

```

        group by
            epid
    ) t1
    inner join (
        select
            epid,
            string_agg(name, ',') as threats
        from
            (
                select
                    epid,
                    thid
                from
                    (
                        select
                            day_st as itime,
                            epid,
                            unnest(threatid) as thid
                        from
                            $ADOMTBL_PLHD_PBD_STSUM
                    ) t
                where
                    $filter
            ) $filter - drilldown
        group by
            epid,
            thid
    ) t1
    inner join td_threat_name_mdata t2 on t1.thid = t2.id
    group by
        epid
    ) t2 on t1.epid = t2.epid
    ) t2 on t1.epid = t2.epid
    ) t
where
    total_bl = 0
    and total_cs > 0
order by
    max_verdict desc,
    max_cs desc,
    total_cs desc

```

| Dataset Name       | Description | Log Category |
|--------------------|-------------|--------------|
| newthing-New-Users | New users   | fct-traffic  |

```
drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select coalesce
    (nullifna(`user`), ipstr(`srcip`)) as f_user, min(dtime) as start_time from $log where
    $pre_period $filter group by f_user order by start_time desc)###; create temporary
    table rpt_tmptbl_2 as ###(select coalesce(nullifna(`user`), ipstr(`srcip`)) as f_user,
    min(dtime) as start_time from $log where $filter group by f_user order by start_time
    desc)###; select f_user, from_dtime(min(start_time)) as start_time from rpt_tmptbl_2
    where f_user is not null and not exists (select 1 from rpt_tmptbl_1 where rpt_tmptbl_
    2.f_user=rpt_tmptbl_1.f_user) group by f_user order by start_time desc
```

| Dataset Name         | Description | Log Category |
|----------------------|-------------|--------------|
| newthing-New-Devices | New devices | fct-traffic  |

```
drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select hostname,
    os, srcip, fctver from $log where $pre_period $filter and hostname is not null group
    by hostname, os, srcip, fctver order by hostname)###; create temporary table rpt_
    tmptbl_2 as ###(select hostname, os, srcip, fctver from $log where $filter and
    hostname is not null group by hostname, os, srcip, fctver order by hostname)###;
    select hostname, max(fctos_to_devtype(os)) as devtype, string_agg(distinct os, '/') as
    os_agg, string_agg(distinct ipstr(srcip), '/') as srcip_agg, string_agg(distinct
    fctver, '/') as fctver_agg from rpt_tmptbl_2 where not exists (select 1 from rpt_
    tmptbl_1 where rpt_tmptbl_2.hostname=rpt_tmptbl_1.hostname) group by hostname order by
    hostname
```

| Dataset Name                    | Description            | Log Category |
|---------------------------------|------------------------|--------------|
| newthing-New-Software-Installed | New software installed | fct-traffic  |

```
drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select srcproduct,
    hostname from $log where $pre_period $filter and nullifna(srcproduct) is not null
    group by srcproduct, hostname order by srcproduct)###; create temporary table rpt_
    tmptbl_2 as ###(select srcproduct, hostname from $log where $filter and nullifna
    (srcproduct) is not null group by srcproduct, hostname order by srcproduct)###; select
    srcproduct, string_agg(distinct hostname, ',') as host_agg from rpt_tmptbl_2 where not
    exists (select 1 from rpt_tmptbl_1 where rpt_tmptbl_2.srcproduct=rpt_tmptbl_
    1.srcproduct) group by srcproduct order by srcproduct
```

| Dataset Name                  | Description          | Log Category |
|-------------------------------|----------------------|--------------|
| newthing-New-Security-Threats | New security threats | virus        |

```
drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as
select
  *
from
  (
```

```

###(select app as threat_name, 1 as cat_id, srcip from $log-app-ctrl where $pre_period
$filter and nullifna(app) is not null and lower(appcat)='botnet' group by threat_
name, cat_id, srcip)### union all ###(select virus as threat_name, 2 as cat_id,
srcip from $log-virus where $pre_period $filter and nullifna(virus) is not null
group by threat_name, cat_id, srcip)### union all ###(select attack as threat_name,
3 as cat_id, srcip from $log-attack where $pre_period $filter and nullifna(attack)
is not null group by threat_name, cat_id, srcip)###) t; create temporary table rpt_
tmptbl_2 as select * from (###(select $DAY_OF_MONTH as daystamp, app as threat_name,
1 as cat_id, srcip from $log-app-ctrl where $filter and nullifna(app) is not null
and lower(appcat)='botnet' group by daystamp, threat_name, cat_id, srcip order by
daystamp)### union all ###(select $DAY_OF_MONTH as daystamp, virus as threat_name, 2
as cat_id, srcip from $log-virus where $filter and nullifna(virus) is not null group
by daystamp, threat_name, cat_id, srcip order by daystamp)### union all ###(select
$DAY_OF_MONTH as daystamp, attack as threat_name, 3 as cat_id, srcip from $log-
attack where $filter and nullifna(attack) is not null group by daystamp, threat_
name, cat_id, srcip order by daystamp)###) t; select threat_name, (case cat_id when
1 then 'Botnet' when 2 then 'Malware' when 3 then 'Attack' end) as threat_cat, count
(distinct srcip) as host_num, string_agg(distinct cve, ',') as cve_agg from rpt_
tmptbl_2 left join ips_mdata t2 on rpt_tmptbl_2.threat_name=t2.name where not exists
(select 1 from rpt_tmptbl_1 where rpt_tmptbl_2.threat_name=rpt_tmptbl_1.threat_name)
group by threat_name, threat_cat order by host_num desc

```

| Dataset Name                  | Description                            | Log Category |
|-------------------------------|----------------------------------------|--------------|
| newthing-dns-Botnet-Domain-IP | New Queried Botnet C&C Domains and IPs | dns          |

```

drop
  table if exists rpt_tmptbl_1;
drop
  table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select coalesce
(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32)) as malware_
type, (case when action='block' then 'Blocked' when action='redirect' then
'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
(botnetip)) as sources_s, count(*) as total_num from $log where $pre_period $filter
and (botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
sevid order by sevid desc)###; create temporary table rpt_tmptbl_2 as ###(select
coalesce(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32)) as
malware_type, (case when action='block' then 'Blocked' when action='redirect' then
'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
(botnetip)) as sources_s, count(*) as total_num from $log where $filter and
(botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
sevid order by sevid desc)###; select domain, srcip, sevid, (CASE sevid WHEN 5 THEN
'Critical' WHEN 4 THEN 'High' WHEN 3 THEN 'Medium' WHEN '2' THEN 'Info' ELSE 'Low'
END) as severity from rpt_tmptbl_2 where (domain is not null and not exists (select 1
from rpt_tmptbl_1 where rpt_tmptbl_2.domain=rpt_tmptbl_1.domain)) or (srcip is not
null and not exists (select 1 from rpt_tmptbl_1 where rpt_tmptbl_2.srcip=rpt_tmptbl_
1.srcip)) group by domain, srcip, sevid order by sevid desc, domain

```

| Dataset Name                           | Description                   | Log Category |
|----------------------------------------|-------------------------------|--------------|
| newthing-New-Security-Threats-Timeline | New security threats timeline | virus        |

```

drop
  table if exists rpt_tmptbl_1;
drop

```

```

table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as
select
*
from
(
###(select app as threat_name, 1 as cat_id, srcip from $log-app-ctrl where $pre_period
$filter and nullifna(app) is not null and lower(appcat)='botnet' group by threat_
name, cat_id, srcip)### union all ###(select virus as threat_name, 2 as cat_id,
srcip from $log-virus where $pre_period $filter and nullifna(virus) is not null
group by threat_name, cat_id, srcip)### union all ###(select attack as threat_name,
3 as cat_id, srcip from $log-attack where $pre_period $filter and nullifna(attack)
is not null group by threat_name, cat_id, srcip)###) t; create temporary table rpt_
tmptbl_2 as select * from (###(select $flex_timestamp as timestamp, app as threat_
name, 1 as cat_id, srcip from $log-app-ctrl where $filter and nullifna(app) is not
null and lower(appcat)='botnet' group by timestamp, threat_name, cat_id, srcip order
by timestamp)### union all ###(select $flex_timestamp as timestamp, virus as threat_
name, 2 as cat_id, srcip from $log-virus where $filter and nullifna(virus) is not
null group by timestamp, threat_name, cat_id, srcip order by timestamp)### union all
###(select $flex_timestamp as timestamp, attack as threat_name, 3 as cat_id, srcip
from $log-attack where $filter and nullifna(attack) is not null group by timestamp,
threat_name, cat_id, srcip order by timestamp)###) t; select $flex_datetime
(timestamp) as timescale, count(distinct srcip) as host_num, (case cat_id when 1
then 'Botnet' when 2 then 'Malware' when 3 then 'Attack' end) as threat_cat from
rpt_tmptbl_2 where not exists (select 1 from rpt_tmptbl_1 where rpt_tmptbl_2.threat_
name=rpt_tmptbl_1.threat_name) group by timescale, cat_id order by timescale, cat_id

```

| Dataset Name               | Description         | Log Category |
|----------------------------|---------------------|--------------|
| newthing-New-Vulnerability | New vulnerabilities | fct-netscan  |

```

drop
table if exists rpt_tmptbl_1;
drop
table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select vulnid,
vulnname, vulnseverity, vulncat, hostname from $log where $pre_period $filter and
nullifna(vulnname) is not null group by vulnid, vulnname, vulnseverity, vulncat,
hostname)###; create temporary table rpt_tmptbl_2 as ###(select vulnid, vulnname,
vulnseverity, vulncat, hostname from $log where $filter and nullifna(vulnname) is not
null group by vulnid, vulnname, vulnseverity, vulncat, hostname)###; select vulnname,
(case when vulnseverity='Critical' then 5 when vulnseverity='High' then 4 when
vulnseverity='Medium' then 3 when vulnseverity='Low' then 2 when vulnseverity='Info'
then 1 else 0 end) as sev, vulnseverity, vulncat, count(distinct hostname) as host_
num, cve_id from rpt_tmptbl_2 t1 left join fct_mdata t2 on t1.vulnid=t2.vid::int where
not exists (select 1 from rpt_tmptbl_1 where t1.vulnid=rpt_tmptbl_1.vulnid) group by
vulnname, sev, vulnseverity, vulncat, cve_id order by sev desc, host_num desc

```

| Dataset Name                     | Description                 | Log Category |
|----------------------------------|-----------------------------|--------------|
| newthing-New-Vulnerability-Graph | New vulnerabilities (Graph) | fct-netscan  |

```

drop
table if exists rpt_tmptbl_1;
drop
table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select vulnid,
vulnname, vulnseverity, vulncat, hostname from $log where $pre_period $filter and
nullifna(vulnname) is not null group by vulnid, vulnname, vulnseverity, vulncat,
hostname)###; create temporary table rpt_tmptbl_2 as ###(select vulnid, vulnname,
vulnseverity, vulncat, hostname from $log where $filter and nullifna(vulnname) is not
null group by vulnid, vulnname, vulnseverity, vulncat, hostname)###; select
vulnseverity, count (distinct vulnid) as vuln_num from rpt_tmptbl_2 where not exists

```

```
(select 1 from rpt_tmptbl_1 where rpt_tmptbl_2.vulnid=rpt_tmptbl_1.vulnid) group by
vulnseverity order by (case when vulnseverity='Critical' then 5 when
vulnseverity='High' then 4 when vulnseverity='Medium' then 3 when vulnseverity='Low'
then 2 when vulnseverity='Info' then 1 else 0 end) desc
```

| Dataset Name           | Description   | Log Category |
|------------------------|---------------|--------------|
| newthing-System-Alerts | System Alerts | local-event  |

```
select
  from_itime(itime) as timestamp,
  msg
from
  $log
where
  $filter
  and msg is not null
  and pri = 'critical'
order by
  timestamp desc
```

| Dataset Name                   | Description           | Log Category |
|--------------------------------|-----------------------|--------------|
| newthing-Configuration-Changes | Configuration Changes | event        |

```
select
  `user` as f_user,
  devid,
  from_dtime(dtime) as time_s,
  ui,
  msg
from
  $log
where
  $filter
  and cfgtid > 0
order by
  time_s desc
```

| Dataset Name                | Description        | Log Category |
|-----------------------------|--------------------|--------------|
| newthing-FortiGate-Upgrades | FortiGate Upgrades | event        |

```
select
  devid,
  from_dtime(dtime) as time_s,
  info[1] as intf,
  info[2] as prev_ver,
  info[3] as new_ver
from
  (
    select
      devid,
      dtime,
      regexp_matches(
        msg, 'from ([^ ]+) \\([([^ ]+) -> ([^)]+))\\)'
      ) as info
    from
```

```

        $log
    where
        $filter
        and action = 'restore-image'
    ) t
order by
    time_s desc

```

| Dataset Name           | Description   | Log Category |
|------------------------|---------------|--------------|
| newthing-User-Upgrades | User Upgrades | fct-event    |

```

drop
    table if exists rpt_tmptbl_1;
drop
    table if exists rpt_tmptbl_2; create temporary table rpt_tmptbl_1 as ###(select distinct on
    (1, 2) fgtserial, hostname, deviceip, os, dtime from $log where $pre_period $filter
    and hostname is not null order by fgtserial, hostname, dtime desc)###; create
    temporary table rpt_tmptbl_2 as ###(select distinct on (1, 2) fgtserial, hostname,
    deviceip, os, dtime from $log where $filter and hostname is not null order by
    fgtserial, hostname, dtime desc)###; select distinct on (1, 2) t2.fgtserial as devid,
    t2.hostname, t2.deviceip, t1.os as prev_os, t2.os as cur_os, from_dtime(t1.dtime) as
    time_s from rpt_tmptbl_2 t2 inner join rpt_tmptbl_1 t1 on t2.fgtserial=t1.fgtserial
    and t2.hostname=t1.hostname and t2.os!=t1.os order by devid, t2.hostname, t1.dtime
    desc

```

| Dataset Name         | Description       | Log Category |
|----------------------|-------------------|--------------|
| GTP-List-of-APN-Used | List of APNs Used | gtp          |

```

select
    apn,
    from_dtime(
        min(first_seen)
    ) as first_seen,
    from_dtime(
        max(last_seen)
    ) as last_seen
from
    ###(select apn, min(dtime) as first_seen, max(dtime) as last_seen from $log where $filter
    and nullifna(apn) is not null group by apn order by last_seen desc)### t group by apn
    order by last_seen desc, first_seen

```

| Dataset Name         | Description       | Log Category |
|----------------------|-------------------|--------------|
| GTP-Top-APN-by-Bytes | Top APNs by Bytes | gtp          |

```

select
    apn,
    sum(
        coalesce(`u-bytes`, 0)
    ) as total_bytes
from
    $log
where
    $filter
    and nullifna(apn) is not null
    and status = 'traffic-count'
group by

```



```

    apn
having
    sum(
        coalesce(`u-bytes`, 0)
    ) > 0
order by
    total_bytes desc

```

| Dataset Name            | Description          | Log Category |
|-------------------------|----------------------|--------------|
| GTP-Top-APN-by-Duration | Top APNs by Duration | gtp          |

```

select
    apn,
    sum(
        coalesce(duration, 0)
    ) as total_dura
from
    $log
where
    $filter
    and nullifna(apn) is not null
    and status = 'traffic-count'
group by
    apn
having
    sum(
        coalesce(duration, 0)
    ) > 0
order by
    total_dura desc

```

| Dataset Name           | Description                   | Log Category |
|------------------------|-------------------------------|--------------|
| GTP-Top-APN-by-Packets | Top APNs by Number of Packets | gtp          |

```

select
    apn,
    sum(
        coalesce(`u-pkts`, 0)
    ) as total_num
from
    $log
where
    $filter
    and nullifna(apn) is not null
    and status = 'traffic-count'
group by
    apn
having
    sum(
        coalesce(`u-pkts`, 0)
    ) > 0
order by
    total_num desc

```

| Dataset Name               | Description                            | Log Category |
|----------------------------|----------------------------------------|--------------|
| Top10-dns-Botnet-Domain-IP | Top Queried Botnet C&C Domains and IPs | dns          |

```
select
  domain,
  malware_type,
  action,
  count(distinct srcip) as victims,
  count(distinct sources_s) as sources,
  sum(total_num) as total_num
from
  ###(select coalesce(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32))
    as malware_type, (case when action='block' then 'Blocked' when action='redirect' then
    'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
    'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
    WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
    (botnetip)) as sources_s, count(*) as total_num from $log where $filter and
    (botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
    sevid order by sevid desc)### t group by domain, malware_type, action order by total_
    num desc
```

| Dataset Name     | Description                            | Log Category |
|------------------|----------------------------------------|--------------|
| dns-Botnet-Usage | Top Queried Botnet C&C Domains and IPs | dns          |

```
select
  domain,
  malware_type,
  action,
  count(distinct srcip) as victims,
  count(distinct sources_s) as sources,
  sum(total_num) as total_num
from
  ###(select coalesce(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32))
    as malware_type, (case when action='block' then 'Blocked' when action='redirect' then
    'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
    'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
    WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
    (botnetip)) as sources_s, count(*) as total_num from $log where $filter and
    (botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
    sevid order by sevid desc)### t group by domain, malware_type, action order by total_
    num desc
```

| Dataset Name        | Description                            | Log Category |
|---------------------|----------------------------------------|--------------|
| Dns-Detected-Botnet | Top Queried Botnet C&C Domains and IPs | dns          |

```
select
  domain,
  malware_type,
  action,
  count(distinct srcip) as victims,
  count(distinct sources_s) as sources,
  sum(total_num) as total_num
from
  ###(select coalesce(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32))
    as malware_type, (case when action='block' then 'Blocked' when action='redirect' then
```

```
'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
(botnetip)) as sources_s, count(*) as total_num from $log where $filter and
(botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
sevid order by sevid desc)### t group by domain, malware_type, action order by total_
num desc
```

| Dataset Name         | Description                        | Log Category |
|----------------------|------------------------------------|--------------|
| dns-Botnet-Domain-IP | Queried Botnet C&C Domains and IPs | dns          |

```
select
  domain,
  srcip,
  sevid,
  (
    CASE sevid WHEN 5 THEN 'Critical' WHEN 4 THEN 'High' WHEN 3 THEN 'Medium' WHEN '2' THEN
      'Info' ELSE 'Low' END
  ) as severity
from
  ###(select coalesce(botnetdomain, ipstr(botnetip)) as domain, cast('Botnet C&C' as char(32))
    as malware_type, (case when action='block' then 'Blocked' when action='redirect' then
      'Redirected' else 'Passed' end) as action, srcip, (CASE WHEN level IN ('critical',
      'alert', 'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3
      WHEN level='notice' THEN 2 ELSE 1 END) as sevid, coalesce(botnetdomain, ipstr
      (botnetip)) as sources_s, count(*) as total_num from $log where $filter and
      (botnetdomain is not null or botnetip is not null) group by domain, action, srcip,
      sevid order by sevid desc)### t group by domain, srcip, sevid order by sevid desc,
      domain
```

| Dataset Name         | Description       | Log Category |
|----------------------|-------------------|--------------|
| dns-High-Risk-Source | High Risk Sources | dns          |

```
select
  srcip,
  sum(total_num) as total_num,
  sum(
    case when sevid = 5 then total_num else 0 end
  ) as num_cri,
  sum(
    case when sevid = 4 then total_num else 0 end
  ) as num_hig,
  sum(
    case when sevid = 3 then total_num else 0 end
  ) as num_med
from
  ###(select srcip, (CASE WHEN level IN ('critical', 'alert', 'emergency') THEN 5 WHEN
    level='error' THEN 4 WHEN level='warning' THEN 3 WHEN level='notice' THEN 2 ELSE 1
    END) as sevid, count(*) as total_num from $log where $filter and srcip is not null
    group by srcip, sevid order by total_num desc)### t where sevid>=3 group by srcip
    having sum(total_num)>0 order by total_num desc
```

| Dataset Name              | Description           | Log Category |
|---------------------------|-----------------------|--------------|
| dns-DNS-Request-Over-Time | DNS Request Over Time | dns          |

```
select
```

```

$flex_timescale(timestamp) as timescale,
sum(
    case when sevid = 5 then total_num else 0 end
) as num_cri,
sum(
    case when sevid = 4 then total_num else 0 end
) as num_hig,
sum(
    case when sevid = 3 then total_num else 0 end
) as num_med,
sum(
    case when sevid = 2 then total_num else 0 end
) as num_inf,
sum(
    case when sevid = 1 then total_num else 0 end
) as num_low
from
###(select $flex_timestamp as timestamp, (CASE WHEN level IN ('critical', 'alert',
'emergency') THEN 5 WHEN level='error' THEN 4 WHEN level='warning' THEN 3 WHEN
level='notice' THEN 2 ELSE 1 END) as sevid, count(*) as total_num from $log where
$filter group by timestamp, sevid order by total_num desc)### t group by timescale
order by timescale

```

| Dataset Name           | Description        | Log Category |
|------------------------|--------------------|--------------|
| dns-Top-Queried-Domain | Top Queried Domain | dns          |

```

select
    qname,
    count(*) as total_num
from
    $log
where
    $filter
    and qname is not null
group by
    qname
order by
    total_num desc

```

| Dataset Name                      | Description                | Log Category |
|-----------------------------------|----------------------------|--------------|
| dns-Top-Domain-Lookup-Failure-Bar | Top Domain Lookup Failures | dns          |

```

select
    qname,
    srcip,
    count(*) as total_num
from
    $log
where
    $filter
    and qname is not null
    and (
        action = 'block'
        or logid_to_int(logid)= 54001
    )
group by

```

```

    qname,
    srcip
order by
    total_num desc

```

| Dataset Name                        | Description                | Log Category |
|-------------------------------------|----------------------------|--------------|
| dns-Top-Domain-Lookup-Failure-Table | Top Domain Lookup Failures | dns          |

```

select
    qname,
    srcip,
    count(*) as total_num
from
    $log
where
    $filter
    and qname is not null
    and (
        action = 'block'
        or logid_to_int(logid)= 54001
    )
group by
    qname,
    srcip
order by
    total_num desc

```

| Dataset Name      | Description   | Log Category |
|-------------------|---------------|--------------|
| dns-Query-Timeout | Query Timeout | dns          |

```

select
    srcip,
    qname,
    count(*) as total_num
from
    $log
where
    $filter
    and srcip is not null
    and logid_to_int(logid)= 54001
group by
    qname,
    srcip
order by
    total_num desc

```

| Dataset Name      | Description     | Log Category |
|-------------------|-----------------|--------------|
| dns-Blocked-Query | Blocked Queries | dns          |

```

select
    srcip,
    msg,
    count(*) as total_num
from
    $log

```

```

where
    $filter
    and srcip is not null
    and action = 'block'
group by
    srcip,
    msg
order by
    total_num desc

```

| Dataset Name                  | Description                        | Log Category |
|-------------------------------|------------------------------------|--------------|
| perf-stat-cpu-usage-drilldown | Fortigate resource detail timeline | event        |

```

select
    $flex_timescale(timestamp) as hodesk,
    devid,
    cast(
        sum(total_cpu) / sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem) / sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk) / sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        ) / 100.00 / sum(count) as decimal(10, 2)
    ) as log_rate,
    cast(
        sum(totalsession) / sum(count) as decimal(10, 0)
    ) as sessions,
    cast(
        sum(sent) / sum(count) as decimal(10, 0)
    ) as sent_kbps,
    cast(
        sum(recv) / sum(count) as decimal(10, 0)
    ) as recv_kbps,
    cast(
        sum(sent + recv) / sum(count) as decimal(10, 0)
    ) as transmit_kbps,
    max(mem_peak) as mem_peak,
    max(disk_peak) as disk_peak,
    max(cpu_peak) as cpu_peak,
    cast(
        max(lograte_peak) / 100.00 as decimal(10, 2)
    ) as lograte_peak,
    max(session_peak) as session_peak,
    max(transmit_peak) as transmit_kbps_peak,
    cast(
        sum(cps) / sum(count) as decimal(10, 0)
    ) as cps_ave,
    max(cps_peak) as cps_peak

```

```

from
###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
(coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
(cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
(split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
(setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
timestamp, devid)### t where $filter-drilldown group by hodex, devid order by hodex

```

| Dataset Name                  | Description                        | Log Category |
|-------------------------------|------------------------------------|--------------|
| perf-stat-mem-usage-drilldown | Fortigate resource detail timeline | event        |

```

select
$flex_timescale(timestamp) as hodex,
devid,
cast(
sum(total_cpu) / sum(count) as decimal(6, 0)
) as cpu_ave,
cast(
sum(total_mem) / sum(count) as decimal(6, 0)
) as mem_ave,
cast(
sum(total_disk) / sum(count) as decimal(6, 0)
) as disk_ave,
cast(
(
sum(
total_trate + total_erate + total_orate
)
) / 100.00 / sum(count) as decimal(10, 2)
) as log_rate,
cast(
sum(totalsession) / sum(count) as decimal(10, 0)
) as sessions,
cast(
sum(sent) / sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
sum(recv) / sum(count) as decimal(10, 0)
) as recv_kbps,
cast(
sum(sent + recv) / sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
max(lograte_peak) / 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak,

```

```

    cast(
        sum(cps)/ sum(count) as decimal(10, 0)
    ) as cps_ave,
    max(cps_peak) as cps_peak
from
    ###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
        total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
        (coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
        (cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
        as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
        0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
        0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
        (split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
        part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
        (bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
        '0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
        (setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
        timestamp, devid)### t where $filter-drilldown group by hodex, devid order by hodex

```

| Dataset Name                   | Description                        | Log Category |
|--------------------------------|------------------------------------|--------------|
| perf-stat-disk-usage-drilldown | Fortigate resource detail timeline | event        |

```

select
    $flex_timescale(timestamp) as hodex,
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        )/ 100.00 / sum(count) as decimal(10, 2)
    ) as log_rate,
    cast(
        sum(totalsession)/ sum(count) as decimal(10, 0)
    ) as sessions,
    cast(
        sum(sent)/ sum(count) as decimal(10, 0)
    ) as sent_kbps,
    cast(
        sum(recv)/ sum(count) as decimal(10, 0)
    ) as recv_kbps,
    cast(
        sum(sent + recv)/ sum(count) as decimal(10, 0)
    ) as transmit_kbps,
    max(mem_peak) as mem_peak,
    max(disk_peak) as disk_peak,
    max(cpu_peak) as cpu_peak,
    cast(

```



```

        max(lograte_peak)/ 100.00 as decimal(10, 2)
    ) as lograte_peak,
    max(session_peak) as session_peak,
    max(transmit_peak) as transmit_kbps_peak,
    cast(
        sum(cps)/ sum(count) as decimal(10, 0)
    ) as cps_ave,
    max(cps_peak) as cps_peak
from
    ###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
        total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
        (coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
        (cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
        as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
        0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
        0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
        (split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
        part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
        (bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
        '0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
        (setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
        timestamp, devid)### t where $filter-drilldown group by hodex, devid order by hodex

```

| Dataset Name                 | Description                        | Log Category |
|------------------------------|------------------------------------|--------------|
| perf-stat-sessions-drilldown | Fortigate resource detail timeline | event        |

```

select
    $flex_timescale(timestamp) as hodex,
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        ) / 100.00 / sum(count) as decimal(10, 2)
    ) as log_rate,
    cast(
        sum(totalsession)/ sum(count) as decimal(10, 0)
    ) as sessions,
    cast(
        sum(sent)/ sum(count) as decimal(10, 0)
    ) as sent_kbps,
    cast(
        sum(recv)/ sum(count) as decimal(10, 0)
    ) as recv_kbps,
    cast(
        sum(sent + recv)/ sum(count) as decimal(10, 0)
    ) as transmit_kbps,

```

```

max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak,
cast(
    sum(cps)/ sum(count) as decimal(10, 0)
) as cps_ave,
max(cps_peak) as cps_peak
from
###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
(coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
(cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
(split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
(setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
timestamp, devid)### t where $filter-drilldown group by hodev, devid order by hodev

```

| Dataset Name                | Description                        | Log Category |
|-----------------------------|------------------------------------|--------------|
| perf-stat-lograte-drilldown | Fortigate resource detail timeline | event        |

```

select
$flex_timescale(timestamp) as hodev,
devid,
cast(
    sum(total_cpu)/ sum(count) as decimal(6, 0)
) as cpu_ave,
cast(
    sum(total_mem)/ sum(count) as decimal(6, 0)
) as mem_ave,
cast(
    sum(total_disk)/ sum(count) as decimal(6, 0)
) as disk_ave,
cast(
    (
        sum(
            total_trate + total_erate + total_orate
        )
    )/ 100.00 / sum(count) as decimal(10, 2)
) as log_rate,
cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(
    sum(sent)/ sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
    sum(recv)/ sum(count) as decimal(10, 0)
) as recv_kbps

```

```

) as recv_kbps,
cast(
    sum(sent + recv)/ sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak,
cast(
    sum(cps)/ sum(count) as decimal(10, 0)
) as cps_ave,
max(cps_peak) as cps_peak
from
###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
(coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
(cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
(split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
(setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
timestamp, devid)### t where $filter-drilldown group by hodex, devid order by hodex

```

| Dataset Name                    | Description                        | Log Category |
|---------------------------------|------------------------------------|--------------|
| perf-stat-connections-drilldown | Fortigate resource detail timeline | event        |

```

select
$flex_timescale(timestamp) as hodex,
devid,
cast(
    sum(total_cpu)/ sum(count) as decimal(6, 0)
) as cpu_ave,
cast(
    sum(total_mem)/ sum(count) as decimal(6, 0)
) as mem_ave,
cast(
    sum(total_disk)/ sum(count) as decimal(6, 0)
) as disk_ave,
cast(
    (
        sum(
            total_trate + total_erate + total_orate
        )
    )/ 100.00 / sum(count) as decimal(10, 2)
) as log_rate,
cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(

```

```

        sum(sent)/ sum(count) as decimal(10, 0)
    ) as sent_kbps,
    cast(
        sum(recv)/ sum(count) as decimal(10, 0)
    ) as recv_kbps,
    cast(
        sum(sent + recv)/ sum(count) as decimal(10, 0)
    ) as transmit_kbps,
    max(mem_peak) as mem_peak,
    max(disk_peak) as disk_peak,
    max(cpu_peak) as cpu_peak,
    cast(
        max(lograte_peak)/ 100.00 as decimal(10, 2)
    ) as lograte_peak,
    max(session_peak) as session_peak,
    max(transmit_peak) as transmit_kbps_peak,
    cast(
        sum(cps)/ sum(count) as decimal(10, 0)
    ) as cps_ave,
    max(cps_peak) as cps_peak
from
    ###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
        total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
        (coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
        (cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
        as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
        0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
        0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
        (split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
        part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
        (bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
        '0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
        (setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
        timestamp, devid)### t where $filter-drilldown group by hindex, devid order by hindex

```

| Dataset Name                  | Description                        | Log Category |
|-------------------------------|------------------------------------|--------------|
| perf-stat-bandwidth-drilldown | Fortigate resource detail timeline | event        |

```

select
    $flex_timescale(timestamp) as hindex,
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        ) / 100.00 / sum(count) as decimal(10, 2)
    ) as log_rate,

```

```

cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(
    sum(sent)/ sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
    sum(recv)/ sum(count) as decimal(10, 0)
) as recv_kbps,
cast(
    sum(sent + recv)/ sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak,
cast(
    sum(cps)/ sum(count) as decimal(10, 0)
) as cps_ave,
max(cps_peak) as cps_peak
from
###(select $flex_timestamp as timestamp, devid, count(*) as count, sum(coalesce(mem, 0)) as
total_mem, max(coalesce(mem, 0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max
(coalesce(disk, 0)) as disk_peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce
(cpu, 0)) as cpu_peak, sum(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0))
as total_erate, sum(coalesce(orate, 0)) as total_orate, max(coalesce(trate,
0)+coalesce(erate, 0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession,
0)) as totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce
(split_part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_
part(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak, sum(coalesce(setuprate, 0)) as cps, max(coalesce
(setuprate, 0)) as cps_peak from $log where $filter and action='perf-stats' group by
timestamp, devid)### t where $filter-drilldown group by hodex, devid order by hodex

```

| Dataset Name                    | Description                     | Log Category |
|---------------------------------|---------------------------------|--------------|
| perf-stat-usage-summary-average | Fortigate resource summary view | event        |

```

select
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        )
    )

```

```

    )
    )/ 100.00 / sum(count) as decimal(10, 2)
) as log_rate,
cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(
    sum(sent)/ sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
    sum(recv)/ sum(count) as decimal(10, 0)
) as recv_kbps,
cast(
    sum(sent + recv)/ sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak
from
###(select devid, count(*) as count, sum(coalesce(mem, 0)) as total_mem, max(coalesce(mem,
0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max(coalesce(disk, 0)) as disk_
peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce(cpu, 0)) as cpu_peak, sum
(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0)) as total_erate, sum
(coalesce(orate, 0)) as total_orate, max(coalesce(trate, 0)+coalesce(erate,
0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession, 0)) as
totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce(split_
part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_part
(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak from $log where $filter and action='perf-stats'
group by devid)### t group by devid order by devid

```

| Dataset Name                 | Description                     | Log Category |
|------------------------------|---------------------------------|--------------|
| perf-stat-usage-summary-peak | Fortigate resource summary view | event        |

```

select
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        )/ 100.00 / sum(count) as decimal(10, 2)

```

```

) as log_rate,
cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(
    sum(sent)/ sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
    sum(recv)/ sum(count) as decimal(10, 0)
) as recv_kbps,
cast(
    sum(sent + recv)/ sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak
from
###(select devid, count(*) as count, sum(coalesce(mem, 0)) as total_mem, max(coalesce(mem,
0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max(coalesce(disk, 0)) as disk_
peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce(cpu, 0)) as cpu_peak, sum
(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0)) as total_erate, sum
(coalesce(orate, 0)) as total_orate, max(coalesce(trate, 0)+coalesce(erate,
0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession, 0)) as
totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce(split_
part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_part
(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak from $log where $filter and action='perf-stats'
group by devid)### t group by devid order by devid

```

| Dataset Name                             | Description                     | Log Category |
|------------------------------------------|---------------------------------|--------------|
| perf-stat-usage-details-drilldown-master | Fortigate resource summary view | event        |

```

select
    devid,
    cast(
        sum(total_cpu)/ sum(count) as decimal(6, 0)
    ) as cpu_ave,
    cast(
        sum(total_mem)/ sum(count) as decimal(6, 0)
    ) as mem_ave,
    cast(
        sum(total_disk)/ sum(count) as decimal(6, 0)
    ) as disk_ave,
    cast(
        (
            sum(
                total_trate + total_erate + total_orate
            )
        ) / 100.00 / sum(count) as decimal(10, 2)
    ) as log_rate,

```

```

cast(
    sum(totalsession)/ sum(count) as decimal(10, 0)
) as sessions,
cast(
    sum(sent)/ sum(count) as decimal(10, 0)
) as sent_kbps,
cast(
    sum(recv)/ sum(count) as decimal(10, 0)
) as recv_kbps,
cast(
    sum(sent + recv)/ sum(count) as decimal(10, 0)
) as transmit_kbps,
max(mem_peak) as mem_peak,
max(disk_peak) as disk_peak,
max(cpu_peak) as cpu_peak,
cast(
    max(lograte_peak)/ 100.00 as decimal(10, 2)
) as lograte_peak,
max(session_peak) as session_peak,
max(transmit_peak) as transmit_kbps_peak
from
###(select devid, count(*) as count, sum(coalesce(mem, 0)) as total_mem, max(coalesce(mem,
0)) mem_peak, sum(coalesce(disk, 0)) as total_disk, max(coalesce(disk, 0)) as disk_
peak, sum(coalesce(cpu, 0)) as total_cpu, max(coalesce(cpu, 0)) as cpu_peak, sum
(coalesce(trate, 0)) as total_trate, sum(coalesce(erate, 0)) as total_erate, sum
(coalesce(orate, 0)) as total_orate, max(coalesce(trate, 0)+coalesce(erate,
0)+coalesce(orate, 0)) as lograte_peak, sum(coalesce(totalsession, 0)) as
totalsession, max(coalesce(totalsession, 0)) as session_peak, sum(cast(coalesce(split_
part(bandwidth, '/', 1), '0') as integer)) as sent, sum(cast(coalesce(split_part
(bandwidth, '/', 2), '0') as integer)) as recv, max(cast(coalesce(split_part
(bandwidth, '/', 1), '0') as integer)+cast(coalesce(split_part(bandwidth, '/', 2),
'0') as integer)) as transmit_peak from $log where $filter and action='perf-stats'
group by devid)### t group by devid order by devid

```

| Dataset Name                                                   | Description                                | Log Category |
|----------------------------------------------------------------|--------------------------------------------|--------------|
| 360-degree-security-Application-Visibility-and-Control-Summary | Application Visibility and Control Summary | app-ctrl     |

```

select
    appcat,
    count(distinct app) as total_num
from
###(select appcat, app from $log where $filter and app is not null and appcat is not null
and logid_to_int(logid) not in (4, 7, 14) group by appcat, app)### t group by appcat
order by total_num desc

```

| Dataset Name                                                 | Description       | Log Category |
|--------------------------------------------------------------|-------------------|--------------|
| 360-degree-security-Threats-Detection-and-Prevention-Summary | Threat Prevention | app-ctrl     |

```

select
    threat_name,
    count(distinct threats) as total_num
from
(

```



```

###(select cast('Malware & Botnet C&C' as char(32)) as threat_name, app as threats from
$log-app-ctrl where $filter and lower(appcat)='botnet' group by app)### union all
###(select cast('Malware & Botnet C&C' as char(32)) as threat_name, virus as threats
from $log-virus where $filter and nullifna(virus) is not null group by virus)###
union all ###(select cast('Malicious & Phishing Sites' as char(32)) as threat_name,
hostname as threats from $log-webfilter where $filter and cat in (26, 61) group by
hostname)### union all ###(select cast('Critical & High Intrusion Attacks' as char
(32)) as threat_name, attack as total_num from $log-attack where $filter and
severity in ('critical', 'high') group by attack)###) t group by threat_name order
by total_num desc

```

| Dataset Name                                                           | Description               | Log Category |
|------------------------------------------------------------------------|---------------------------|--------------|
| 360-degree-security-Data-Exfiltration-Detection-and-Prevention-Summary | Data Exfiltration Summary | dlp          |

```

select
    data_loss,
    count(*) as total_num
from
    (
        select
            (
                case when severity = 'critical' then 'Critical Data Exfiltration' else (
                    case when coalesce(
                        nullifna(`user`),
                        ipstr(`srcip`)
                    ) is not null then 'User Associated Data Loss' else NULL end
                ) end
            ) as data_loss
        from
            $log
        where
            $filter
    ) t
where
    data_loss is not null
group by
    data_loss
order by
    total_num desc

```

| Dataset Name                                    | Description         | Log Category |
|-------------------------------------------------|---------------------|--------------|
| 360-degree-security-Endpoint-Protection-Summary | Endpoint Protection | fct-traffic  |

```

select
    blocked_event,
    count(*) as total_num
from
    (
        select
            (
                case utmevent when 'antivirus' then 'Malware Deteced and Blocked' when
                    'appfirewall' then 'Risk Application Blocked' when 'webfilter' then (
                        case when coalesce(
                            nullifna(`user`),

```

```
        ipstr(`srcip`)
    ) is not null then 'Web Sites Violation Blocked' else 'Non User Initiated Web
        Visits' end
    ) else NULL end
    ) as blocked_event
from
    $log
where
    $filter
    and utmaction in ('blocked', 'quarantined')
) t
where
    blocked_event is not null
group by
    blocked_event
order by
    total_num desc
```

# Macro Reference List

The following table lists the available predefined macros that can be used in a report layout to display the log data as text (XML format) dynamically.

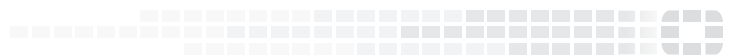
| Macro Name                                        | Description                                               | Dataset Used                       | Log Category |
|---------------------------------------------------|-----------------------------------------------------------|------------------------------------|--------------|
| Application Category with Highest Session Count   | Application category with the highest session count       | App-Sessions-By-Category           | Traffic      |
| Application with Highest Bandwidth                | Application with the highest bandwidth usage              | Top-App-By-Bandwidth               | Traffic      |
| Application with Highest Session Count            | Applications with the highest session count               | Top-App-By-Sessions                | Traffic      |
| Attack with Highest Session Count                 | Attack with highest session count                         | Utm-Top-Attack-Source              | Attack       |
| Botnet with Highest Session Count                 | Botnet with the highest session count                     | Detected-Botnet                    | Traffic      |
| Destination with Highest Bandwidth                | Destination with the highest bandwidth usage              | Top-Destinations-By-Bandwidth      | Traffic      |
| Destination with Highest Session Count            | Destination with the highest session count                | Top-Destinations-By-Sessions       | Traffic      |
| Highest Bandwidth Consumed (Application) Category | Highest bandwidth consumed by application category        | App-Risk-App-Usage-By-Category     | Traffic      |
| Highest Bandwidth Consumed (Application)          | Highest bandwidth consumed by application                 | Top-App-By-Bandwidth               | Traffic      |
| Highest Bandwidth Consumed (Destination)          | Highest bandwidth consumed by destination                 | Top-Destinations-By-Bandwidth      | Traffic      |
| Highest Bandwidth Consumed (P2P Application)      | Highest bandwidth consumed by P2P application             | Top-P2P-App-By-Bandwidth           | Traffic      |
| Highest Bandwidth Consumed (Source)               | Highest bandwidth consumed by source                      | Top-Users-By-Bandwidth             | Traffic      |
| Highest Bandwidth Consumed (Web Category)         | Highest bandwidth consumed by website category            | Top-Web-Category-by-Bandwidth      | Web Filter   |
| Highest Bandwidth Consumed (Website)              | Highest bandwidth consumed by website                     | Top-Web-Sites-by-Bandwidth         | Web Filter   |
| Highest Risk Application with Highest Bandwidth   | Highest risk application with the highest bandwidth usage | High-Risk-Application-By-Bandwidth | Traffic      |

| Macro Name                                          | Description                                             | Dataset Used                      | Log Category |
|-----------------------------------------------------|---------------------------------------------------------|-----------------------------------|--------------|
| Highest Risk Application with Highest Session Count | Highest risk application with the highest session count | High-Risk-Application-By-Sessions | Traffic      |
| Highest Session Count by Application Category       | Highest session count by application category           | App-Sessions-By-Category          | Traffic      |
| Highest Session Count by Application                | Highest session count by application                    | Top-App-By-Sessions               | Traffic      |
| Highest Session Count by Attack                     | Highest session count by attack                         | Utm-Top-Attack-Source             | Attack       |
| Highest Session Count by Botnet                     | Highest session count by botnet                         | Detected-Botnet                   | Traffic      |
| Highest Session Count by Destination                | Highest session count by destination                    | Top-Destinations-By-Sessions      | Traffic      |
| Highest Session Count by Highest Severity Attack    | Highest session count by highest severity attack        | Threat-Attacks-By-Severity        | Attack       |
| Highest Session Count by P2P Application            | Highest session count by P2P application                | Top-P2P-App-By-Sessions           | Traffic      |
| Highest Session Count by Source                     | Highest session count by source                         | Top-User-Source-By-Sessions       | Traffic      |
| Highest Session Count by Virus                      | Highest session count by virus                          | Utm-Top-Virus                     | Traffic      |
| Highest Session Count by Web Category               | Highest session count by website category               | Top-Web-Category-by-Sessions      | Web Filter   |
| Highest Session Count by Website                    | Highest session count by website                        | Top-Web-Sites-by-Sessions         | Web Filter   |
| Highest Severity Attack with Highest Session Count  | Highest severity attack with the highest session count  | Threat-Attacks-By-Severity        | Attack       |
| P2P Application with Highest Bandwidth              | P2P applications with the highest bandwidth usage       | Top-P2P-App-By-Bandwidth          | Traffic      |
| P2P Application with Highest Session Count          | P2P applications with the highest session count         | Top-P2P-App-By-Sessions           | Traffic      |
| Source with Highest Bandwidth                       | Source with the highest bandwidth usage                 | Top-Users-By-Bandwidth            | Traffic      |
| Source with Highest Session Count                   | Source with the highest session count                   | Top-User-Source-By-Sessions       | Traffic      |
| Total Number of Attacks                             | Total number of attacks detected                        | Total-Attack-Source               | Attack       |
| Total Number of Botnet Events                       | Total number of botnet events                           | Total-Number-of-Botnet-Events     | Traffic      |

| Macro Name                              | Description                                             | Dataset Used                  | Log Category |
|-----------------------------------------|---------------------------------------------------------|-------------------------------|--------------|
| Total Number of Viruses                 | Total number of viruses detected                        | Total-Number-of-Viruses       | Traffic      |
| User Details                            | User details of traffic                                 | Traffic-User-Detail           | Traffic      |
| Virus with Highest Session Count        | Virus with the highest session count                    | Utm-Top-Virus                 | Traffic      |
| Web Category with Highest Bandwidth     | Web filtering category with the highest bandwidth usage | Top-Web-Category-by-Bandwidth | Web Filter   |
| Web Category with Highest Session Count | Web filtering category with the highest session count   | Top-Web-Category-by-Sessions  | Web Filter   |
| Website with Highest Bandwidth          | Website with the highest bandwidth usage                | Top-Web-Sites-by-Bandwidth    | Web Filter   |
| Website with Highest Session Count      | Website with the highest session count                  | Top-Web-Sites-by-Sessions     | Web Filter   |



# FORTINET®



Copyright© 2018 Fortinet, Inc. All rights reserved. Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., in the U.S. and other jurisdictions, and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variables, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet's General Counsel, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet's internal lab tests. In no event does Fortinet make any commitment related to future deliverables, features or development, and circumstances may change such that any forward-looking statements herein are not accurate. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.