Release Notes

SD-WAN Orchestrator MEA 7.0.0.r3
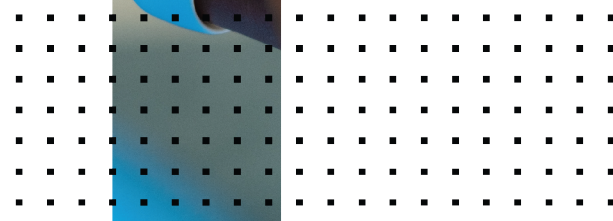
FORTINET DOCUMENT LIBRARY

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 TRAINING & CERTIFICATION PROGRAM

https://www.fortinet.com/training-certification

NSE INSTITUTE

https://training.fortinet.com

FORTIGUARD CENTER

https://www.fortiguard.com

END USER LICENSE AGREEMENT

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

FEEDBACK

Email: techdoc@fortinet.com

TABLE OF CONTENTS

Change Log

Date	Change Description
2021-08-24	Initial release of 7.0.0.r3.

SD-WAN Orchestrator MEA 7.0.0.r3 Release

This document provides information about SD-WAN Orchestrator MEA version 7.0.0.r3 build 0013. SD-WAN Orchestrator management extension application (MEA) is available with some FortiManager models.

This section includes the following topics:

- Supported FortiManager host models on page 5
- Licensing on page 5
- What's new on page 5

Supported FortiManager host models

For a list of FortiManager models that can host SD-WAN Orchestrator MEA 7.0.0.r3 management extension application and minimum system requirements, see the FortiManager 7.0.1 Release Notes.

Licensing

SD-WAN Orchestrator MEA requires the following license:

- 360 FortiGate Protection or SD-WAN Orchestrator Entitlement License

SD-WAN Orchestrator MEA does not include a free license.

What's new

This section identifies new features and enhancements available with SD-WAN Orchestrator MEA 7.0.0.r3.

For information about what's new in FortiManager 7.0, see the FortiManager 7.0 New Features Guide.

High Availability

SD-WAN Orchestrator MEA now supports high availability (HA) to provide a solution for a key requirement of critical enterprise management and enhanced networking reliability. When two or more FortiManager units are configured in an HA cluster, and SD-WAN Orchestrator MEA is enabled on each FortiManager, and the versions of FortiManager and SD-WAN Orchestrator MEA are the same on the primary unit and secondary units, HA will negotiate successfully and synchronize configuration from primary to secondary.

IPsec VPN connection to third-party devices

SD-WAN Orchestrator MEA supports establishing IPsec tunnels with external VPN gateways. External VPN gateways can be any generic IPsec gateways that are not managed by SD-WAN Orchestrator MEA.

Additional platforms supported

SD-WAN Orchestrator MEA now supports the following FortiGate platforms:

- FortiGate 200F
- FortiGate 201F
- FortiGateRugged 60F
- FortiGateRugged 60F-3G4G

SD-WAN Orchestrator MEA now supports the following FortiAP platforms:

- FAP-23JF (FP23JF)
- FAP-231F (FP231F)
- FAP-234F (FP234F)
- FAP-431F (FP431F)
- FAP-432F (FP432F)
- FAP-433F (FP433F)
- FAP-231E (FP231E)

SD-WAN Orchestrator MEA now supports the following FortiSwitch platforms:

- FortiSwitch 124F
- FortiSwitch 124F-FPOE
- FortiSwitch 124F-POE
- FortiSwitch 148F
- FortiSwitch 148F-FPOE
- FortiSwitch 148F-POE
- FortiSwitch 448E
- FortiSwitch 448E-FPOE
- FortiSwitch 448E-POE

Configurable IPsec template for SD-WAN overlay

IPsec template defines configurable parameters when FortiGate devices negotiate IPsec tunnels (overlay links) with other devices.

You can choose the default templates, or create custom templates.

Inject global route to SD-WAN network

This feature uses the router prefix-list configuration to support manually injecting routes learned through OSPF/BGP to global routing.

Enable/disable advertisement of LAN networks via BGP

Previous to SD-WAN Orchestrator MEA 7.0.0.r3, the subnets of LAN/DMZ interfaces, which are not allowed to overlap, are automatically added to BGP network, and the subnets are advertised to other devices. Now you can choose whether to allow subnets to be advertised via BGP.

For LAN on secondary hubs, if the *Share Primary Hub Subnet* option is switched *ON*, the *Allow Overlap Between Devices* option is hidden and switched *ON*. For such LAN, this option is also shown to allow the subnet of the interface to be advertised via BGP.

Install policy package when first online action is SYNC_CONFIG

In SD-WAN Orchestrator MEA, the *First Online Action* option has been improved to include policy package installation when FortiGate first comes online. When the *First Online Action* is *SYNC_CONFIG* and a proper policy package is selected, this device will automatically install the policy package after it first comes online.

Expose REST API

SD-WAN Orchestrator MEA REST API is now exposed for use.

Before using the REST API, ensure that you set up an administrator account in FortiManager for the API user by using the *System Settings* module in FortiManager. The administrator account requires permission to the specific ADOM, REST API, and management extension access.

1. Administrators first use JSON RPC standard and the username and password for the administrator account to log in to the FortiManager API.
   If authentication succeeds, Cookies are sent back.
2. Administrators send POST requests to `https://<fmg_ip>/fortiwan/jsonrpc` with FortiManager cookies.
   The request format is similar to FortiManager JSON API, which is based on the JSON RPC standard.

For an introduction to FortiManager JSON API, see the Fortinet Developer Network site at https://fndn.fortinet.net/.

Interface speed test with Network Monitor license

SD-WAN Orchestrator MEA supports WAN port speed test, including manual tests, first online tests, and schedule recurring test with auto-apply. After the speed test, you can click *Apply Results to Estimated Bandwidth* button to copy the results to *Estimated Upstream Bandwidth* and *Estimated Downstream Bandwidth*. If you want to apply this configuration, click *OK*, and manually synchronize the device.

The following default schedules are available:

- always
- default-darrp-optimize
- none

You cannot delete default schedules, but you can create custom schedules. Go to *Configuration > Shared Resources > System > Schedule*.

Usability enhancements

- Support for importing devices when region already exists
- Support for changing Address&Address Group name to replace device ID with device name
  Address&Address Group name now uses device name rather than device ID. You can view this change in *Shared Resources > Intranet Address > IPv4 Address&IPv4 Address Group* as well as in business rules panel. You can also view the change in FortiManager by going to *Policy & Objects > Object Configurations > Firewall Objects > Addresses*
- Support to change Overlay health check name (SD-WAN Performance SLA) from ID to the device name
- Support to maintain an address group in FortiManager for all LAN subnets with per-device mappings

GUI enhancements

- Support for FortiManager GUI Global theme change
  The GUI theme on SD-WAN Orchestrator MEA can now match the GUI theme defined on FortiManager.
- More information has been added to ADVPN shortcut monitor.
- FSW/AP topology has been enhanced.
- IP Pool can be added directly in the LAN port configuration page by using a button.
  Go to *Device > Network > Interface > LAN* to view the button.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in SD-WAN Orchestrator MEA 7.0.0.r3.

FortiSwitch profiles

If SD-WAN Orchestrator MEA prompts an exception when changing the profile of a device as reported in issue 064530, check if the two profiles meet the following conditions:

1. Compare VLANs in interface FortiLink with these two profiles, and check if there are VLANs that own same VLAN ID.
2. Compare VLANs in same interface (except interface FortiLink) with these two profiles, and check if there are VLANs that own same name, but have different VLAN IDs.
3. Compare VLANs in different interfaces (except interface FortiLink) with these two profiles, and check if there are VLANs that own same name.

Workaround:

1. Make sure the device is synchronized, and then enable the *override device LAN* setting.
2. Release resources (for example, IP pool, DHCP server, and so on) used by VLANs (except default, video, voice, rspan, onboarding, quarantine) in interface FortiLink.
3. Release resources used by VLANs that meet condition 2 above, and then delete these VLANs.
4. Release resources used by VLANs that meet condition 3 above, and then delete these VLANs.
5. Disable Switch/AP configuration in *Device LAN setting* page.
6. Wait 5-10 minutes until device's configuration state becomes *Modified*, and then trigger a manual deployment.
7. When device is synchronized, change profile.
8. After changing the profile, disable *override device LAN* setting.

FortiOS 7.0.1 syntax changes

FortiOS 7.0.1 introduced syntax changes that let you use an SD-WAN zone to define a static route, and the syntax change is not supported by SD-WAN Orchestrator MEA 7.0.0.r3:

It is recommended to use SD-WAN Orchestrator MEA 7.0.0.r3 with FortiGates running FortiOS 7.0.0.

A future release of SD-WAN Orchestrator MEA will support the syntax changes in FortiOS 7.0.1.

Upgrade Information

Upgrade of SD-WAN Orchestrator MEA 6.4.1.r7 or 7.0.0.r2 to 7.0.0.r3 is supported.

> You must be in ADOM version 6.4 or later to access SD-WAN Orchestrator MEA 6.4.1.rx or later.

When you upgrade FortiManager from 6.4.x or 7.0.0 to 7.0.1, SD-WAN Orchestrator MEA upgrades automatically to 7.0.0.r3.

If you upgraded to FortiManager 7.0.1 before SD-WAN Orchestrator MEA7.0.0.r3 was released, you can manually upgrade SD-WAN Orchestrator MEA to 7.0.0.r3.

This section covers the following upgrade scenarios:

Upgrading SD-WAN Orchestrator MEA automatically

In this scenario, you are starting the upgrade with the following items:

- FortiManager 6.4.6 or 7.0.0
- SD-WAN Orchestrator MEA 6.4.1.r7 or 7.0.0.r2

To upgrade SD-WAN Orchestrator MEA:

1. Upgrade FortiManager to 7.0.1.
   After FortiManager reboots, SD-WAN Orchestrator MEA is automatically upgraded to 7.0.0.r3.

Upgrading SD-WAN Orchestrator MEA manually

When you upgrade FortiManager to 7.0.1, SD-WAN Orchestrator MEA upgrades automatically to 7.0.0.r3.

If you upgraded FortiManager to 7.0.1 before the release of SD-WAN Orchestrator MEA 7.0.0.r3, FortiManager 7.0.1 will be running SD-WAN Orchestrator MEA 7.0.0.r2.

You can manually trigger an upgrade of SD-WAN Orchestrator MEA by using the GUI.

In this scenario, you are starting the upgrade with the following items:

- FortiManager 7.0.1
- SD-WAN Orchestrator MEA 7.0.0.r2

Although you can run SD-WAN Orchestrator MEA 7.0.0.r2 with FortiManager 7.0.1, it is recommended to use FortiManager 7.0.1 and FortiGates running FortiOS 7.0.0 with SD-WAN Orchestrator MEA 7.0.0.r3. See also FortiOS 7.0.1 syntax changes on page 9.

To upgrade SD-WAN Orchestrator MEA by using the GUI:

1. If ADOMs are enabled in FortiManager, ensure you are in the root ADOM to access the *Maintenance* tab in SD-WAN Orchestrator MEA.
2. In SD-WAN Orchestrator MEA, go to *Maintenance > Upgrade*, and click *Check for updates*.
   When an update is available, the *An update is available* message is displayed.
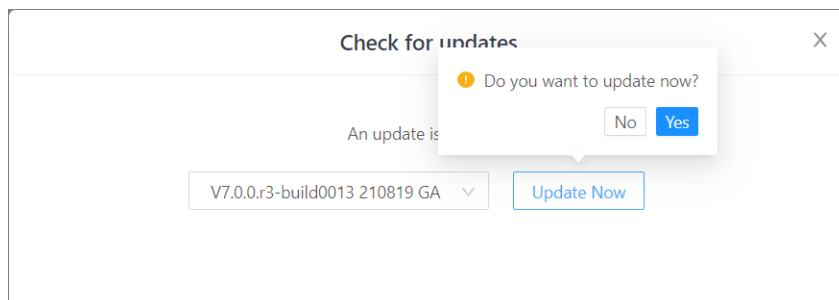
   When an update is available, the following message is displayed:
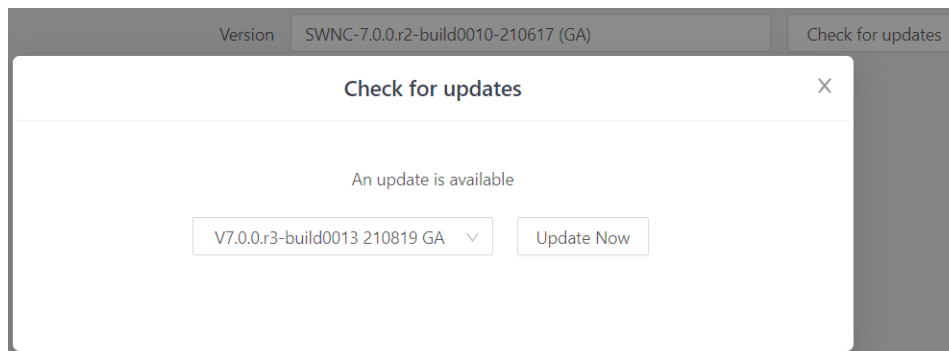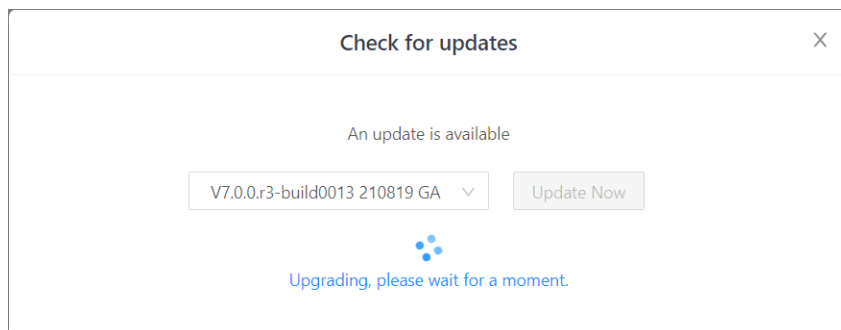

   When SD-WAN Orchestrator MEA is up to date, the following message is displayed, and no upgrade is available:
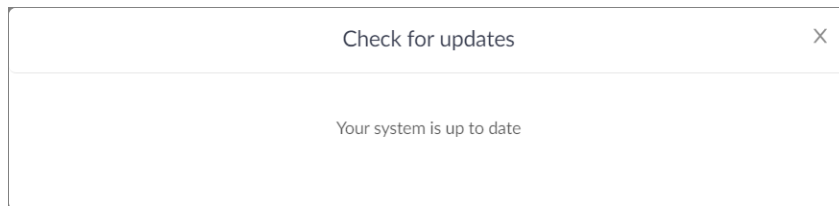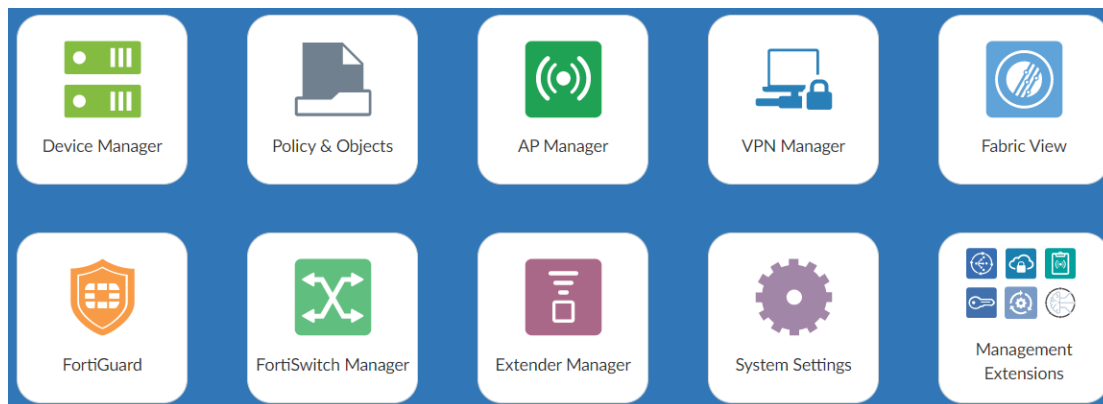

3. Click *Update Now*.
   A confirmation dialog box is displayed.

4. Click *Yes*.
   SD-WAN Orchestrator MEA proceeds with the upgrade to 7.0.0.r3.

SD-WAN Orchestrator MEA 7.0.0.r3 Release Notes
Fortinet Technologies Inc.

11

When the upgrade is complete, the FortiManager GUI is displayed.

5. Click *Management Extensions > SD-WAN Orchestrator*.

Product Integration and Support

This section lists SD-WAN Orchestrator MEA 7.0.0.r3 support of other Fortinet products. It contains the following topics:

- Supported FortiManager and FortiOS versions on page 13
- Supported FortiGate models on page 13

Supported FortiManager and FortiOS versions

This section identifies SD-WAN Orchestrator MEA 7.0.0.r3 product integration and support information:

FortiManager	• 7.0.1
FortiOS	• 7.0.0 • 6.4.1 to 6.4.6

Supported FortiGate models

SD-WAN Orchestrator MEA supports the following FortiGate models:

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-POE, FortiGate 60E-DSL, FortiGate 60E-DSLJ, FortiGate-60F, FortiGate-61F, FortiGate-61E, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-100F, FortiGate-100E, FortiGate-100EF, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-201E, FortiGate-200F, FortiGate-201F, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D,FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3960E, FortiGate-3980E	7.0
FortiGateRugged: FortiGateRugged 60F, FortiGateRugged 60F-3G4G	
FortiGate-VM: Same support as FortiManager 7.0.0. See the FortiManager 7.0.1 Release Notes on the Document Library.	
FortiWiFi: FortiWiFi-40F, FortiWiFi-40F-3G4G, FortiWiFi 60E, FortiWiFi-60E-DSL, FortiWiFi-60E-DSLJ, FortiWiFi-60F, FortiWiFi 61E, FortiWiFi-61F	

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-POE, FortiGate 60E-DSL, FortiGate 60E-DSLJ, FortiGate-60F, FortiGate-61F, FortiGate-61E, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-100F, FortiGate-100E, FortiGate-100EF, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-201E, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D,FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3960E, FortiGate-3980E, **FortiGate-VM:** Same support as FortiManager 6.4.6. See the FortiManager 6.4.6 Release Notes on the Document Library. **FortiWiFi:** FortiWiFi-40F, FortiWiFi-40F-3G4G, FortiWiFi 60E, FortiWiFi-60E-DSL, FortiWiFi-60E-DSLJ, FortiWiFi-60F, FortiWiFi 61E, FortiWiFi-61F	6.4

For a list of FortiManager models that support SD-WAN Orchestrator MEA, see Supported FortiManager host models on page 5.

Resolved Issues

The following issues have been fixed in 7.0.0.r3. For inquires about a particular bug, please contact Customer Service & Support.

Bug ID	Description
597866	Should support importing devices when region already exists.
649447	*Address Object* and *Group* names in FortiManager don't match names in SD-WAN Orchestrator MEA.
704134	Reduce the length of custom interface name from 15 to 13 characters.
721549	Virtual wire pair should be support DMZ type of port as member.
723035	Please add FortiOS 6.4.6 version in *Add model device*.
724678	The search field *Type* and *Device* should be a fixed dropdown list, and not allow the user to randomly input search strings.
725142	Suggest to add a comment for `address/addrgrp` objects created by SD-WAN Orchestrator MEA.
725838	Non-root ADOM failed to install firewall rules.
725839	Change `google_dns` IP address while the FortiGate status still displays *Synchronized*.
725840	Change `google_dns` IP address, and manually *sync all* will report `No need to install`.
732654	SD-WAN Orchestrator MEA illegal IP string with netmask /30 and /31.

Known Issues

The following issues have been identified in 7.0.0.r3. For inquires about a particular bug or to report a bug, please contact Customer Service & Support.

SD-WAN Orchestrator MEA

Bug ID	Description
664430	Every time add HA device the browser still pops up some username/password information . Please enhance user experience. **Workaround**: This issue only occurs on Firefox. Use another browser.
689867	When configuring devices in SD-WAN Orchestrator MEA, Java Exception errors may appear. **Workaround**: Remove the device, and then add it back to SD-WAN Orchestrator MEA.
721003	The scripts haven't been installed via FMG, but SD-WAN Orchestrator MEA status displays *Synchronized*. **Workaround**: Install configuration to FortiGate via FortiManager again.
723329	Virtual wire pair interface and soft-switch interface failed to retrieve.
741493	Move some devices from one ADOM to another, add them to SD-WAN Orchestrator MEA, and the device may fail to get online. **Workaround**: Remove the device, and then add it back to SD-WAN Orchestrator MEA.

FortiOS

Bug ID	Description
643825	SLA in IPsec tunnels sometimes fails due to not sending out SLA probe packets. **Workaround**: Reboot FortiGate.
738589	Sometimes failed to perform the speed test on SD-WAN Orchestrator MEA and FortiGate.

SD-WAN Orchestrator MEA 7.0.0.r3 Release Notes
Fortinet Technologies Inc.

16

FortiManager

Bug ID	Description
733609	Failed to sync all with unsupport command for FMG/FOS 7.0.1 **Workaround**: SD-WAN syntax changes in FortiOS 7.0.1 is not supported by FortiManager 7.0.1. See FortiOS 7.0.1 syntax changes on page 9.
739185	Failed to create `address` or `addrgrp` objects. **Workaround**: Create `address` or `addrgrp` objects in FortiManager.

Limitations of SD-WAN Orchestrator MEA

SD-WAN Orchestrator MEA is not supported when FortiManager workspace/workflow mode is enabled.

SD-WAN Orchestrator MEA is not supported when FortiManager is operating in a closed network or an air-gapped environment.