

## Incoming ports

The following table identifies the incoming ports for FortiManager and how the ports interact with other products:

Product	Purpose	Protocol and Port
<b>FortiGate</b>	IPv4 FGFM management	TCP/541
	IPv6 FGFM management	TCP/542
	WebFilter queries, AV & IPS updates*	UDP/53, UDP/8888
		TCP/80, TCP/443**, TCP/8888
	Antispam*	TCP/8889
		UDP/8889
	IoT query services*	TCP/443**
	FortiGuard and FortiClient Web Filter and Email Filter*	TCP/8900
	Registration for license validation and UTM updates (AV, IPS)*	TCP/8890, TCP/443
<b>Logging (all Fortinet products)</b>	OFTP	TCP/514
<b>FortiManager</b>	HA	TCP/5199
	Log aggregation server (requires FortiManager 800 series or higher)	TCP/300
	File query/AntiVirus query service***	TCP/8900
	Cascade mode for FortiClient AV packages update	TCP/8891
	GeoIP service***	TCP/8900
	FortiGuard and FortiClient Web Filter and Email Filter*	TCP/8900
<b>Non-Fortinet products</b>	Syslog	UDP/514, TCP/514
<b>Chromebook</b>	Logging	TCP/8443

Product	Purpose	Protocol and Port
Management	Ping	ICMP
	SSH	TCP/22
	HTTP	TCP/80
	HTTPS	TCP/443
	Web Service (SOAP/XML API respectively)	TCP/8080
	JSON API	TCP/443
	SNMP query	UDP/161
FortiGuard	AV and IPS push updates	UDP/9443

\* Applies only when FortiManager is acting as a local FortiGuard server.

\*\* When configuring FortiManager as a local FortiGuard server, you must use Bind to IP addresses for the update and rating services over TCP/443. For more information, see *Service Access* for [Configuring network interfaces](#) in the FortiManager Administration Guide.

\*\*\* In FortiManager 7.2.3 and earlier, *File query/AntiVirus query service* uses TCP/8902 and *GeoIP service* uses TCP/8903.

## Outgoing ports

The following table identifies the outgoing ports for FortiManager and how the ports interact with other products:

Product	Purpose	Protocol and Port
<b>FortiGate</b>	IPv4 FGFM management	TCP/541
	IPv6 FGFM management	TCP/542
	AV and IPS Push updates*	UDP/9443
<b>Non-Fortinet</b>	SMTP email alerts	TCP/25
	TACACS+ Authentication	TCP/49
	LDAP queries	TCP/389 or TCP/636
	Log aggregation client	TCP/3000
	RADIUS Authentication	TCP/1812
	DNS lookup	UDP/53
	NTP synchronization	UDP/123
	SNMP traps	UDP/162
	Syslog, logforwarding	UDP/514, TCP/514
	Google Maps integration**	<a href="https://maps.google.com">https://maps.google.com</a> <a href="https://maps.googleapis.com">https://maps.googleapis.com</a> <a href="https://fonts.googleapis.com">https://fonts.googleapis.com</a>
<b>FortiManager</b>	HA sync	TCP/5199
	FortiGuard and FortiClient Web Filter and Email Filter*	TCP/8900

Product	Purpose	Protocol and Port
FortiGuard	Firmware images update	TCP/443
	Sprite Map and webGUI updates	<a href="https://productapi.fortinet.com">https://productapi.fortinet.com</a> <a href="https://filestore.fortinet.com">https://filestore.fortinet.com</a> <a href="https://mapserver.fortinet.com">https://mapserver.fortinet.com</a>
	AV & IPS updates	<a href="https://fds1.fortinet.com">https://fds1.fortinet.com</a>
	Web Filtering and Anti-Spam updates	<a href="https://guard.fortinet.net">https://guard.fortinet.net</a>
	File query and GEOIP DB updates	<a href="https://fqsvr.fortinet.com">https://fqsvr.fortinet.com</a>
	FortiClient signature updates	<a href="https://forticlient.fortinet.net">https://forticlient.fortinet.net</a>
	Google Maps license management	<a href="https://mapserver.fortinet.com">https://mapserver.fortinet.com</a>
Fortinet Registry	Management Extension Applications download (for example, FortiWLM MEA)	TCP/443, TCP/4443 <a href="https://registry.fortinet.com">https://registry.fortinet.com</a>

\* Applies only when FortiManager is acting as a local FortiGuard server.

\*\* These URLs must be accessible by the admin user's PC for Google Maps integration. See [Google Map integration](#).

## Anycast and unicast services

The following service are accessed by FortiManager:

Service	Non-Anycast FQDN address	Anycast domain name
AV-IPS package	fds1.fortinet.com usfds1.fortinet.com	globalupdate.fortinet.net usupdate.fortinet.net globalupdate2.fortinet.net* usupdate2.fortinet.net*
AV-IPS packages (FortiClient)	forticlient.fortinet.com usforticlient.fortinet.com	globalfctupdate.fortinet.net fctusupdate.fortinet.net
GeoIP	gip.fortinet.net usfqsvr.fortinet.net	globalupdate.fortinet.net usupdate.fortinet.net globalupdate2.fortinet.net* usupdate2.fortinet.net*
Webfilter AntiSpam Outbreak Prevention Query Category File Query AntiVirus Query	guard.fortinet.net usguard.fortinet.net	globalupdate.fortinet.net usupdate.fortinet.net globalupdate2.fortinet.net* usupdate2.fortinet.net*
IoT Collect	N/A	globalupdate.fortinet.net usupdate.fortinet.net

\* These domain names are used when the FortiGuard Anycast source is set to AWS in FortiManager. See the [FortiManager CLI Reference](#)

## Change Log

Date	Change Description
2022-04-11	Initial release.
2023-02-06	Updated <a href="#">Incoming ports on page 1</a> .
2023-04-06	Updated <a href="#">Incoming ports on page 1</a> .
2023-10-19	Updated <a href="#">Anycast and unicast services on page 5</a> .
2023-10-24	Updated <a href="#">Incoming ports on page 1</a>
2024-01-18	Updated <a href="#">Outgoing ports on page 3</a>
2024-02-01	Updated <a href="#">Incoming ports on page 1</a> and <a href="#">Outgoing ports on page 3</a> to include port TCP/8900 communication between FortiManager devices.
2024-03-01	Updated <a href="#">Anycast and unicast services on page 5</a> .
2025-01-08	Updated <a href="#">Incoming ports on page 1</a>
2025-01-24	Updated <a href="#">Incoming ports on page 1</a>