Release Notes

SD-WAN Orchestrator MEA 7.0.0.r2
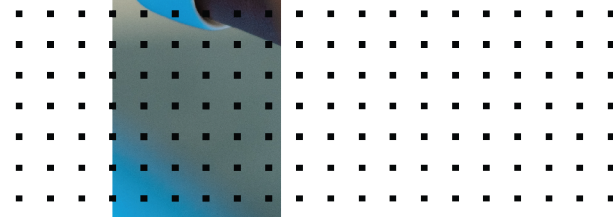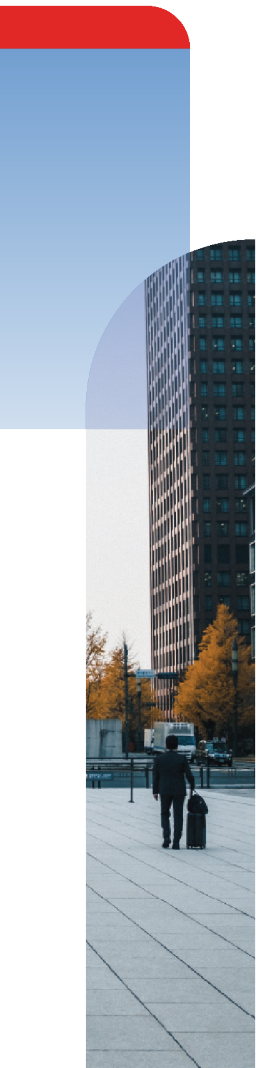
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Change Log

Date	Change Description
2021-06-18	Initial release of 7.0.0.r2.
2021-07-29	Added FortiOS 7.0.1 syntax changes on page 8.

SD-WAN Orchestrator MEA 7.0.0.r2 Release

This document provides information about SD-WAN Orchestrator MEA version 7.0.0.r2 build 0010. SD-WAN Orchestrator management extension application (MEA) is available with some FortiManager models.

This section includes the following topics:

Supported FortiManager host models

For a list of FortiManager models that can host SD-WAN Orchestrator MEA 7.0.0.r2 management extension application and minimum system requirements, see the FortiManager 7.0.0 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.r2.

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

Support for full-mesh tunnel links

Support for establishing full-mesh overlay links on WAN ports between hub devices and edge devices in the same region.

When creating a profile for hub or edge devices, select the *DIAL_UP_FULL_MESH* option from the *VPN Mode with Edge* list.

Support to send configuration scripts

A new *Sync to FortiManager* option lets you send configuration scripts from SD-WAN Orchestrator MEA to FortiManager for additional configuration before installation on FortiGate devices. After the configuration scripts are synchronized to FortiManager, the status of the device in SD-WAN Orchestrator MEA changes to *Synchronized_to_FortiManager*.

After FortiManager receives the scripts, the admin can use FortiManager to add additional configuration information, and then install the configuration changes to FortiGate devices. SD-WAN Orchestrator MEA periodically polls FortiGate devices for configuration information.

After changes from FortiManager are successfully installed on FortiGate devices, the status of the devices in SD-WAN Orchestrator MEA changes to *Synchronized*.

This new feature is also useful for a zero-touch provisioning (ZTP) workflow. You can use both SD-WAN Orchestrator MEA and FortiManager to provide configuration information, and the configuration is installed to FortiGate devices when they are online.

Better management of FortiGate objects and attributes

SD-WAN Orchestrator MEA can create and manage some, but not all FortiGate objects and attributes. If SD-WAN Orchestrator MEA manages an attribute and the admin changes the attribute by using FortiManager or FortiGate, the attribute is recovered to the default value assigned by SD-WAN Orchestrator MEA. However if an attribute is not managed by SD-WAN Orchestrator MEA, an admin can change it by using FortiManager or FortiGate as needed for special cases.

For more information about the objects and attributes managed by SD-WAN Orchestrator MEA, see the *SD-WAN Orchestrator MEA 7.0.0.r2 Administration Guide*.

Support for hardware switches

A hardware switch is a virtual switch interface that groups different ports together so that the FortiGate can use the group as a single interface. Supported FortiGate models have a default hardware switch called either *internal* or *lan*. The hardware switch is supported by the chipset at the hardware level.

SD-WAN Orchestrator MEA supports the following FortiGate platforms that support hardware switches:

- FortiGate 60E/61E series
- FortiGate 80E/81E series
- FortiGate 90E/91E series
- FortiGate 100E(F)/101E series
- FortiGate 140E series
- FortiGate 40F series
- FortiGate 60F/61F series
- FortiGate 80F/81F series
- FortiGate 100F/101F series

When you create a profile or set device settings for supported FortiGate hardware models, you can configure a hardware switch. In the *Network > Interface > LAN* section, create new and select *HARD_SWITCH* from the *Port Type* list. The *Name*, *Port Type*, *IP Pool*, *Subnet mask length*, and *Interface members* options are required.

Support for software switches

A software switch is a virtual switch that is implemented at the software or firmware level and not at the hardware level.

When you create a profile or set device settings for FGT-VM or FortiGate hardware models, you can configure a software switch. In the *Network > Interface > LAN* section, create new and select *SOFT_SWITCH* from the *Port Type* list. The *Name*, *Port Type*, *IP Pool*, *Subnet mask length*, and *Interface members* options are required.

Support for virtual wire pairs

A virtual wire pair consists of two interfaces that do not have IP addressing and are treated like a transparent-mode VDOM.

When you create a profile or set device settings for FGT-VM or FortiGate hardware models, you can configure virtual wire pairs. In the *Network > Virtual Wire Pair* section, create new and set the options. The *Name* and *Interface Members* options are required.

A virtual wire pair must have exactly 2 interface members.

	For a newly created virtual wire pair, remember to configure a virtual wire pair policy in FortiManager.

Other improvements

- IPsec tunnel names
  The IPsec tunnel name for edge devices has been changed for easier debugging.
- WAN port options
  Interface Status has been added to the WAN port options. When a physical WAN port is set to *Disabled* and *Interface Status* is *UP* and *Mode* is *Static*, the underlay and overlay links will not be initiated on the WAN port. However, underlay and overlay links can be established on the VLAN ports based on this physical WAN port.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in SD-WAN Orchestrator MEA 7.0.0.r2.

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.r2:

It is recommended to use SD-WAN Orchestrator MEA 7.0.0.r2 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.r6 or 7.0.0.r1 to 7.0.0.r2 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 to 7.0.0, SD-WAN Orchestrator MEA upgrades automatically to 7.0.0.r2.

If you upgraded to FortiManager 7.0.0 before SD-WAN Orchestrator MEA 7.0.0.r2 was released, you can manually upgrade SD-WAN Orchestrator MEA to 7.0.0.r2.

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 6.4.5 or 6.4.6
- SD-WAN Orchestrator MEA 6.4.1.r6

To upgrade SD-WAN Orchestrator MEA:

1. Upgrade FortiManager to 7.0.0.
    After FortiManager reboots, SD-WAN Orchestrator MEA is automatically upgraded to 7.0.0.r2.

Upgrading SD-WAN Orchestrator MEA manually

When you upgrade FortiManager from 6.4.x to 7.0.0, SD-WAN Orchestrator MEA upgrades automatically to 7.0.0.r2.

If you upgraded FortiManager to 7.0.0 before the release of SD-WAN Orchestrator MEA 7.0.0.r2, FortiManager 7.0.0 will be running SD-WAN Orchestrator MEA 7.0.0.r1.

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 7.0.0
- SD-WAN Orchestrator MEA 7.0.0.r1

Although you can run SD-WAN Orchestrator MEA 7.0.0.r1 with FortiManager 7.0.0, it is recommended to use FortiManager 7.0.0 and FortiGates running FortiOS 7.0.0 with SD-WAN Orchestrator MEA 7.0.0.r2.

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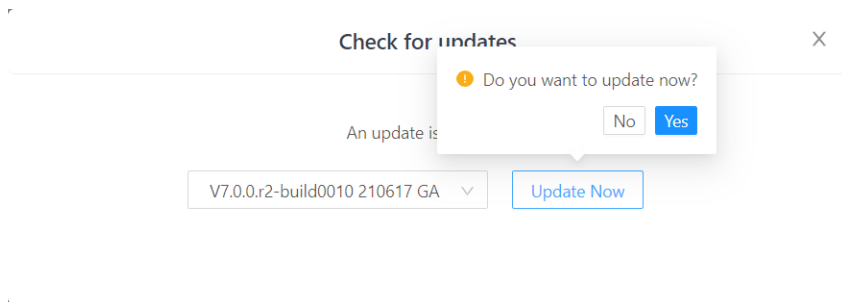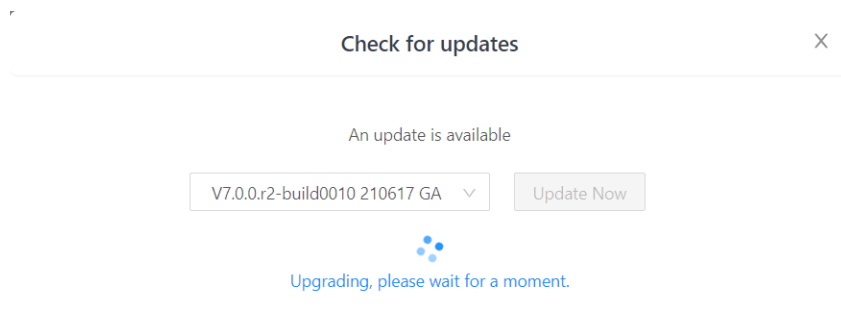   When an update is available, the following message is displayed:
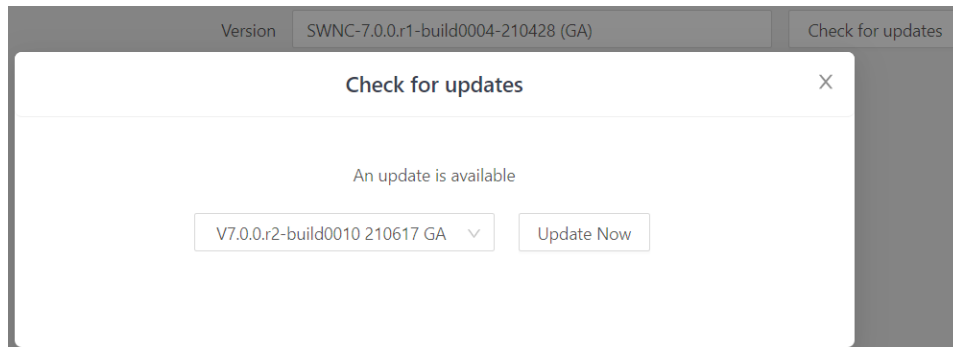
When SD-WAN Orchestrator MEA is up to date, the following message is displayed, and no upgrade is available:
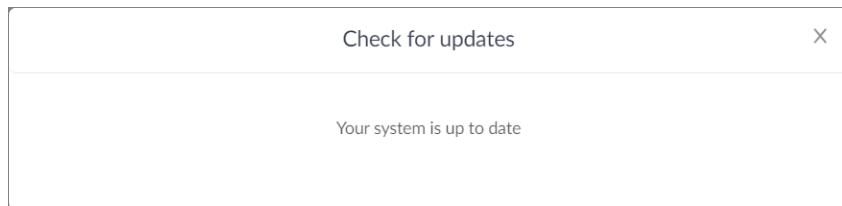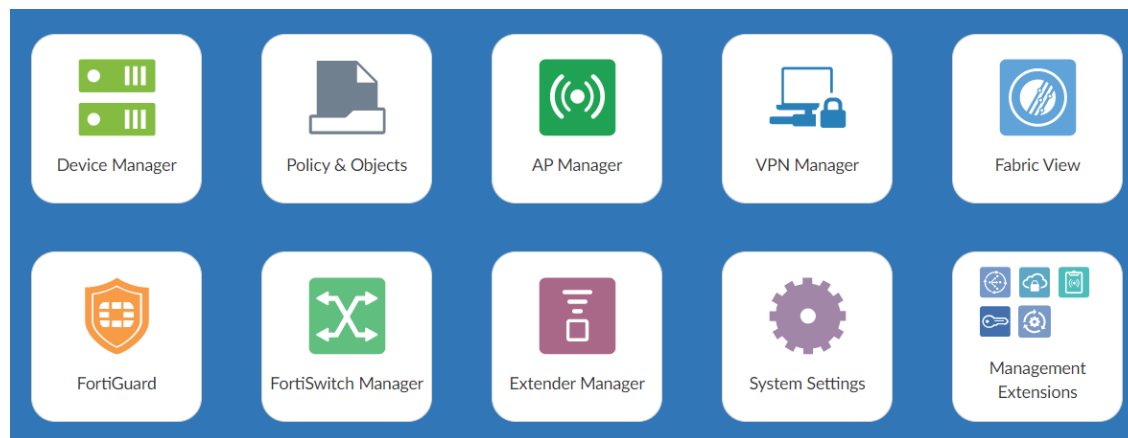

3. Click *Update Now*.
   A confirmation dialog box is displayed.

4. Click *Yes*.
   SD-WAN Orchestrator MEA proceeds with the upgrade to 7.0.0.r2.

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.r2 support of other Fortinet products. It contains the following topics:

Supported FortiManager and FortiOS versions

This section identifies SD-WAN Orchestrator MEA 7.0.0.r2 product integration and support information:

FortiManager	• 7.0.0
FortiOS	• 7.0.0 • 6.4.1 - 6.4.5

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-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
FortiGate-VM: Same support as FortiManager 7.0.0. See the FortiManager 7.0.0 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 6.4.5. See the FortiManager 6.4.5 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 .

Resolved Issues

The following issues have been fixed in 7.0.0.r2. For inquires about a particular bug, please contact Customer Service & Support.

Bug ID	Description
690599	Need an option to build full-mesh of tunnels between spoke and hub devices.
702697	Aggregate and trunk interfaces of role WAN must have IP addresses, even when WAN VLANs are configured.
704167	An unknown device displayed in *Monitor > Device > Local Branch* topology becomes *Device FortiAP*.
704542	Some symbols are not supported for *Additional DHCP Options* value of string type.
713784	Black hole static route should be supported first time online for the *Retrieve* option.
716476	Backup device of HA cluster shows all devices offline.
716526	SLA monitor displays no data for secondary devices.
721337	Automatic SD-WAN interface naming does not allow long VDOM names when VDOMs are enabled.
722835	B0004: Failed: Cannot create a physical WAN from retrieved VDOM interfaces.

Known Issues

The following issues have been identified in 7.0.0.r2. For inquires about a particular bug or to report a bug, please contact Customer Service & Support.

Bug ID	Description
700703	The global theme change in FortiManager GUI is not supported in SD-WAN Orchestrator MEA.
714305	FortiManager 7.0 does not support upgrade from ADOM version 6.4 to ADOM version 7.0.
721003	The configuration scripts haven't been installed via FortiManager while SD-WAN Orchestrator MEA device status displays *Syncronized*. **Workaround**: Install configuration to FortiGate by using 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.

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