



Citrix ADC MPX

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Troubleshooting

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I cannot access the Citrix ADC appliance after it is restarted. The Citrix ADC IP address (NSIP) is not accessible and does not respond to a ping request

Citrix ADC MPX 8005/8015/8200/8400/8600/8800, MPX 11500/13500/14500/16500/18500/20500, MPX 11515/11520/11530/11540/11542, MPX 17550/19550/20550/21550, MPX 22040/22060/22080/22100/22120, MPX 24100/24150, MPX 25100T/25160T, T1010, T1100, T1200, T1300, and T1310 appliances support LOM. Depending on the state of the LOM configuration, start with one of the steps in the following procedure. To configure the LOM port, see [Lights out management port of the Citrix ADC appliance](#).

1. If the LOM port is configured and known to have been working previously, log on to the LOM GUI, and perform the following steps:
 - a) Navigate to **Remote Control > Console Redirection**, and then click **Launch Console**.
 - b) On the Java iKVM Viewer screen, check the VGA console window for boot errors, such as bad or missing boot media (boot drive/Compact Flash card). Reseat any unconnected boot media. If the appliance boots up, try to log on and run the `show techsupport` command from the Citrix ADC command line. Complete the Check Network Interfaces steps to find a working interface on which to transfer the support bundle file.
 - c) Navigate to **System Health > Sensor Readings** to check the status of the hardware components (for example, CPU temperature, system temperature, and power supply status). You might have to scroll down. Green indicates that the hardware component is functioning properly. Red indicates that it has failed. Contact Citrix Support if you observe red indicators.
 - d) Navigate to **Miscellaneous > Post Snooping** and check for BIOS POST initialization codes. If the value of Post Snooping is “00” or “AC,” and the AC power supply LED light is green, the BIOS booted up normally. If not, check the Java iKVM Viewer screen to see if the appliance stopped responding during BIOS POST initialization. Perform substeps a through f of Step 2 to recover the appliance. If these steps fail, contact Citrix Support.
2. If the LOM port is configured and the LOM GUI is not accessible, try pinging the LOM IP address. The baseboard management controller (BMC, also known as LOM) runs on standby power. Even if the appliance is powered off by pressing the power button, the BMC is still working. If you are unable to ping the LOM IP address, connect to the COM1 console port through a serial cable. You can also try pinging the Citrix ADC IP address (NSIP). The serial cable can be connected to a network serial terminal/console server for remote access. On the appliance, do the following:
 - a) Verify that the appliance is receiving power.
 - b) If the appliance is not receiving power, change the power cable and connect the cable to another socket.

- c) Verify that the power supply is properly seated in the power supply slot.
 - d) Remove all AC power supply cords for 30 seconds to completely remove power from the appliance.
 - e) Reinsert the AC power supply cords and check the LEDs indicating the status of the AC power supplies. If a power-supply LED is not green, troubleshoot the power supply.
 - f) Try pinging the LOM IP again. If successful, go to Step 1.
3. If the appliance does not support the LOM port or the LOM port is not configured, do the following:
- a) Connect the serial console cable to the appliance.
 - b) Perform the substeps a through e of Step 2.
 - c) On the serial console port window, check for any boot failure errors, such as bad or missing boot media (boot drive/Compact Flash card). Reseat any unconnected boot media. If the appliance boots up, try to log on and run the `show techsupport` command from the Citrix ADC command line. Complete the Check Network Interfaces steps to find a working interface on which to transfer the support bundle file.

Check network interfaces

1. If management interface 0/1 is not operational, use the Java iKVM Viewer, described previously, to set up management interface 0/2, and connect a network cable to port 0/2. Use the serial console port for appliances that do not support the LOM port.
2. Make sure that the LED port status indicators are green for all interfaces. For more information about LED port status indicators, see “LED Port-Status Indicators” in [Ports](#).
3. Verify that Citrix supports the SFP/SFP+/XFP transceivers that you are using.

Hardware FAQs

July 15, 2021

Transceivers

- Are transceivers shipped with the appliance?

No. Transceivers are available for purchase separately. Contact your Citrix sales representative to buy transceivers for your appliance.

- Why does the 10G SFP+ transceiver autonegotiate to 1G speed?

Autonegotiation is enabled by default on the 10G SFP+ ports into which you insert your 10G SFP+ transceiver. When a link is established between the port and the network, the speed is au-

tonegotiated. For example, if you connect the port to a 1G network, the speed is autonegotiated to 1G.

- Can I insert a 1G transceiver into a 10G slot?
 - Only MPX 14000 and MPX 25000 appliances support copper transceivers.
 - The 10G slot supports copper 1G transceivers, which can operate at up to 1 Gbps in a 10 Gbps slot.

Note: 10G transceivers are not supported in 1G slots.

The following table shows the compatibility matrix of transceivers and ports available on the Citrix ADC appliance.

Ports/Transceivers	10G transceiver	1G fiber transceiver	1G copper transceiver
10G port	Supported	Supported with exceptions (see note)	Supported
1G fiber port	Not Supported	Supported	Not Supported
1G copper port	Not Supported	Not Supported	Supported

Note: The following appliances do not support the 1G fiber transceiver in a 10G port.

- MPX/SDX 89xx
- MPX/SDX 89xxT
- MPX/SDX 15xxx-50G
- MPX/SDX 14xxx-40G
- MPX/SDX 14xxx-40S
- MPX/SDX 25xxx-40G

Workaround: Use a 10G/1G dual speed transceiver to obtain 1G speeds.

Ports

- What is QSFP+?

QSFP+ stands for Quad Small Form-factor Pluggable, which is a small, hot-pluggable transceiver for connecting data devices. This transceiver is used for 40G interfaces.

QSFP+ to four SFP+ Copper Breakout Cables: These cables connect to four SFP+ 10GE ports of an ADC appliance on one end and to a QSFP+ 40G port of a Cisco switch on the other end.

Support for 40G connectivity: Citrix ADC models that have at least four 10G SFP+ ports connect to Cisco 40G interfaces by aggregating four of the 10G SFP+ ports to form a 40G link aggregation channel. QSFP to Four port SFP+ Copper Breakout Cable **QSFP-4SFP10G-CU3M (reports**

as L45593-D178-C30) is used. The reverse is not supported. That is, connectivity from a 40G port on a Citrix ADC appliance and 4x10G ports on the peer switch is not supported.

- Which Citrix ADC appliances support the **QSFP-4SFP10G-CU3M (reports as L45593-D178-C30)** Breakout Cable?

Citrix ADC appliances that have at least four 10G SFP+ ports support the QSFP Breakout Cable.

- What is QSFP28?

QSFP28 is a hot-pluggable transceiver module designed for 100G data rate. QSFP28 integrates 4 transmit and 4 receiver channels. “28” means that each lane carries up to 28G data rate. QSFP28 can do 4x25G breakout connection, 2x50G breakout, or 1x100G depending on the transceiver used.

Power supplies

- Is the power supply on the Citrix ADC MPX 5500 and MPX 5550/5650 appliances field replaceable?

No. The power supply on the Citrix ADC MPX 5500 and MPX 5550/5650 appliances is fixed.

- Do the MPX 8005, 8015, 8200, 8400, 8600, 8800 and T1010 appliances ship with two power supplies?

No. The MPX 8005, 8015, 8200, 8400, 8600, 8800 and T1010 appliances support dual power supplies but ship with one power supply. Contact your Citrix sales representative to order a second power supply.

- How many power supplies are shipped with each platform?

Some platforms support two power supplies; some platforms support four power supplies. The number of power supplies shipped with the appliance might be less than the number of power supplies supported. More power supplies are available for purchase.

- Are power supplies hot-swappable?

Yes. If the appliance has two power supplies, you can replace one power supply without shutting down the appliance, provided the other power supply is working.

Rack and rail

- Do you have different rail kits for 1U and 2U appliances?

No. All MPX and SDX appliances use the same rail kit. The kit contains two pairs of slide rails, of different lengths, for a 1U and a 2U appliance.

- Which rail kit must I buy?

The appliance ships with the standard 4-post rail kit that fits racks 28–38 inches.

The compact 4-post rail kit for racks 23–33 inches, or the 2-post rail kit for 2-post racks, has to be purchased separately. Contact your Citrix sales representative to order the appropriate kit.

- What are the maximum and the minimum lengths of the outer rack rails?

The length of a standard outer rack rail is from 28 inches to 38 inches. The length of a shorter outer rack rail is from 23 inches to 33 inches.

- What is the space required between the front post and rear post of the rack?

Standard racks require 28–38 inches between the front and rear posts. Shorter racks require from 23 inches to 33 inches.

- How far can an appliance extend from the front post of the rack?

The chassis can extend up to 1.25 inches from the front post for all Citrix ADC MPX and SDX appliances.

- How much space is required for maintaining the front and rear area of an appliance?

Minimum clearance areas of 36 inches for the front area and 24 inches for the rear area are required for maintenance of all Citrix ADC appliances.

Lights out management (LOM) port

- Which LOM features are supported on the Citrix ADC MPX Appliance?

Some platforms have an Intelligent Platform Management Interface (IPMI), also known as the Lights out management (LOM) port, on the front panel of the appliance. The following three LOM features are supported on those platforms:

- Configure the LOM port
- Power cycle the appliance
- Perform a core dump

- Can the LOM interface be configured to accept only encrypted Virtual Network Computer (VNC) sessions on TCP port 5900?

Yes, customers who enable Transport Layer Security (TLS) on their LOM interface will have their VNC connections delivered over TLS as well.

For more information on LOM security guidelines, see [Secure Deployment Guide for Citrix ADC MPX, VPX, and SDX Appliances](#).

- Can the version of SSH used on the LOM interface be upgraded? Is there a patch available?

Individual components of the LOM cannot be upgraded independently. You must upgrade the entire LOM firmware as a package. On the MPX appliances, the LOM upgrade is performed explicitly by going out to the shell and running the `upgrade_bmc.sh` script.

- Is it possible to add a third-party or self-signed SSL certificate to the LOM interface?

Yes, you can enable SSL on the latest binaries for third-party and self-signed SSL certificates, except on the 88XX models. On those models, the current LOM release does not support third-party certificates.

General

- What is the recommended terminal emulator?

PuTTY.

- Which platforms support Pay-As-You-Grow licenses?

Check the Citrix ADC data sheet for the updated list of platforms that support Pay-As-You-Grow licenses.

Some of the platforms that support Pay-As-You-Grow licenses are listed here:

- MPX 5550 to MPX 5650
 - MPX 5901 to MPX 5905 to MPX 5910
 - MPX 8005 to MPX 8015
 - MPX 8905 to MPX 8910 to MPX 8920 to MPX 8930
 - MPX 14020 to MPX 14030 MPX 14040 MPX 14060 MPX 14080 MPX 14100
 - MPX 14020-40G to MPX 14030-40G MPX 14040-40G MPX 14060-40G MPX 14080-40G MPX 14100-40G
 - MPX 14040-40S MPX 14060-40S MPX 14080-40S MPX 14100-40S
 - MPX 14030 FIPS to 14060 FIPS to 14080 FIPS
 - MPX 15020 to MPX 15030 to MPX 15040 to MPX 15060 to MPX 15080 to MPX 15100
 - MPX 15020-50G to MPX 15030-50G to MPX 15040-50G to MPX 15060-50G to MPX 15080-50G to MPX 15100-50G
 - MPX 22040 to MPX 22060 to MPX 22080 to MPX 22100 to MPX 22120
 - MPX 25100-40G to MPX 25160-40G to MPX 25200-40G
 - T-series platform
- Do Citrix ADC appliances support direct attach cable (DAC)?
Yes, Citrix ADC appliances support a passive DAC in release 10.5 and later.
 - Which port must I insert the DAC into?
DAC is inserted into the 10G port on the appliance.
 - Does the 1G port support a DAC?
No. The DAC might fit into a 1G port but is not supported.
 - How can I order a DAC?

Contact your Citrix sales representative to order a DAC.

- Can I mix DAC and fiber transceivers on the same appliance?

Yes. You can mix DAC and fiber transceivers on the same appliance. Each 10G port supports both options.

- Can I mix SFP+ fiber and DAC in ports that are part of the same link aggregation channel?

No. There must be symmetry between all elements in the same link aggregation channel.

- Which transceivers use the MPO type connector?

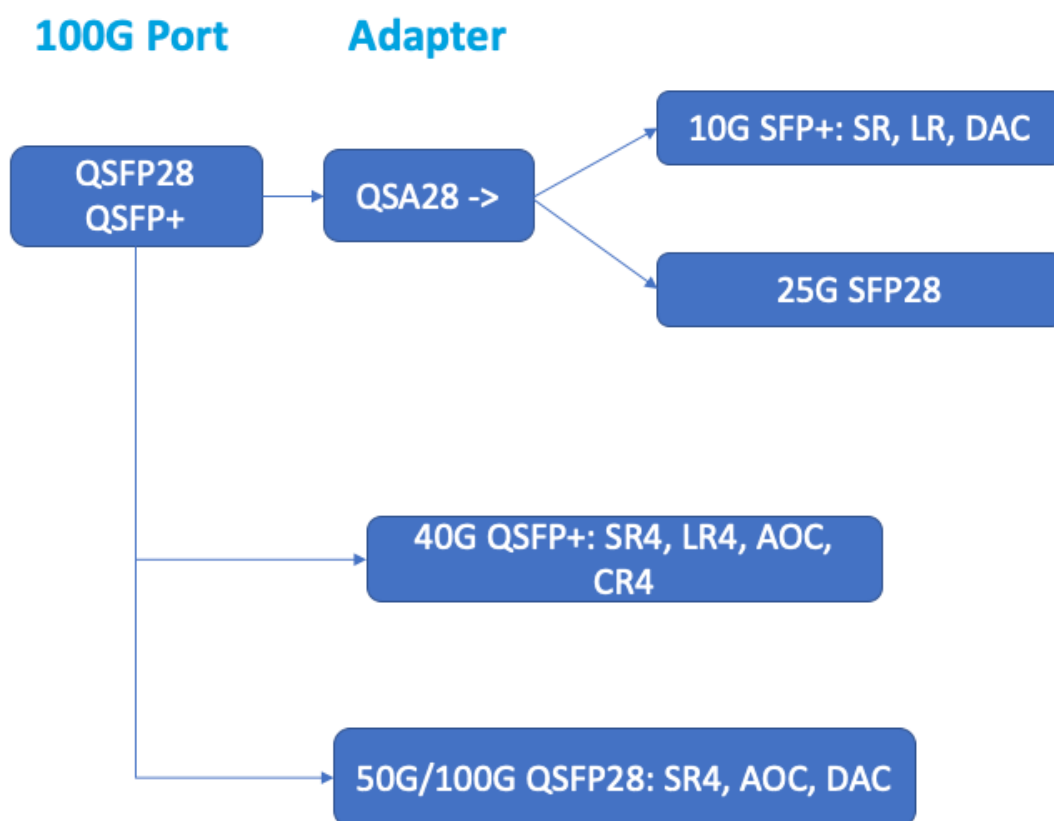
Only 40G QSFP+ SR4 transceiver and 100G QSFP28 SR4 transceivers use the MPO type connector. All other fiber transceivers use the LC type connector.

- Are special adapters required for 25G, 50G, and 100G ports?

A 100G port can support five speeds: 10G, 25G, 40G, 50G, and 100G. 1G speed is not supported on the 100G port. 50G and 100G ports use the same transceiver. The appliance determines the speed, and not the port.

Only 50G/100G (QSFP28) and 40G (QSFP+) transceivers can be directly used on a QSFP28 interface. Use a QSA28 adapter on a QSFP28 interface to use 10G (SFP+) and 25G (SFP28) transceivers.

The following diagram shows the transceiver compatibility.



- Is the 40G SR4 QSFP (also known as BiDi) transceiver supported?

Yes. The following platforms support BiDi transceivers:

- MPX/SDX 14000 40C
- MPX/SDX 14000 40S
- MPX/SDX 14000 40G
- MPX/SDX 15000 50G
- MPX 15041T 50G
- MPX 15081T 50G
- MPX 25000TA
- MPX/SDX 25000 40G
- MPX/SDX 26000
- MPX/SDX 26000 50S
- MPX/SDX 26000 100G

**Locations**

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