

MaxCore™ MC3000 Platform AC Quick Start Guide

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What's in the box?

Make sure you receive all items of your shipment:

- One MaxCore™ MC3000 Platform
- One printed copy of *Quick Start Guide* (this document).
- One printed copy of *Safety Notes Summary*.
- Other items that were ordered.

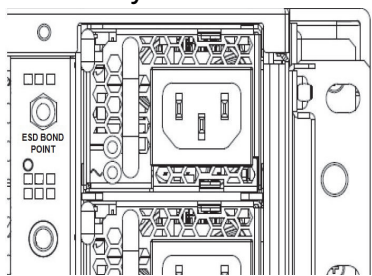


When installing or servicing the system or accessories, strictly observe the safety precautions in the *Safety Notes Summary*. Otherwise, personal injury or property damage may occur. Ignoring these instructions can void the system warranty.

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Observe ESD-safe measures

- Use either a properly grounded ESD wrist strap or make sure that you are working in an ESD safe environment.
- Connect to the ESD connector at the rear of the system.



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Prepare the installation site

1. Make sure that all environmental and power requirements defined in the *MaxCore™ MC3000 Platform Installation and Use* manual are met.
2. Remove all items from the box.
3. Provide the following cables:
 - Earth grounding cable with a two-hole lug, distance 5/8" behind (15.9 mm) in case of rack installation.
 - A power input cable for each installed power supply with a minimum cross section of 1mm².
 - Twisted pair Ethernet cable for connecting to the BMC ETH port or any of the other four system's ETH ports.
 - USB and/or microUSB cables to connect the system's USB ports.

For more information about connecting cables and power cords, refer to the *MaxCore™ MC3000 Platform Installation and Use* manual.

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Install PCIE cards

1. Remove the housing cover of the system. Push the lock button in the mid of the housing cover and push the housing cover towards the rear of the system. The cover will slide backwards and then it can be lifted off the system.
Note: Before removing the housing cover ensure that the system is shut down and disconnected from AC power.
2. Remove the filler cards or filler panels in the PCIE slots, if any.
3. Install the PCIE card(s) in the respective slot(s).
4. Fill the empty PCIE slots with filler cards or filler panels. A slot adjacent to the component side (primary side) of a high power card should always contain a filler card for better cooling. For more information about PCIE card installation, refer to the *MaxCore™ MC3000 Platform Installation and Use* manual.

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Install the system in the rack

1. Insert the system into a 19" ANSI rack.
2. Fasten the system to the rack via the integrated chassis mounting flanges using two bolts or screws (minimum 6 mm (0.24 inch) in diameter) on the left side and two on the right side of the system.

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Ground system

1. Connect the rack grounding cable with a two-hole lug to the M5 system ground lug location on the rear of the system, to the right of Slot 15. Torque the system ground lug nuts to maximum of 2.5 Nm (22.12 in-lbs). Use a grounding cable of size 1.25 mm² for the AC system.
2. Connect the system permanently to the earth ground of the building.

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Connect to power feed

1. Put on an ESD wrist strap and connect the strap to the system by attaching the rear ESD jack/ESD snap, if you are not in an ESD safe environment.
2. Make sure the external power feeds that you plan to attach are powered off and cannot be switched on while you are working.
3. Connect the AC International Electric Code (IEC) wired connector to the AC power supplies.
4. Turn on the external feed power. The Input LEDs on the power supplies turns green.



8 Connect to MegaRAC on BMC

The Baseboard Management Controller (BMC) device provides the backdoor entry into MaxCore. This back door is a web server with remote access to the power button, other chassis infrastructure and to the shelfHost CPU. This is available even when the main power is switched off.

1. Connect your PC to the RJ45 labeled **BMC** on the IO Panel on the front of the system.
2. From the PC browser, connect to `192.168.201.9` and login with **Username** and **Password** as `admin/admin`. The MegaRAC console for remote management is displayed. For more details on MegaRAC, refer to the *MaxCore™ MC3000 Platform Installation and Use manual*.

9 Power up MaxCore CPUs

Make sure that the system has been located in a place with room temperature for at least 24 hours before powering it up.

There are two options to switch on the main power.

- Push the **PWR** button at the MaxCore front shortly. For this, a tool like a pen is needed.
- In **MegaRAC** application, go to **Remote Control > Server Power Control**, select **Power On Server** and then click **Perform Action** button to power up the box remotely.

9 Power up MaxCore CPUs (Cont'd)

Note: You will hear fans spinning up and calming down after a while. The main CPU of MaxCore, the shelfHost, will now boot. Allow it to finish booting, which may take few minutes.

For more details about BMC and its web interface, refer to *Operation and Maintenance* chapter in *MaxCore™ MC3000 Platform Installation and Use manual*.

10 Connect to Shelf Host over VGA

Like a PC, the shelfHost has access to a built-in VGA graphics. MegaRAC provides the display and a remote connection is established over Ethernet. There is no VGA cable connector provided by MaxCore.

To connect to shelfHost over VGA:

1. Connect your PC to the **BMC** connector and login to MegaRAC (as described in Step 8).
2. Go to **Remote Control > Console Redirection** and click **Java Console** button.

When everything is setup correctly, a **Jviewer** window will launch displaying VGA graphics output.

Note: You may need to install or update Java version on your PC and also change the security settings of that Java engine, if required.

11 Connect to any CPU's serial port through BMC

Other CPUs in MaxCore do not have access to the built-in VGA graphics, but the console access is provided over the serial ports. This is required to configure the BIOS and to access a CPU without network connectivity.

You can either use the microUSB CONSOLE connector at the card bracket, which connects you to `tty0/COM1` or you can access `tty1/COM2` over the network via the BMC.

To connect to CPU serial port over the BMC:

1. Use a terminal emulator on your PC (you can load one from <http://www.putty.org/>) to open an `ssh` session on the BMC. Use the same IP address and the login credentials as for MegaRAC, described in Step 8.
2. Execute the following command to open a serial console session to a CPU in MaxCore.
`$/conf/sol <slotID> <cpuID>`

Replace the `slotID` with a slot number between 1 and 15 and `cpuID` with 1 or 2 for one of the two CPUs in the same slot. You are now connected to the `ttyS1/COM2` port of the selected CPU.

Press <Enter> one or two times to get an output from the OS. If the display remains dark, it means either the target CPU is not powered or the OS responds to `ttyS0/COM1` serial port, which is available at the microUSB connector on the card panel.

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Connect to any CPU's serial port through BMC (Cont'd)

3. Terminate the `ttyS` session by pressing **<ESC + t>** at the beginning of a line. It will take you back to the BMC OS prompt.

Alternatively, you can connect to the serial port of each CPU with a USB cable between your PC and the microUSB CONSOLE connector at the card bracket. As soon as your target CPU is powered, PC provides two serial devices. The default settings are 38400 baud rate, 8 bits, no parity, no flow control. The BIOS is always visible on this port. Your OS must be configured to use the `tty0/COM1` port.

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Connect to SSF on Shelf Host

System Services Framework (SSF) represents the front door entry into MaxCore. It provides access to all application relevant resources including the PCIe cards. SSF is executed by the shelfHost and is supported by the BMC.

To connect SSF on shelfHost:

1. Unplug the cable from **BMC** and plug it into the **ETH4** connector on the IO Panel on the front of the system.

Note: The **ETH4** connector supports 1G and 10G link speed. It does not support 100M link speed. Check if your PC supports 1G link speed, otherwise place a 1G switch between PC and **ETH4**.

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Connect to SSF on Shelf Host (Cont'd)

2. Connect to `172.26.1.2` from the PC browser and login with **Username: Admin** and **Password: Admin**

You will see the SSF console for remote management. The left frame shows a tree structure with all resources. Select a resource and the right frame will show information and action buttons.

Click **Software Update** button to know information about the installed firmware and software and also provide the tools for updates. It is recommended to update each new MaxCore now.

For information about documentation available, refer to **Product Documentation Overview** chapter in *MaxCore™ MC3000 Platform Installation and Use* manual.

You can download the *Getting Started with MaxCore™ MC3000 Application Note* from <https://www.artesyn.com/computing/products/product/max-core>. This helps you to get familiar with MaxCore and you can also find other MaxCore related documentation.

Whenever you are going to install Artesyn's PCIe cards, refer to the respective release notes of the card. Contact your local Artesyn sales executive.

Single PC for BMC and Shelf

You can connect your PC to BMC and shelfHost with a single cable using the following steps:

1. Connect your PC to MegaRAC (as described in Step 8).
2. Go to **Configuration > Network** to modify **Network Settings**.
3. Select `eth0` from the **LAN Interface** drop-down list.
4. Change the **IPv4 Address** to `172.26.1.1`
5. Change the **Subnet Mask** to `255.255.0.0`
6. Set the **Default Gateway** to `172.26.1.1`
7. Save the configuration and shut down the system and disconnect it from the main power for at least 10 seconds.
8. Unplug the PC from **BMC** and connect it to **ETH4**.

Note: Make sure your PC has a port with 1G link speed.

Now, your PC can communicate with BMC and ShelfHost over `172.26.1.1` and `172.26.1.2`. `172.26.1.5` is a safe IP address for your PC.

Note: This connection supports everything, except a remote power up of MaxCore. This can be done over the BMC connector only.

Additional Information

For information about available documentation, refer to **Product Documentation Overview** chapter in *MaxCore™ MC3000 Platform Installation and Use* manual.

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Whenever you are going to install Artesyn's PCIe cards, refer to the respective release notes of the PCIe card. For more information, contact your local Artesyn sales executive.

Finding more information

For more information on the product, see the *MaxCore™ MC3000 Platform Installation and Use* and other related documentation.

Go to <http://www.artesyn.com/computing> for technical documentation.

Technical Assistance

To request technical assistance, visit <http://crc-portal.artesyn.com/>