

Centellis 2100 Release 3.0 Quick Start Guide

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Welcome

Thank you for buying a chassis from SMART™ Embedded Computing. As part of SMART EC's commitment to allowing you to differentiate your solution, SMART EC has developed System Services Framework (SSF).

SSF overview

System Services Framework (SSF) is a management and configuration interface to ATCA™ hardware and software products. It facilitates system level configuration and management access to SSF managed hardware and software components, through different protocol interfaces like Web, XML, and CLI. It is a powerful framework for software service management and forms the cornerstone of SMART EC's value added software releases - now and in the future.

Accelerate your project delivery by simplifying development. Focus on creating a compelling application or service, rather than system management software.

Complimentary evaluation licenses

SMART Embedded Computing is providing completely free of charge evaluation license for SSF. With these licenses, you can explore the functionality of SSF. Every Centellis™ ATCA chassis ships with a 3-month full access evaluation license and 12-month read-only access license, which can be easily and cost-effectively upgraded to full access.

Process for receiving evaluation license

You will receive an auto-generated email from SMART EC Order Management System. This e-mail contains product related information, such as product name and evaluation period.

Purchasing SSF

SSF is licensed as per chassis type. For example, a license could be purchased for the AXP-640 chassis. The AXP-640 system can be accessed from the licensed node with any combination of SSF enabled blades.

We hope and expect that the benefits of SSF will be clear once you have tried it on your system. In the event that you want to purchase a perpetual license after the evaluation license has expired, please contact your SMART Embedded Computing sales team.

1 Box contents

Make sure you receive all items of your shipment:

- One Centellis 2100 AdvancedTCA shelf
- One printed copy of this document (Quick Start Guide)
- One printed copy of Safety Notes Summary
- Any other items that you 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.

2. ESD

Use ESD protection

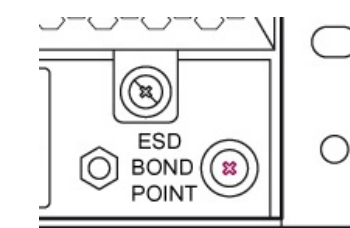


Use either a properly grounded ESD wrist strap or make sure that you are working in an ESD safe environment.

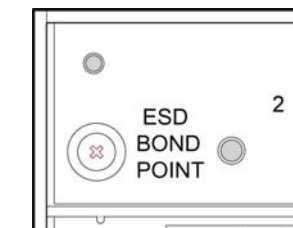
Connect to the ESD connector at the front or the rear of the system.

3. Site preparation

Front ESD connector



Rear ESD connector



1. Make sure that all environmental and power requirements defined in the Centellis 2100 Shelf Release 3.0 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" (15.9mm)



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Note: Grounding cable of size 1.25mm² for AC system, and 2.5 mm² for DC system

- Ethernet cable for connecting to the shelf manager
- Input power cable(s) with a minimum cross section of 1 mm² for AC system, and 2.5 mm², AWG 12 for DC system

4. Mount shelf in rack

1. Insert the shelf into a 19" ANSI rack.
2. Using bolts or screws, minimum 6mm (0.24 inch) in diameter, fasten the shelf mounting brackets to the rack with two bolts on the left side and two bolts on the right side of the shelf.

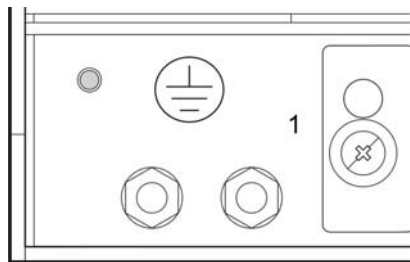
5. Install RTMs and node blades

After installing the node blades and RTMS, install the blank filler panels in all unused slots.

6. Ground the system

The system safety ground is supplied through the input power cable.

1. Optionally connect a ground connection to the ground lug at the bottom-left rear of the shelf.



2. Torque the shelf ground lug nuts to 2.0 Nm.
3. Permanently connect to the earth ground of the building.

7. Connect to power feed

AC System Startup Procedure

1. Plug the power cables into the AC inlet module in the rear of the shelf and the AC power cord into an appropriate AC outlet.

2. Turn on the feed power.

DC System Startup Procedure

1. Make sure that both PEM breakers of the shelf are in the OFF position.
2. Make sure that the external power feeds you plan to attach are powered off and cannot be switched on while you are working.
3. Remove the insulation from the ends of the power cables.
4. Crimp the ends of the power cables.
5. Loosen the screws on both sides of the pluggable screw terminals and remove the terminals from the rear of the shelf.
6. Insert the crimped ends of the power cables to the rectangular openings (3.5mm x 3.5mm wide) of the pluggable screw terminals - observe the correct orientation: -48V and Return - and fasten the screws at the bottom of the pluggable screw terminals.
7. Plug the screw terminals to the power connectors and fasten the screws on both sides of the terminals.
8. Turn on the feed power.

8. Power the system

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

Perform the following step for the AC power supply(s):

1. Check the LED on the front of the PSU and verify that the LED is illuminated green.

Perform the following steps for DC power entry modules:

1. Check the LEDs on the module's front. Make sure that the Reverse LED (red) is off and that the In LED (green) is on.
2. Switch on the breaker.

9. Connect to shelf manager

Establish a network connection to the active shelf manager:

1. On the rear of the shelf, plug the network connector in the MGMT ETH jack of the MF106 with the yellow ACT LED lit.
2. Access the shelf manager via its default IP address using telnet or SSH, user name and password: root.

The default IP-addresses are as follows:

ATCA-MF106	IP Address
Left ATCA-MF106	192.168.0.8
Right ATCA-MF106	192.168.0.9
Active ATCA-MF106	192.168.0.171
Standby ATCA-MF106	192.168.0.181

10. Set shelf geographical addresses

1. Set the shelf geographical address as required. The default shelf geographical address is 0.
2. Change the shelf manager IP-addresses if required. For more information, see the *Centellis 2100 Shelf Release 3.0 Installation and Use* manual.
3. Define the IP-addresses of the node blades. There are no predefined IP addresses for the node blades.

For more information see the documentation for the respective blade.

11. Boot the node blades

Boot the node blades using the network connection. For details on the boot process see the documentation for the respective blade.

12. Check for firmware upgrades

Before putting the system into operation, SMART EC recommends to check for firmware upgrades. Install the latest firmware upgrades. For more information see the *Centellis 2100 Shelf Release 3.0 Installation and Use* manual.

Notes:

Technical Assistance

For technical assistance or to report product damage or shortages, contact your local SMART Embedded Computing sales representative or visit <https://www.smartembedded.com/ec/support/>

Get More Information



For more information on this product, see the *Centellis 2100 Release 3.0 Installation and Use* manual and other related technical documentation, which can be found by using the Documentation Search at <https://www.smartembedded.com/ec/support/>.

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