

CM4116, CM4132 & CM4148

Quick Start Guide

Thank you for purchasing the CM4116/32/48 console server. This Quick Start walks you through installation, configuration and local operation. More details are available in the *User Manual* which can be downloaded from <http://opengear.com/documentation>.

Step 1 Check kit contents



CM4116/32/48
Console server



UTP cables (2) and
DB9F-RJ45S straight
and cross-over



Power cable
(-SAC models only)

Step 2 Connect the hardware

- Power the CM4116/32/48 console server. The –SAC models have a universal AC power supply built in, that plug into the mains. The –SDC models have a DC supply and an external screw connector block for connecting to the DC power sources
- Connect the *LAN* port on the console server to your network, connect your serial devices to the console server *SERIAL* ports 1 through 16/32/48

Note: You can connect an external serial modem to the LOCAL serial port.

Step 3 Set up the console server

The default console server IP address is *192.168.0.1* (subnet mask *255.255.255.0*). With a web browser on any computer that is LAN connected to the console server:

- Enter **https://192.168.0.1** into the address bar
- Log in using the default system user name *root* and the default password *default*, a **Welcome** screen listing the basic configuration steps is displayed

Note: The computer must have an IP address in the same network range (192.168.0.xxx) as the console server. Alternately, you can use the *ARP Ping* command to set the IP address (refer *User Manual* or online FAQ for details). The console server also DHCP client enabled by default. It will automatically accept any network IP address assigned by any DHCP server on your network – and will then respond at both 192.168.0.1 and its DHCP address.

- Select **System: Administration**. Enter and confirm a new **System Password** and click **Apply**
- Select **System: IP** then **Network Interface** and check **DHCP** or **Static** for **Configuration Method**

Note: The console server's firewall determines which protocols/ services can be used to access which ports/ devices. Please refer to the User Manual and FAQs before changing any of the default services or access settings. By default only HTTPS and SSH access is enabled to the console server itself. But you can use **Service Access** menu on **System: Firewall** to change settings for the console server itself (and for connected serial ports).

Services	Network Interface	Dialout/Cellular	Dial-in	VPN
HTTP Web Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HTTPS Web Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telnet command shell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SSH command shell	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telnet direct to serial ports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Step 4 Configure serial and network devices

- Select **Serial & Network: Serial Port** to display the labels, modes and protocol options currently set for each serial port – by default all serial ports are set in Console Server mode (refer the *User Manual* if other modes are required). To configure a serial port, click **Edit**:

- Configure the **Common Settings** (Baud Rate, Parity, Data Bits, Stop Bits and Flow Control) to match those of the device being controlled
- Select the **Console Server** protocols (Telnet, SSH, TCP and RFC2217) that are to be used for the data connection to that port
- A **Logging Level** may also be set to specify the level of information to be logged and monitored for each that port
- Click **Apply**
- To enable access through the console server to a locally networked device (referred to as a *host*), select **Serial & Network: Network Hosts** and click **Add Host**:
 - Enter the **IP address/DNS Name** of the host
 - Edit the **Permitted Services** used for accessing this host, e.g. HTTPS (TCP port 443), VNC (TCP port 5900), or add custom TCP or UDP port numbers – only the services specified here are tunneled through to the host, all other services are blocked
 - At this stage you may also specify the level of information to be logged and monitored for each host access. Click **Apply**

Step 5 Add new users

Note: It is recommended that you set up a new Administrator user (in the *admin* group with full access privileges) and login as this new user for all ongoing administration functions (rather than continuing as *root*).

- For each new user, select **Serial & Network: Users & Groups** and click **Add User**
- Enter a **Username** and enter and confirm a **Password**, and nominate the **Accessible Hosts** and **Accessible Ports** the user is allowed to access
- To grant limited access to the Management Console, check the *user Group*, to grant full access to the Management Console, check the *admin Group* – by default the user is granted no Management Console access. Click **Apply**

The screenshot shows the OpenGear management console interface. At the top, the system name is 'acm5003-m', model is 'ACM5003-M', and firmware is '3.3.2'. The uptime is '0 days, 0 hours, 21 mins, 56 secs' and the current user is 'root'. There are icons for 'Backup' and 'Log Out'.

The main navigation pane on the left shows a tree structure with 'Serial & Network' expanded to 'Users & Groups'. Other categories include 'Alerts & Logging' and 'System'.

The main content area is titled 'Serial & Network: Users & Groups' and contains the 'Add a New user' form. The form fields are as follows:

- Username:** 'Rajfin' (with a note: 'A unique name for the user.')
- Description:** 'Bruce J - Central Services' (with a note: 'A brief description of the user's role.')
- Groups:** Two checkboxes are present:
 - admin (Provides users with unlimited configuration and management privileges)
 - users (Provides users with basic management privileges)
 (with a note: 'A group with predefined privileges the user will belong to.')
- Password:** A masked field (with a note: 'The users authentication secret. Note: A password may not be required if remote authentication is being used.')
- Confirm:** A masked field (with a note: 'Re-enter the users password for confirmation.')

Step 6 Advanced configurations

The console server offers many more advanced functions including:

- ❖ The **Alerts & Logging: Alerts** facility monitors serial ports, hosts, user logins, UPSes (Uninterruptible Power Supplies), RPCs (Remote Power Controllers, such as PDUs and IPMI devices) and EMDs (Environmental Monitoring Devices). A broad selection of trigger events (such data patterns, temperature or battery levels) can be specified. When triggered, a warning email, SMS, Nagios or SNMP alert is sent to a nominated destination.
- ❖ Extensive management of UPSes and RPCs using open source *NUT* and *Powerman* tools. The **Manage: Power** facility enables both administrators and regular users to monitor and control attached PDU power strips, and servers with embedded IPMI BMCs.
- ❖ Connecting EMDs to any serial port (with an adapter) and remotely monitor the temperature, humidity, physical access, smoke alarms, etc. Details are provided in the *EMD5000 Quick Start* supplied with the EMD.
- ❖ Historical logs of all communications with serial and network attached devices, system activity, UPS and PDU power status, environmental status, etc. **Alerts & Logging: Port Log** allows this history to be saved locally or remotely. Logs can be viewed from the **Status** and **Manage** menus.
- ❖ Other advanced features, such as *Serial Port Cascading*, remote *Authentication*, *Trusted Networks*, *Secure Tunneling*, *Nagios Distributed Monitoring*, the *Command Line* interface – these are covered in detail in the *User Manual*.



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