



# CM4000 Console Servers

## Applications

- Data center console and power management
- Out of band network infrastructure management
- Central control of satellite branch offices
- Secure server management
- Remote help desk

## Benefits

- Affordably manage hundreds of servers and appliances
- Secure In-band and Out-of-band serial console and management LAN access
- Integrates with enterprise management (OpenManage, Conserver, MO, Openview)
- Local or remote access to headless servers (LOM, IPMI) and network devices
- Power management (Remotely turn on, off and reboot equipment)
- Supports all management protocols (Telnet, HTTP, VNC, RDP) with configurable client
- Simple browser or management interface
- Windows RDP tunneling and EMS support
- Automated alerts and alarm management
- Multiplatform (Linux, Windows, Cisco, BSD, UNIX and SUN compatible)
- Rock solid stability (optimized hardware and robust Linux software)
- Configurable - open source Linux kernel access



*OpenGear's robust console servers provide affordable in-band, and out-of-band management at the data center, and beyond*

The CM4000 family of console servers enables system administrators and IT professionals to securely manage their data centers and networks from anywhere in the world. CM4000 provides reliable and affordable access to the serial console ports, the embedded service processors (IPMI, LOM etc) and the graphical desktop screens, on Windows, Sun and Linux servers. They also monitor and control network infrastructure (switches, firewalls etc) and manage general appliances (PBXs, building security, power switches etc).

Console servers provide a simple and secure solution for accessing, monitoring, and controlling distributed networks of servers and appliances, from a single site. They provide direct console and screen access for troubleshooting and diagnostics, and enable the infrastructure to be reconfigured and rebooted, ensuring availability at critical times.

### Secure Reliable In-Band and Out-of-Band Access

A CM4000 console server at a remote site can be accessed In-band through the enterprise IP network, or Out-of-band through a dial-up modem PPP port or a management network. All connections are secure, with encrypted access to remote systems using up to 128-bit AES encryption. CM4000 also provides a selection of filtering and access logging facilities. All console logs can be archived off line. Access also can be restricted by IP address, by password, or by account. So managers can securely control and manage their distributed networks of servers and appliances.

Today, 24/7 operation is an imperative not just for the corporate data center, but also for small distributed sites (the branch office, SMEs operations etc). System and network managers are tasked with keeping these diverse facilities up and running on a continuous basis, and to affect this, they need broad management coverage. CM4000 is rich in features to meet this need. It offers the latest in out-of-band console and secure RDP and VNC support and works with the widest range of third party network equipment, power controllers etc.

### Optimized for Infrastructure Management

OpenGear's products are built on open source standards, leveraging the strength, the security and the broad services of Linux. This robust, reliable open software technology has then been optimized specifically for secure console management and remote control applications. The result is compact, efficient software, without the bloat of legacy applications that dominate in other solutions.

The CM4000 couples this high quality software with a deeply integrated hardware design. The family is built on powerful ARM-based System on Chip technology with a low component count. This yields higher reliability, lower power consumption and leading network and cryptographic performance. As a result the CM4000 leads on features, performance, reliability and price.

The CM4000 range has been optimized for stand-alone secure remote management, with a simple Web browser interface so the manager can easily configure the appliance, set security levels and user access privileges. The manager also can interface directly at the command line with the embedded Linux kernel. However CM4000s can also easily dovetail into higher-level enterprise (OpenManage, MO, BMC, Tivoli, Openview) and open source (Conserver) management applications to provide a unified solution. This gives customers more flexibility without being tied to appliance vendors' proprietary solutions.

# CM4000 Family Specifications

## FEATURES

### Security and Authentication

- Secure Shell (SSH V2)
- TACACS+ , RADIUS and LDAP authentication
- PAP/CHAP authentication (dial up)
- Per port user access lists and dial back support
- Local authentication
- System event syslog
- SSH port and IP forwarding support
- IP packet filtering

### Serial Console Port Management

- Windows 2003 Server EMS support
- SUN / Solaris ready (no inadvertent breaks)
- Break over SSH support
- Port monitoring, triggers and alarms
- Offline data logging (Syslog, NFS, CIFS)
- Online data buffering
- Multiple users per port (with port sniffing)
- Access by TCP port
- Telnet/SSH/Raw TCP connect
- Clustering

### Tunneled LAN Port Management

- Secure SSH tunneling and NAT port redirection
- Secure RDP and VNC access to Windows /Linux/Sun computers
- Secure HTTP access to browser controlled appliances
- Secure Telnet access
- Service processor access (IPMI, ILO, LOM, RSA)
- Extensible to support custom services /ports
- Configurable point-n-click SDTConnector client
- User access limited by host, and by SDT service
- Unlimited number of LAN computers/appliances
- Unlimited number of connections per SSH session

### CM4000 System Management

- Secure Web management (HTTPS)
- Local browser management (HTTP)
- Command Line interface (Linux Shell)
- ARP-PING (IP assignment)
- SNMP and email alerts

### CM4000 Accessibility

- In-Band (local Ethernet or secure tunnel over Internet)
- Out-of- band (Dial-up modem access) option
- Local serial access

### Other Protocols Supported

- DHCP for dynamic IP assignment
- NTP for time synchronization
- PPP for dial up access
- RFC 2217 - Port Redirection

### Upgrades

- Flash upgradeable - free from online FTP site
- FTP, TFTP client for file transfer

### Operating System

- Linux - Source code access enables custom configuration

### Models

- CM4001: 1 or 2 serial ports, 10 concurrent SSH tunnels
- CM4008: 8 serial ports, 10 concurrent SSH tunnels
- CM4116: 16 serial ports, 50 concurrent SSH tunnels
- CM4148: 48 serial ports, 50 concurrent SSH tunnels

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## HARDWARE

### Connectors

CM4001: 1 DB9 RS-232 serial port (2400 to 230,400bps)  
CM4008: 8 RJ-45 RS-232 serial ports (2400 to 230,400bps)  
CM4116: 16 RJ-45 RS-232 serial ports (2400 to 230,400bps)  
CM4148: 48 RJ-45 RS-232 serial ports (2400 to 230,400bps)  
1 DB-9 RS-232 local / modem port (2400 to 115,200 bps)  
1 RJ-45 10/100Base-T Ethernet port

### Cables

2 RJ-45 CAT5 cables (6 ft)  
2 RJ-45 to DB-9 adapters (straight & cross-over)

### Power

CM4001/CM4008: External; CM4116/CM4248: Internal  
100-240V AC, 50/60 Hz, CM41xx-48V: External +/- 48VDC  
Power consumption less than 20W

### Dimensions

CM4001: 4.1 x 3.3 x 1.2 in (10.8 x 8 x 3.2 cm) Desktop/DIN mount  
CM4008: 8.2 x 4.9 x 1.2 in (20.8 x 12.6 x 4.5 cm) Desktop  
CM4116/4148: 17 x 8.5 x 1.75 in (43.2 x 21. x 4.5 cm) 1RU

### Environmental

Ambient operating temperature: 5°C to 50°C (41°F to 122°F)  
Non operating storage temp.: -30°C to +60°C (-20°F to 140°F)

### Humidity

5% to 90%

### Regulatory

FCC Part 15 A UL 1950  
CE (EN55022 A, EN55024, EN60950)  
TUV C-Tick

### CPU

166MHz ARM-based System on Chip (Micrel KS8695P)

### Memory

CM4001 & CM4008: 16MB SDRAM 8MB Flash  
CM4116 & CM4148: 64MB SDRAM 16MB Flash

