

One appliance to manage all your rack infrastructure, even during downtime

Safeguarding security and availability across the diverse and multifaceted systems housed in your data centre is a complex yet critical task.

Opengear appliances equip you with the necessary tools to consolidate management of all of your data centre infrastructure, enabling swift and efficient problem remediation and minimising mean-time-to-recover. Built in out-of-band connectivity and redundant power supply and network options, guarantees your data centre infrastructure stays always-accessible.

Today's data centre is populated with a wide array of server, network, storage and power equipment, both legacy and new, from a variety of vendors. Opengear brings enterprise-grade security to remote monitoring, access and control in these environments, while integrating with your existing monitoring systems and management tools.

Built on a proven open source Linux platform, with an intuitive browser based management UI and familiar CLI, Opengear appliances are the simple to deploy, easy to use alternative to traditional console servers and proprietary management stacks.



Serial console server

Connect management consoles & legacy gear

- Up to 48 RS-232 serial ports
- SSH into server, router, switch & firewall consoles
- Cluster hundreds of serial ports behind one network address
- Hard power cycle equipment right from the serial console shell
- AJAX web terminal emulator for clientless console access

Built-in out-of-band

Rack access & recovery during outages

- Internal 3G UMTS, dial-in modem, or broadband Ethernet
- High availability with redundant network connection
- Automatic failover when primary connectivity is lost
- Lock down incoming number, with modem dial-back support and CSD calling number filter

Power monitoring and control

Consolidate and automate power to the rack

- Manage USB, serial and network connected UPSes & PDUs
- Vendor neutral, built-in support for over 100 manufacturers
- Unified portal for browser & CLI control of heterogenous PDUs
- Shed load when line power drops, graceful shutdown of critical systems when back up power runs down to low

Management LAN

Physically separate lights-out traffic

- Dedicated Ethernet (IM) or VLAN switch (IMG) segregates service processor, firewall management port, power and other sensitive devices
- Control access to BIOS level server KVM, power control and diagnostics using HP iLO, Dell DRAC, IBM RSA & Sun ALOM
- BMC IPMI and Serial-over-LAN tunneling

Cisco equipment

Get pro-active about network downtime

- Access to Cisco console ports during network outages
- Back up and restore IOS running config or system image to integrated TFTP server and USB storage
- Detection and alerting of issues before they become problems
- Serial pinout Cisco rolled or Cisco straight compatible

Log and alert

Monitor all managed infrastructure

- Capture all serial and network management traffic
- Trigger SMS, email or customisable alert scripts on kernel panic regex pattern match, environmental state, cable unplugged and more
- Audit trail logs on local USB storage or remote log server
- Monitor temp, humidity, smoke, rack door open with EMD5000 module

Enterprise-grade security

Compliant with the strictest requirements

- Default-deny SSH bastion
- Granular, role-based user permissions
- IPsec and OpenVPN, PKI VPN over primary or out-of-band
- FIPS 140-2 OpenSSL module, certified for use in US Government
- Two-factor authentication using RSA SecurID
- RADIUS, TACACS+, Active Directory/LDAP remote authentication

Network monitoring integration

Extend & enhance your existing system

- Extend the reach of Solarwinds, Zenoss and Nagios to serial connected devices
- Point-and-click problem remediation from the NMS UI
- Turn-key central monitoring of thousands of Opengear and managed devices with CMS6100 hardware & VCMS software appliance
- Upstream Nagios and SNMP server alerts

Open source platform

With open source tools

- Flexible, extensible open source Linux platform
- Built on key OSS data centre technologies such as OpenSSH, Nagios, ipmitools and Network UPS Tools
- root level shell scripting and firmware customisation access

Rack side remediation

Complete rack side troubleshooting

- KCS utilises your existing LCD console drawer or KVM gear for serial and network management, at the rack
- Complete server management at BIOS, operating system, and application level with a full suite of command line tools & GUI clients

Technical Specifications

CM4100

Value line console manager

IM4200

Infrastructure manager

IMG4200

Infrastructure management gateway

KCS6100

Rackside console manager

Connectors	16 or 48 RJ-45 RS-232 serial (2400 to 230 400bps) 1 DB-9 RS-232 local console & modem serial (2400 to 115 200bps) 1 RJ-45 10/100Base-T Ethernet	8, 16 or 48 RJ-45 RS-232 serial (2400 to 230 400bps) 1 DB-9 RS-232 local console & modem serial (2400 to 115 200 bps) 1 RJ-11 V.92 modem 2 RJ-45 10/100Base-T Ethernet 2 USB 2.0	8, 16 or 48 RJ-45 RS-232 serial (2400 to 230 400bps) 1 DB-9 RS-232 local console & modem serial (2400 to 115 200 bps) 1 RJ-11 V.92 modem 1 RJ-45 10/100Base-T Ethernet 24 RJ-45 10/100Base-T VLAN switch 1 USB 2.0	8 or 16 RJ-45 RS-232 serial (2400 to 230 400bps) 1 DB-9 RS-232 local console & modem serial (2400 to 115 200 bps) 1 10/100Base-T Ethernet 1 DB-15 VGA 2 PS/2 keyboard and mouse 4 USB 2.0
Power	Internal 100-240V AC, 50/60 Hz or Internal +/- 48VDC (range 36V to 72V) Power consumption less than 20W	Internal dual socket universal 100-240V AC or Internal dual +/- 36V to 72V DC Power consumption less than 30W	Internal dual socket universal 100-240V AC or Internal dual +/- 36V to 72V DC Power consumption less than 30W	Internal universal 100-240V AC, or Internal +/- 36V to 72V DC Power consumption less than 10W
Dimensions	44 x 21 x 4.5cm, 3.9kg 1RU with rack mounts	44 x 21 x 4.5cm, 5.4kg 1RU with rack mounts	44 x 21 x 4.5cm, 5.4kg 1RU with rack mounts	44 x 17 x 4.5cm, 2.8kg 1RU with rack mounts
Environmental	Ambient operating: 5°C to 50°C Non operating storage: -30°C to +60°C Humidity: 5% to 90%	Ambient operating: 5°C to 50°C Non operating storage: -30°C to +60°C Humidity: 5% to 90%	Ambient operating: 5°C to 50°C Non operating storage: -30°C to +60°C Humidity: 5% to 90%	Ambient operating: 5°C to 50°C Non operating storage: -30°C to +60°C Humidity: 5% to 90%
Regulatory	FCC Part 15 A, UL 1950, CE (EN55022 A, EN55024, EN60950) TUV, C-Tick, RoHS compliant	FCC Part 15 A, UL 1950, CE (EN55022 A, EN55024, EN60950) TUV, C-Tick, RoHS compliant	FCC Part 15 A, UL 1950, CE (EN55022 A, EN55024, EN60950) TUV, C-Tick, RoHS compliant	FCC Part 15 A, UL 1950, CE (EN55022 A, EN55024, EN60950) TUV, C-Tick, RoHS compliant
MTBF	150 000 hours	150 000 hours	150 000 hours	100 000 hours
CPU	166MHz ARM, Micrel KS8695P	166MHz ARM, Micrel KS8695P	166MHz ARM, Micrel KS8695P	500MHz x86, AMD Geode LX800
Memory	64MB SDRAM 16MB embedded flash	64MB SDRAM 16MB embedded flash 16GB USB flash	64MB SDRAM 16MB embedded flash 16GB USB flash	256MB SDRAM 1GB Compact Flash
Operating System	Linux 2.6.x with source code access & custom development kit	Linux with source code access & custom development kit	Linux with source code access & custom development kit	Linux with source code access & custom development kit



	4	8	16	48	Classic	Cisco Rolled	Cisco Straight	1	24	External DB-9	Internal V.92	Internal 3G UMTS	USB	VGA UI	AC	DC	Dual AC	Dual DC
CM4100																		
IM4200																		
IMG4200																		
KCS6100																		

Serial Ports

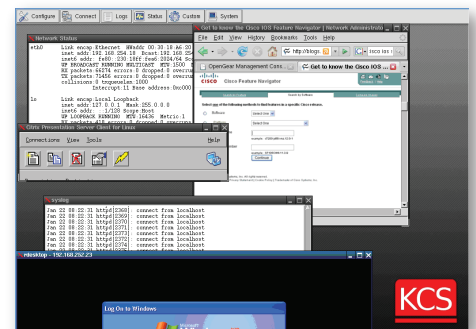
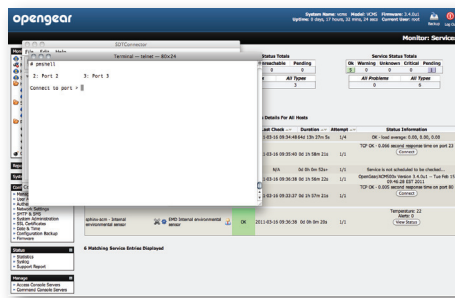
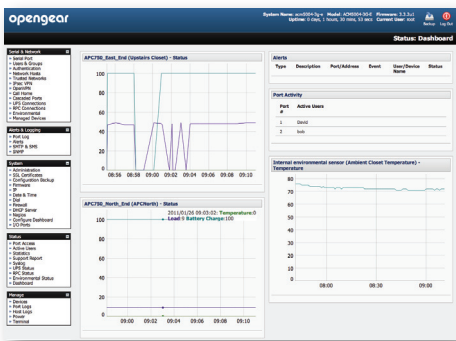
Serial Pinout

Management LAN Ports

Modem

Power

The Opengear Management System



Remote Management

- Smart appliances deliver fully integrated in- and out-of-band management solution
- Serial console, PDU, UPS, network host monitoring, access and control
- Secure HTTPS web and Linux SSH CLI user interfaces
- Management dashboard for status at a glance
- Extensive data logging and alert delivery feature set
- Managed device and sensor SNMP MIB
- Serial data, break, power control over SSH
- Sun Solaris ready, no inadvertent breaks
- Windows Server EMS support
- Lifetime free firmware upgrades
- Rapid ROI, no per-device licensing or ongoing fees

Central Management

- Single window into all managed infrastructure
- Seamless in- and out-of-band access
- Available as CMS6100 hardware appliance and VCMS virtual appliance
- Manage 100s or 1000s of Opengear & attached devices
- No per-site or per-device licence fees
- Embedded Nagios monitoring and alerts
- Aggregated environmental monitoring
- Batch distributed commands
- Firewall friendly, all traffic tunneled over single SSH port
- Integrated SDT Connector SSH tunnel client for point & click access
- Simple deployment, minimal configuration

Rackside Management

- Transform existing LCD console drawer or KVM gear into a powerful management station with KCS6100
- Local thin client access to Citrix ICA, VNC and RDP Remote Desktop, at the rack
- Local serial terminal access
- Integrated Firefox browser for web based client access
- Includes complete Remote Management feature set for remote and out-of-band management

