IOLAN SCG LW Secure Console Server with integrated Cellular & WiFi Access

In-Band and Out-of-Band IT Infrastructure Management

- 18, 34 or 50 Console Management Ports
- Modular design supports RS232 RJ45 and USB 3.0 Interfaces
- High-Speed 4G LTE with fallback networks - HSPA+, UMTS, EDGE and GPRS/GSM
- WLAN (Wi-Fi ®): Dual band radio supporting IEEE 802.11 @2.4Ghz/5Ghz
- Dual Network Connection with 10/100/1000Base-T Copper and 100/1000Base-X Fiber SFP Ports
- Advanced AAA security and SSH/SSL encryption to meet all data center compliance policies
- Dual AC Power for Fault-tolerant uptime

The **Perle IOLAN SCG LW Console Servers** provide data center managers with secure remote console management of any device with an **RS232 RJ45 or USB console port**. With an expandable modular hardware platform, advanced security features, and built-in redundancy features, your IT professionals and network operations center (NOC) personnel will have everything they needed to easily perform secure remote data center management and out-of-band management of IT assets from anywhere in the world. The unique design provides users with a flexible, cost-effective solution to **transmit data from mission-critical equipment over 4G LTE Cellular and wireless LAN networks**.

Modular Hardware Platform enables Console Management of all IT assets

The **modular IOLAN SCG LW Console Server** supports both **RS232 RJ45 and USB connectivity to console ports** on equipment such as **Cisco routers, switches, firewalls, servers** (Solaris, Windows, Unix and Linux) **PBXs, network storage equipment** and **security appliances through a 4G LTE Cellular or wireless LAN IP network**. For decades the highly reliably RS232 RJ45 port has been the standard for Console Admin port access. Now, IT equipment manufacturers like Cisco, Juniper, Dell, HPE, Huawei and others are delivering devices with USB Console Admin Ports. The modular design of the IOAN SCG LW provides support for both types of admin ports in one Console Management solution. The interface modules allow the user to swap, upgrade and scale to any **"mix-and-match" combination of 16-port USB 3.0 or RS-232 RJ45** interface module cards. You can purchase the IOLAN SCG LW Console Server fully populated or partially populated so that you can swap and add modules as your needs grow or change.

IOLAN SCG Interface Options

RS232 RJ45 | USB | USB and RS232 RJ45

The Perle IOLAN SCG is the only industry solution that can support up to 50 high-density USB 3.0 ports that are compatible with all manufacturers' USB solutions.

The RS232 RJ45 ports are software configurable to use straight thru or rolled cables to connect your Cisco equipment. In addition, a DCD pin can be configured for 3rd party devices that need this extra signal. The means the Perle IOLAN SCG supports more serial devices than any other Console Server on the market.

Advanced Network Security Features, Authentication and Data Encryption

IT administrators are required to ensure network data transmissions, and all access to remote console admin ports on IT equipment is secure. When using IOLAN SCG Console Servers, data management information is protected through standard encryption tools such as Secure Shell (SSH) and Secure Sockets Layer (SSL). Support for authentication schemes such as RADIUS, TACACS+, LDAP, Kerberos, NIS, and RSA Security's SecurID tokens ensures access to equipment and data is limited to authorized users.

By using encryption technologies, an IOLAN SCG Console Server protects sensitive and confidential data before being sent across a corporate Intranet or public Internet. For compatibility with peer encryption devices, all of the major encryption ciphers such as AES, 3DES, RC4, RC2, and CAST128 are fully supported.

Recognized as the most secure method for communicating to remote private networks over the Internet, the IPSec standard provides robust authentication and encryption of IP packets at the network layer of the OSI model. As a standard it is ideal for multi-vendor interoperation within a network, providing flexibility and the ability to match the right solution for a particular application.

Redundancy features for fault tolerant network access and uptime

Every IOLAN SCG LW Console Server comes with three secure remote access methods to critical network devices.

1. The **built-in high-speed 4G LTE with HSPA+, UMTS, EDGE and GPRS/GSM fallback networks** to protect your data center and branch office out-of-band management infrastructure against wired LAN failure. It can also be used to transmit serial data or establish a direct serial to serial peer connection, over cellular networks. This is ideal when devices are located where hardwired Ethernet connections are not available but cellular networks, with their affordable data packages, are accessible.
2. **Built-in WiFi network access over dual-band radio antennas** provides optimal wireless performance, signal reliability, and range. With broad range support of Wireless LAN Technology

(IEEE 802.11 a,b,g,n @ 2.4Ghz/5Ghz) and fast wireless speeds up to 150Mbps, the IOLAN SCG LW is ideal to ensure you always have access to critical network devices.

3. Any dual combination of the **two 10/100/1000Base-T Copper Ports and two 100/1000Base-X SFP Fiber Ports** can be used to meet your unique network access requirements. This design provides users with a flexible, cost-effective solution to transmit data from mission-critical equipment over Copper or Fiber based Ethernet networks.

When connecting to a fiber network, the pluggable SFP ports allow for flexible network configurations using SFP Optical Transceivers supplied by Perle, Cisco or other manufacturers of MSA compliant SFPs. This unique fault tolerant design, with Redundant Path technology, assures availability to Console Management ports through Active Standby or Dual Network Access modes.

Protection against electrostatic discharges and power surges is provided with robust 15Kv ESD protection circuitry on each console port.

In addition, Dual AC Power ensures your IOLAN stays up and running should the primary power source fail.

Easy Set-up and Configuration with Front Panel Display and Keyboard

The IOLAN SCG LW is incredibly easy to get up and running on the the network. The Front Panel Display and Keyboard allows a user to assign an IP address directly through the display wihtout a direct PC connection. The rest of the unit can then be configured over the network using a variety of configurator options including, Perle Easy Config Wizard, Perle Device Manager, WebManager, CLI, etc.

The Front Panel Display is also a convenient way to monitor and trouble-shoot RS232, USB, and Ethernet port activity.

For large scale roll-outs, the Micro SD Card slot can be used to back-up and restore configuration files as well as load new firmware. Perle is committed to eliminating configuration hassles for all IOLAN's on your IP network.

Flexible and Reliable Serial to Ethernet Connections

An IOLAN SCG Console Server is ideal for connecting serial based COM port, UDP or TCP socket based applications to remote devices. Perle'sTruePort re-director provides fixed TTY or COM ports to serial based applications enabling communication with remote devices connected to Perle IOLAN's either in encrypted or clear text modes.

TrueSerial® packet technology delivers the most authentic serial connections across Ethernet for serial protocol integrity.

You can also tunnel serial data between devices across an IP network.

By choosing a Perle IOLAN SCG Console Server you can rest assured that virtually any device with a serial COM port will operate in conjunction with your desired application exactly as it did when you had it directly connected. In the unlikely event that the Perle IOLAN Console Server does not enable this out of the box, Perle will make it work with customer installable "Device Plug-ins".

Advanced IP Technology

With support for IPv6, the IOLAN SCG provides organizations with investment protection to meet this rapidly growing standard.

Demand for IPv6, which is compatible with IPv4 addressing schemes, is driven by the need for more IP address. With the implementation and rollout of advanced cellular networks, a robust method is needed to handle the huge influx of new IP addressable devices on the Internet. In fact, the US Department of Defense has mandated that all equipment purchased be IPv6 compatible. In addition, all major Operating Systems such as Windows, Linux, Unix, and Solaris, as well as routers, have built-in support for IPv6.

It is therefore important for end users and integrators to select networking equipment that incorporates the IPv6 standard. The IOLAN line with support for IPv6 already built in is the best choice in serial to Ethernet technology.

More reasons that make the IOLAN SCSG Console Servers the preferred choice:

- Cellular data speeds up to 100Mbps
- Direct serial to serial peer connection over cellular data networks
- Remote equipment console management over cellular data networks
- As a wireless client proxy, provides wireless connectivity to central access points for serial and Ethernet devices.
- Can provide a direct serial to serial peer connection over wireless
- Software Access Point (SoftAP) for up to 6 wireless clients.
- Fast Wireless Roaming capability is ideal for mobile applications where the IOLAN can transparently roam between APs (Access Points) that share the same ESS (Extended Service Set).
- FIPS 140-2 – Cryptographic modules meet US Government NIST compliance.
- Clustering – Provides a single view of all out of band console ports. Ideal for large data centers.
- Primary/Backup host functionality enables automatic connections to alternate hosts should the primary TCP connection go down.
- EasyPort Web – Access equipment serial console ports by using your Java-enabled Internet browser.
- Java-free browser access to remote serial console ports via Telnet and SSH.
- Dynamic DNS – Easy console management access from anywhere on the Internet.
- Intelligent Power cycling of equipment with Perle Remote Power Switches.
- Ping watchdog probes enable customers to power cycle equipment with attached Perle RPS power switches in the event of an unresponsive networking gear.

Lifetime Warranty

All Perle IOLAN SCG models are backed by the best service and support in the industry including Perle's unique lifetime warranty. Since 1976 Perle has been providing its customers with networking products that have the highest levels of performance, flexibility, and quality. With the Perle IOLAN SCG deploying and upgrading new services and equipment while minimizing capital expenditures, is easy.

Serial Port Access

Connect directly using Telnet / SSH by port and IP address

Connect with EasyPort menu by Telnet / SSH

Use an internet browser to access with HTTP or secure HTTPS via EasyPort Web menu

Java-free browser access to remote serial console ports via Telnet and SSH

Ports can be assigned a specific IP address (aliasing)

Multisession capability enables multiple users to access ports simultaneously

Multihost access enables multiple hosts/servers to share serial ports

Topology Support

Serial to 4G LTE cellular data networks with fallback networks - HSPA+, UMTS, EDGE and GPRS/GSM

Serial to WLAN

Ethernet to WLAN

Serial to Ethernet

Infrastructure (to Access Point) and secure peer to peer using SoftAP (vs legacy "Ad-Hoc")

Accessibility

In-band and out-of-band Ethernet via RJ45 copper (10/100/1000 Base-T) and SFP fiber (100/1000Base-X)

In-band and out-of-band via integrated LTE, HSPA+, UMTS, EDGE and GPRS/GSM support

In-band and out-of-band via integrated IEEE 802.11 a,b,g,n,i WLAN (Wi-Fi ®)

Easy setup with Front Panel Display and Keyboard

Dynamic DNS enables users to find a console server from anywhere on the Internet

Domain name control through DHCP option 81

IPV6 and IPV4 addressing support

Availability

Primary/Backup host functionality enables automatic connections to alternate host(s)

Security

SSH v1 and v2

PCI DSS Compliance: TLS v1.2, TLS v1.1, TLS v1.0, SSL v3.0, SSL v2.0

SSL Server and SSL client mode capability

SSL Peer authentication

IPSec VPN : NAT Traversal, ESP authentication protocol

SSH ciphers: AES-CTR, AES-GCM and ChaCha20-poly1305

SSL encryption: AES-GCM, key exchange ECDH-ECDSA, HMAC SHA256, SHA384

Encryption: AES (256/192/128), 3DES, DES, Blowfish, CAST128, ARCFOUR(RC4), ARCTWO(RC2)

Hashing Algorithms: MD5, SHA-1, RIPEMD160, SHA1-96, and MD5-96

Key exchange: RSA, EDH-RSA, EDH-DSS, ADH

X.509 Certificate verification: RSA, DSA

Certificate authority (CA) list

Wireless LAN : WPA-PSK, WPA2-PSK & Enterprise (EAP, PEAP, LEAP), WEP, IEEE 802.11i, IEEE 802.1x supplicant

Local database

RADIUS Authentication, Authorization and Accounting

TACACS+ Authentication, Authorization and Accounting

LDAP, NIS, Kerberos Authentication

RSA SecureID-agent or via RADIUS Authentication

SNMP v3 Authentication and Encryption support

IP Address filtering

Disable unused daemons

Active Directory via LDAP

Terminal Server

Telnet

SSH v1 and v2

Rlogin

	Auto session login
	LPD, RCP printer
	MOTD - Message of the day

Serial machine to Ethernet

Tunnel raw serial data across Ethernet - clear or encrypted
Raw serial data over TCP/IP
Raw serial data over UDP
Serial data control of packetized data
Share serial ports with multiple hosts/servers
Virtual modem simulates a modem connection - assign IP address by AT phone number
Virtual modem data can be sent over the Ethernet link with or without SSL encryption
TruePort com/tty redirector for serial based applications on Windows, Linux, Solaris, SCO HP UX, NCR UNIX and AIX. Perle supports the most comprehensive driver set in the industry. For a complete list of all the latest drivers click here
TrueSerial packet technology provides the most authentic serial connections across Ethernet ensuring serial protocol integrity
RFC 2217 standard for transport of serial data and RS232 control signals
Customizable or fixed serial baud rates
Plug-ins allow customer or Perle provided plug-ins for special applications
Software Development Kit (SDK) available
Serial encapsulation of industrial protocols such as ModBus, DNP3 and IEC-870-5-101
ModBus TCP gateway enables serial Modbus ASCII/RTU device connection to ModBus TCP
Data logging will store serial data received when no active TCP session and forward to network peer once session re-established - 32K bytes circular per port

Console Management

Sun / Oracle Solaris Break Safe
Local port buffer viewing - 256K bytes per port

External port buffering via NFS, encrypted NFS and Syslog

Event notification

Manage AC power of external equipment using Perle RPS power management products

Clustering - central console server enables access ports across multiple console servers

Windows Server 2003/2008 EMS - SAC support GUI access to text-based Special Administrative Console

Ping watchdog probes enable customers to power cycle equipment with attached Perle RPS power switches in the event of an unresponsive networking gear

Remote Access

Dial, direct serial	PPP, PAP/CHAP, SLIP
	HTTP tunneling enables firewall-safe access to remote serial devices across the internet
Automatic DNS Update	Utilize DHCP Opt 81 to set IOLAN domain name for easy name management and with Dynamic DNS support , users on the Internet can access the device server by name without having to know its IP address. See Automatic DNS update support for details
IPSEC VPN client/servers	Microsoft L2TP/IPSEC VPN client (native to Windows XP)
	Microsoft IPSEC VPN Client (native to Windows Vista)
	Cisco routers with IPSEC VPN feature set
	Perle IOLAN SDS, SDG, STS, STG, SCS and SCG models

OA&M (Operations, Administration and Management)

WiFi Protected Setup (WPS)

SNMP V3 - read and write, Perle MIB

Syslog

Perle Device Manager - Windows based utility for large scale deployments

Configurable default configuration

Installation Wizard

Set a Personalized Factory Default for your IOLANs

Protocols

IPv6, IPv4, TCP/IP, Reverse SSH, SSH, SSL, IPSec/IPv4, IPSec/IPv6, L2TP/IPSec, CIDR, RIPV2/MD5, ARP, RARP, UDP, UDP Multicast, ICMP, BOOTP, DHCP, TFTP, SFTP, SNTP, Telnet, raw, reverse Telnet, LPD, RCP, DNS, Dynamic DNS, WINS, HTTP, HTTPS, SMTP, SNMPV3, PPP, PAP/CHAP, SLIP, CSLIP, RFC2217, MSCHAP

Processor	1750 MIPS, 500 MHz core 32 bit ARM processor, with integrated hardware encryption processor

Memory

RAM MB	1000
Flash MB	4000

Interface Ports

Integrated Device Management Ports	2 x USB 3.0
Modular Device Management Ports	**IOLAN SCG18:** • 16 x RS232 RJ45 or • 16 x USB 3.0 **IOLAN SCG34:** • 32 x RS232 RJ45 or • 32 x USB 3.0 or • 16 x RS232 RJ45 and 16 x USB 3.0 **IOLAN SCG50:** • 48 x RS232 RJ45 or • 48 x USB 3.0 or • 16 x RS232 RJ45 and 32 x USB 3.0 • 32 x RS232 RJ45 and 16 x USB 3.0 Each chassis can be expanded or modified with an optional 16-port Interface card with either RS232 RJ45 ports or USB 3.0 ports
Sun / Solaris	Sun / Oracle 'Solaris' Safe - no "break signal" sent during power cycle causing costly server re-boots or downtime
Serial Port Speeds	50bps to 230Kbps with customizable baud rate support

Data Bits	5,6,7,8, 9-bit protocol support
Parity	Odd, Even, Mark, Space, None
Flow Control	Hardware, Software, Both, None
Serial Port Protection	15Kv Electrostatic Discharge Protection (ESD)
Local Console Ports	1 x RS232 RJ45 1 x Micro USB with DB9 adapter
Network	2 x 10/100/1000Base-T RJ45 Copper 2 x 100/1000Base-X Fiber SFP Ports Note: Any combination of two network ports can be used. Software selectable Ethernet speed 10/100/1000, Auto Software selectable Half/Full/Auto duplex
Micro SD Card slot	Yes
Ethernet Isolation	1.5Kv Magnetic Isolation

Integrated Wireless Access

WLAN (Wi-Fi ®)	IEEE 802.11 a,b,g,n,i
Wireless Topology	Infrastructure (AP) and Peer to Peer- (SoftAP) modes
Wireless Radio	Dual-Band Radio ; 2.4GHz and 5GHz 20, 40Mhz SISO 2.4-GHz
Wireless Data Rates	802.11n: 15, 30, 45, 60, 90, 120, 135, 150 Mbps (40Mhz channel @ 400ns Short GI) 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps
Operational Frequency Range (MHz)	2412 to 2484 MHz 4910 to 5825 MHz
Modulation	DSSS, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM

Wireless Receiver Sensitivity in dBm (2.4Ghz SISO)	802.11b/g (20 MHz channel) 1 Mbps: -95.0 2 Mbps: -92.0 5.5 Mbps: -89.2 6 Mbps: -91.0 9 Mbps: -89.0 11 Mbps: -86.3 12 Mbps: -88.0 18 Mbps: -85.5 24 Mbps: -82.5 36 Mbps: -79.0 48 Mbps: -74.0 54 Mbps: -72.7 802.11n (20 MHz channel) @ 400ns GI 7.2 Mbps (MCS0): -89.3 14.4 Mbps (MCS1): -86.5 21.7 Mbps (MCS2): -84.5 28.9 Mbps (MCS3): -81.5 43.3 Mbps (MCS4): -78.0 57.8 Mbps (MCS5): -73.5 65.0 Mbps (MCS6): - 71.5 72.2 Mbps (MCS7): -70.0 802.11n (40 MHz channel) @ 400ns GI 15.0 Mbps (MCS0): -89.3 30.0 Mbps (MCS1): -86.5 45.0 Mbps (MCS2): -84.5 60.0 Mbps (MCS3): -81.5 90.0 Mbps (MCS4): -78.0 120.0 Mbps (MCS5): -73.5 135.0 Mbps (MCS6): - 71.5 150.0 Mbps (MCS7): -70.0

Wireless Transmit Power in dBm (2.4Ghz SISO)	(20 MHz channel) 1 Mbps: 16.0 2 Mbps: 16.0 5.5 Mbps: 16.0 6 Mbps: 16.5 9 Mbps: 16.5 11 Mbps: 16.0 12 Mbps: 16.5 18 Mbps: 16.5 24 Mbps: 16.5 36 Mbps: 15.2 48 Mbps: 14.3 54 Mbps: 13.5 MCS0 : 16.0 MCS1 : 16.0 MCS2 : 16.0 MCS3 : 16.0 MCS4 : 15.2 MCS5 : 14.3 MCS6 : 13.5 MCS7 : 12.6 (40 MHz channel) MCS0 : 14.0 MCS7 : 11.8
Wireless Receiver Sensitivity in dBm (5Ghz SISO)	802.11a 6 Mbps: -92.5 9 Mbps: -90.5 12 Mbps: -90.0 18 Mbps: -87.5 24 Mbps: -84.5 36 Mbps: -81.0 48 Mbps: -76.5 54 Mbps: -74.6 802.11n (20MHz channel) @ 400ns GI 7.2 Mbps (MCS0): -91.4 14.4 Mbps (MCS1): -88.0 21.7 Mbps (MCS2): -86.0 28.9 Mbps (MCS3): -83.0 43.3 Mbps (MCS4): -79.8 57.8 Mbps (MCS5): -75.5 65.0 Mbps (MCS6): - 74.0 72.2 Mbps (MCS7): -72.4 802.11n (40MHz channel) @ 400ns GI 15.0 Mbps (MCS0): -88.5 150.0 Mbps (MCS7): -69.3

Wireless Transmit Power in dBm (5Ghz SISO)	802.11a 6 Mbps: 18.0 9 Mbps: 18.0 12 Mbps: 18.0 18 Mbps: 18.0 24 Mbps: 17.4 36 Mbps: 16.5 48 Mbps: 15.8 54 Mbps: 14.5 802.11n (HT20) @ 400ns GI 7.2 Mbps (MCS0): 18.0 14.4 Mbps (MCS1): 18.0 21.7 Mbps (MCS2): 18.0 28.9 Mbps (MCS3): 18.0 43.3 Mbps (MCS4): 16.5 57.8 Mbps (MCS5): 15.8 65.0 Mbps (MCS6): 14.5 72.2 Mbps (MCS7): 12.0 802.11n (HT40) @ 400ns GI 15.0 Mbps (MCS0): 16.5 150.0 Mbps (MCS7): 12.0
Short Guard Interval (SGI)	800ns and 400ns (Short Guard Interval)
Wireless Antenna	Dual-band 2.4/5.0 GHz, Omni-directional, Dipole antenna, 50 Ohm, 2 dBi, black with RP-SMA / RSMA finger tighten connector. Same antenna can be used as Main and/or Diversity for increased wireless performance, signal reliability, and extended range.
Maximal Ratio Combining (MRC), Rx Diversity	2.4 GHz MRC support for up to 1.4 Extended Range and 5 GHz Diversity Capable
Wireless Security	WEP, WPA-PSK, WPA2-PSK & Enterprise (EAP, PEAP, LEAP), 802.11i (includes hardware-accelerated Advanced Encryption Standard [AES]), 802.1x supplicant
Fast Wireless Roaming	Ideal for mobile applications , the IOLAN can transparently roam between APs (Access Points) that share the same ESS (Extended Service Set)
WiFi Protected Setup (WPS V2)	A plug and play set up feature where the IOLAN can easily connect to a WPS capable central access pointor SoftAP compliant device supporting WPS

Integrated Cellular Access

Antennae (Included)	Two multiband swivel-mount dipole antennae - SMA connectors
Cellular Data Rates	4G LTE (Cat. 3) DL: max. 100 Mbps, UL: max. 50 Mbps HSPA+ DL Cat.24 DL: max. 42 Mbps, UL: max. 5.76 Mbps EDGE Class 12 data rates DL: max. 237 kbps, UL: max. 237 kbps GPRS Class 12 data rates DL: max. 85.6 kbps, UL: max. 85.6 kbps
SIM Card slot (empty)	Accepts Micro SIM (3FF) as per reference standards: ETSI TS 102 221 V9.0.0, Mini-UICC The SIM card must be obtained by the user from their carrier of choice
Power	
Power Supply	Dual AC power supply USA Models: IEC320-C13 to NEMA 5-15P line cord UK Models: IEC320-C13 to BS1363 line cord EU Models: IEC320-C13 to CEE 7/7 Schuko South Africa Models: IEC320-C13 to BS546 line cord Australia Models: IEC320-C13 to AS3112 line cord
Nominal Input Voltage	110/230v AC
Input Voltage Range	100-240v AC
AC Input Frequency	47-63Hz
Current Consumption @ 100v (Amps)	IOLAN SCG18: 0.21 IOLAN SCG34: 0.27 IOLAN SCG50: 0.33
Current Consumption @ 240v (Amps)	IOLAN SCG18: 0.09 IOLAN SCG34: 0.12 IOLAN SCG50: 0.14
Typical Power Consumption (Watts)	20.5 Watts Note: USB cards can use an additional power of 2.5 Watts per port up to a max of 8 Watts total
Power Line Protection	Fast transients: 1 KV (EN61000-4-4 Criteria B) Surge: 2KV (EN61000-4-5 common mode), 1KV (EN61000-4-5 differential and common modes)

Front Panel LCD Display and Keyboard Indicators

	Network Link Activity
	Serial Tx/Rx data per port

LED Indicators

	System Ready
	Network Link Activity

Environmental Specifications

Heat Output (BTU/HR)	IOLAN SCG18: 69.95 IOLAN SCG34: 92.13 IOLAN SCG50: 114.31
MTBF (Hours)	73,722 Calculation model based on MIL-HDBK-217-FN2 @ 30 °C
Operating Temperature	0C to 55C, 32F to 131F
Storage Temperature	-40C to 85C, -40F to 185F
Humidity	5 to 95% (non condensing) for both storage and operation.
Case	SECC Zinc plated sheet metal (1 mm)
Ingress Protection Rating	IP30
Mounting	1U - 19" rack, front and rear mounting hardware included

Product Weight and Dimensions

Product Weight	IOLAN SCG18: 3.33 kg / 7.34 lbs IOLAN SCG34: 3.50 kg / 7.72 lbs IOLAN SCG50: 3.67 kg / 8.09 lbs
Dimensions	1U Rack form factor - 26.4 x 43.4 x 4.4 (cm), 10.38 x 17.1 x 1.75 (in)

Packaging

Shipping Dimensions	59 x 36 x 9cm

Shipping Weight	IOLAN SCG18: 4.27 kg / 9.41 lbs
	IOLAN SCG34: 4.44 kg / 9.79 lbs
	IOLAN SCG50: 4.61 kg / 10.16 lbs

Regulatory Approvals

Emissions	FCC 47 Part 15 Subpart B Class A
	ICES-003 (Canada)
	EN55011 (CISPR11)
	EN55032 (CISPR32)
	EN61000-3-2 Limits for Harmonic Current Emissions
	EN61000-3-3 Limits of Voltage Fluctuations and Flicker
Immunity	EN55024
	EN 61000-4-2 (ESD): Contact:
	EN 61000-4-3 (RS):
	EN 61000-4-4 (EFT):
	EN 61000-4-5 (Surge):
	EN 61000-4-6 (CS):
	EN 61000-4-8 (PFMF)
	EN 61000-4-11
Safety	UL/ULC/EN 62368-1 (previously 60950-1)
	CAN/CSA C22.2 No. 62368-1-15
Carrier Specific Approval	**IOLAN SCG LA: Auto-detecting**
	Verizon Certified
	AT&T Certified
	IOLAN SCG LE: not required
Cellular Radio	EN 301 908-1
	EN 301 908-2
	EN 301 511
	47 CFR Part 22
	47 CFR Part 24
	EN 301 908-13
Cellular Data Technologies Supported	**IOLAN SCG LA:**
	- Penta Band LTE: 700/700/850/AWS (1700/2100)/1900 MHz; FDD-Band (13,17,5,4,2)
	- Tri Band UMTS (WCDMA): 850/AWS (1700/2100)/1900 MHz; FDD-Band (5,4,2)
	- Quad Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz
	IOLAN SCG LE:
	- Penta Band LTE: 800/900/1800/2100/2600 MHz;
	- FDD-Band (20,8,3,7,1); Tri Band UMTS (WCDMA):
	- 900/1800/2100 MHz; FDD-Band (8,3,1);
	- Dual Band GSM/GPRS/EDGE: 900/1800 MH

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Wireless Regulatory Domain	FCC/ICES ETSI TELEC Users are responsible for verifying approval for use in their individual countries.
Radio Approvals	FCC Part 15.247 Subpart C (2.4 Ghz) FCC Part 15.407 Subpart E (5 Ghz) RSS-210 (Canada), RSS-Gen Issue 2 (Canada), ICES-003 Issue 4 ETSI EN 301 489-1 (V1.9.2) ETSI EN 301 489-17 (V2.2.1) ETSI EN 300 328 (V1.8.1) ETSI EN 301 893 (V1.7.1)
Frequency Bands	FCC / ICES 2.412 to 2.462 GHz; 11 channels 5.180 to 5.320 GHz; 8 channels 5.500 to 5.700 GHz, 8 channels (excluding 5.600 to 5.640 GHz) 5.745 to 5.825 GHz; 5 channels ETSI 2.412 to 2.472 GHz; 13 channels 5.180 to 5.320 GHz; 8 channels 5.500 to 5.700 GHz; 8 channels (excluding 5.600 to 5.640 GHz) MIC (formally TELEC) 2.412 to 2.472 GHz; 13 channels 4.920 to 4.980 GHz; 4 channels 5.030 to 5.091 GHz; 3 channels 5.180 to 5.240 GHz; 8 channels 5.500 to 5.700 GHz; 11 channels
Other	Reach, RoHS and WEEE Compliant Directive 2011/65/EU restriction of the use of certain hazardous substances in electrical and electronic equipment and meets the following standard:: EN 50581:2012 CCATS - G168387 ECCN - 5A992 HTSUS Number: 8471.80.1000 Perle Limited Lifetime warranty

IOLAN DTE

Pin 1
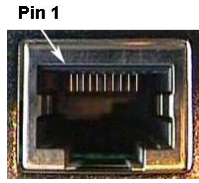
RJ45 Socket

IOLAN RJ45 Socket	Function	Direction
1	RTS	→
2	DTR	→
3	TXD	→
4	GND	—
5	DCD	←
6	RXD	←
7	DSR	←
8	CTS	←

(A rolled RJ45 cable will automatically perform DTE to DCE crossover)

Optional Perle adapters for use with straight thru CAT5 cabling

Data Center Console Management
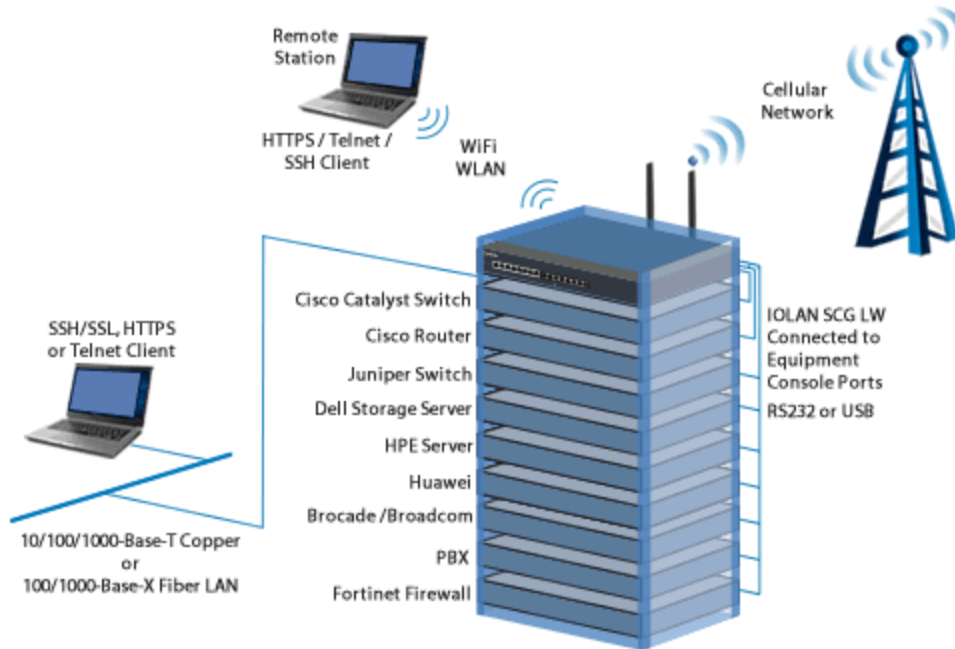

TCP

Using RAW TCP Sockets

A raw TCP socket connection which can be initiated from the serial-Ethernet device or from the remote host/server. This can either be on a point to point or shared basis where a serial device can be shared amongst multiple devices. TCP sessions can be initiated either from the TCP server application or from thePerle IOLAN **serial-Ethernet** adapter.
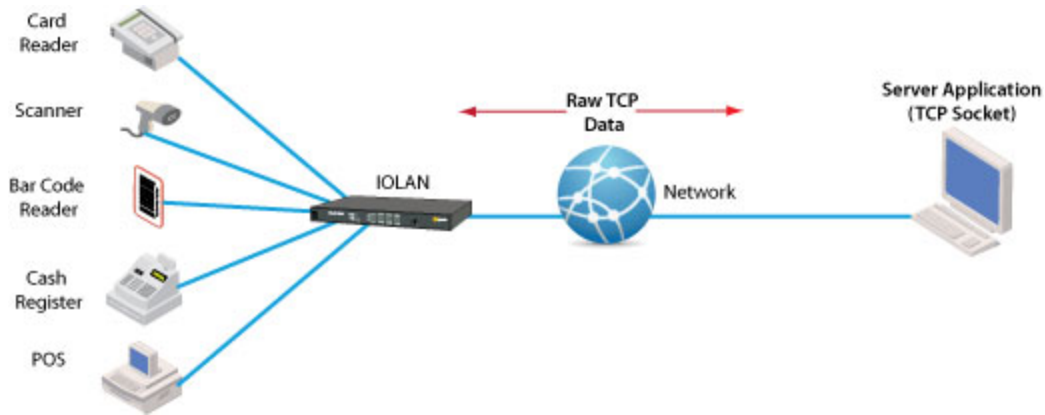
UDP

Using Raw UDP Sockets

For use with UDP based applications, Perle IOLANs can convert serial equipment data for transport across UDP packets either on a point to point basis or shared across multiple devices.
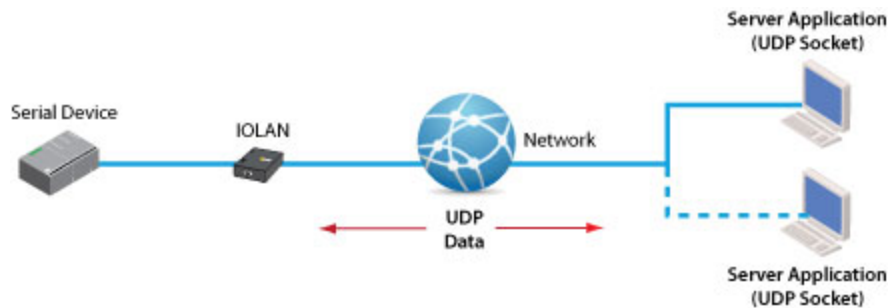
Console Server

Console Management

For access to remote console ports on routers, switches,etc, Perle IOLAN's enable administrators secure access to these RS232 ports via inband Reverse Telnet / SSH or out of band with dial-up modems. Perle IOLAN models with integrated modems are available.

COM/TTY

Connect Serial-based Applications with a COM/TTY Port Driver

Serial ports can be connected to network servers or workstations running Perle's TruePort software operating as a virtual COM port. Sessions can be initiated either from the Perle IOLAN or from TruePort.

Tunneling

Serial Tunneling between two Serial Devices

Serial Tunneling enables you to establish a link across Ethernet to a serial port on another IOLAN. Both IOLAN serial ports must be configured for Serial Tunneling (typically one serial port is configured as a Tunnel Server and the other serial port as a Tunnel Client).

Virtual Modem

Virtual Modem

Enables the serial-Ethernet adapter to simulate a modem connection. When connected to the IOLAN and initiates a modem connection, the IOLAN starts up a TCP connection to another IOLAN serial-Ethernet adapter configured with a Virtual Modem serial port or to a host running a TCP application.