

IRG5140+ Mobilfunk-LTE-Router

 perle.com/products/routers-gateways/irg5140-cellular-lte-routers.shtml

Mobilfunk-Edge-Router der Enterprise-Klasse

- LTE-Router für primäre oder Failover-Konnektivität
- Out-of-Band-Management für Remote-Fehlerbehebung
- LTE-A Pro für 10x schnellere Downlink-Geschwindigkeiten und 3x schnellere Uplink-Geschwindigkeiten
- Cloud-Hosting – Bereitstellen und Verwalten Ihres Netzwerks aus der Cloud
- 4-Port 10/100/1000 Ethernet
- Netzwerkkonnektivität über LTE, Ethernet und USB 3.2
- Erweiterter Funktionsumfang ohne Jahresgebühren



Der IRG5140+ LTE-Router von Perle verfügt über die umfassendsten Funktionen, Funktionen und Leistungen, um **primäre oder Failover-Backup-Konnektivität** zu Remote-Infrastruktur und **-Assets** bereitzustellen. Dieser auf DIN-Schienen montierbare, robuste, leistungsstarke Mobilfunk-Router mit Dual-SIM-Steckplätzen lässt sich dank der intuitiven Web-GUI einfach und ohne Schulungsbedarf bereitstellen. Für erweiterte Admin-Skripte sind auch CLI-Befehle verfügbar.

Der IRG5140+ LTE-Router bietet schnelle und zuverlässige Netzwerkkonnektivität, wenn kabelgebundene Optionen nicht bereitgestellt werden können oder ein Backup erfordern. Dies ist entscheidend, um eine breite Palette von Anwendungen zu ermöglichen und gleichzeitig ein Höchstmaß an Sicherheit zu gewährleisten, um die Integrität kritischer Dienste zu schützen. Reduzieren Sie die Kosten für Ausfallzeiten und Serviceanrufe und bringen Sie verteilte Sites schneller online. Mit Unterstützung für **Daten, SMS, Sprache und Video** kann das IRG5140+ in jede Unternehmens-Cloud, Gebäude-, Industrie- oder mobile Standortnetzwerkinfrastruktur integriert werden.

- Gebäude- und Prozessautomatisierungssteuerungen, Internet of Things (IoT)
- Smart-Grid-Assets (Zähler, Schalter, Controller), Telekommunikations-Infrastruktur-Controller
- SCADA, Verteilungsmanagementsysteme, Remote-Datenlogger, Durchflussmesser, Sensorik
- Digital Signage, Geldautomaten, POS, Kioske, Temporäre „Pop-up“-Stores
- Videoüberwachung, Mobile Hotspots
- Flottenmanagement, GPS/GNSS-Standortverfolgung, Taxis, Vehicle Area Networking (VAN)
- Verkehrssysteme, Busse, U-Bahnen, Eisenbahnen

Weltweit zertifizierter Mobilfunkbetrieb über 4G LTE, DC-HSPA+ , HSPA+, HSPA und UMTS (WCDMA)

Der Perle IRG5140+ Router ist LTE-A PRO CAT12 mit 600 Mbit/s Downlink- und 150 Mbit/s Uplink-Geschwindigkeit. 24x LTE-Bänder und 9x UMTS/WCDMA-Bänder werden für umfassende Trägerkompatibilität unterstützt.

Ein Edge-Router mit Routing-Funktionen der Enterprise-Klasse

Perle erhebt keine jährlichen Abonnement- oder Lizenzgebühren für die Aufrechterhaltung des Betriebs, das Herunterladen von Software-Updates oder den Zugriff auf Funktionen. Der Router IRG5140+ verfügt über alle fortschrittlichen Routing-Funktionen, die in den fortschrittlichsten Unternehmensroutern zu finden sind. **Dank umfassender Protokoll-Routing-Unterstützung** kann es problemlos in hierarchischen oder großen Mesh-Netzwerkstrukturen eingesetzt werden. Eine schnelle CPU und viel Arbeitsspeicher sorgen dafür, dass der Router den ganzen Tag über eine konstante und hohe Arbeitslast bewältigen kann.

- RIP, RIPv2, RIPv6, OSPFv1/2/3, BGP-4, VRRP
- Beim BGP-Peering mit mehreren ISPs bietet der IRG5140 Routing-Leistung auf Carrier-Niveau, die die gesamte Internet-Routing-Tabelle verarbeiten kann
- IPv4 und IPv6
- OpenVPN- und IPSec-VPN
- DHCP & DHCPv6
- IP-Passthrough für Bereitstellungen, bei denen der Router im Gateway- oder Bridge-Modus betrieben werden muss
- Route zwischen jeder Schnittstelle (LTE, Ethernet oder USB)
- Reduzieren Sie unerwünschten Netzwerkverkehr, indem Sie Kollisions- und/oder Broadcast-Domänen erstellen

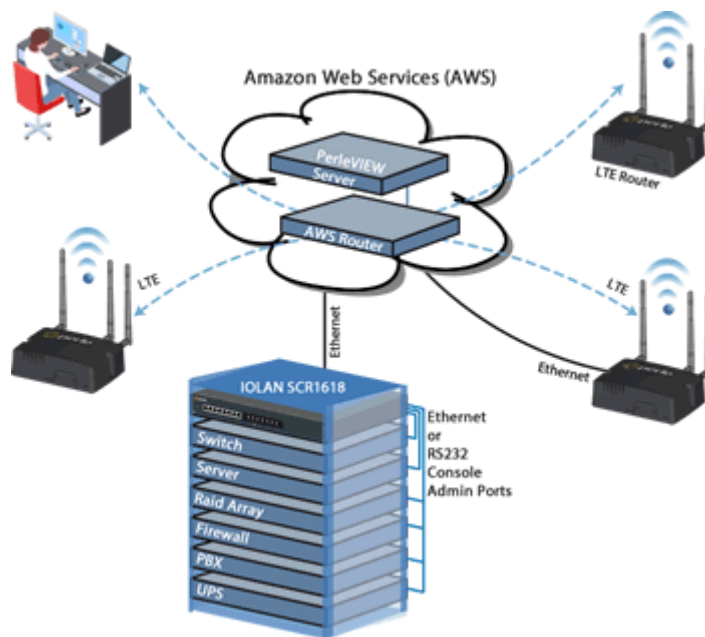
Integrierte zonenbasierte Richtlinien-Firewall

Die integrierte Firewall des IRG5140 bietet intuitive Richtlinien für Router mit mehreren Schnittstellen, **um interne Netzwerke vor unbefugtem Zugriff zu schützen** von Benutzern in einem externen Netzwerk. Die Firewall schützt auch innerhalb von Netzwerken voreinander, indem sie beispielsweise ein Personalnetzwerk von einem Benutzernetzwerk trennt. Wenn Netzwerkressourcen für einen externen Benutzer verfügbar sein müssen, z. B. ein Web- oder FTP-Server, können diese Ressourcen in einem separaten Netzwerk hinter der Firewall in einer demilitarisierten Zone (DMZ) platziert werden. Die Firewall erlaubt begrenzten Zugriff auf die DMZ, aber da die DMZ nur die öffentlichen Server umfasst, wirken sich alle Angriffe dort nicht auf das interne Netzwerk aus. Die Firewall kontrolliert, wann interne Benutzer auf externe Netzwerke zugreifen (z. B. auf das Internet), indem sie nur bestimmte Adressen herauslässt, eine Authentifizierung oder Autorisierung erfordert oder mit einem externen URL-Filterserver koordiniert. Eine Deny-All-Richtlinie (Blacklist) kann verwendet werden, um den Verkehr zwischen Firewall-Sicherheitszonen zu verhindern, bis eine explizite Richtlinie angewendet wird, um den gewünschten Verkehr zuzulassen. Router-Ports werden Zonen zugewiesen und Firewall-Überprüfungsrichtlinien werden auf Datenverkehr angewendet, der sich zwischen den Zonen bewegt. Firewall-Inter-Zonen-Richtlinien bieten eine beträchtliche Flexibilität und Granularität, sodass unterschiedliche Firewall-Inspektionsrichtlinien auf denselben Router-Port angewendet werden können.

High Availability Access and Enhanced Security with 2 Factor Authentication

With multiple concurrent VPN sessions and 2 Factor Authentication, Perle IRG5140+ LTE Routers enable secure communications to multiple back-end systems.

- Remote authentication (RADIUS, TACACS+, LDAP) management, integrates with enterprise-grade systems to control access to devices in the field.
- Software image CRC control protects the software upgrade process against unwanted software corruption and malware
- High-speed OpenVPN, IP Security (IPsec), Triple Data Encryption Standard (3DES), and Advanced Encryption Standard (AES) encryption for data privacy over the Internet.
- Intrusion prevention enforces security policies in a large enterprise or service provider networks.
- Perle's cloud-based centralized management solution puts all your network and IT infrastructure into a single application and provides secure reliable access and visibility during normal operations and critical network failures. Scalable to suit any business requirement, Cloud Centralized Management reduces human error and guarantees repeatability.



GPS / Global Navigation Satellite System (GNSS) Included

GPS and GNSS (Galileo, Glonass, and Beidou) are included by default in the IRG5140+ Router. This enables **real-time location tracking** of remote assets. Also, you can get **real-time network clock updates** in the router, or any attached equipment, for accurate time-stamp usage in time-sensitive applications.

Cutting-edge design certified for a wide range of deployment scenarios

High-performance components and features enable customers to take advantage of broadband network speeds while running **secure concurrent data, voice, and video services**. The IRG5140+ router has **high MTBF rates** because it is developed with certified high-end components to provide superior reliability and uninterrupted operation.

Primary or failover back-up connectivity

Perle is the only company to offer LTE edge routers with all of the enterprise-grade features and protocols needed to be a fully functional primary or failover back-up LTE Router. If the main network connection goes down for any reason, the Perle IRG5140+ router provides an always-on, cost-effective redundant connection. The relatively low cost of LTE for branch continuity means a greater return on investment and scalability for multiple locations. Simply put, an IRG5140 LTE Router ensures maximum uptime, cost-effective scalability, and ease of deployment and management with limited IT resources.

Compact light-weight design

Deploy in many different environments where space, heat dissipation, and low power consumption are critical factors. The native DIN-Rail mounting bracket ensures easy installation.

Rugged Environment Certifications

- Corrosion resistant metal case with an IP20 ingress protection rating
- Shock and vibration resistance certified to MIL-STD-810G, SAE J1455 & EN 61373
- Hazloc per IECEx/IECx, ATEX, & ANSI/ISA Class 1 Div 2
- -40°C to +70°C operating temperature

Railway Deployment

The Perle IRG5140 LTE Router is fully approved and certified for Railway rolling stock application deployments. It is perfectly suited for installation directly in the train or subway cabin, or the enclosures found in metro tunnels and alongside rail tracks.

- European Certifications EN50155 & EN50121
- International Certifications IEC60571 & IEC62236
- Cellular tower connectivity can be established and maintained at up to 100 meters per second (360km/224mi per hour)

Dual-SIM LTE Failover for true Business Continuity

The Perle IRG5140+ Router comes with redundant SIM slots to ensure reliable network connectivity and cellular multihoming support in LTE and HSPA-based networks. This is particularly useful:

- When the primary carrier contract data cap has been exceeded, the IRG5140 will automatically switch over to a back-up data plan.
- When the IRG5140 is deployed in a mobile environment long-distance roaming can be enabled and used.
- When there is a lack of coverage, or carrier network failure, the IRG5140 will automatically switch over to a back-up carrier.

More Features and Benefits

WAN Connectivity

LTE and 10/100/1000 Ethernet

Central Management Configuration

Der IRG5140+ Router verwendet **PerleView**, ein webbasiertes Serverkonfigurationstool, das die Einrichtung und Bereitstellung vereinfacht. Zentralisierte Verwaltungsfunktionen geben Netzwerkmanagern Transparenz und Kontrolle über Netzwerkkonfigurationen an Remote-Standorten. Zu den weiteren Verwaltungsfunktionen des Perle IRG5140+ gehören:

- Schnelle Einrichtung – Verfügbar, wenn sich der Router in der werkseitigen Standardkonfiguration (Erstkonfiguration) befindet
- Web Manager - Verfügbar über einen Browser
- CLI - Befehlszeilenschnittstelle
- SNMP - Verwenden eines Netzwerkverwaltungssystems
- **Keine laufenden monatlichen oder jährlichen Lizenzgebühren**

Software-Feature-Set: IRG5140 Mobilfunk-LTE-Router

Alle Features und Funktionen sind im Grundpreis des Produkts enthalten. Es fallen keine zusätzlichen Kosten oder Gebühren an.

Funktionalität

Gateway (IP Passthrough Bridging), Switching, Routing

Routing-/Switching-Protokolle

IPv4/IPv6, Static Routing, RIP/RIPNg, NAT, OSPFv3, BGP-4, IPv6 Encapsulations (GRE, 6in4), VRRP, Port Routing, STP, MSTP, PPPoE V6, LLDP

IP Applications

DDNS, DNS Proxy / Spoofing, relay, client, Opt. 82,

NTP & SNTP (versions 1, 2, 3, 4) with support from GPS, GNSS & Network Carrier timing

DHCP / DHCPv6 server & BOOTP for automated network-based setup

VLAN & VPN

VLAN, IPSec, OpenVPN, VPN Failover (16 concurrent VPN tunnels)

GPS & GNSS Reports

GPS for tracking equipment over RS232, USB, and Ethernet

NMEA 0183 v3.0, TAIP, CSV

LTE Applications

Private LTE / CBRS - ability to select a specific band for LTE connection

Firewall & Security

Built in Zone-Based Policy Firewall

Access Control Lists (list & ranges & time)

Filter based on MAC Address, IP, Port, Protocol, User

AAA, LDAP, Radius, TACACS+

802.1x

Layer 2 MAC address filtering

Certificate Support (X.509)

Port Forwarding

BGP Communities

Security Features

Security via remote authentication (LDAP, Radius and TACACS+)

Trusted host filtering (IP filtering), allowing only those hosts that have been configured in the host table access to the router.

Idle LTE port timers, which close a connection that has not been active for a specified period of time

Ability to disable services (for example, Telnet, TruePort, Syslog, SNMP, Modbus, HTTP) for additional security

Ability to individually disable network services that won't be used by the SSH client/server connections (SSH 1 and SSH 2)

Logging via syslog

Ability to disable Ping responses

Ability to setup Access Lists (ACL's) to restrict traffic

Ability to set up firewalls to restrict incoming and outgoing packets

SSH client/server connections (SSH 1 and SSH 2)

SSL/TLS client/server data encryption (TLSv1/1.1/1.2 and SSLv2)

Ability to setup Virtual Private Networks (VPNs)

Wireless cellular security using PAP or CHAP authentication

Dynamic DNS with DYNDNS.org

Domain Name Server (DNS) support

Email alert notification

SSH connections (supported ciphers are Blowfish, 3DES, AES-CBC, AES-CTR, AES-GCM, CAST, Arcfour and ChaCha20-Poly1305)

SSL/TLS connections

RIP authentication (via password or MD5)

OSPF

2F Authentication

Management Access Control

SNMPv3

DMZ

FIPS 140-2

Secure HTTP/HTTPS/FTP/Telnet Authentication Proxy

Logging, Reporting & Alerts

Sys Log, Event Type, Report Type, Alerts & Monitoring, Triggers Status Screen Report, Data Usage, Diagnostic

Management

PerleVIEW Management, WEB (HTTP/HTTPS), SNMPv1/v2/v3, RESTful API, SMS Control, Load Balancing, CLI/Piping, Login Banner, E-mail, Ping, Telnet, FTP, Connection on Demand

Automatic check for software updates.

Software updates available over FTP, HTTP, HTTPS, SCP, SFTP, and TFTP

I/O Capabilities

One I/O configurable as digital input or Pulse Counter

One normally open (NO) relay contact

Hardware Specifications: IRG5140 Cellular LTE Routers

Products can be purchased with or without antennas and with or without power cords. All functionality is included in the base price of the product. Additional accessories are sold separately.

Cellular


LTE	LTE-A PRO CAT12. 600Mbps downlink and 150Mbps uplink speeds
------------	---

Frequency Bands	4G/LTE Bands (24) 2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 1800(B9), 700(B12), 700(B13), 850(B18), 850(B19), 800(B20), 850(B26), 700(B28), 700(B29), 2300(B30), 1500(B32), TDD B41, TDD B42, TDD B43, TDD B46, CBRS B48, 1700(B66)
Data & SMS Operation over: 4G LTE with fallback networks DC-HSPA+ / HSPA+ / HSPA / UMTS (WCDMA)	3G HSPA/HSPA+ Bands (9) 2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)
	Public Safety Bands Bands 26, 28

Cellular Antenna	Frequency Range: 704-902-928-960/1427.9-1575.42/1710-2170/2400-2480-2690MHz Gain: 3 dBi Impedance: 50 ohm Voltage Standing Wave Ratio: <3.0 (typical) Radiation: Omni-Directional Connector: SMA Male (Swivel) Dimensions: 135.6 x 20.1 mm / 5.34 x 0.8 in
-------------------------	--

SIM	Dual Mini-SIM 15 x 25mm (or 2FF)
GPS / GNSS	
GPS / GNSS	Wide-band GNSS: 1559-1606 MHz GPS: 1575.42 MHz / GLONASS: 1602 MHz / BeiDou: 1561.098 MHz / Galileo: 1575.42 MHz / QZSS: 1575.42 MHz Simultaneous tracking: Up to 30 channels Active GNSS antenna support Reports: NMEA 0183 V3.0, TAIP
GPS / GNSS Passive Antenna	GNSS Applications: GPS, Glonass, Galileo, Beidou Frequency Range: 1561MHz~1606 MHz Gain: 4 dBi (typical) Impedance: 50 Ohm Voltage Standing Wave Ratio: 2.0 (typical) Polarization: RHCP SMA (M) straight Dimensions: 41.9 x 47.3 x 16.3 mm / 1.65 x 1.86 x 0.64 in RG-174 Cable Length: 5 m / 16.4 ft
10/100/1000 Mbps Ethernet RJ45 Copper	
Ports	4 x 10/100/1000 Ethernet RJ45 Copper
Speed	Software selectable 10/100/1000 Ethernet, Auto Software selectable Half/Full/Auto duplex
Ethernet Isolation	1.5Kv Magnetic
Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-TX and 100Base-FX, IEEE 802.3ab for 1000Base-T, IEEE 802.3x for Flow Control
Processing Type	Store and Forward
MAC Address Table Size	8K
VLAN ID range	1 to 4000
USB	
USB-C	1 x USB 3.2 Type-C with a transfer rate up to 5Gbps Configurable for Ethernet over USB
Power Connector	
Two Digital Inputs	Type 3 isolated Digital Input & Pulse Counting VDC: 0 for $\leq 1V$, 1 for $\geq 2.7V$
One Alarm Relay	Normally Open (NO) dry contact: 1A @ 24VDC

Platform Specifications	
Microprocessor	Dual Core ARM 1.2GHz
RAM	1GB DDR4
Flash	4GB MMC
	Power 1: indicates power status
	Power 2: indicates power status
	WWAN: indicates Wireless Wide Area Network status
	GNSS: indicates Global Navigation Systems for GPS, Galileo, Glonass and Beidou status
	VPN: indicates VPN presence (for Router Models: IRG5520x & IRG5540x only)
LED Indicators	Internet: indicates Internet connectivity
	Operating Temperature: -40°C to 70°C / -40°F to 158°F
	Storage Temperature: -40°C to 85°C / -40°F to 185°F
	Operating Humidity: 0% to 95% non-condensing
	Storage Humidity: 0% to 95% non-condensing
	Operating Altitude: 3048 m / 10,000 ft
	Cooling: EN 60068-2-1
	Dry heat: EN 60068-2-2
	Damp: EN 60068-2-30
	MTBF: > 287,215 hours (Calculation model based on MIL-HDBK-217-FN2 @ 30°C/86°F)
Environmental Specifications	Heat Output (BTU/HR)
Enclosure	Aluminium
Mounting	DIN Rail (Mounts to standard 35 mm DIN rail in accordance with DIN EN 60175 vertically or horizontally) Panel / wall mount attachment bracket is optional
Ingress Protection Rating	IP20
Power	
Power Input	12/24/48 VDC Nominal (9.6 to 60 VDC Range) Dual Input

Power Connector	8-Pin Removable Terminal Block: 4-Pins for power 4-Pins for Alarm Relay and Digital Input
	
Power/Current Consumption	Standby (no activity / all ports shutdown): 3.9mA / 46.8mW Idle Mode (connected/no Activity): 0.30A / 3.620W Typical Use (connected/with Activity): 0.33A / 3.98W
Power Line Protection	Surge: 8KV (EN61000-4-5 common mode), 2KV (EN61000-4-5 differential and common modes)
Reverse polarity protection	YES
Weight & Dimensions	
Product Weight & Dimensions	Weight: 0.38kg / 0.84lbs Dimensions: 120 x 90 x 45 mm / 4.72 x 3.54 x 1.77 in
Shipping Weight & Dimensions	Weight (with Antenna): 0.61kg / 1.35lbs Weight (without Antenna): 0.58kg / 1.28lbs Dimensions: 195 x 170 x 70 mm / 7.67 x 6.70 x 2.75 in
Regulatory Approvals	
Shock & Vibration	MIL-STD-810G (Shock: test method 516.6. Operational Vibration: test method 514.6) EN 61373 (Shock, Vibration long-life / functional-random)
Hazloc	IECEX/IECx, ATEX Class 1 Zone 2, Directive 2014/34/EU ANSI/ISA 12.12.01, Class 1 Division 2 Groups A-D, ISA 12.12.01-2015
Railway	EN 50155: 2017 Clause 4.3.6 EN 50121-1: 2017 EN 50121-3-2: 2016 EN 50121-4: 2016 IEC 60571:2012 For Clause 12.2.8 & 12.2.9 IEC 62236-1: 2018 IEC 62236-3-2: 2008

	IEC 62236-4: 2018
	FCC 47 Part 15 Subpart B, Class A
	ICES-003 Issue 6 Class A (Canada)
	ANSI C63.4 Class A (Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz)
	EN61000-3-2: 2014 (Limits for Harmonic Current Emissions)
	EN61000-3-3: 2013 (Limits of Voltage Fluctuations and Flicker)
	CISPR 32:2015/EN 55032:2015 Class A (Electromagnetic compatibility of multimedia equipment - Emission requirements)
Emissions	EN61000-6-4 (Emissions for industrial environments)
	CISPR 35:2016/EN 55035:2017 (IR)
	EN 61000-4-2:2009 (ESD) +/-8 kV (Contact and Air) Operating mode: powered on
	EN 61000-4-3: 2006 + A1:2007 + A2:2010(RS)
	EN 61000-4-4:2012 (EFT) 2 KV (Criteria A)
	EN 61000-4-5:2014+AMD1:2017 (Surge) 2KV (line to earth), 1.5KV (line to line)
	EN 61000-4-6: 2013 (CS)
	EN 61000-4-8: 2009 (PFMF)
	EN 61000-4-9: 2016 (PMF)
	EN 61000-4-11: 2004 + A1:2017
	EN 61000-4-16
Immunity	EN 61000-6-4: 2007 + A1: 2011
	UL/IEC 61010-1 UL/IEC 61010-2 UL/EN/IEC 62368-1 (previously 60950-1) CAN/CSA C22.2 No. 62368-1
Safety	
Cellular / Radio Standards	EN 301 489-1 (V2.1.1:2017-02), ETSI EN 301 489-1 V2.1.1 (2017-02)

EN 301 489-17 (V3.2.0:2017-03), ETSI EN 301 489-17
V3.1.1 (2017-02)

EN 301 489-19 (V2.1.1:2019)

EN 301 908-1 v11.1.7:2018-12, ETSI EN 301 908-1 V7.1.1
(2015-03) (Radiated emissions RF control and monitoring)

EN 301 908-2 v11.1.2:2017-08, ETSI EN 301 908-2 V11.1.2
(2017-08) (RF conducted)

EN 301 908-13 v11.1.2:2017-07, ETSI EN 301 908-13
V11.1.2 (2017-07) (RF Conducted)

EN 62311:2019, IEC 62311 Ed. 1.0 b:2007 (Human
exposure restrictions for radio frequency electromagnetic
fields)

**Cellular/Telecom
Regulatory Approvals** FCC/ICES, RED, PTCRB/CTIA, CE

Carrier Certifications Verizon, AT&T

**Environmental
Specifications** Reach, RoHS3 and WEEE Compliant

Other

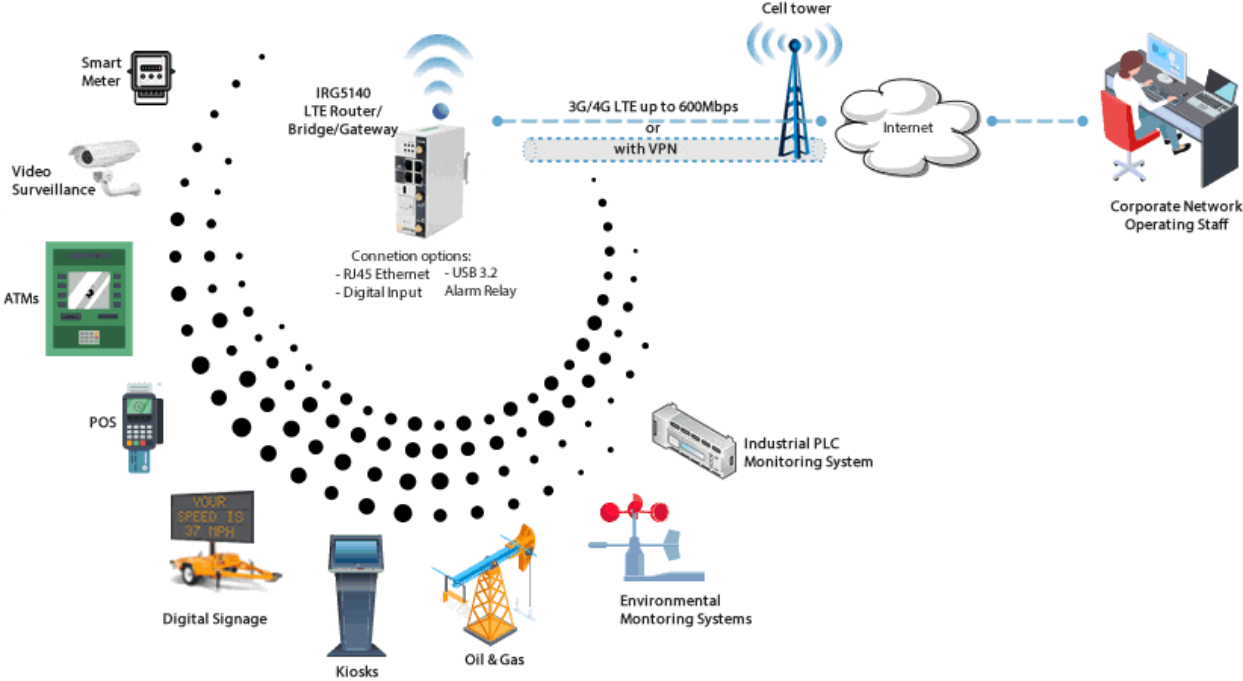
ECCN 5A992

HTSUS Number 8517.62.0020

Warranty 2 Years

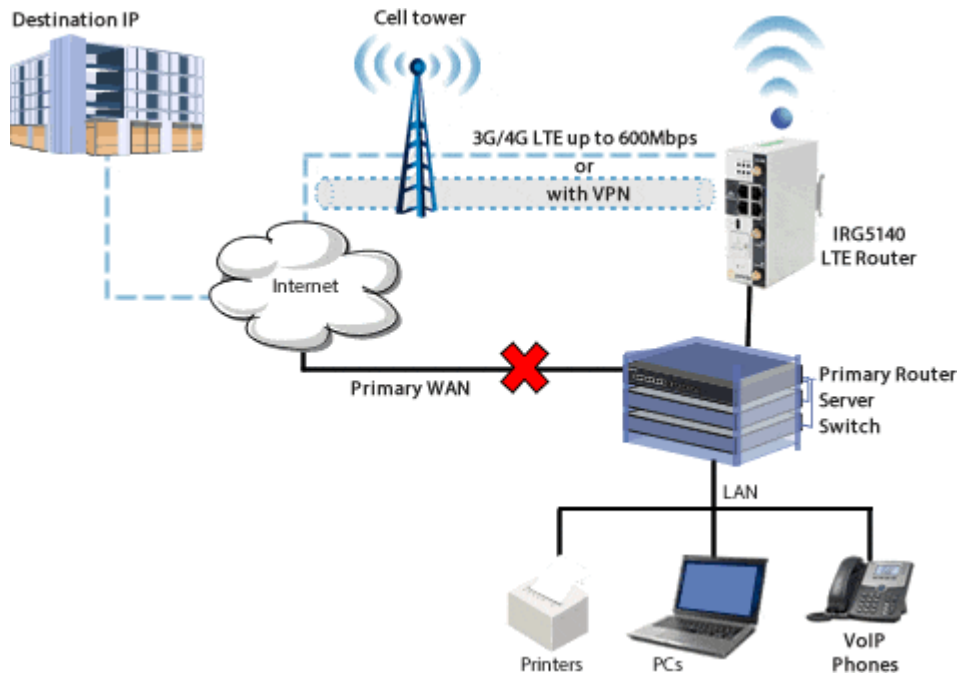
M2M / IoT LTE Connectivity

The Perle IRG5140 LTE Router offers always-on M2M connectivity that is secure, reliable, cost-effective, and easy to deploy. Featuring an industrial-grade DIN-Rail housing, the Perle IRG51400 Router is a versatile and compact solution that provides 2G/3G/4G LTE connectivity with built-in GPS capabilities. The Perle IRG51400 Router is ideal for solving wireless connectivity challenges in a variety of vertical markets including video surveillance, digital signage, home security, oil and gas exploration, kiosks, smart grid, and many more.



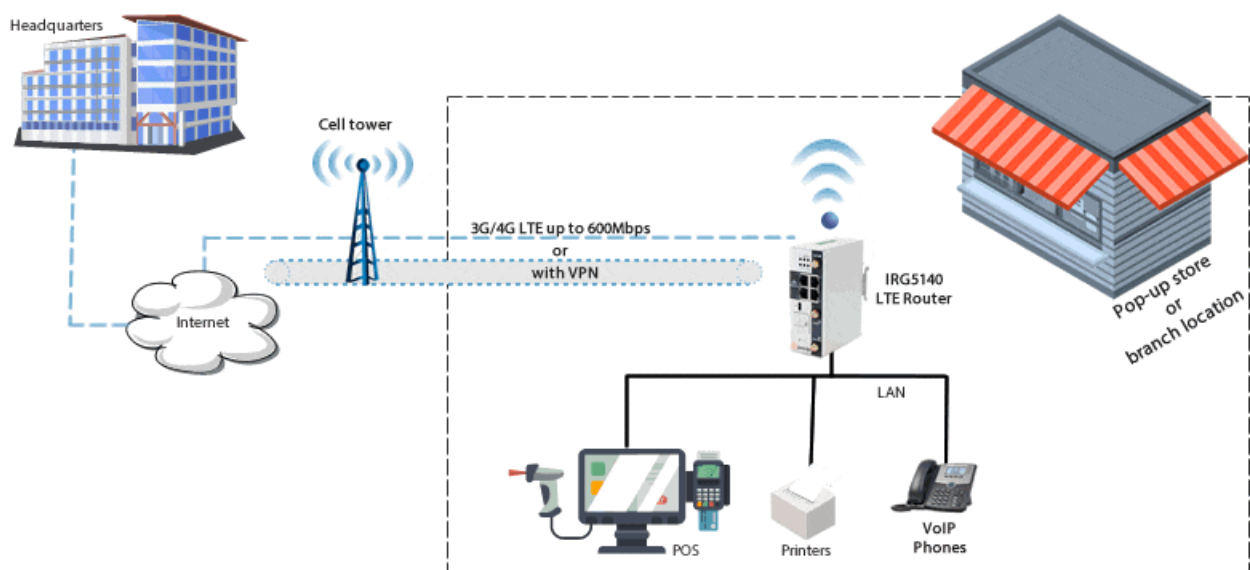
LTE Failover & Out of Band Management with "Four-Nines" (99.99%Up-time)

When the wired link is down, network access can be maintained with automatic failover to LTE. There are several ways to determine with the Primary WAN is down. One example, is to use the **Health Monitoring** function where the IRG5140 will ping a destination IP through the primary route. If there is no response, the IRG5140 router will initiate a direct connection using the back-up LTE route. The relatively low cost of LTE for business continuity means a greater return on investment and scalability for multiple locations that have limited IT resources. By deploying Perle IRG5140 LTE Routers, businesses will have on-demand network connectivity that is quick to deploy, simple to manage, and ensures maximum uptime.



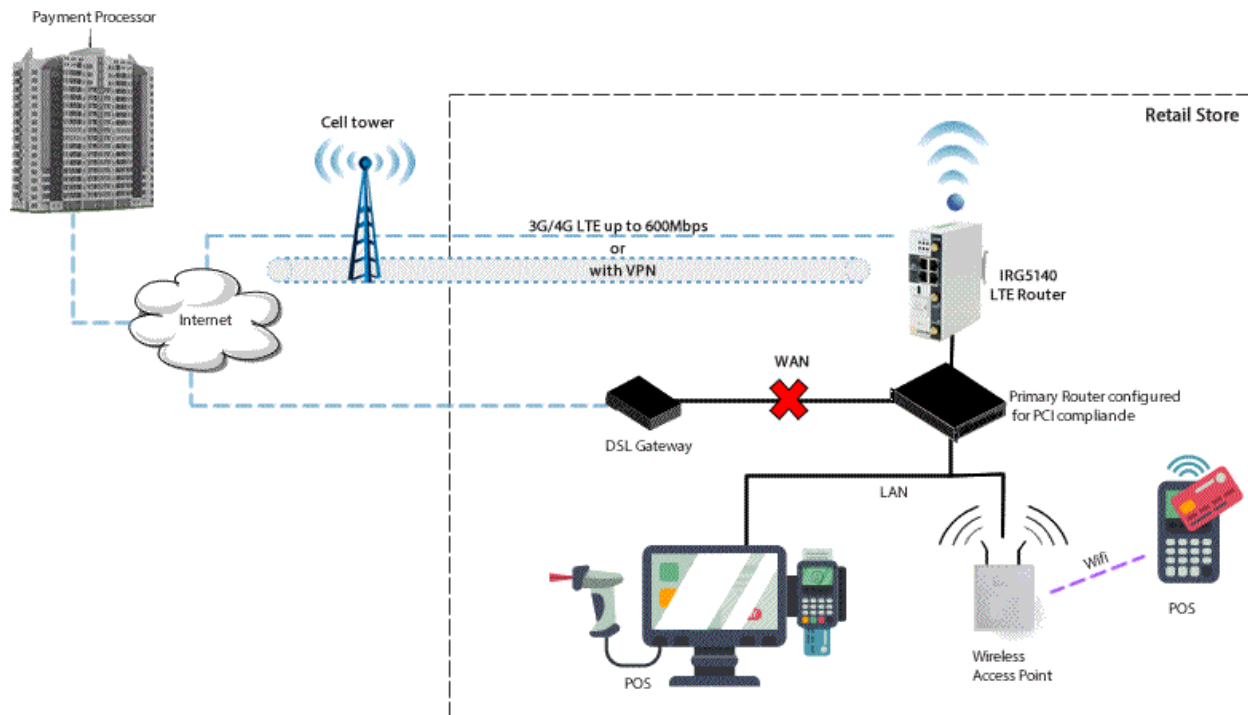
Primary Router Deployments

For pop-up stores or branch locations with limited IT resources, the IRG5140 Router is an easy to deploy solution. This single box will function as an LTE Router and a 4-port 10/100/1000 Ethernet Switch. **IPv4 and IPv6** is supported on both the WAN and LAN sides.



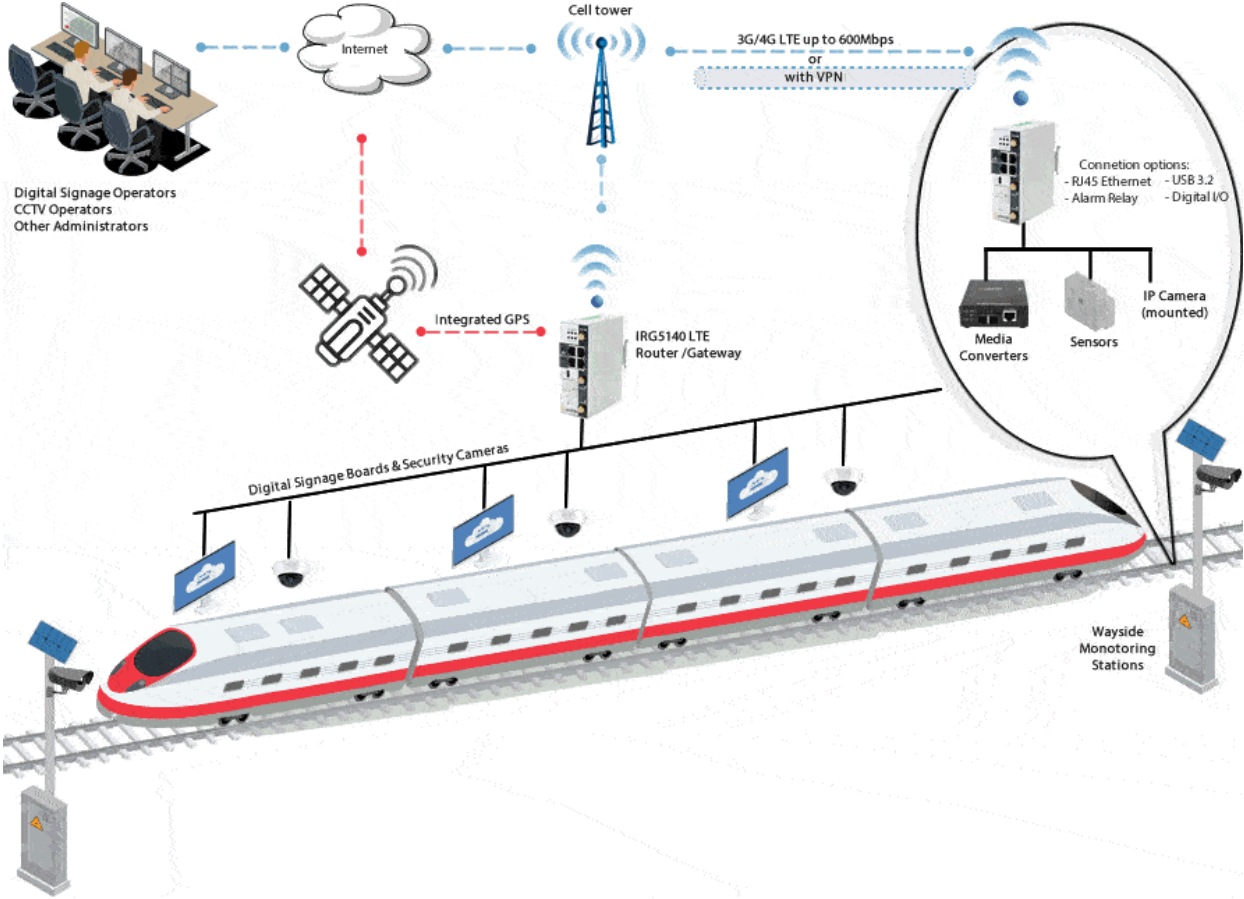
PCI Compliant LTE Failover

The credit card industry requires retailers to comply with Payment Card Industry (PCI) standard to maintain a secure environment when processing payment card transactions. For these transactions, a Perle IRG5140 Router acts as a wireless data conduit (Gateway) for routers and POS (point-of-sale-terminals) that have been configured for PCI compliance. The USBnet is on a different subnet from the point-of-sale-terminal. All security protocols must be established from the point-of-sale terminal to the payment processor. Payment card terminals must be on a dedicated LAN or VLAN. The Perle IRG5140 Router configured on gateway mode must be connected to a router that is configured for PCI compliance.



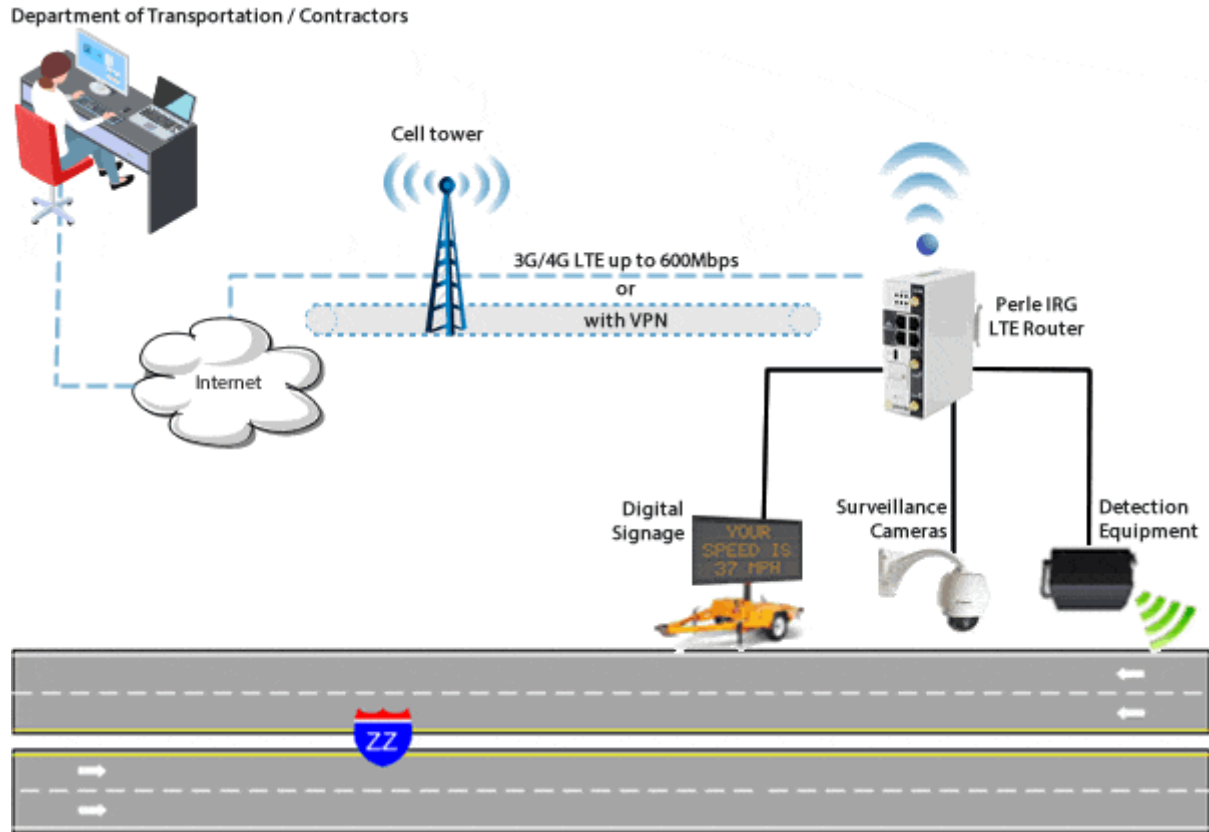
Communications Gateway for Railway

IRG5140 Routers are compliant with railway regulations and have the operating temperature, vibration, and emission certifications required for installation on trains, light rail, subways, and trams. They are perfectly suited for installation directly in the train or subway cabin, the dusty and humid environments of metro tunnels or, the enclosures found alongside rail tracks. Central administration centers can monitor rail traffic, switching status, track conditions, weather conditions, and security data gathered by the sensors and other equipment located in wayside monitoring stations. Onboard, connecting security cameras, informational displays, and other equipment allows for a wide variety of operational tasks to be undertaken by the control staff. With the ability to establish and maintain cellular tower connectivity at up to 100 meters per second (360km/224mi per hour), the IRG5140 LTE Router is ideal for any rolling stock application.



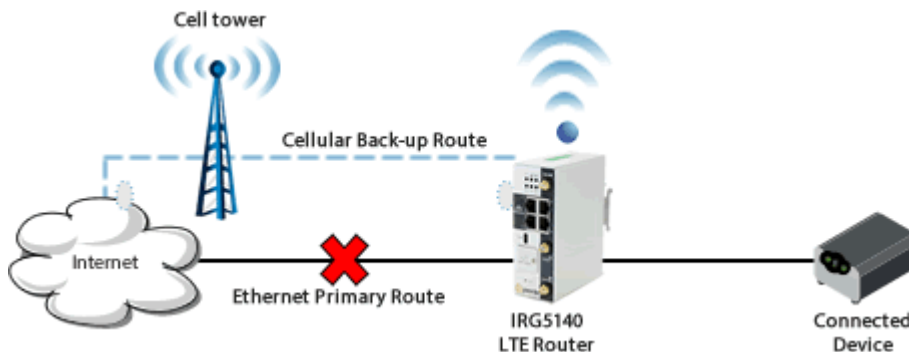
Roadway Smart Work Zones (SWZ)

Intelligent Transportation Systems (ITS) and Smart Work Zones (SWZ) are used to monitor and improve roadway construction zones. An LTE Router enables the communication between the components of the system. Real-time information can be transmitted to Portable Changeable Message Signs (PCMS) to display traffic conditions, travel times, incident information, and advisory messages. Data can be collected from cameras and sensors near the work zone and sent to the central processing system.



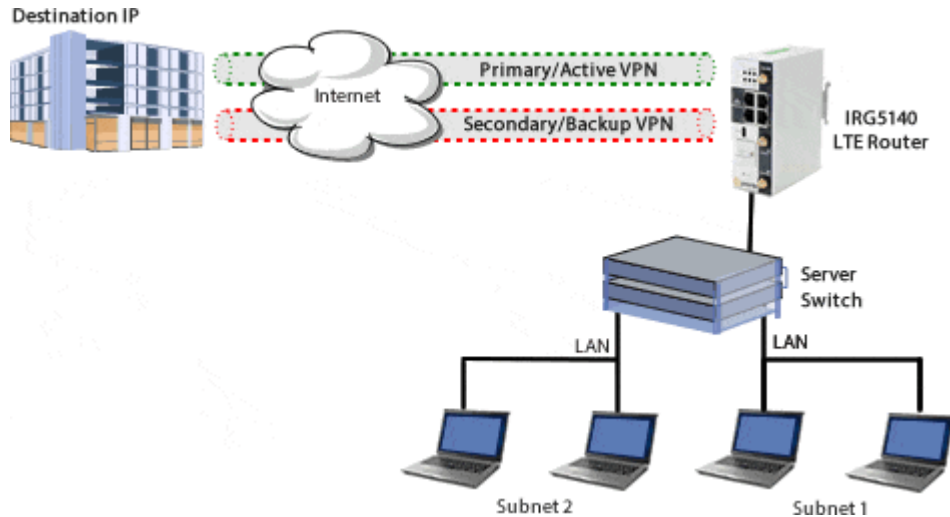
Failover with Static Routing

Force specified traffic to use different routing rules to direct specified traffic from the IRG5140 Router, or a connected device) to a designated primary router. If the primary route fails the specified traffic uses a backup route.



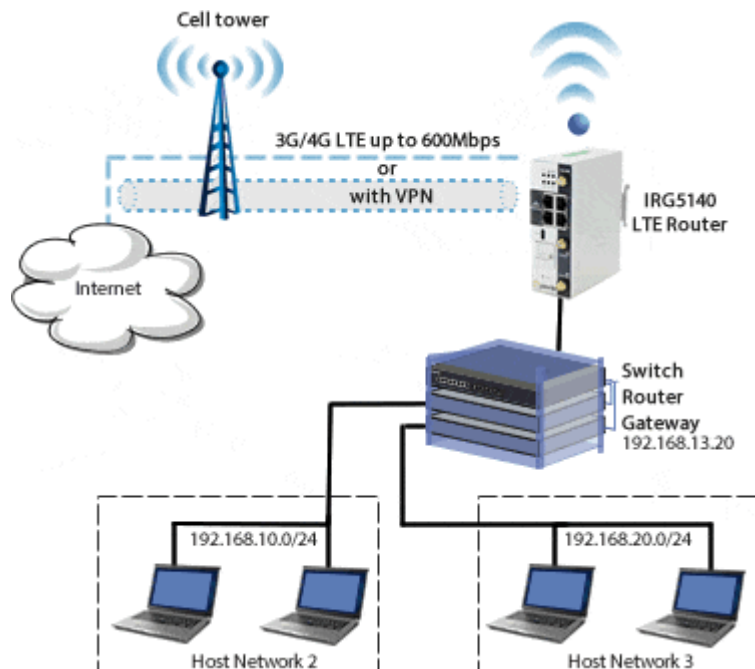
VPN Failover

With DPD and VPN Failover configured in the IRG5140 Router, two VPN tunnels are configured but only one is active at a time. If DPD detects that the destination is not responding through the Primary VPN, traffic is automatically switched to the Secondary/Backup VPN. The VPN Failover feature will continue to ping the destination through the primary tunnel and, if configured to do so, will automatically revert back to the primary once it is up again. Status fields can be viewed to see the current status of both VPNs.



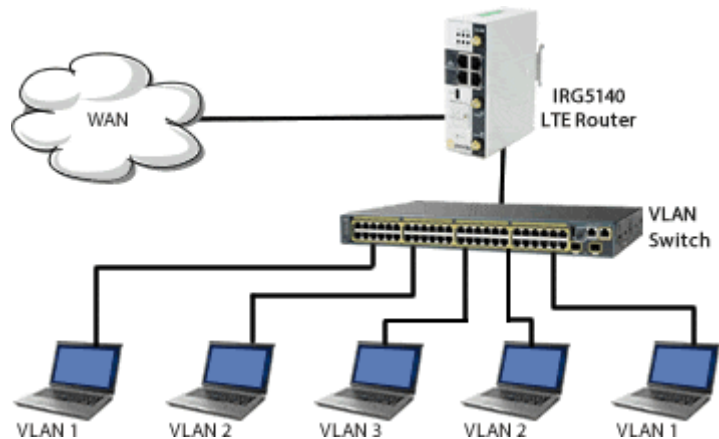
Non-NATed Networks

The Perle IRG5140 Cellular Router can handle multiple non-NATed networks behind a connected router or switch.



VLAN Support

The Perle IRG5140 Router supports up to 4000 VLANs on its Ethernet ports. VLANs are logical groupings of network devices that share the same broadcast domain. All devices on the same VLAN can ping each other without routing. There is no routing between VLANs.



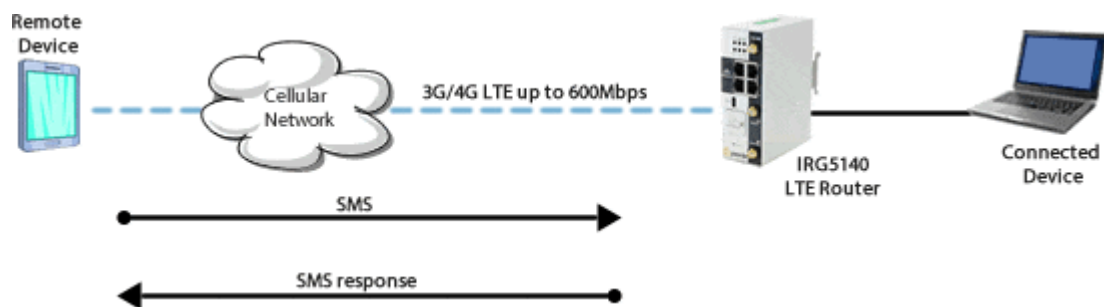
Port Forwarding

Any unsolicited data coming in on a defined Public Port is routed to the corresponding private port and IP of a host connected on the LAN.



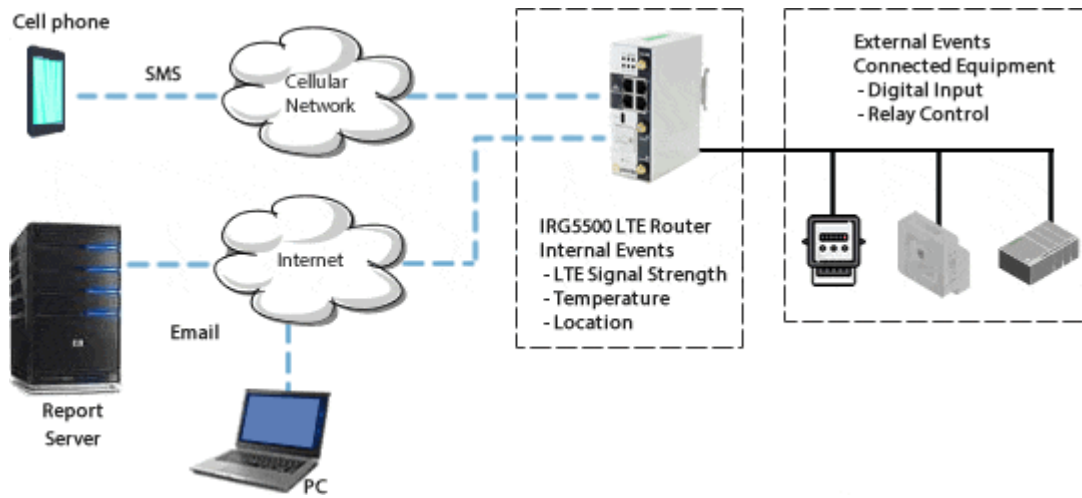
SMS support

The IRG5140 Router accepts SMS commands for basic actions and status. The IRG5140 Cellular Router will send back an acknowledgement that the SMS command was received every time.



Event Reporting

The IRG5140 Router can be configured to generate reports, or initiate actions, based on specified events. These events can be generated internally, or externally by devices attached to the IRG5140 digital inputs or alarm relay.



Copyright © 1996 - 2021 Perle. Alle Rechte vorbehalten