



Reach, Power, Management

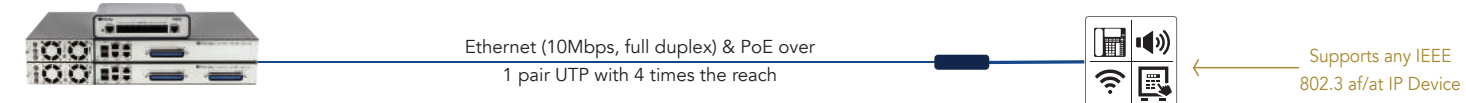
The world is rapidly moving to the Internet of Things (IoT). For the communications and physical security industries this means delivering the required power and connectivity to support IP-based devices. The ability to implement these two critical requirements, however, has presented customers with challenges and barriers to IoT adoption. NVT Phybridge has the solutions.

Our CHARIoT Series of long reach Power over Ethernet (PoE) switches enable our customers to transform their existing or new infrastructure and migrate to IP with confidence. Enabling IP devices is quick, easy and cost-effective with our solutions. Benefits include:

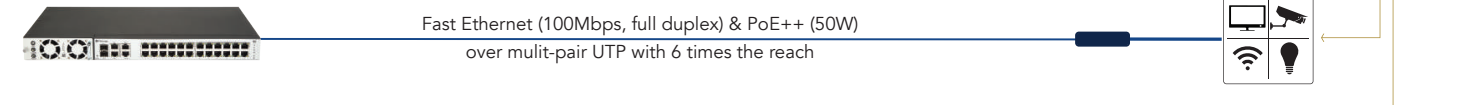
- Accelerating your return on investment with reduced infrastructure costs
- Collapsing migration planning and deployment times
- Eliminating infrastructure barriers, risks, disruption and costs
- Creating a robust IP platform that is easy to configure, deploy and manage

NVT Phybridge Long Reach PoE Switches

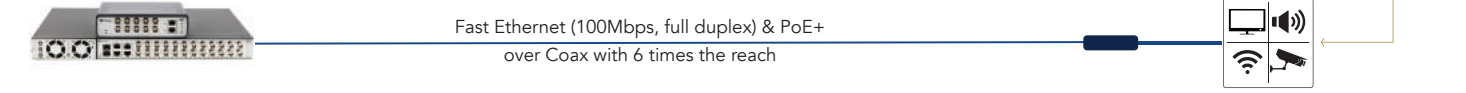
PoLRE 24-port, 48-port and LPC Switches



FLEX 24-port and 8-port Switches



CLEER 24-port and EC 10-port Switches



Standard PoE Switch Reach Limitations



Industry-Leading PowerWISE® Technology

In addition to long reach Ethernet connectivity, the CHARIoT managed switches come standard with industry-leading power capabilities. Features include; power sharing for redundancy, load balancing, AC/DC options, hot swappable power supply and auto sensing 100-240VAC delivering 500 to 1,000 watts of power. CHARIoT switches are known for their energy efficiency, consuming less than 20 watts of power to operate.

Managed Switch with Plug and Play Option

Our CHARIoT managed switches can operate in transparent mode functioning as a bridge. This allows for plug and play IP deployment. CHARIoT managed switches come standard with high-value features specifically designed to meet the critical demands of the Security and Communications industry.

- By port power management for easy reset of ports
- Port MAC locking for increased security and peace of mind
- Simple Network Manager, an intuitive GUI, makes switch management easy

About Us

NVT Phybridge is the global leader in Power over Long Reach Ethernet. We make IP connections in far places quick, easy and cost-effective. Our CHARIoT Series of long reach PoE switches enable customers to migrate to an IP-based network using existing Coax and UTP cabling. Our technology transforms an existing or new infrastructure into an IP path with power. With little to no business disruption. Our number one priority is providing innovative solutions that are simple, affordable, efficient and practical for customers.

Quick Facts

- Hundreds of thousands of customer users around the globe rely on our innovative technology everyday to work efficiently and effectively.
- NVT Phybridge is recognized by many organizations such as Gartner and CRN for our innovative IP-enabling technology.
- Our valued clients span many industries, including education, government agencies, healthcare, hospitality, manufacturing, retail, and more.
- We are proud to be the first company to introduce switch technology that delivers Ethernet and PoE over a single pair of wire with four to six times the reach of traditional switches.

Award-Winning Innovation



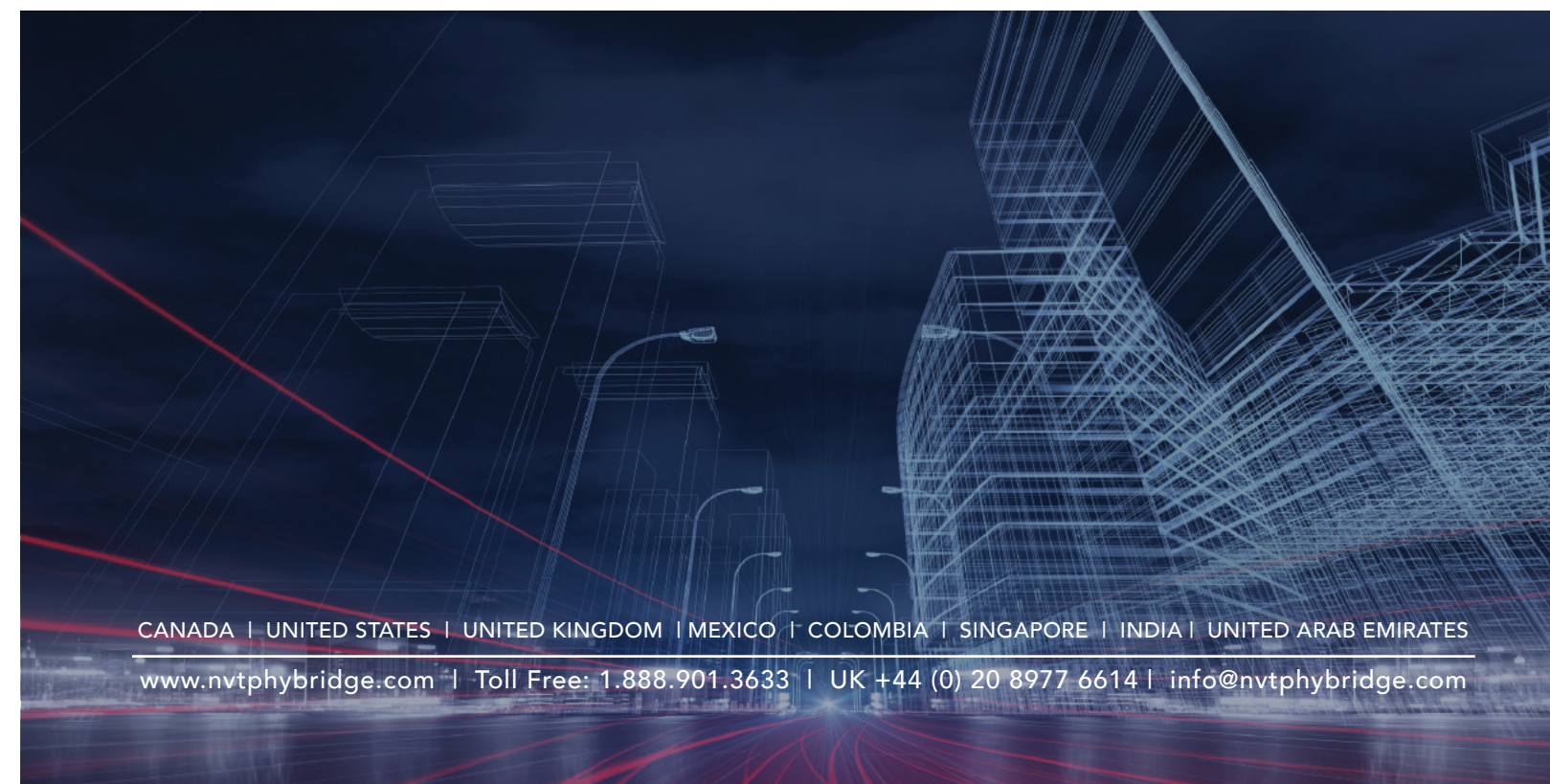
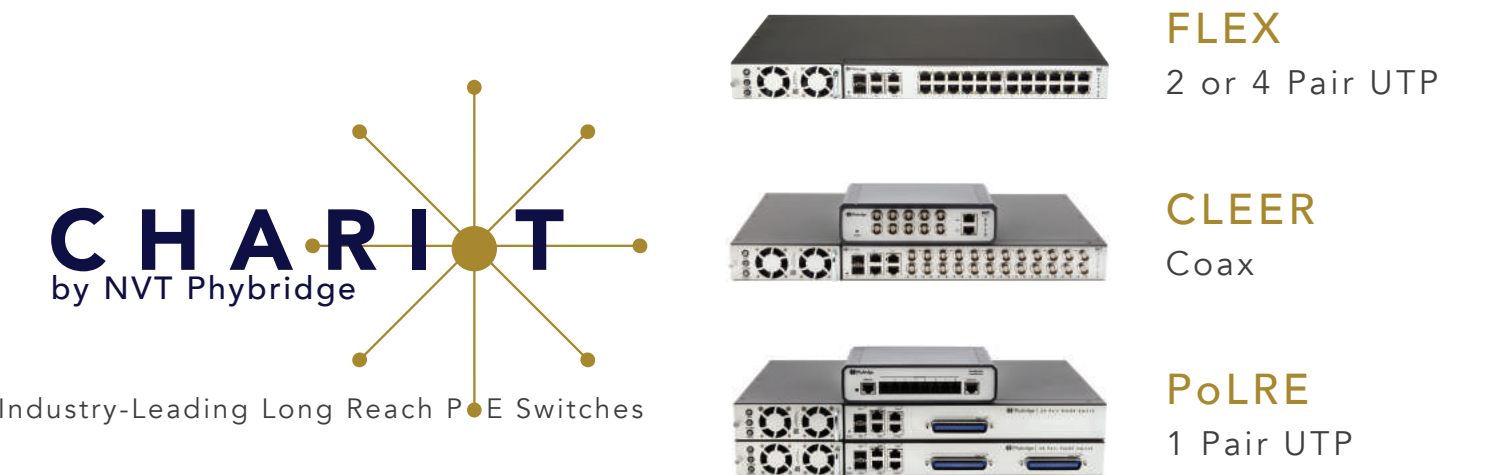
PoE Connections (in Far Places) Made Simple



Business Communications

Security & Surveillance

IP Building Controls



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MANAGED & UNMANAGED POE SWITCHES & POE EXTENDERS

POWER OVER LONG REACH ETHERNET OVER SINGLE OR MULTI PAIR UTP & COAX

ENTERPRISE GRADE FEATURES & CAPABILITIES

ROBUST POWER & POWER MANAGEMENT FEATURES

SIMPLE NETWORK MANAGEMENT INTERFACE

TWO FIBER & TWO ETHERNET GIGABIT UPLINK PORTS

IP MIGRATION MADE QUICK, EASY & COST-EFFECTIVE

CLEER (Coax-Leveraged Ethernet Extended Reach)

- Delivers fast Ethernet (100Mbps, full duplex) and PoE+ (30W) over Coax cable with 2,000ft (610m) reach
- Used for IP cameras, IP TV, IP Speakers, IP access control and other IoT endpoints
- 24-port enterprise-grade managed switch, 10-port unmanaged and Ethernet over Coax (EoC) extender options available

CLEER 24-Port Managed Switch (NV-CLR-024)



- 24 x 30W downlink ports delivering 100Mbps, full duplex over Coax
- 2 x 1GB uplink ports that can be bonded together for higher bandwidth
- 2 x 1 Fiber uplink ports that can be bonded together for higher bandwidth
- Dedicated management and console ports
- Industry-leading PowerWISE technology comes standard with CLEER 24
 - 500W (110v) or 1000W (220V) auto sensing power supply
 - AC/DC power source option
 - Power sharing for redundancy
 - Hot swappable power supply for easy replacement
 - Power management by port
- Intuitive, easy-to-use GUI interface

EC 10-Port Unmanaged Switch (NV-EC-10)



- 10 downlink ports delivering 100Mbps full duplex
- 2 x 1GB uplink ports
- 150W external power supply included

EC Link (NV-LNK-02)



- Media converter adapter
- Can be locally powered for more PoE delivery
- Can be paired together as EoC extenders.

EC 4-Port (NV-EC-04)



- Expands 1 Coax cable to 4 PoE Ethernet ports
- Can be locally powered for more PoE delivery

PoLRE (Power over Long Reach Ethernet)

- Delivers Ethernet (10Mbps, full duplex) and PoE (15W) over 1 pair UTP with 1,200ft (365m) reach
- Used for IP phones, IP access controls, IP speakers, IP sensors and other low power endpoints
- 24- and 48-port managed switches and 8-port unmanaged switch options available

PoLRE 24- and 48-Port Managed Switch (NV-PL-024 / NV-PL-048)



- 24- and 48-port x 15W downlink ports delivering 10Mbps, full duplex on 1 pair UTP
- 2 x 1GB uplink ports that can be bonded together for higher bandwidth
- 2 x 1 Fiber uplink ports that can be bonded together for higher bandwidth
- Dedicated management and console ports
- Industry-leading PowerWISE technology comes standard with PoLRE
 - 500W (110v) or 1000W (220V) auto sensing power supply
 - AC/DC power source option
 - Power sharing for redundancy
 - Hot swappable power supply for easy replacement
 - Power management by port
- Intuitive, easy-to-use GUI interface

PoLRE LPC 8-Port Unmanaged Switch (NV-PL-08)



- 8 downlink ports delivering 10Mbps, full duplex
- 2 x 1GB uplink ports for stacking
- NV-PL-08 comes with switch, 2 Phylink adapters and 100W power supply

Phylink Adapter (NV-PL-PA-011-6)



- The Phylink Adapter is a media converter
- Conveniently sold in bundles of six
- Used with PoLRE managed and unmanaged switches

FLEX

- Delivers Fast Ethernet (100Mbps, full duplex) and PoE+ (30W) over 2 pair UTP or PoE++ (50W) over 4 pair UTP with 2,000ft (610m) reach
- Used for IP cameras, IP Wi-Fi, IP TV and other high power IP endpoints
- 24-port enterprise-grade managed switch, 8-port unmanaged switch and Ethernet extender options available

FLEX 24-Port Managed Switch (NV-FLX-024)



- 24 x 50W downlink ports delivering 100Mbps, full duplex over 2 or 4 pair UTP
- 2 x 1GB uplink ports that can be bonded together for higher bandwidth
- 2 x 1 Fiber uplink ports that can be bonded together for higher bandwidth
- Dedicated management and console ports
- Industry-leading PowerWISE technology comes standard with FLEX
 - 500W (110v) or 1000W (220V) auto sensing power supply
 - AC/DC power source option
 - Power sharing for redundancy
 - Hot swappable power supply for easy replacement
 - Power management by port
- Intuitive, easy-to-use GUI interface

FLEX 8-Port Unmanaged Switch (NV-FLX-08)

- 8 downlink ports delivering 100Mbps full duplex
- 2 x 1GB uplink ports
- 150W external power supply

FLEX Link (NV-FLX-LK)

- Media converter adapter
- Can be locally powered for more PoE delivery

FLEX 4-Port Adapter (NV-FLX-04)

- Expands 1 UTP cable to 4 PoE Ethernet ports
- Can be locally powered for more PoE delivery

Quick, Easy, and Cost-Effective IP Migration

Cost-Effective

- Repurpose existing infrastructure
- Eliminate IDF closet costs with less requirements for:
 - Backup power
 - Cooling
 - Rack space
- Reduce professional services costs
- Improve response times and reduce site visits with intuitive remote management
- Fast-track IP migration with rapid deployments

Simple

- Designed for plug and play deployments or managed options
- Eliminate risk and disruption by leveraging existing proven infrastructure
- Point-to-point design allows for flawless migration when the time is right
- No dependencies or impact on the production network—build a separate LAN for IP Security or extend your LAN in a highly-secure and simple manner.

Robust

- Long reach Ethernet technology reduces latency vs. DSL and Homeplug-based solutions
- Industry-leading GUI interface makes configuration, troubleshooting and management simple and efficient
- Enhanced security capabilities:
 - Physical separate LAN
 - Out-of-band management ports
 - Port locking eliminates access to the network

CHARIoT managed switches are built with enterprise-grade features ensuring customers have the most robust solutions available.

Feature	CHARIoT	Most Others
100Mbps symmetrical full duplex with long reach	Yes	No
Layer 2 management features	Yes	No
Remote switch management	Yes	No
Port MAC locking for security	Yes	No
Hot swappable, power sharing, AC/DC	Yes	No
2 x 1 GbE copper/ fiber uplink ports	Yes	No
Management and console ports	Yes	No
An intuitive web GUI	Yes	No

CHARIoT managed switches are designed with an easy-to-use, powerful GUI interface making configuration, troubleshooting and management fast and simple. Features include:

- Power management by port
- Port locking for security
- VLAN capabilities
- Telnet, HTTP, SNMP and other services available
- Packet traffic details
- And many more

The screenshot displays the CHARIoT web management interface. Key features visible include:

- System Overview:** Shows switch details like Model (CLEER 24 Coax Switch), IP Address (192.168.13.20), and Host Name (CLEER_DEMO2).
- Ethernet Ports (Link: 24, Activity: 19):** A table listing ports with columns for Port, Description, POE (Days HH:MM:SS Mb), and Status. Ports are color-coded by power status.
- Port Statistics:** A summary of power consumption and budget for the selected switch.
- Port Labeling for Identification Ease:** The interface allows for assigning descriptive labels to individual ports.
- Port Locking for Higher Security:** An option to lock ports to prevent unauthorized access.