



Plexus PowerNet™

Enabling Connectivity to the Intelligent Mine

Your last mile solution to the face



We make the complex, simple!

Maestro Digital Mine manufactures Industrial Internet of Things (IIoT) measurement and control instrumentation for the optimization of **underground mine ventilation** and underground digital networks for **last mile of communication**.





Plexus PowerNet™ Gigabit Communication Network



WI-FI



VIDEO



RFID



TELEMETRY



VOICE

Plexus PowerNet™ delivers a high speed, low latency digital communication network that provides PoE+ power to Wireless Access Points (WAPs), cameras and any other IP based device. The system eliminates the need for costly outside fiber optic contractors and can be installed and maintained by any internal tradesperson. **Easy to power, install, advance and repair.**

10

TOP 10 COUNTDOWN Plexus PowerNet™

Why our clients choose the **Plexus PowerNet™**
to extend their underground communication networks.



10

Simplicity & Speed of Advancement

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Advancing the network and repairs can be done completely in-house

- Easily advanced by **ANY** electrician or **MOST** development miners
- Coax termination completed in **under 3 minutes**
- Unlike fiber, terminations do not require an ultra-clean environment
- Simple, coax tool set instead of expensive and delicate fiber splicing tools
- Simple, cable TV style fittings that have been proven over millions of terminations in harsh, outdoor environments for decades



Plexus PowerNet Flexible Cable Termination Video



9

Bandwidth, Latency and Jitter

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Plexus PowerNet™ can handle any use case

- Autonomous and tele-remote vehicles
- HD PoE and PoE+ cameras
- Vehicle and Personnel Tracking
- Video conferencing
- Short interval control software



8

Provides data & power over same cable

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Plexus PowerNet™ combines data and DC power over the same copper cable

- Reduces the number of device power supplies
- Eliminates the need for electricians and fiber specialists to deploy power and network backbone infrastructure
- Eliminate running individual power to all access points, cameras and other IoT devices



7

Rugged & flexible coaxial copper cable

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Plexus PowerNet™ utilizes conventional flexible copper coaxial cable

- Easy to advance and retreat from headings
- Withstands blast concussion better than fiber optic cable
- Readily available in any global market
- Inexpensive cable
- Proven with ten of millions of miles of installation in outdoor environments



6

Fully Managed

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Plexus PowerNet™ Nodes are fully managed

- Configure, manage and monitor your network with industry standard software using Simple Network Management Protocol (SNMP).
- Apply Virtual Local Area Networks (VLANs) to isolate, secure and prioritize traffic.
- Quality of Service (QoS) allows you to prioritize network traffic and manages available bandwidth so that the most important data traffic goes first.



5

Network Security

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Customized Client Security Needs

- Secure your network connections and also protect any unused ports on your Nodes. For example, if there is an unused port on a node, you can disable that port to eliminate rogue devices to be added to the network.
- Support for RADIUS authentication simplifies network security using centralized management of user credentials.
- SSH encryption provides secure configuration of Plexus PowerNet™ nodes.



4

No licensing required

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Unlike LTE networks and other software tools, the **Plexus PowerNet™** has no annual licensing and support fees.

Firmware updates are included for life.

Oh no! Your License has expired

Unfortunately your license for Workshare Professional has expired.

Purchase a license at any time to gain full access and carry on where you left off.



Purchase now

Exit



www.maestrodigitalmine.com

3

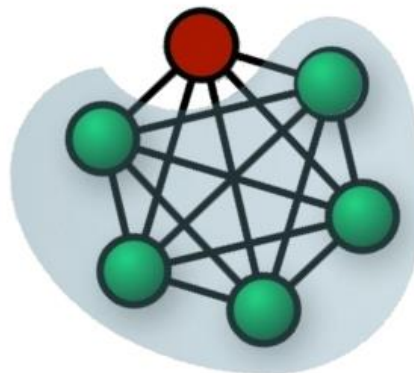
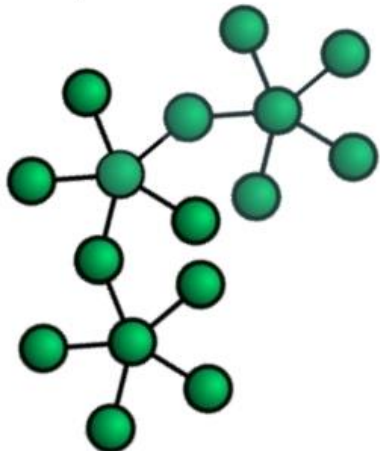
Open and Standard Based Network

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Plexus PowerNet™ has been designed to be agnostic and open

- Conforms to all relevant IEEE Ethernet standards
- Allows usage of any communication protocols
- Allows the use of any Ethernet device to be deployed
- No lock-in, no licenses & sustainable

Open Network



Closed Network

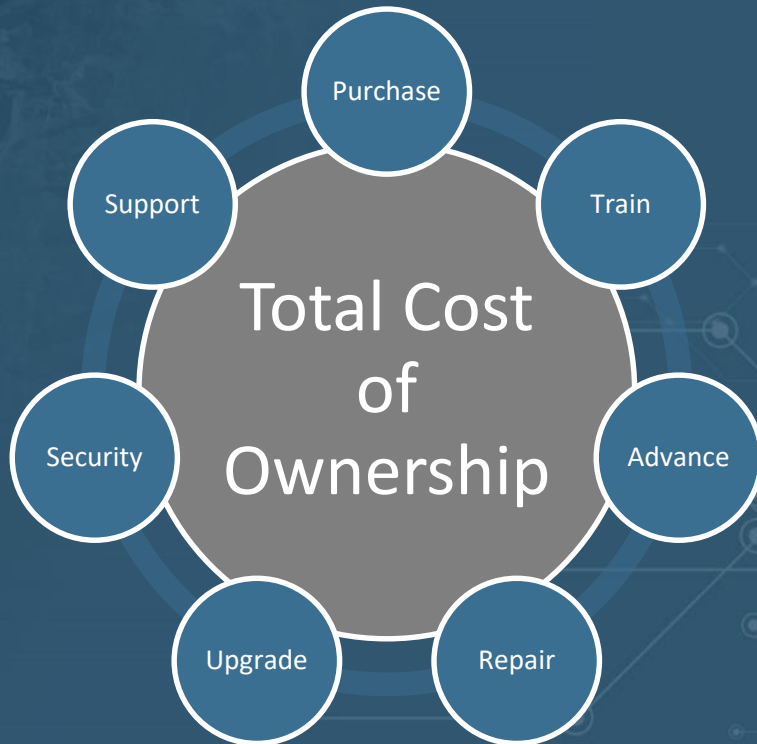
Open networks are the future of IoT



2

Low total cost of ownership and installation

EASY TO POWER, INSTALL, ADVANCE AND REPAIR



- Customer feedback has confirmed CAPEX **reductions of 40-60%** and an additional 50% reduction of installation costs.
- Training to advance and repair cable is completed in **under 1 hour**.
- **Plexus PowerNet™** can be deployed in a fraction of the time vs competitive solutions.



1

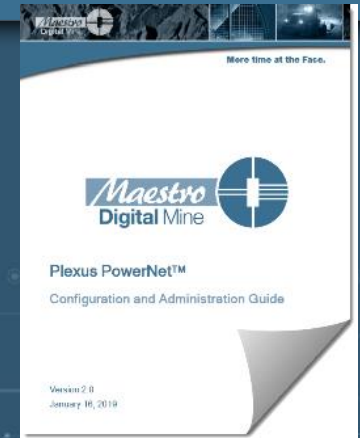
We leave no one stranded

EASY TO POWER, INSTALL, ADVANCE AND REPAIR

Post sale service & support

- Detailed software configuration manuals
- How To Videos
 - Termination videos
 - Cable pulling videos
- Phone and email support
- On-site training & commissioning support

support@maestrodigitalmine.com



www.maestrodigitalmine.com



Maestro
Digital Mine



Real time data means more time at the face.



Race to the Face.

We get you through the last mile quicker.



Plexus PowerNet™

EASY TO POWER, INSTALL, ADVANCE AND REPAIR.

Maestro
Digital Mine



maestrodigitalmine.com

maestrodigitalmine.com



We leave no one stranded.

www.maestrodigitalmine.com