

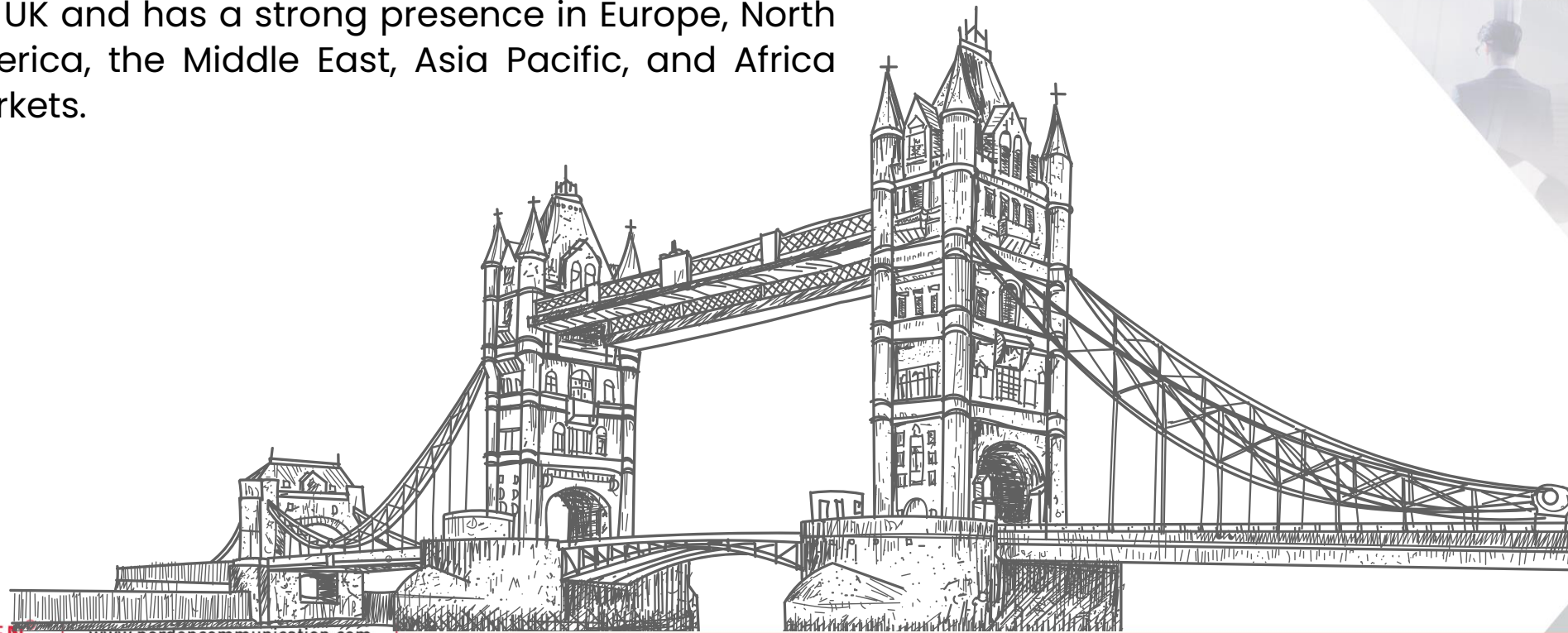


Crafting Innovation

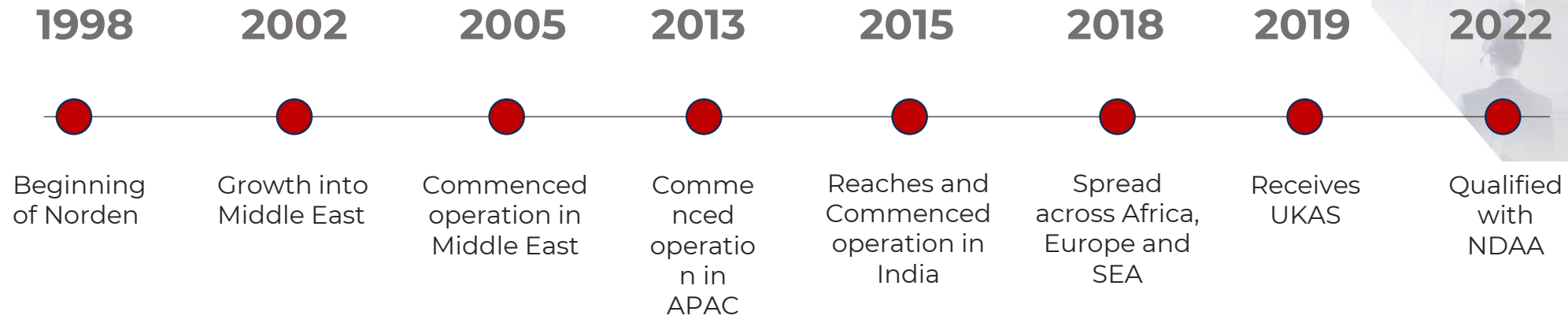
www.nordencommunication.com

WHO ARE WE ?

Norden Communication specialises in the craftsmanship, manufacturing and distribution of ELV solutions. The company is headquartered in the UK and has a strong presence in Europe, North America, the Middle East, Asia Pacific, and Africa markets.



ABOUT NORDEN



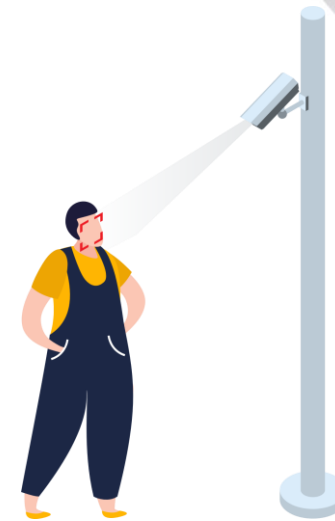
NORDEN GLOBAL FOOTPRINTS



PRODUCT RANGE

- BMS Cable
- Industrial Cable
- Fire Resistant Cable
- Data Centre Solution
- Fibre System
- Copper System
- Coaxial Cables
- MPO/MTP Solutions
- Instrumentation & Audio Cables

- Surveillance Systems
- Public Address Systems
- Access Control Systems
- Exit Sign Lights
- UPS Systems



The background of the slide is a dark blue-tinted aerial photograph of a city with numerous skyscrapers. Overlaid on the city are several white, semi-transparent curved lines that connect different points, suggesting a network or data flow. The word "CHALLENGES" is centered in white, bold, uppercase letters.

CHALLENGES

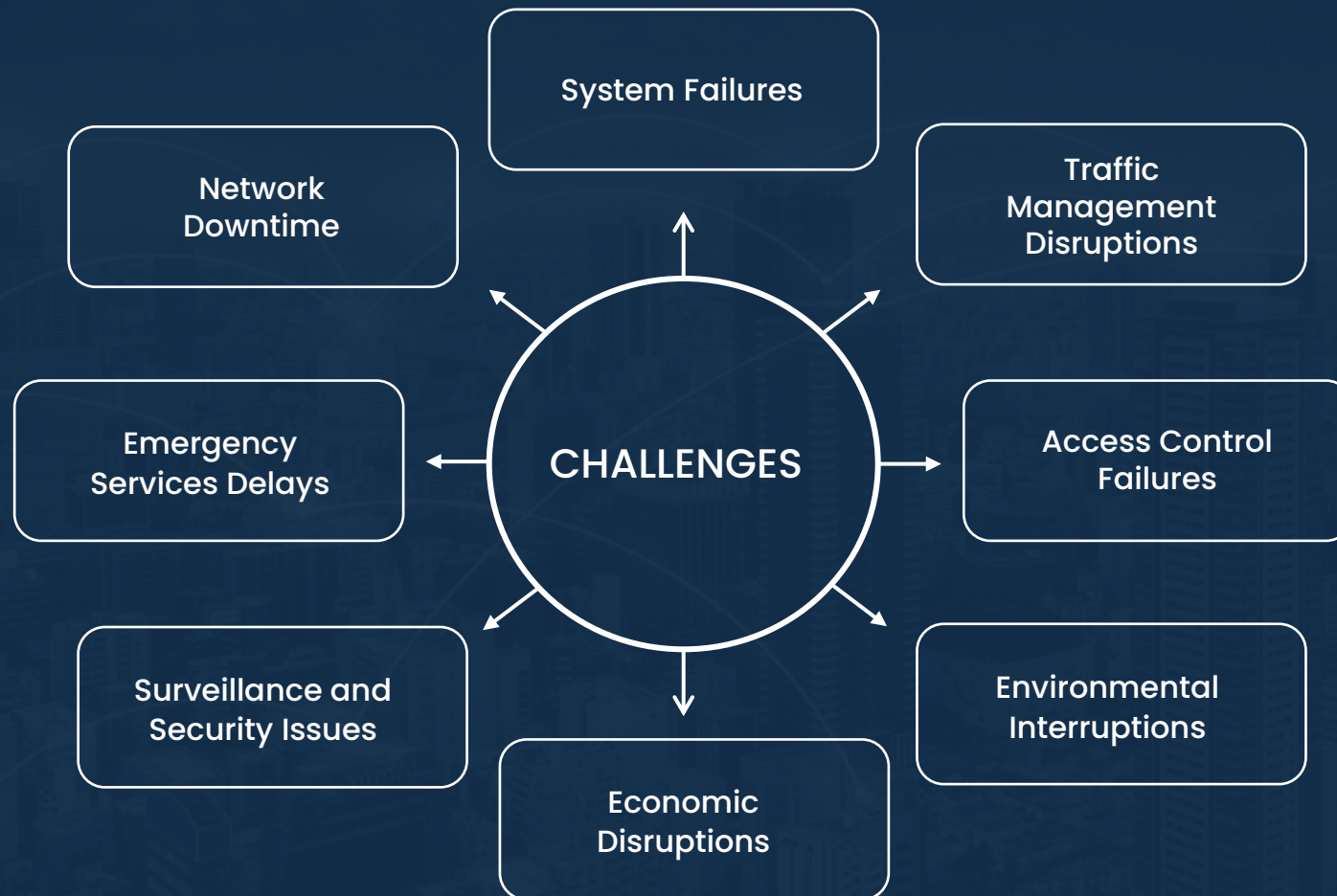
Challenges in City Administration



Challenges in Effective Public Communication



Challenges in Infrastructure Networking



The background of the slide is a dark blue, semi-transparent aerial view of a city with numerous skyscrapers. Overlaid on this are several white, semi-transparent arcs that represent the surveillance range of various cameras or sensors positioned across the city.

NORDEN SURVEILLANCE SOLUTION FOR SAFE CITY

ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Crime and Vandalism

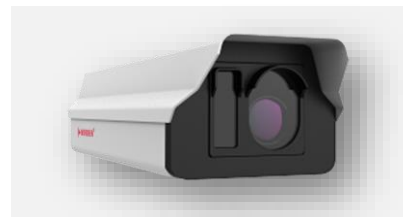
- HD 360° Coverage PTZ Camera: Offers complete surveillance of large areas, with pan, tilt, and zoom capabilities.
- IP68 and Vandal-Proof Outdoor Camera: Deploy facial and license plate recognition systems that are weatherproof and vandal-resistant for offender identification.
- 360° Coverage Fisheye Camera: Panoramic view, covering entire spaces without blind spots, ideal for monitoring public areas and reducing incidents of vandalism and crime.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Traffic Violations

- Long-Range Bullet Camera: Captures high-definition images over extended distances, essential for monitoring traffic on busy roads
- Long-Range PTZ and Thermal Camera: Effective in low-light or nighttime conditions, ensuring that all traffic violations are detected and recorded, regardless of the time of day.
- Advanced AI Analytics: Employs sophisticated algorithms to detect and flag traffic violations such as speeding, running red lights, and illegal turns.
- Advanced License Plate Recognition: Accurately captures and identifies vehicle license plates, enabling quick enforcement of traffic laws and identification of offenders.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Public Safety

- **Wide Variety of General Surveillance Cameras:** A comprehensive range of Dome, Bullet, and PTZ cameras that enhance public safety by monitoring public spaces, preventing criminal activities, and ensuring that public areas are secure and safe for everyone.
- **Strategic Deployment:** Cameras can be strategically placed in high-traffic areas, parks, transit stations, and other public spaces to provide continuous surveillance and quick incident response.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Emergency Response

- **Emergency Call Box with Pinhole Camera:** A robust solution for immediate assistance during emergencies, equipped with a discreet pinhole camera to capture critical footage during distress situations.-
- **Advanced Norden Vehicle Camera:** Integrated with emergency rescue services, this solution ensures that emergency responders have real-time access to the situation, allowing for quicker and more efficient responses.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Infrastructure Maintenance

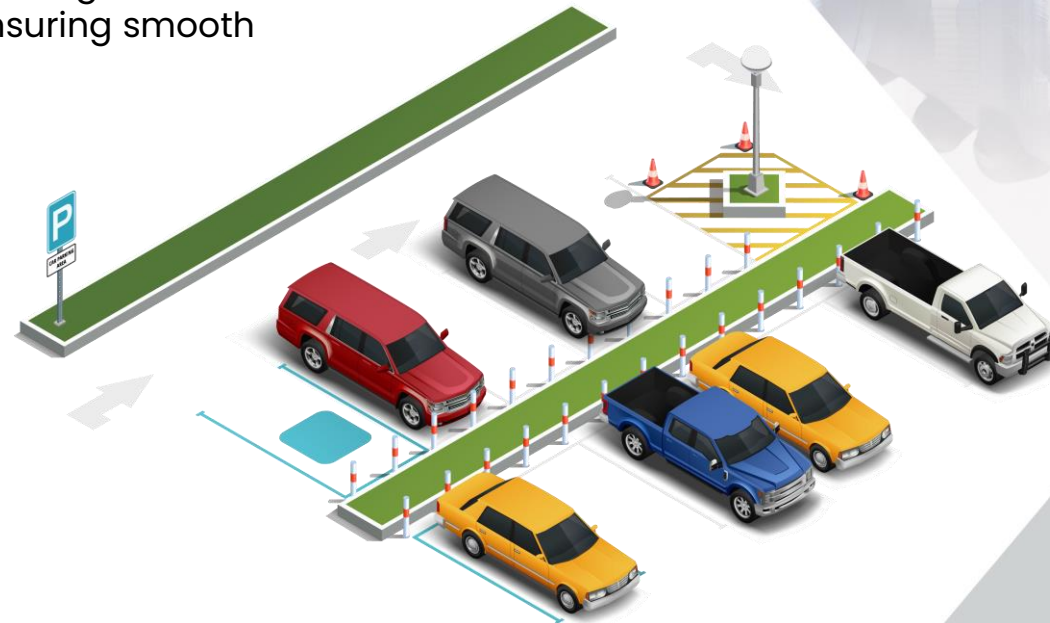
- Bullet, Dome, and PTZ Cameras: Monitor critical infrastructure, such as bridges, roads, and public buildings, ensuring that any signs of wear, damage, or unauthorized access are promptly detected and addressed.
- Preventative Surveillance: Continuous monitoring helps in identifying potential issues before they become major problems, reducing maintenance costs and preventing accidents.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

Parking Management

- Outdoor Bullet Camera with LPR Capability: Enables automatic identification of vehicle license plates, facilitating efficient parking management and security.-
- Integration with 3rd Party Software: Easily integrates with gate barriers and other parking management systems, ensuring smooth operation and enhanced security in parking areas.



ENHANCING CITY ADMINISTRATION WITH NORDEN SURVEILLANCE

LAW ENFORCEMENT INCIDENT RESPONSE & DOCUMENTATION

- **Body-Worn Camera:** Provides law enforcement officers with a reliable tool to document interactions, ensuring transparency and accountability. This also aids in evidence collection and helps protect both officers and the public.
- **Real-Time Communication:** Facilitates real-time communication and data transfer, allowing for coordinated responses during incidents and improving overall law enforcement efficiency.



OUR UNIQUENESS



Wide Product Range

Offers a comprehensive range of cameras, analytics, and software



Cybersecurity Certified

Our products meet high cybersecurity standards, ensuring surveillance data is secured



NDAA Compliant

We comply with NDAA, ensuring secure products



Intelligent Integration Capabilities

Seamlessly integrate with other systems and technologies



Proven Track Record

History of delivering reliable and effective surveillance solutions, backed by satisfied customers



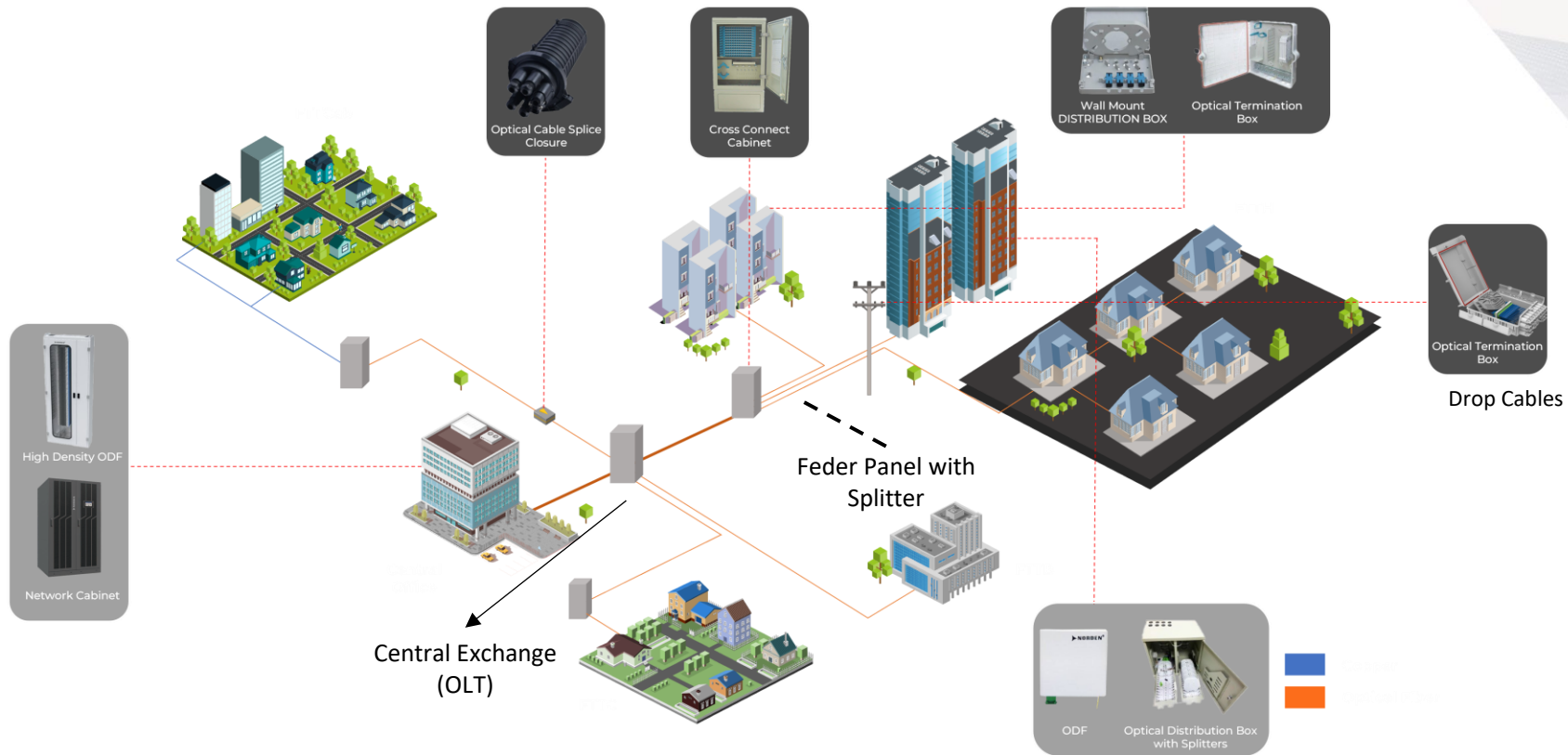
MIL-810H Certified

Certified to meet MIL standards for durability in harsh conditions

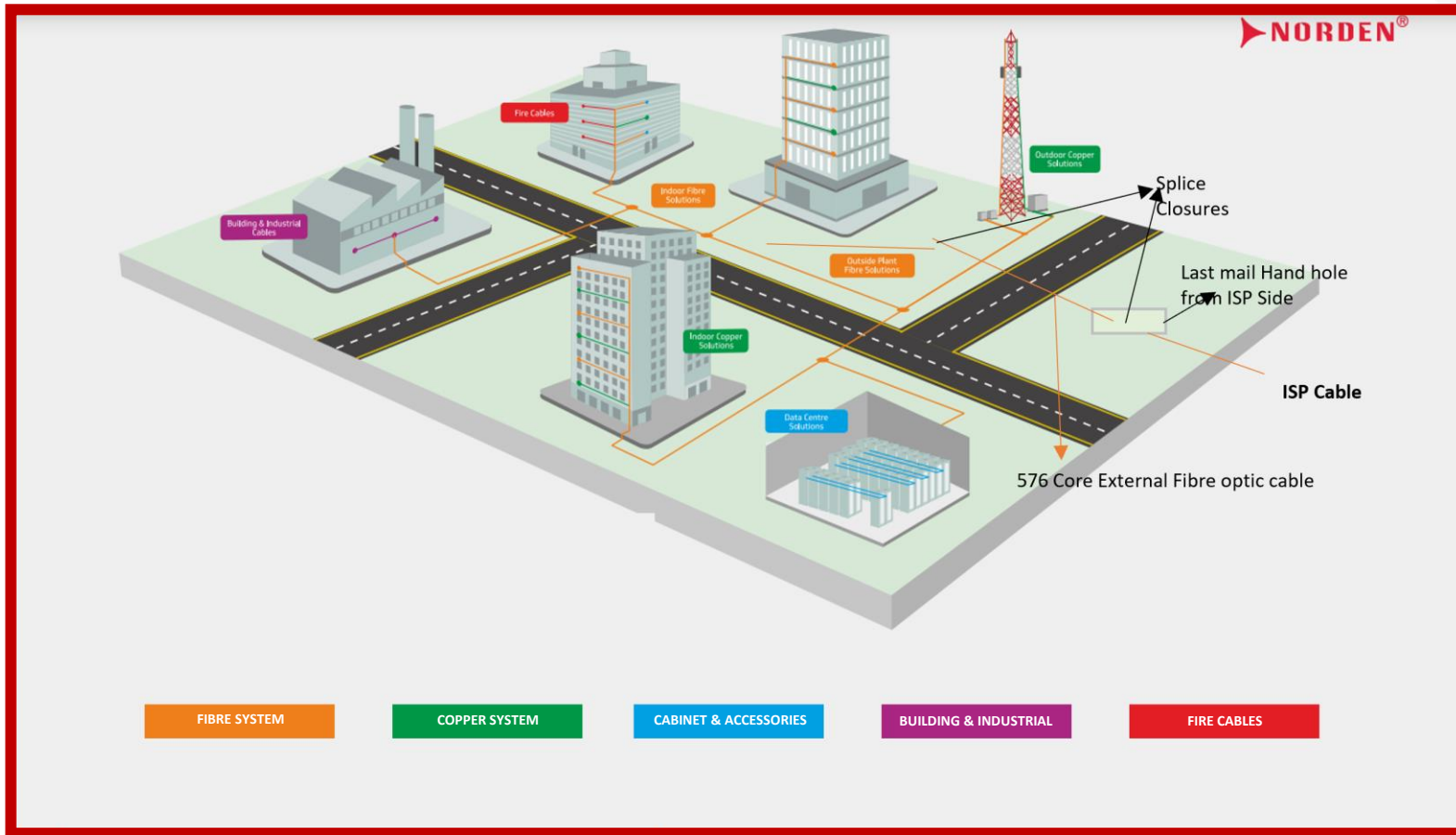
The background of the slide is a dark blue, semi-transparent aerial view of a city with numerous skyscrapers. Overlaid on this is a network of white, glowing arcs that connect various points across the city, suggesting a communication or data network. The right side of the slide is partially obscured by a large, diagonal graphic element composed of a gold triangle on top and a red triangle on the bottom.

NORDEN CABLING SOLUTION FOR SAFE CITY

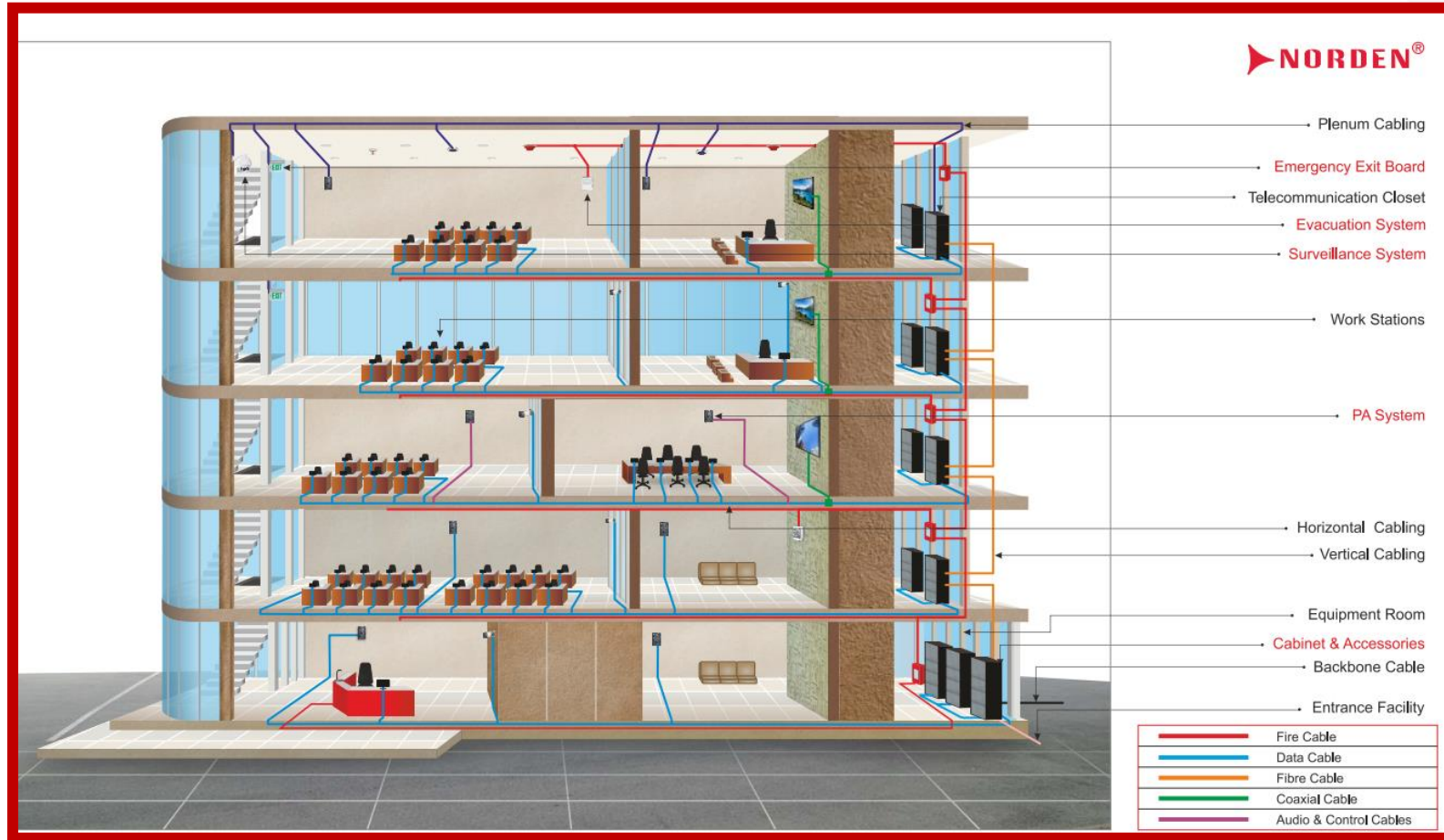
NORDEN PRODUCTS IN A SAFE CITY



NORDEN PRODUCTS IN A SAFE CITY



NORDEN PRODUCTS IN A SAFE CITY



HIGH DENSITY SOLUTIONS

MTP/MPO SOLUTIONS

- MPO (Multi-Fibre Push On) connectors, including the high-performance MTP variant, are ideal for high-density cabling in data centres needing high data rates.
- MTP connectors are a trademarked type of MPO connector by US Conec, offering multi-fibre connectivity.
- MTP cassettes house multiple MTP adapters for organised fibre management.
- MPO adapters connect MPO (male) to MPO (female) connectors, with Type A (key-up to key-down) and Type B (key-up to key-up) variations.
- MPO trunk cables feature MPO connectors on both ends, while MTP/MPO fanout hydra cables have one MPO connector and multiple single-fibre connectors (LC, SC) on the other end.

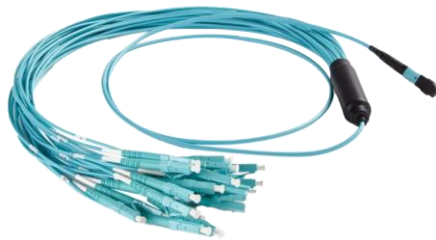


- High Density Fibre Patch Panel
- MTP Cassetts
- MTP Fanout Hydra Cable
- MTP Adaptors
- MTP Trunk Cables
- MTP Connectors

HIGH DENSITY SOLUTIONS

MTP / MPO TRUNK CABLE & FAN - OUT HYDRA CABLE

- MTP / MPO trunk multifibre & FAN-OUT HYDRA cable assemblies facilitate rapid deployment of high-density backbone cabling in data centers and other high fibre environment.
- Reduces network installation or reconfiguration time and cost.
- They are used to interconnect cassettes, panels, or ruggedized MTP/MPO fanouts, spanning MDA, HAD, and EDA zones.



HIGH DENSITY SOLUTIONS

HIGH-DENSITY MODULAR FIBRE OPTIC PANEL

- Rack mount Ultra-high density 1U patch panel supporting up to 144 fibres.
- Equipped with 3 sliding trays , where each tray can load 4 modular Cassettes.
- Support máx. of 12 Modular Cassettes (LC, SC, MTP, LC & SC Splice Cassettes).



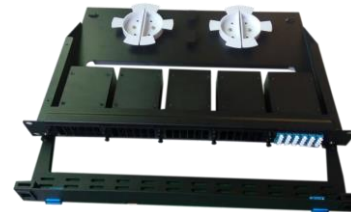
MTP / MPO HIGH-DENSITY PATCH PANEL

- Rack mount 1U patch panel supporting up to 96 fibres.
- Drawer type with transparent cover making it convenient for observation and maintenance.
- Support 6 number of adaptors cassette (LC quad , SC duplex) .



HYBRID HIGH-DENSITY MODULAR FIXED PANEL

- Rack mount 1U patch panel supporting Adaptor plates & Cassette Modules.
- Support 96F in LC, 48F in SC, 48F in MTP/MPO & 24 Keystone configurations.



MTP / MPO HIGH DENSITY FIBRE OPTIC PATCH PANEL

- Rack mount 1U patch panel supporting up to 96 fibres.
- Loads MTP/MPO and ribbon fibre cable.
- Support LC duplex , SC simplex adapter type



HIGH DENSITY FIBRE OPTIC DISTRIBUTION FRAME

- Used in MDA to consolidate patching and reduce footprint, freeing up valuable space.
- Offers Modularity, easy Installation, and flexibility of configuration with Front & Side access.
- Provides the termination capacity of 2016F (splice & patch) .
- Designed to be used together with high-density side access-type patch panels.
- Interchangeable cassettes for various cable/tube counts and connector styles.

Frame Size	47U
ODF Max. Capacity	LC : 2016 Port (Splice & Patch) SC : 1008 Port (Splice & Patch)
Sub – Rack Size	3U
One Sub-Rack Capacity	SC : 72 Core LC : 144 Core
Max. Supported Sub Racks	14



INTELLIGENT PDU

- Designed to improve uptime and energy efficiency while reducing operating costs, based on the concept, of **'sustainable, upgradeable, and maintainable'**.
- Unique screw-free hot swap controller design allows quick and easy replacement of PDU modules.
- Users can upgrade the PDU firmware features and performance with time.
- Replacing the output modules allows the user to upgrade an input-monitored PDU to a switched one.
- Two types of Intelligent PDU: NIPDU and NEZPDU
- Customizable outlet combination with outlet types IEC C13, C19, Shuko, UK, Universal, NEMA etc. and with UK or IEC 60309 plug type.

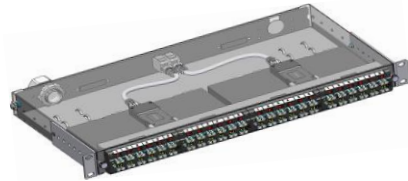


Components



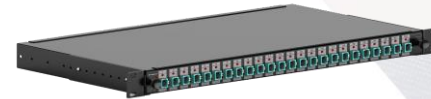
MODULAR KEYSTONE COPPER FRAME 24 PORTS

Used for real-time physical network monitoring and management. Supports maximum 24 Ports.



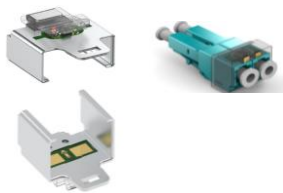
FIBRE OPTIC CASSETTE TRAY

Used for real-time physical network monitoring and management. Supports maximum 96 Ports.



FIBRE OPTIC MPO 24-TRAY

Used for real-time physical network monitoring and management.



ID KEY

Used for monitoring the real-time patch cords connectivity of communication ports.



FIBRE OPTIC CASSETTE

Used for real-time physical network monitoring and management. Up to 4 cassettes in one fibre tray (96 fibres/1RU)

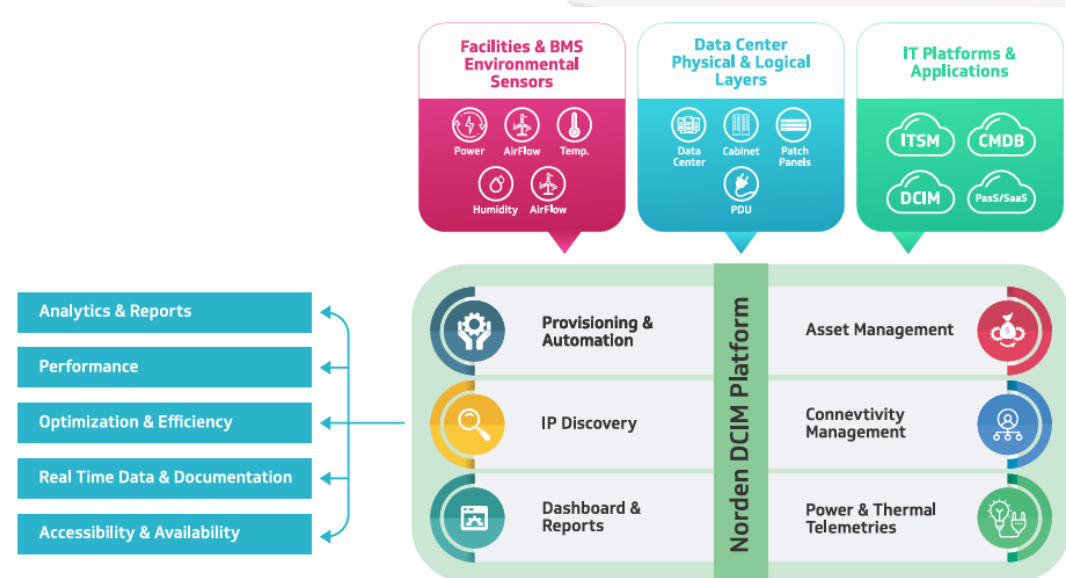


COLLECTOR

Used for the bi-directional communications between Scanning Cards and the rest of the system

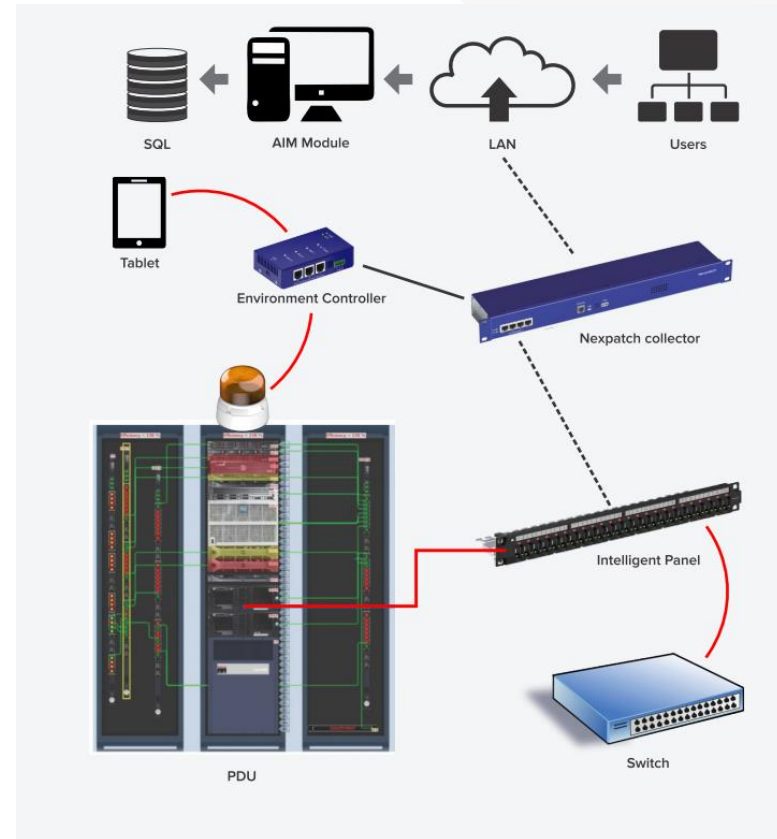
DCIM Software

- User-friendly GUI provides custom graphical views of switch connectivity, power, and other components, including GIS data with Google Maps or other mapping services.
- 3D views of racks, cabinets, and floor plans, including connections between cabinets and buildings with cable run details.
- Real-time server-level data on power, thermal consumption, health, and utilization, including detailed failure analysis and out-of-band metrics (CPU, disk, memory).
- Comprehensive network provisioning considerations: space, power, weight, environmental factors, switch port availability, network services, VLANs, outlets, patching, routing, and customer policies.
- Work orders and visual patching guidance, smart rack integration, IP PDU data, monitoring sensors (temperature, humidity), and cabinet door status.



INTELLIGENT AIM SOLUTION

- Norden Intelligent Solution is the next-generation AIM (Automated Infrastructure Management) solution.
- Truly supports mixed inter-connect, cross-connect, and combined topologies, as well as combined copper and fibre cabling.
- Provides a comprehensive real-time view of the network and all IT assets.
- Locates the exact location and status at the rack, cabinet, room, building, and site.
- Constantly monitors the network and alerts network problems, identifying points of failure before they cause downtime.
- Automates regular network maintenance, helping streamline work, eliminate human error, and reduce maintenance costs.



Components



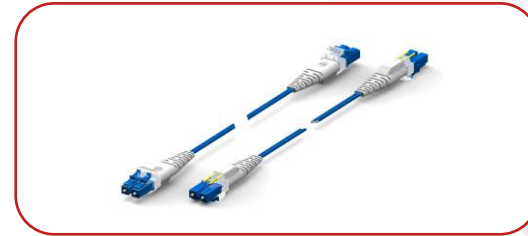
CROSS-CONNECT COPPER PATCH CORDS

Comprise of 8-wires Category6A S/FTP flexible patch cable. Terminated with two patented fully shielded RJ-45 plugs at each end with two external ID contacts



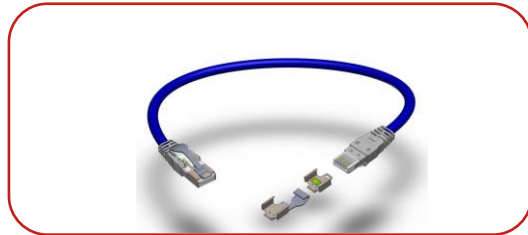
CROSS-CONNECT FIBRE PATCH CORDS

LC connector with two external spring-loaded contacts housed within a common plastic shell. ID chip at each end with the same ID number



INTERCONNECT FIBRE PATCH CORDS

LC connector with two external spring-loaded electrical copper contacts housed within a common plastic shell.



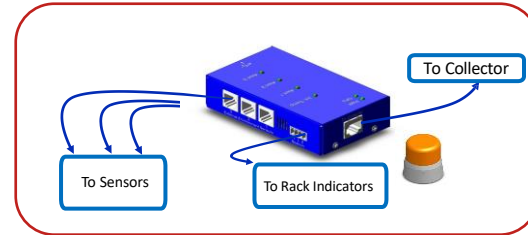
INTERCONNECT COPPER PATCH CORDS

Terminated with two fully shielded RJ-45 plugs with two external ID contacts. Fitted with a dummy latched cover that enables easy plug insertion and removal.



SCANNING CARD

Scanning Card supports physical network identification of interconnect and cross-connect topologies. It is a pluggable kind of device. Each card has a unique ID number.



ENVIRONMENT/SECURITY CONTROLLER

Manages up to two Rack Indicators without external power supply. & up to three external environment sensors.

The background of the slide is a dark blue, semi-transparent aerial view of a city with numerous skyscrapers. Overlaid on this are several white, glowing arcs that connect different points across the city, suggesting a network or communication system. The right side of the slide is partially obscured by a large, diagonal graphic element consisting of a yellow triangle on top and a red triangle on the bottom.

NORDEN PA SOLUTION FOR SAFE CITY

INTEGRATED EMERGENCY COMMUNICATION SYSTEM

OBJECTIVE

- Enhance urban safety by enabling a rapid response to emergencies.
- Issue of emergency broadcasts, notifications, and operational instructions during urgent situations via the Command Centre.
- Improvement of emergency management capabilities with Quick reporting of incidents by residents and prompt dispatch of assistance by authorities.

KEY FEATURES

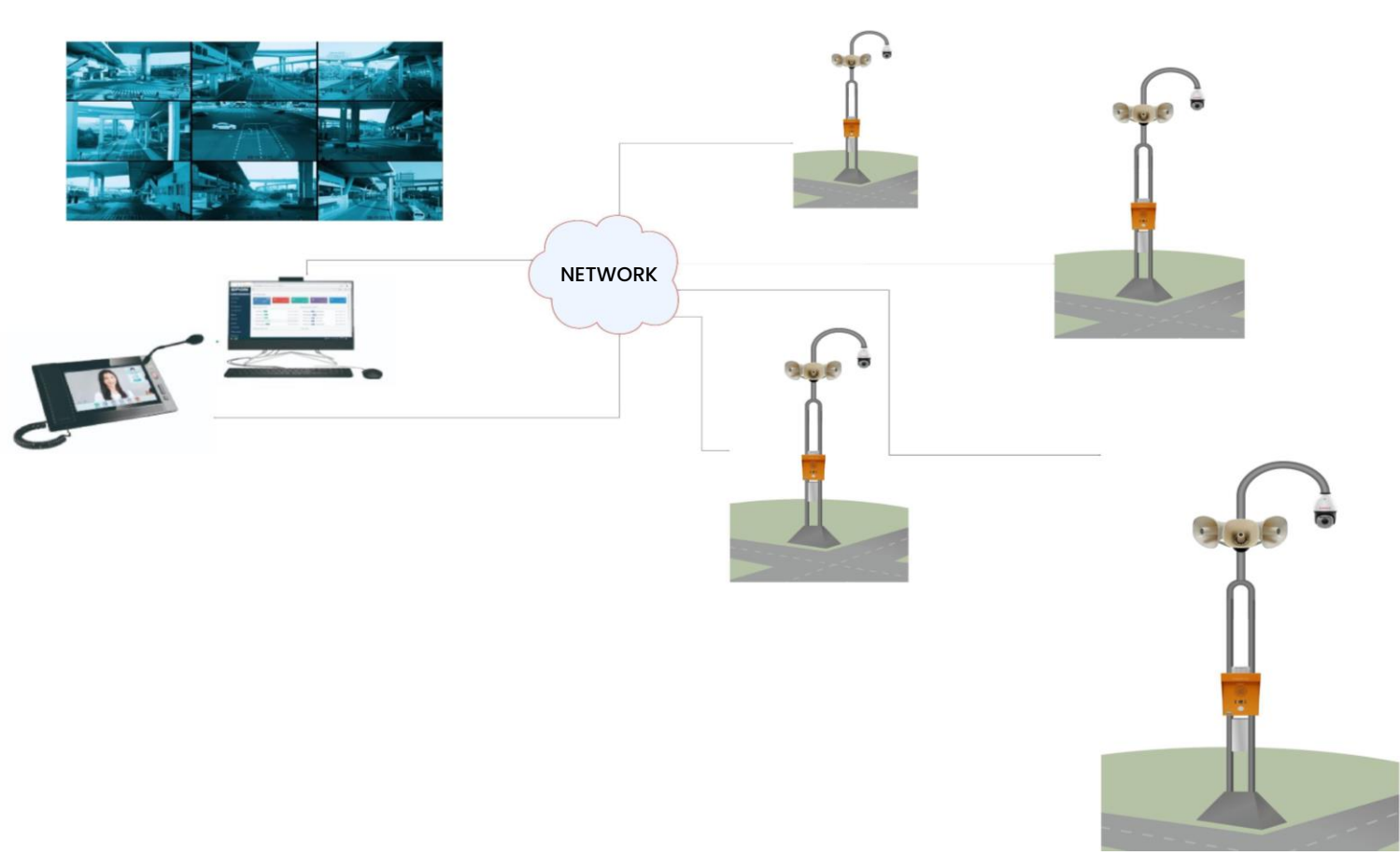
- Enhanced Safety
- Emergency Broadcasting
- One-Touch Alert
- Two-way communication (SOS)



SINGLE LINE DIAGRAM

CENTRAL CONTROL ROOM

OUTDOOR PUBLIC AREA

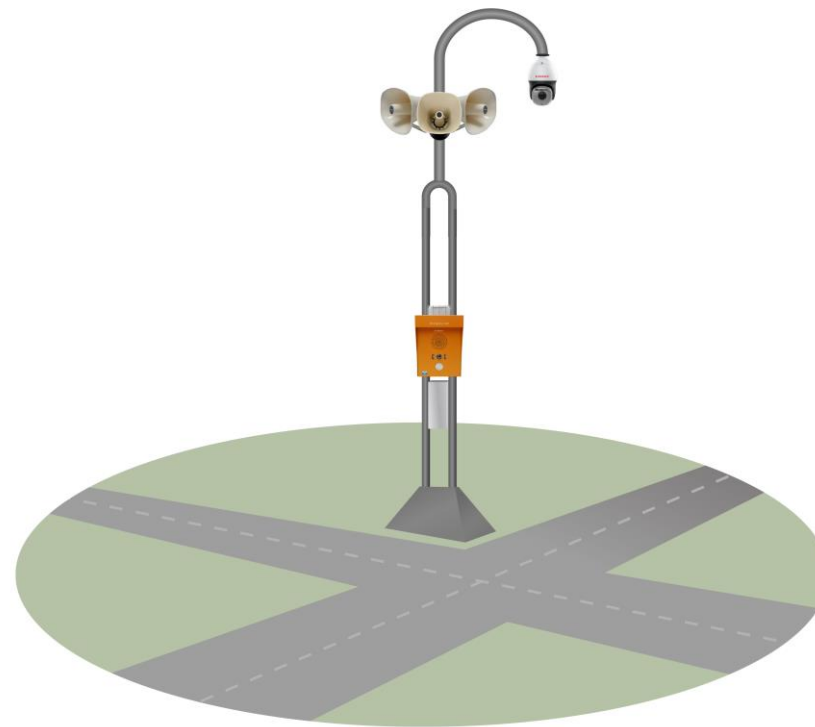


PRODUCT DETAILS

INTEGRATED SOS POLE



Ready to Install Model



Proto-Type Customized Model

NORDEN IP-BASED PA SOLUTIONS

IP PoE Horn Speaker

NVS-IP100043SP

- 10W power-rated
- Max SPL: 120dB
- Supports SIP Protocol
- Supports both PoE and PoE+
- IP66 Protection
- Waterproof microphone with dynamic volume adjustment



IP Wall Mount Video Intercom Terminal

NVS-IP100024IC

- Built-in 10W speaker and microphone
- Built-in 50W digital amplifier
- HD wide-angle camera
- Waterproof ratio of IP66
- Supports SIP and ONVIF protocols



IP-Based Remote Paging Mic with Video Intercom

NVS-IP100026PM

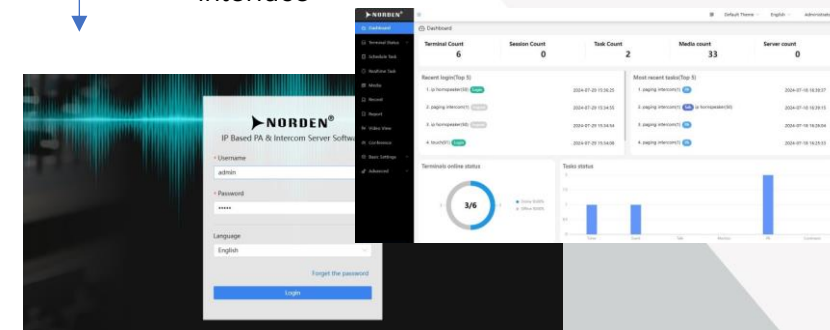
- 10.2" TFT LCD touch screen and 13MP HD camera
- Built-in 3W speaker and unidirectional condenser microphone
- Built-in intelligent face recognition chip
- Supports pre-recording and file broadcasting function
- 1 Relay input and output interface



IP-Based PA & Intercom Server Software

NVS-IP100001SW

- Map up to 1000 devices and infinity zones
- Schedule jobs like alarm, intercom, broadcast and timing program
- Unlimited zone creation and management
- Support SIP trunk integration with Asterisk, AVAYA, Cisco, 3CX etc
- Support Web GUI management interface



THANK YOU

www.nordencommunication.com