



# **MESH NETWORK SYSTEMS**

CONNECTING YOU TO A SMARTER WORLD



# COMPANY OVERVIEW

**Mesh Network Systems (MNS)** is a Saudi-based technology and engineering company specializing in IoT, automation, low-current, ICT, and security solutions. We design and deliver integrated smart systems that connect buildings, infrastructure, and industries into a single intelligent ecosystem.

**Our mission is** to empower clients with innovative, reliable, and scalable technologies that enhance efficiency, safety, and digital transformation across every sector — from smart buildings to industrial control rooms and national infrastructure.



# ABOUT US

**At Mesh Network Systems**, we bring the future of connected technologies to today's environment. We provide comprehensive IoT, Building Automation, and Low Current Solutions that transform facilities into smart, energy-efficient, and secure spaces.

Our services span system integration, control solutions, and digital monitoring — combining innovation with reliability to deliver long-term value for clients in governmental, commercial, and industrial sectors.

Through our continuous R&D and partnerships with leading global brands, we ensure every solution we deploy is intelligent, sustainable, and ready for tomorrow.



# IOT AND AUTOMATION

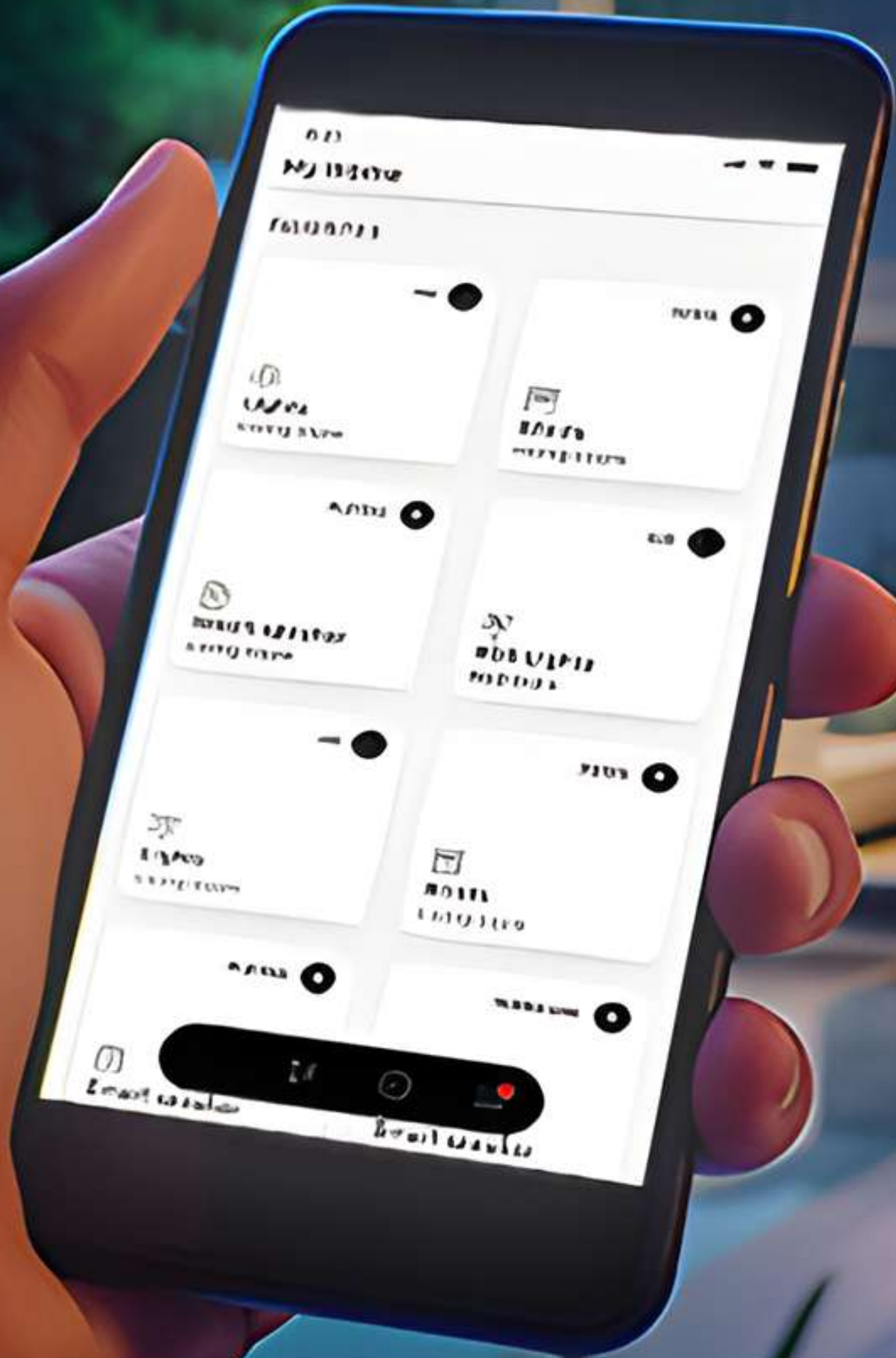
**The IoT and Automation Department** is the innovation core of Mesh Network Systems, driving the digital transformation of buildings and infrastructure through intelligent control and real-time connectivity. This department delivers end-to-end automation ecosystems that enhance comfort, energy efficiency, and operational visibility — from smart homes to industrial control systems.





# HOME AUTOMATION & LIGHTING CONTROL

Smart home solutions for lighting, HVAC, shading, and multimedia control, integrated with mobile apps, voice assistants, and IoT hubs.









# SCADA & BMS INTEGRATION

Seamless connection between field devices, sensors, and centralized monitoring systems for real-time analytics and alarms.





# INDUSTRIAL IOT SOLUTIONS

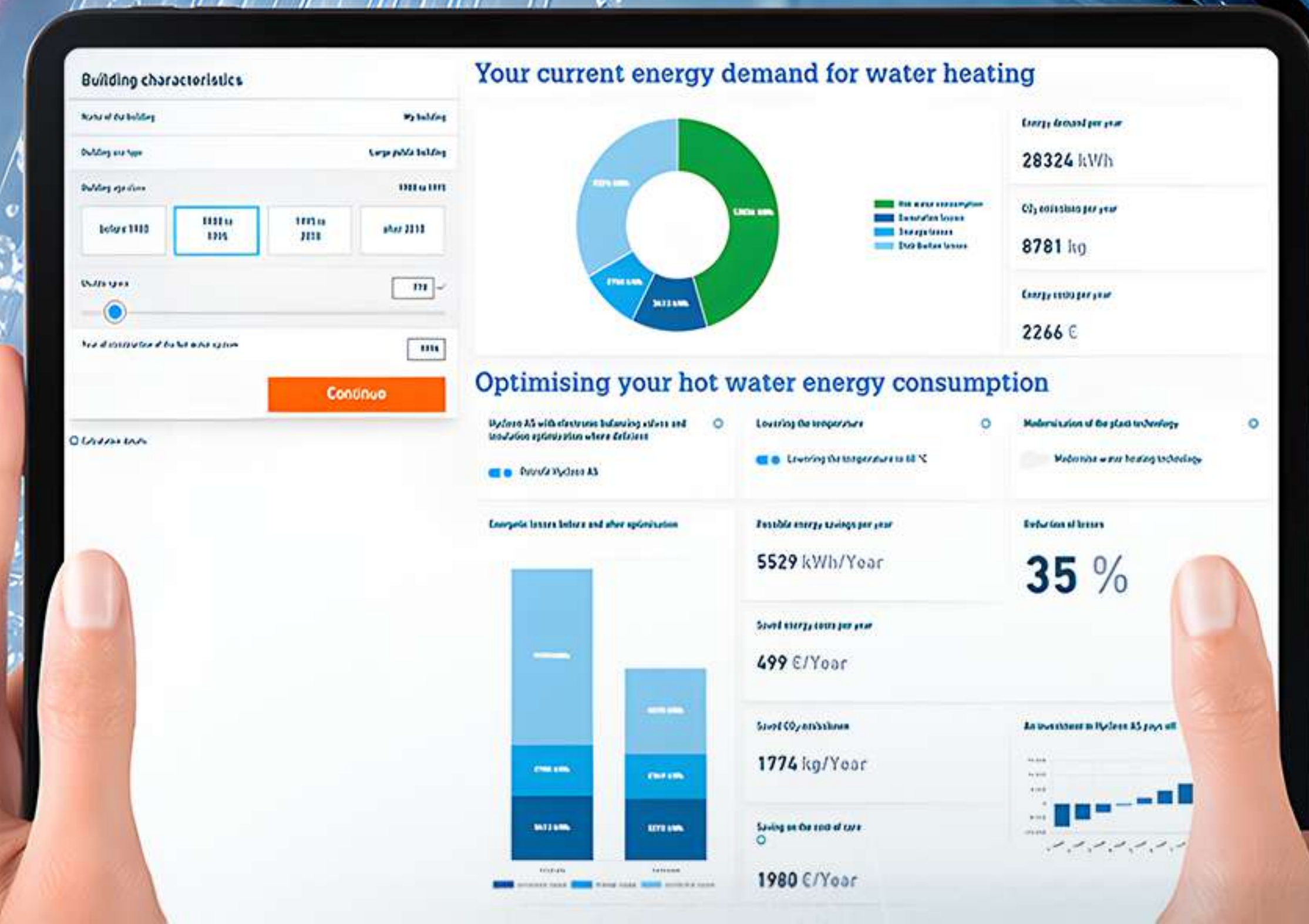
Predictive maintenance, remote asset management, and industrial process automation through sensors and edge controllers.





# SMART UTILITIES & ENERGY EFFICIENCY

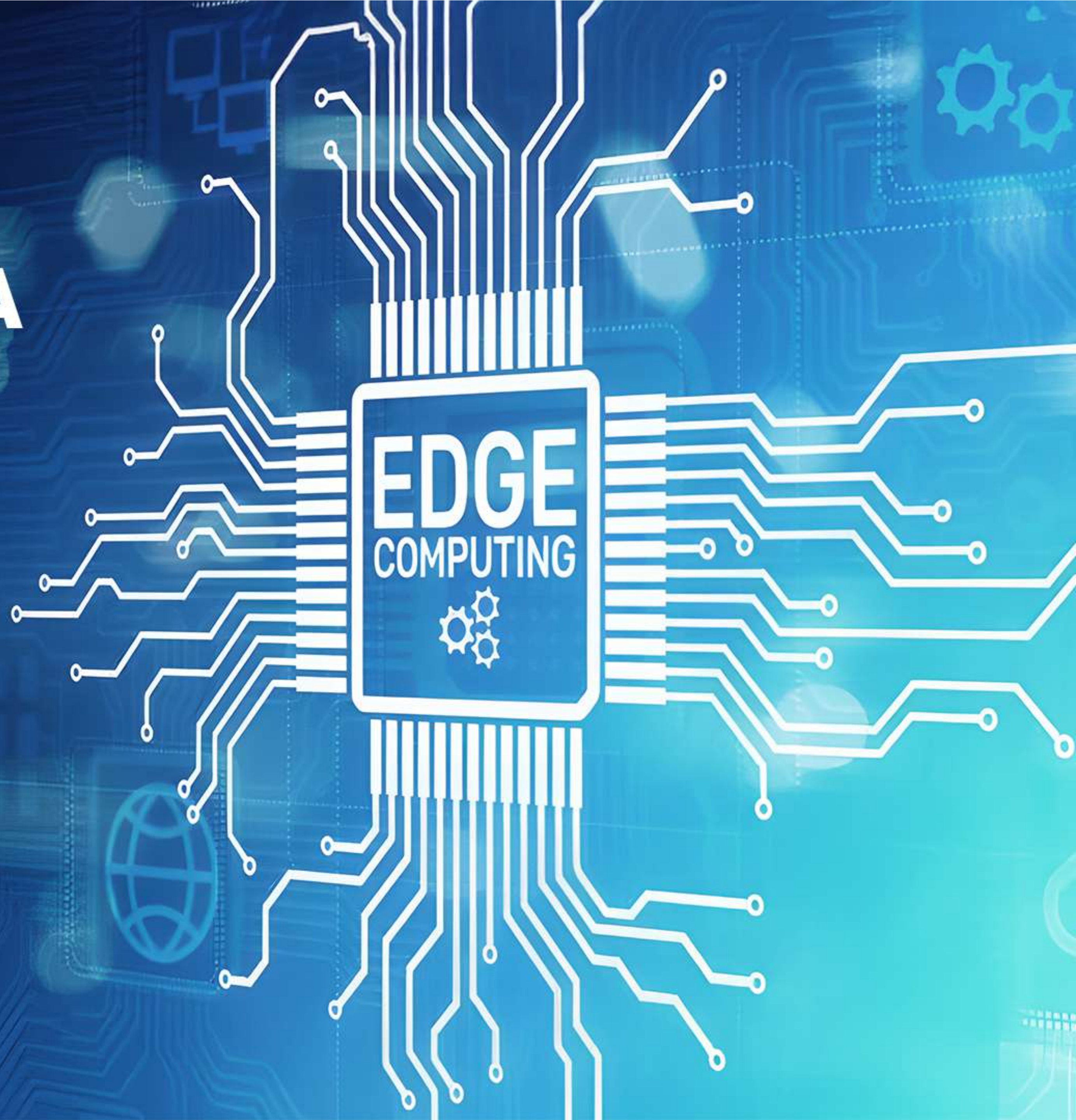
IoT-based systems for  
water and energy  
monitoring aligned with  
Saudi Vision 2030





# CLOUD & EDGE DATA MANAGEMENT

Hybrid data infrastructure  
supporting AI analytics,  
control optimization, and  
secure communication.





## CORE EXPERTISE

- IoT gateways, PLCs, and automation controllers (e.g., Siemens, Milesight, Schneider, ABB)
- Smart lighting and environmental control systems
- Voice and mobile integration (Alexa, Google Home, KNX, Modbus, BACnet)
- Real-time dashboards and energy optimization
- Cyber-secure communication and device management

## VALUE PROPOSITION

By combining IoT, automation, and intelligent lighting control, the department delivers smart, energy-efficient, and user-centric environments. From villas and offices to industrial control rooms, MNS empowers clients with systems that adapt intelligently, operate efficiently, and enhance everyday comfort and productivity.



The background of the slide is a dark blue gradient. On the left, a human hand is shown in profile, with the index finger pointing towards a central shield icon. The background is overlaid with several semi-transparent icons: a gear with a lightbulb inside (top left), a large shield with a checkmark (center), a gear with three people wearing hard hats (bottom center), and various smaller icons like a wrench, a target, and a lightbulb at the bottom. The text is in a clean, white, sans-serif font.

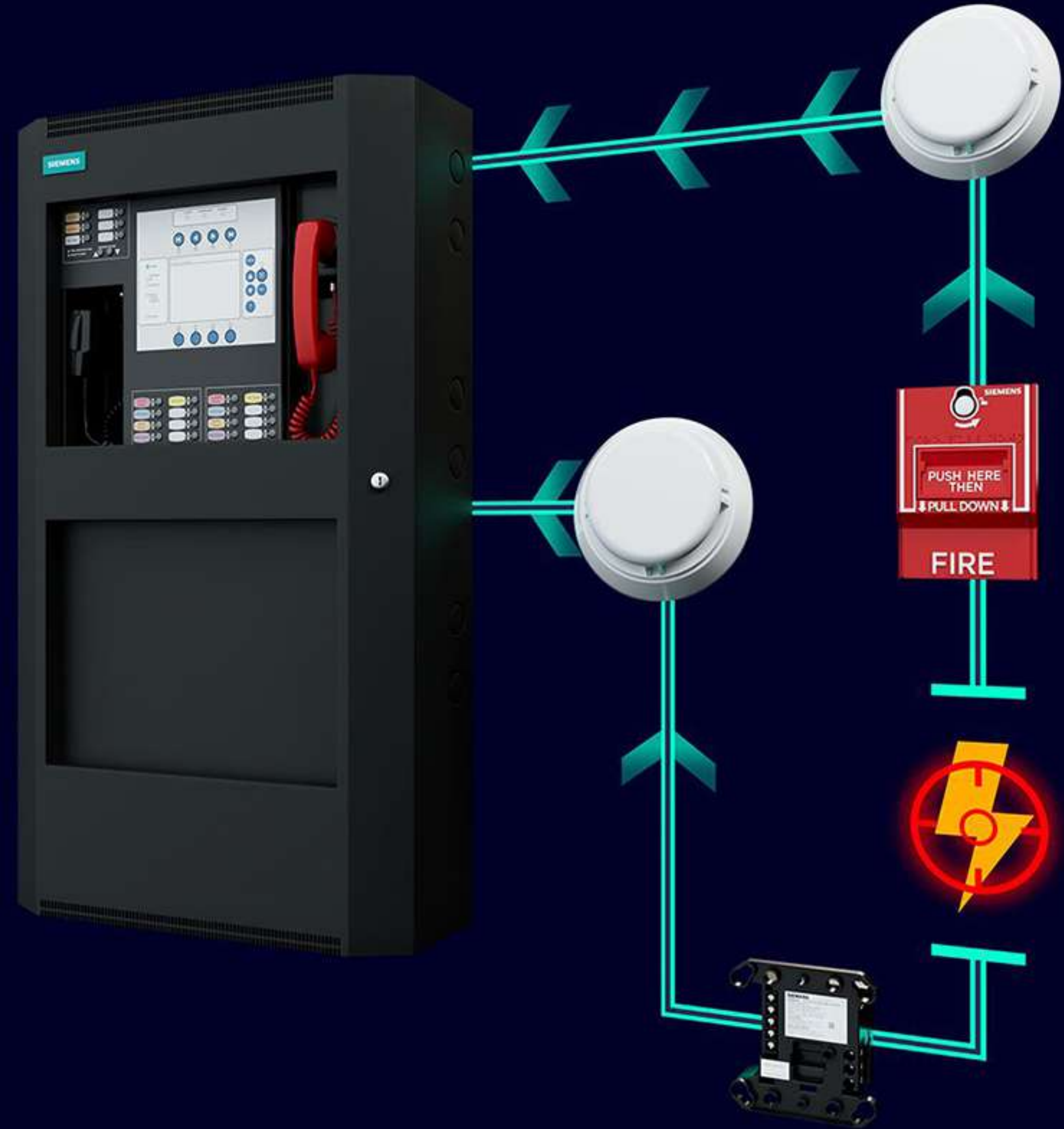
# **SAFETY AND SECURITY SOLUTIONS**

The Safety & Security Solutions Department at Mesh Network Systems is dedicated to delivering comprehensive, intelligent protection systems that safeguard people, assets, and operations. Through advanced integration and adherence to international standards, the department provides reliable, future-ready systems for buildings, industrial facilities, and control environments.

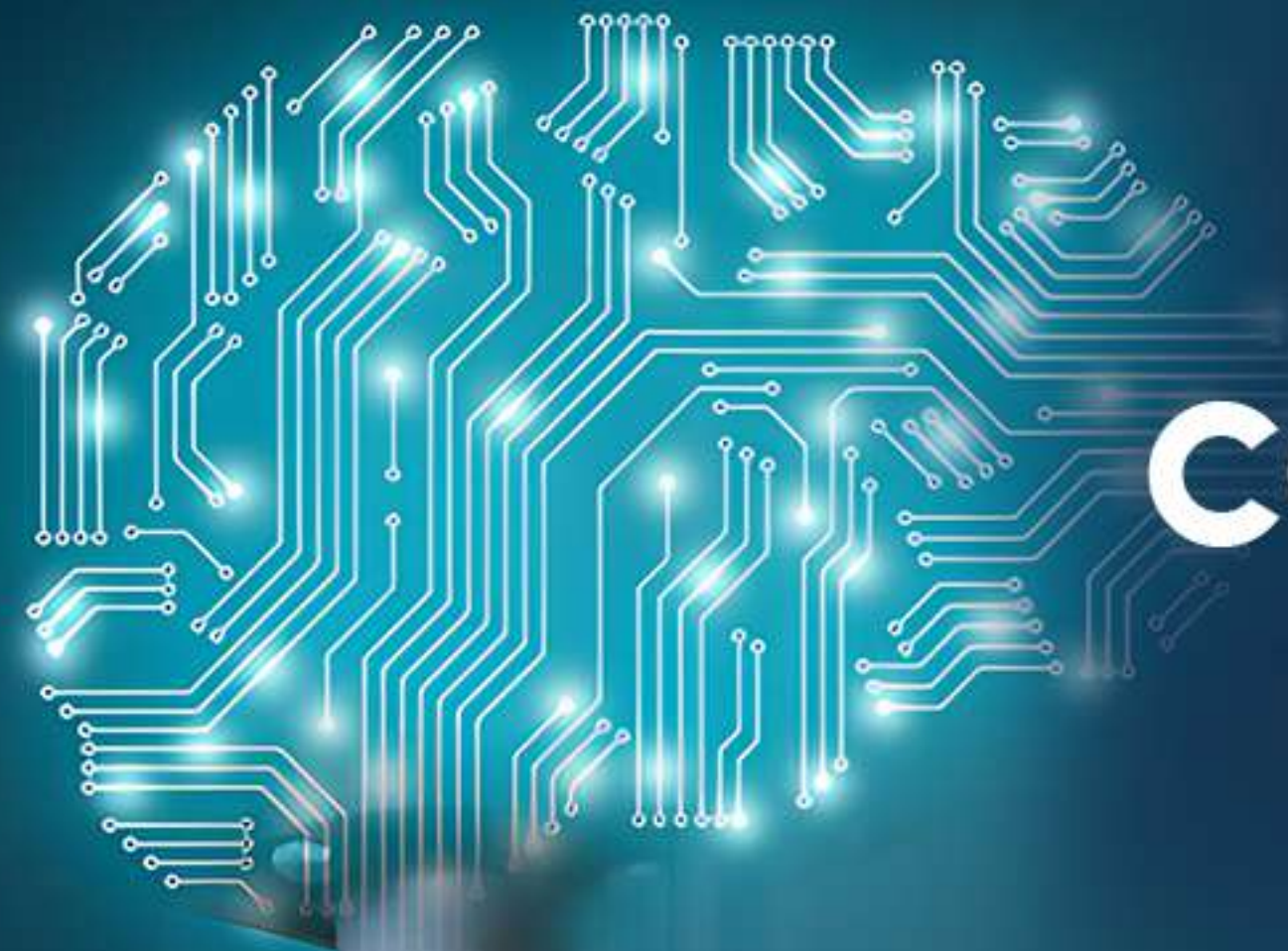


# FIRE DETECTION & ALARM SYSTEMS

Design, supply, installation, and commissioning of addressable and conventional systems compliant with NFPA and Saudi Civil Defense standards.







# CCTV & VIDEO SURVEILLANCE

Deployment of high-definition IP camera systems, video analytics, and centralized video management platforms.





# ACCESS CONTROL & SMART DOOR LOCK SYSTEMS

Integration of RFID, biometric, and IoT-based smart door locks (Dormakaba, Axis, Hikvision, etc.) to secure and monitor entry points.

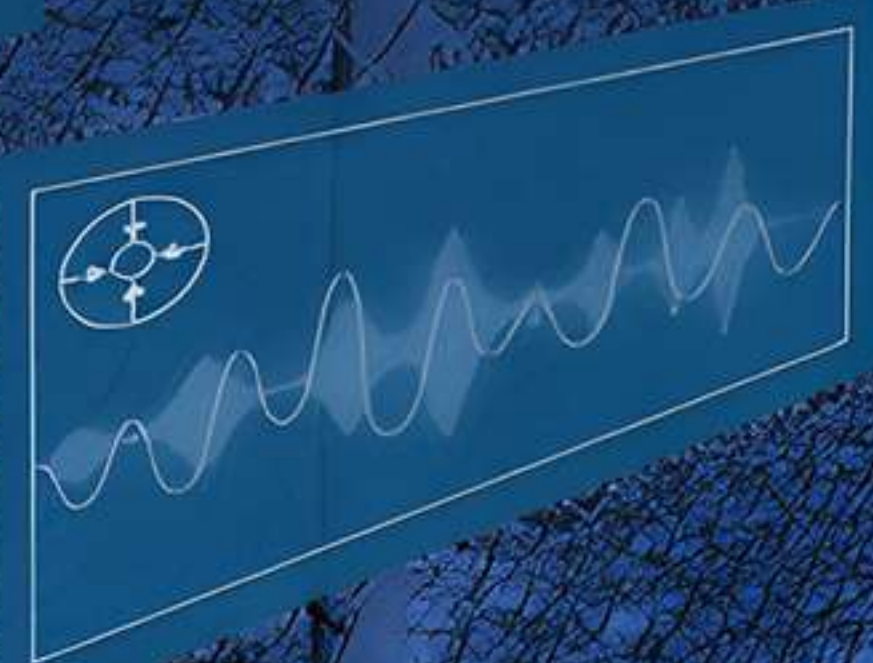
- Intrusion Detection & Perimeter Security – Intelligent sensors, motion detection, and integrated alarm management for maximum protection.





# INTRUSION DETECTION & PERIMETER SECURITY

Intelligent sensors, motion detection, and integrated alarm management for maximum protection.





# PUBLIC ADDRESS & VOICE EVACUATION

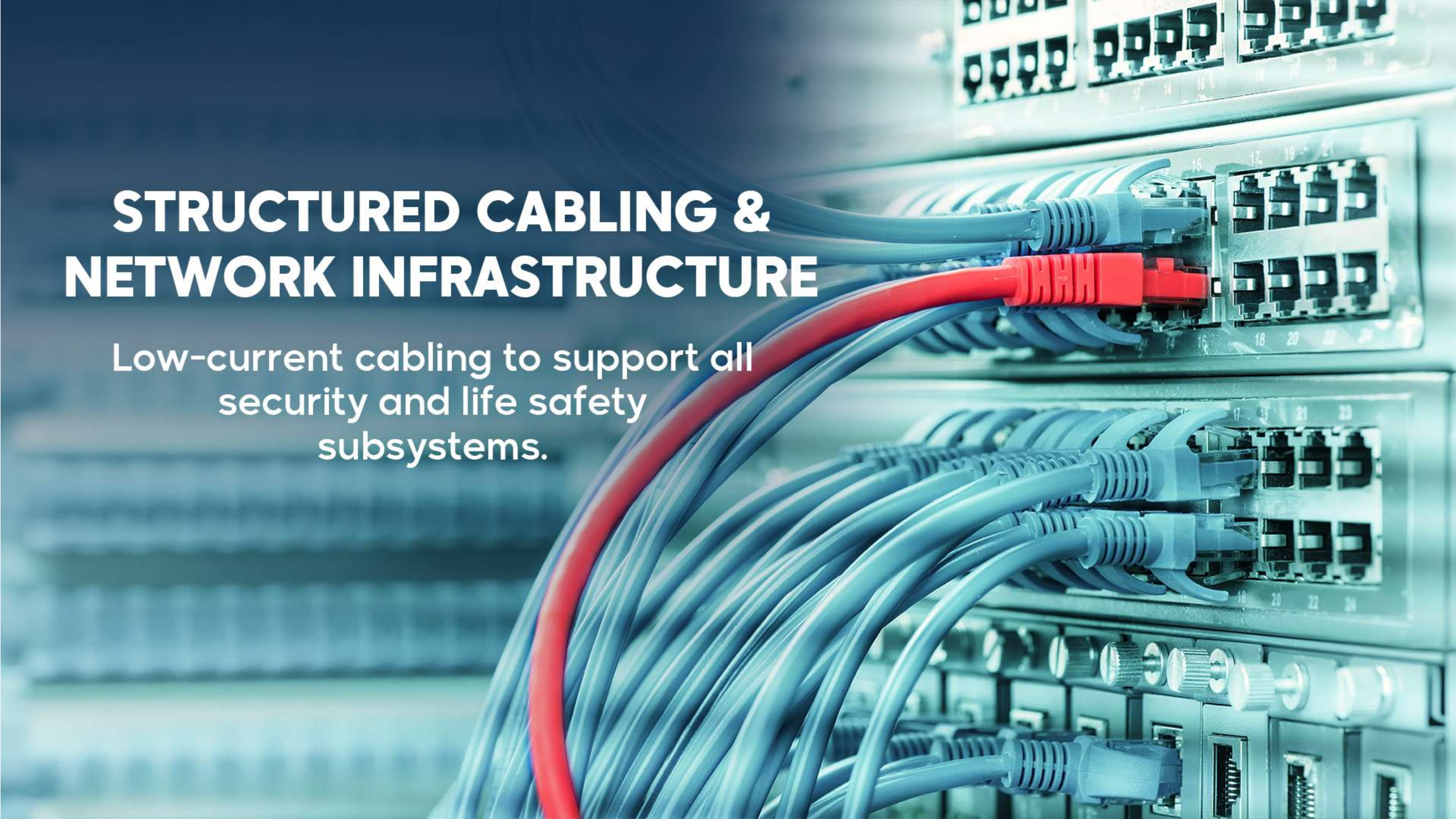
Emergency communication systems linked to fire and evacuation protocols.





# STRUCTURED CABLING & NETWORK INFRASTRUCTURE

Low-current cabling to support all  
security and life safety  
subsystems.





# EMERGENCY LIGHTING & FIRE SUPPRESSION

Integrated life safety controls for reliable  
evacuation and firefighting response.





## CORE EXPERTISE

- NFPA, SCEC, and Civil Defense compliant designs
- IP-based security architecture and cybersecurity integration
- Centralized control via SCADA and BMS platforms
  - Smart locks and access management via IoT and cloud platforms
- Preventive maintenance and life-cycle support

## VALUE PROPOSITION

By integrating smart door locks, surveillance, fire, and access control systems, Mesh Network Systems delivers a unified safety ecosystem that ensures maximum protection, operational continuity, and peace of mind. From residential compounds to mission-critical facilities, MNS provides secure, scalable, and intelligent security infrastructure tailored to client needs.



# ICT SERVICES

The ICT Services Department provides reliable, scalable, and high-performance communication infrastructure essential for modern digital environments. MNS designs and delivers complete ICT solutions covering structured cabling, active network components, and data-center systems.





# PASSIVE & ACTIVE NETWORK DESIGN (LAN, WAN, WLAN)

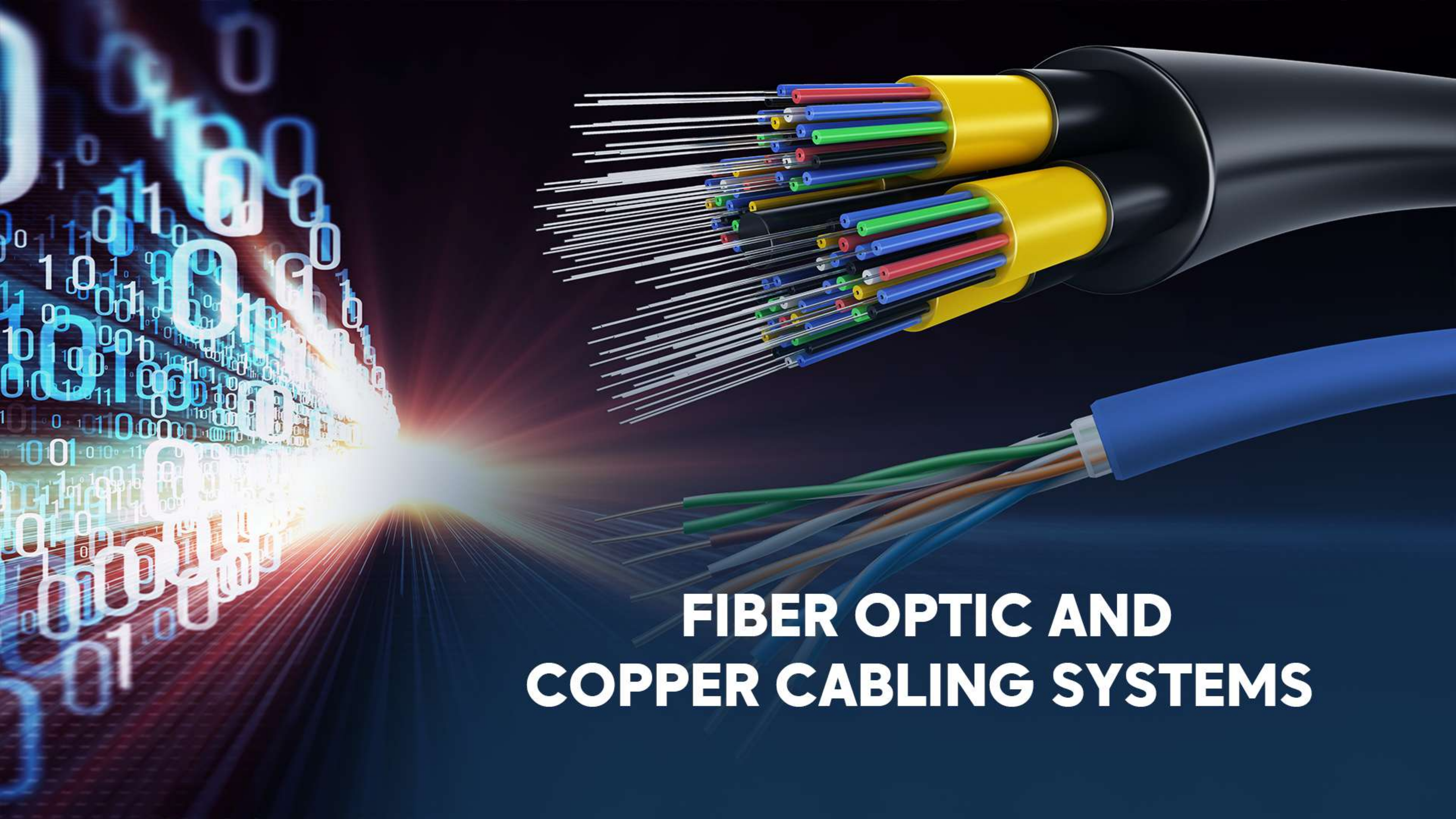




# **DATA CENTER SETUP AND SERVER INFRASTRUCTURE**







# **FIBER OPTIC AND COPPER CABLING SYSTEMS**



# IP TELEPHONY AND UNIFIED COMMUNICATION



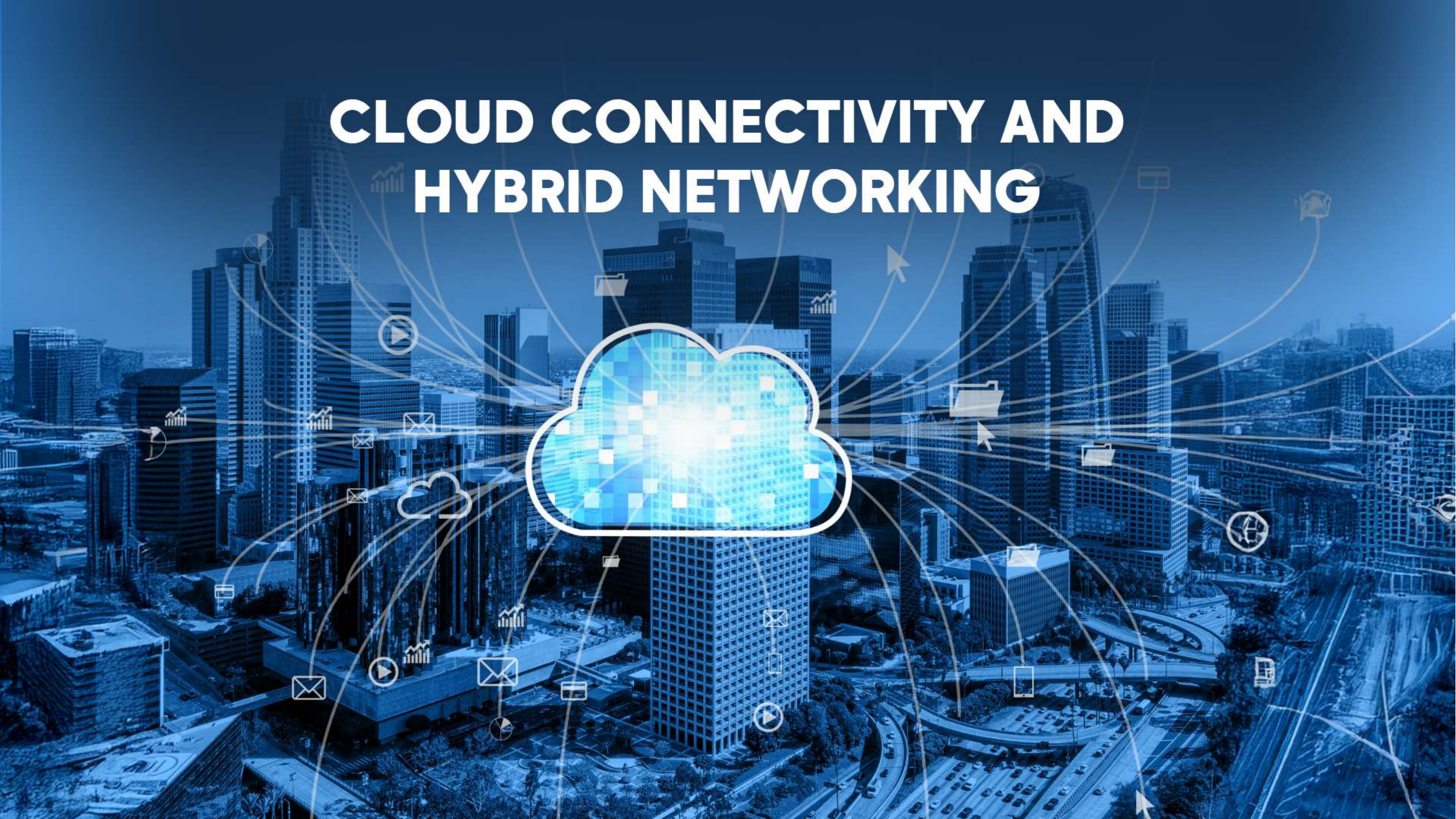


# CYBERSECURITY AND NETWORK MONITORING SOLUTIONS





# CLOUD CONNECTIVITY AND HYBRID NETWORKING





## CORE EXPERTISE

- Certified cabling and switching solutions (Commscope, Cisco, HP, Huawei)
- IT infrastructure audits and maintenance
- Redundant and secure network architecture
- Integration with IoT and BMS systems

## VALUE PROPOSITION

Building the digital backbone that connects and sustains all intelligent systems, ensuring secure communication, reliability, and business continuity.



# AUDIO-VISUAL AND RADIO-TELECOM SYSTEMS

The Audio-Visual and Radio-Telecom Department delivers immersive communication and broadcasting solutions for government, corporate, and industrial environments. From control rooms to meeting spaces, MNS designs and installs high-performance multimedia and wireless communication systems.





# PROFESSIONAL AUDIO AND VIDEO CONFERENCING SYSTEMS



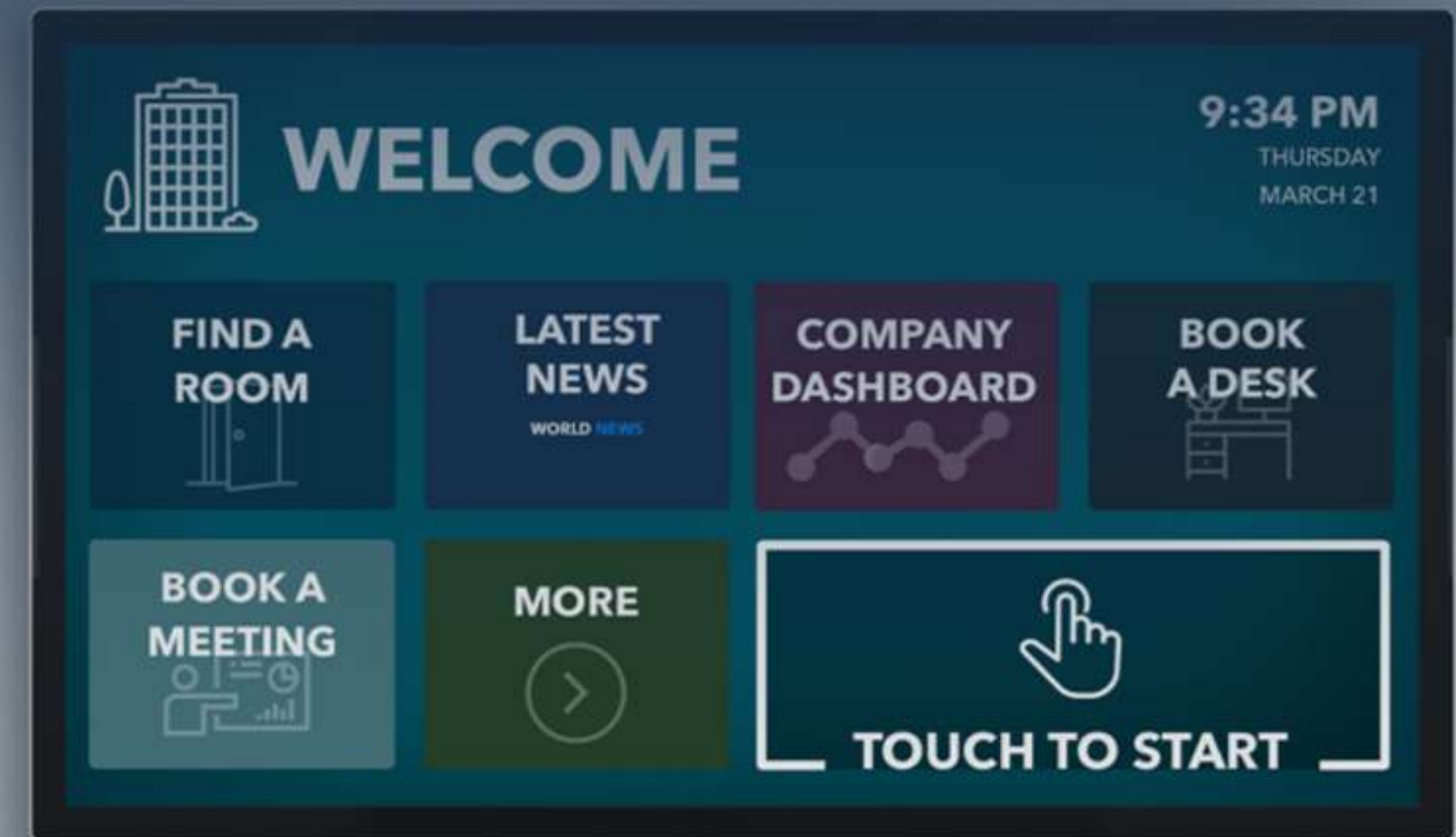


# VIDEO WALL AND COMMAND CENTER VISUALIZATION





# DIGITAL SIGNAGE AND INTERACTIVE DISPLAY SYSTEMS





# RF, VHF, AND UHF RADIO COMMUNICATION NETWORKS





# PUBLIC ADDRESS AND PAGING SYSTEMS





# IPTV AND MEDIA DISTRIBUTION NETWORKS





## CORE EXPERTISE

- Integration with control systems and unified platforms
  - Acoustic and visual design for meeting rooms and auditoriums
- Wireless coverage planning and antenna systems
- Partnerships with global brands (Bosch, Extron, Infiled, Motorola, etc.)

## VALUE PROPOSITION

Delivering seamless communication and visualization systems that enhance collaboration, situational awareness, and operational performance.



# OUR GLOBAL PARTNERS

At Mesh Network Systems, we collaborate with leading global technology manufacturers to ensure our solutions meet the highest standards of reliability, innovation, and interoperability. Our partnerships span across IoT, automation, ICT, security, and audio-visual technologies — empowering us to deliver end-to-end smart system integration for every client sector.





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