EyeOTmonitor Guide

How Smart Cities Can Manage & Monitor IoT

Advancements in technology are making cities smarter and safer, but managing all of these technologies is challenging. This guide explores how EyeOTmonitor can help.

Advancements in technology are reshaping urban environments to be more intelligent and secure, yet overseeing these complex systems poses significant challenges. This document outlines the ways in which EyeOTmonitor can aid in the management and support of Smart Cities.

Recent technical advances propelled cities into a new digital age that allows them to be smarter and safer. By utilizing different solutions, cities can deter crime, remove waste more efficiently, build stronger relationships with communities, maintain better lighting conditions at night, ensure better air quality, etc. All while reducing operating costs across the board.

But these solutions that cities deploy come with their own respective hardware, software, and management interfaces. As solutions providers add more options to the city's arsenal of technologies, managing all of these different components becomes challenging.

EyeOTmonitor enables cities to consolidate management of not only their traditional IT infrastructure but also their industry-specific solutions in a single pane of glass. City engineers and their technology providers can finally leverage a single platform to monitor, manage and visualize all networks devices and assets.

Technology is becoming the cornerstone to how cities run and is pulling them in many directions. As a result, worldwide Smart Cities spending will generate $189.5 billion in revenue in 2023, according to International Data Corp (Market Research Firm).
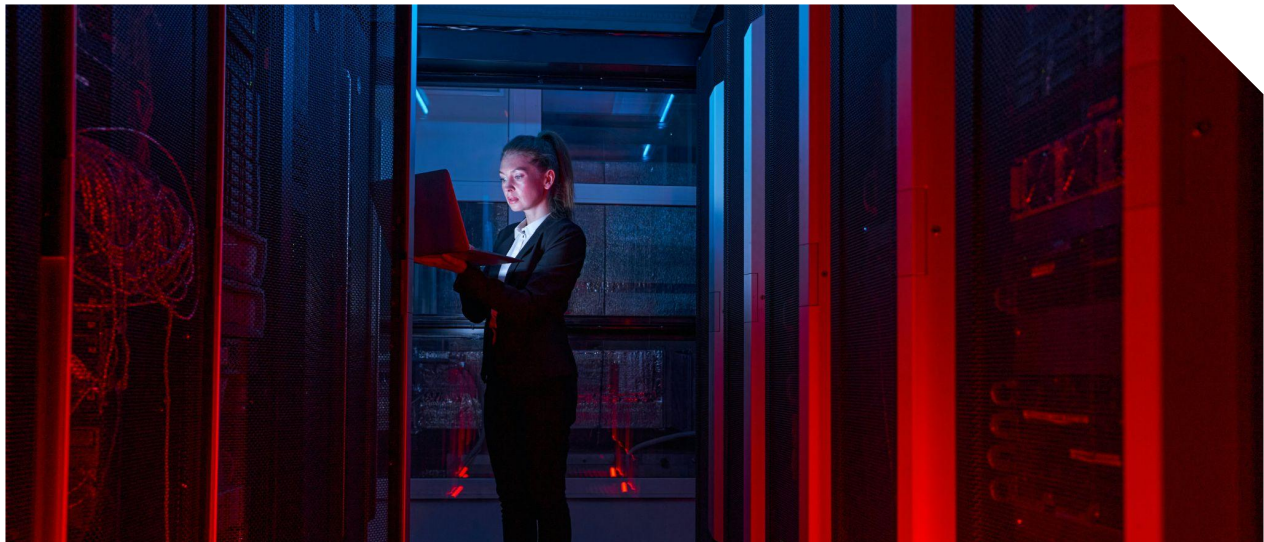
Broadening the Scope of Infrastructure Management

Amidst a landscape of rapidly evolving technology, companies such as VMware, Cisco, Dell, and EMC are supplying the necessary server and storage solutions for governments to deliver citizen services.

The shift in networking technology is moving from traditional, isolated hardware towards integrated, software-defined networks that are overseen via the cloud. Wireless technologies, previously seen as secondary to wired connections, are now being utilized for primary business applications through advanced solutions like P2P (point-to-point) 4G/5G, WPAN (Wireless Personal Area Network), LPWAN (Low-Power Wide Area Network), and WiFi, offered by providers such as Cradlepoint, Ubiquiti, and Siklu Wireless.

Cloud service giants like Amazon Web Services (AWS) and Microsoft Azure are introducing software-defined cloud infrastructures into the equation.

How EyeOTmonitor Helps

EyeOTmonitor is pioneering its ability to amalgamate various core infrastructure and IoT device vendors under a unified management platform for entire city networks. This enables Managed Service Providers (MSPs) and System Integrators (SIs) to efficiently oversee and control these networks for numerous clients without the need for extensive configurations or advanced coding skills.

Physical Security at the Core

Ensuring public safety is a fundamental responsibility of city governments, positioning them as leaders in adopting advanced surveillance and security measures. Smart cities utilize a combination of CCTV cameras, video management systems, access control mechanisms, and video analytics to mitigate crime, foster collaborations between public and private sectors, and secure critical areas and landmarks.

The complexity of these security solutions means that no single provider can meet all requirements; thus, cities and their technical partners often collaborate with a variety of solution providers and vendors to achieve their security goals. It is crucial that these systems remain operational after installation, as any failure could lead to severe consequences for both the urban environment and its inhabitants.

Cloud service giants like Amazon Web Services (AWS) and Microsoft Azure are introducing software-defined cloud infrastructures into the equation.

How EyeOTmonitor Helps

EyeOTmonitor integrates with multiple security vendors and proactively monitors them preventing any downtime.

Device Intelligence Grows with IoT

Innovations like (IoT) are bringing intelligence to a wide array of previously passive devices, such as transformers, streetlights, vehicles, and parking meters, enabling them to automate tasks that were once manual. This has led to a significant increase in IoT investment, with global spending reaching $805 billion in 2023.

The century-old US municipal energy infrastructure is in dire need of modernization. IoT technologies from firms like ABB, Honeywell, and Siemens are helping public utilities enhance grid resilience, improve energy distribution, and expand consumer energy options.

Smart water meters from companies such as Itron are revolutionizing how water levels are monitored, helping to avert issues like flooding by providing real-time data.

Smart Street Lighting systems from vendors including Telensa and GE are transforming city management by enabling remote monitoring of bulb replacements, lighting schedules, and energy savings.

These diverse solutions depend on robust network and communication infrastructure, each with its unique management interface, often leading to system management challenges for IT/Operational Technology (OT) staff, who must navigate multiple systems, leading to inefficiencies and increased operational costs.

How EyeOTmonitor Helps

EyeOTmonitor steps in to alleviate these challenges by stabilizing the foundational systems and networks used by these vendors and their smart devices. It offers a unified platform that integrates all systems, aggregates management data, and provides a consolidated view, allowing technicians to manage everything from a single interface.

With features like advanced network topologies, geospatial mapping, comprehensive dashboards, EyeOTmonitor delivers real-time insights into the entire infrastructure of a customer.

EyeOTmonitor enhances network and system performance, enabling cities to fully leverage their technological investments for better service delivery.

EyeOTmonitor: Deep Insights into your Network & Devices

A Single Pane of Glass
One dashboard that lets you maintain all of your connected security devices and cameras, along with the critical network infrastructure that they run on.

Asset Management
You can also manage your deployed assets, like updating firmware, ensuring proper protocols are being used.
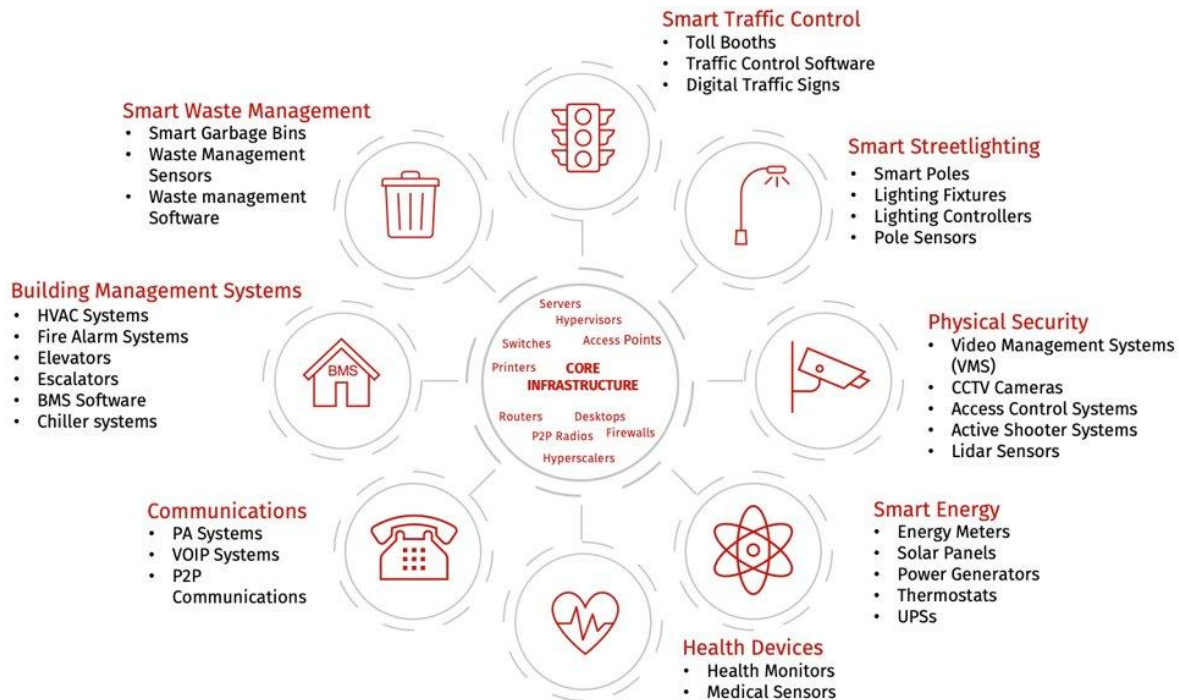
Faster Remediation
Topology or geospatial maps that allow you to determine the causality of issues and address them more swiftly.

Real-Time Monitoring
Gain instant visibility into the health, performance, and security of your Core Network and Physical Security.

Smart Traffic Control
- Toll Booths
- Traffic Control Software
- Digital Traffic Signs

Smart Waste Management
- Smart Garbage Bins
- Waste Management Sensors
- Waste management Software

Smart Streetlighting
- Smart Poles
- Lighting Fixtures
- Lighting Controllers
- Pole Sensors

Building Management Systems
- HVAC Systems
- Fire Alarm Systems
- Elevators
- Escalators
- BMS Software
- Chiller systems

Physical Security
- Video Management Systems (VMS)
- CCTV Cameras
- Access Control Systems
- Active Shooter Systems
- Lidar Sensors

Communications
- PA Systems
- VOIP Systems
- P2P Communications

Smart Energy
- Energy Meters
- Solar Panels
- Power Generators
- Thermostats
- UPSs

Health Devices
- Health Monitors
- Medical Sensors

CORE INFRASTRUCTURE: Servers, Hypervisors, Switches, Access Points, Printers, Routers, Desktops, P2P Radios, Firewalls, Hyperscalers
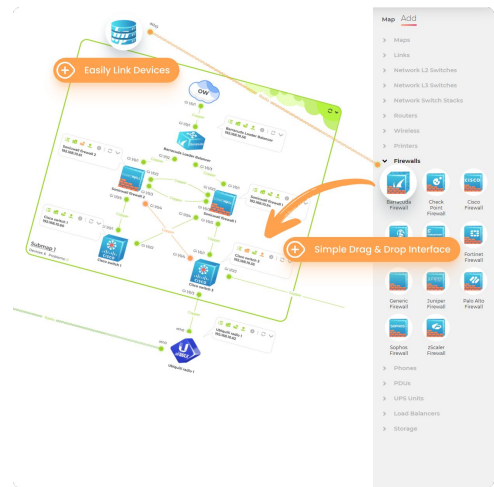
Features

Intuitive, Easy-to-Use Network Topology Maps

With our simple, easy-to-use interface, drag and drop devices right onto the map. Users can quickly identify problems with their network by glancing at the topology maps and seeing problematic devices or network segments.

[Learn More >](#)

Manage Your Assets Across Geospatial Environments

EyeOTmonitor's Geospatial Maps integrate physical geography into network and device management. This tool overlays network topology on to real-world maps, providing a spatial understanding of where devices and infrastructure are located.
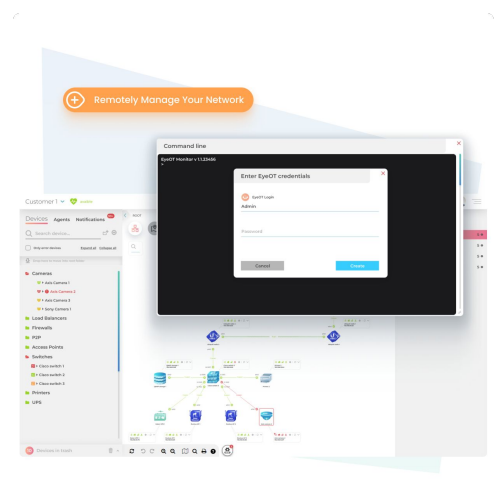
[Learn More >](#)

Remotely Manage Your Network and Devices From Anywhere

Monitor, configure, and optimize your devices directly within EyeOTmonitor. No need to create multiple VPN tunnels to customer networks. With EyeOTmonitor you can remote into your devices from anywhere in the world with a simple click.

[Learn More >](#)

Features

Track Real-Time KPIs with Dashboards

Leverage multiple network, device, and vendor specific dashboards that give deep network and device visibility including worst performing devices on the network, traffic utilization across devices, signal strength on P2P radios, etc. Users can export this data to .csv files for further analysis.

Learn More >
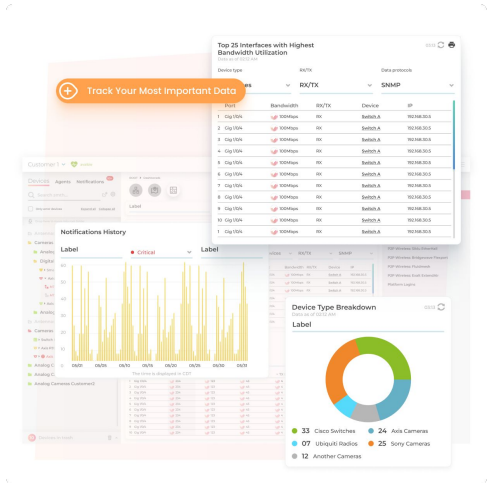
Deep Integration with Hundreds of Technology Vendors

EyeOTmonitor leverages multiple protocols including SNMP, ONVIF, APIs, etc. to pull devices from multiple vendors. Once the device is fully discovered, users will see multiple device properties including interface information, MAC address, serial number, firmware versions, etc.

Learn More >

EyeOTmonitor

www.eyeotmonitor.com