GE Healthcare

nyansa

GE HEALTHCARE ONWATCH NP

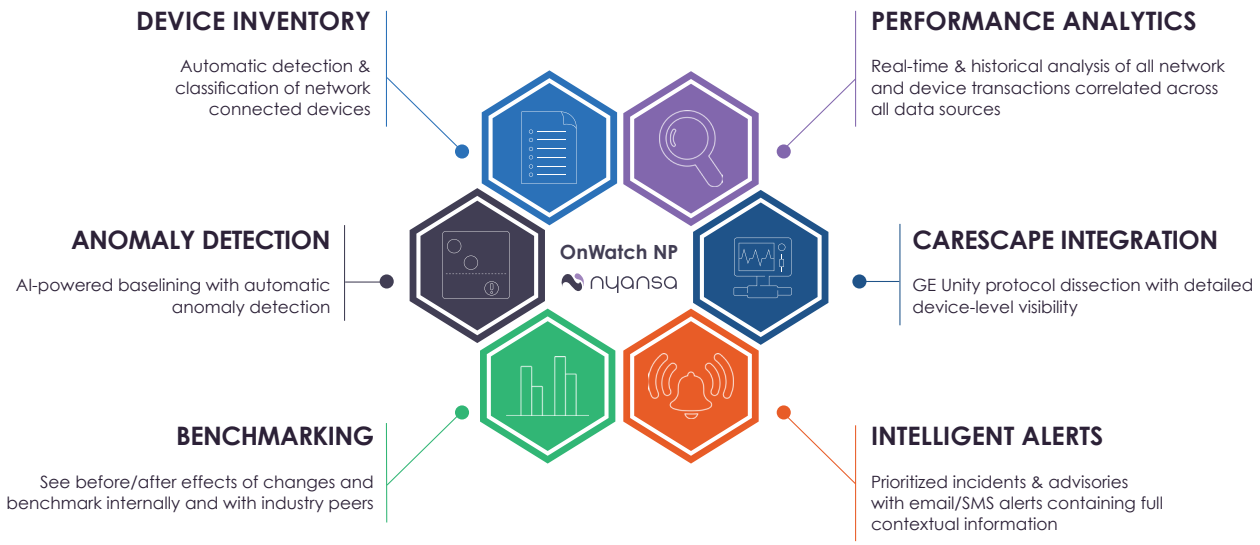
Powered by Nyansa

Performance Assurance for Healthcare Networks and Biomed Devices

SOLUTION OVERVIEW

Now you can monitor your networks and devices as closely as you are watching your patients. GE Healthcare OnWatch NP, powered by Nyansa Voyance, gives healthcare organizations unmatched visibility into the performance and operational status of clinical and enterprise networks. This insight extends to every client, biomedical device, and application – wired and wireless – connecting to the network.

As organizations deal with the accelerated adoption of biomed devices, legacy monitoring tools have not kept pace. Patient care is now directly connected to the performance and availability of the network and the devices that connect to it. OnWatch provides GE Healthcare customers with end-to-end insight into GE CARESCAPE networks and devices and also supports wired and wireless enterprise networks as well.



KEY BENEFITS

- **Biomed dashboard** – a single source of truth for IT and Biomed
- **Analytic insight** – detailed visibility into operational performance of clinical networks and GE CARESCAPE devices
- **Automatic inventory** – detection and classification of all network devices and assets
- **Performance baselining** – automatically determine 'normal' behavior for individual devices and groups
- **Anomaly detection** – AI-powered detection of outliers and deviation from normal behavior
- **Proactive notifications** – automated incident and advisories via dashboard and Email/SMS alerts
- **Role-specific workflows** – and infrastructure views for operational efficiency
- **Benchmarking** – compare infrastructure performance across internal sites and industry peers
- **GE Unity integration** – protocol dissection for detailed device attributes and proprietary metrics

As delivering superior healthcare becomes ever more dependent upon technology, methods to ensure the technology is working properly is of utmost importance. OnWatch provides a single source of truth to efficiently manage network infrastructure and align IT and biomed groups. End finger pointing between Healthcare Technology Managers (HTM) and IT staff and stop hunting around to determine the cause of network and devices problems.

OnWatch is a cloud-based, vendor agnostic, network performance analytics platform specifically tailored to healthcare networks and the wide range of connected clinical devices. Based on the Voyance AIOps platform, OnWatch combines AI and Machine Learning (ML) with advanced analytics to provide a comprehensive view of all client and device network traffic. The platform correlates data from a wide range of sources, including information only available via the GE Unity protocol, to deliver actionable insights and the visibility needed to better manage healthcare networks. Companies benefit from improved network and device uptime, faster incident resolution, and better alignment across Biomed and IT organizations.

STATUS AT-A-GLANCE

The biomed dashboard provides a high level view of the operational status of your network and critical devices, and serves as the starting point for most key workflows. Biomed and IT teams can easily identify issues that need to be addressed and can quickly assign the right technical resources.

The comprehensive view enables faster incident response and the ability to proactively address problematic issues before they become an emergency. A real-time inventory summary shows all devices connected to the network as well as recent on- or off-line status changes. More detailed information is one click away for improved remote troubleshooting.

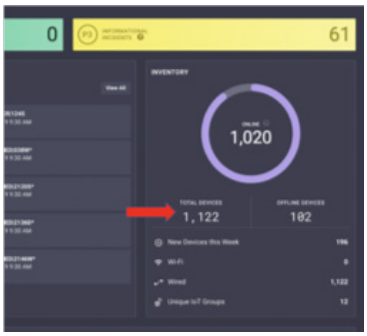
UNIQUE FEATURES

- Tailored for clinical networks and devices
- Incidents & alerts by priority and category
- Real-time device inventory summary
- Automatic data correlation and cross-stack root cause analysis
- Contextual alerts with plain language root cause and recommendations
- Advisories for proactive remediation and problematic group analytics
- See network impact of devices and applications
- High-level traffic usage

The biomed dashboard can be customized by role, with network operations and biomed engineering being the most commonly used. Custom roles for service desk and security operations are also available. OnWatch supports a wide variety of common healthcare use cases. Workflows are typically initiated from the dashboard itself or in response to email or SMS notifications. OnWatch makes it easy to answer common questions that are often difficult to resolve. **Examples of the most common use cases include:**

- Device inventory and classification
- Network segmentation analysis for devices
- Detailed visibility into the operational state of GE CARESCAPE devices
- Incident response and troubleshooting
- Proactive notification and remediation of problematic devices
- Troubleshooting waveform telemetry dropout
- Troubleshooting Time Master state and synchronization

ONWATCH USE CASE OVERVIEW



Device Inventory and Classification

OnWatch automatically inventories and classifies every wired and wireless device connected to the network, including devices recently added or disconnected. Get visibility into the number and type of every CARESCAPE client device including switches and UPS. See physical location (bed #) as well as logical. Inventory data can be exported or accessed via API for external consumption. Drill down to the individual device level for extremely granular metrics, including GE Unity protocol information. Devices are automatically classified and categorized using a heuristic classification and leveraging integration with GE Unity. You might be surprised with what's connected to your clinical network – never let that happen again.

Network Segmentation Analysis

Network segmentation can be complex and frustrating without the right information. Detailed device views provide rich insight into both physical and logical device location data. The combination of a full asset inventory with detailed device statistics such as IP address, VLAN, and SSID provide both IT and Biomed teams with rich information to effectively segment the network, ensuring both performance and security.

DEVICE	IPV4 ADDRES	SSID	VLAN	WIRELESS?
GE EKG	172.27.140.37	GH-HEALTH	140	YES
GE EKG	10.21.140.15	GH-HEALTH	140	YES
GE CARESCAPE MONIT	172.30.29.93			NO
GE EKG	172.27.40.35	GH-HEALTH	340	YES
GE APEXPRO WIRELES				NO
GE EKG	10.6.45.25	GH-HEALTH	145	YES
GE EKG	172.27.141.134	GH-HEALTH	140	YES

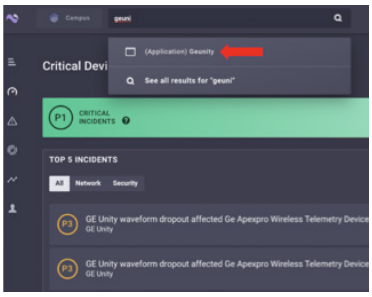
Incident Response and Troubleshooting

Issues affecting network connected devices are prominently displayed on the biomed dashboard by priority and category. Email and SMS alerts ensure information is communicated to the right people, especially highly mobile healthcare technology managers (HTM). Both the dashboard and alerts provide a plain language description of the issue and contextual information of client devices affected. Staff can quickly drill down to incident details for remote troubleshooting and diagnosis. **Examples include:**

- Switch / interface / UPS down with affected clients
- Critical device unable to connect to the network
- Waveform dropouts on monitors or telemetry devices

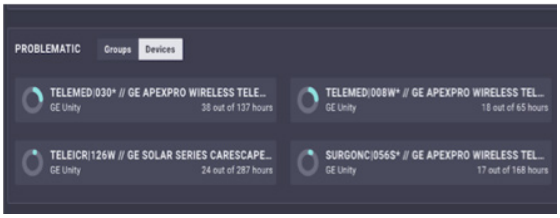
Device Operational Status

Lack of visibility into device status results in manual and inefficient management processes. Problems are only discovered when clinical or support staff report an issue, and resolution typically requires an HTM to physically go to the device for service and troubleshooting. OnWatch provides detailed visibility metrics including GE Unity protocols-specific information.



For example:

- Network traffic graphs and 'top talker' tables
- Number of active devices and admit state of each GE device
- Physical location down to room and bed number
- Is a device available for preventative maintenance?
- Current Time Master device and history
- Waveform telemetry packet transmissions and error codes

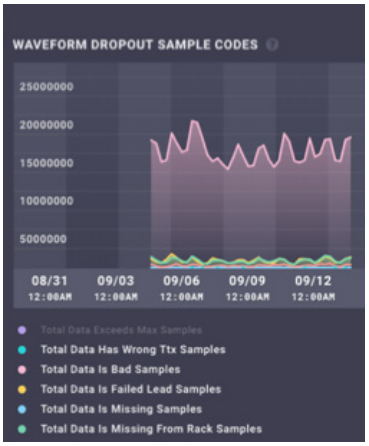


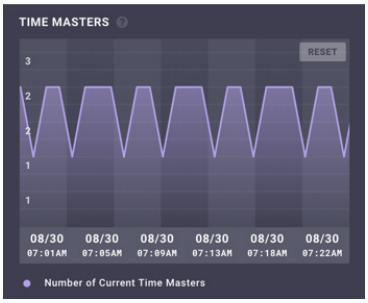
Proactively Address Problematic Devices

Biomed and IT staff now have the ability to address issues before they develop into full-scale incidents with wide reaching impact. Isolated or intermittent problems often go unresolved because staff lack access to data that leads to root cause. The dashboard displays client devices experiencing any kind of repeated network issue. Selecting a device shows the history of incidents affecting it, and further analysis shows other similar devices affected at the same time enabling faster problem isolation. OnWatch automatically surfaces the relevant issues without hunting for the cause covering everything from WiFi performance to latency.

Troubleshooting Waveform Telemetry Dropout

Waveform dropouts are notoriously difficult to troubleshoot as there is no easy way with current monitoring tools to detect analyze and remediate waveform data loss. OnWatch sends a proactive email/SMS alert when a device experiences a telemetry dropout. Critical and recent dropout incidents are surfaced on the biomed dashboard to enable proactive troubleshooting. Advanced analytics create a baseline to detect problematic devices that are experiencing recurring dropout issues. OnWatch records and analyzes error codes from GE Unity to determine root cause and provide a plain language explanation of the problem.





Troubleshooting Time Master State Issues

Using direct integration with GE Unity time master data, OnWatch automatically identifies the current time master and provides real-time and historical tracking of time master status. Finding and fixing time synchronization issues can be extremely complex and require extensive manual data correlation. Proactive notification ensures staff are alerted when this often hidden issue occurs. OnWatch provides the insight necessary to resolve common problems like a 'flip-flopping' time master or multiple devices competing to be the master.

LEARN MORE ABOUT ONWATCH NP