

# FirstWave

An abstract graphic consisting of overlapping, semi-transparent shapes in shades of red and dark red. A prominent red circle is positioned in the upper right quadrant of the graphic.

# Products & Services

**Network Management**

# About FirstWave

FirstWave, founded in 2004 in Sydney, Australia, has evolved from its roots as a cybersecurity company to become a comprehensive provider of network management, monitoring, auditing, and traffic management solutions. The company's transformation has been marked by strategic acquisitions that have significantly expanded its capabilities and market reach.

In January 2022, FirstWave made a pivotal move by acquiring Opmantek Limited, a leading provider of enterprise-grade network management, automation, and IT audit software. This acquisition brought with it a suite of powerful tools, including the Network Management Information System (NMIS) and Open-AudIT, which are now integral parts of FirstWave's offering.

Further expanding its portfolio, FirstWave acquired the assets of Saisei Networks Inc., a network automation software company, in 2023. This acquisition strengthened FirstWave's position in the network automation space and added valuable technology to its suite of solutions.

Today, FirstWave's comprehensive range of products serves over 150,000 organizations across 178 countries, including high-profile clients such as Microsoft, Telmex, John Deere, and NASA. The company's solutions now span network discovery, management, cybersecurity, and traffic management, providing end-to-end capabilities for IT operations.

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# Welcome

and thank you for your interest in FirstWave's software solutions.

Our flagship products, NMIS (Network Management Information System) and Open-AudIT, have long been at the forefront of the network management and IT discovery/audit industries. Initially distributed under an open-source license, these solutions represented a significant disruption in the market, empowering organizations of all sizes.

FirstWave has continuously evolved to meet the demands of modern IT environments. Our commitment to innovation is reflected in our ongoing product development and strategic acquisitions, ensuring we deliver cutting-edge technology to our customers. With our solutions, you can achieve comprehensive network visibility, proactive issue detection, automated asset discovery, and enhanced security, all designed to support your organization's growth.

Our executive team brings over 75 years of combined operations experience, providing the expertise necessary to guide our company and support your needs.

At FirstWave, we are dedicated to the success of our customers, partners, and staff. Our goal is to empower you to focus on your core business objectives, knowing that our software is diligently monitoring and managing your networks and infrastructure while automating key processes.

As you join the FirstWave community, you're not just adopting a software solution; you're gaining a dedicated partner in your IT operations journey. We look forward to supporting your success and helping you achieve new levels of efficiency and reliability in your network management.

Welcome aboard!

Danny Maher  
CEO and Managing Director



“ ”

After a long and in-depth search for a network monitoring solution, we found [FirstWave] the best fit for all our needs. With their excellent support, onsite training, and almost unlimited ability to be customized to fit our needs, it was no contest.

Kurtis Bredda, Director of Network Services  
**Solarus**



Trusted by  
**150,000+** organizations  
worldwide



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# Network Management Products

## Overview

FirstWave develops enterprise-class, multi-award-winning software that empowers IT teams to audit their environments, detect faults, review network performance, and predict potential failures. Our solutions, including NMIS and Open-AudIT, have transformed the network management and IT discovery/audit industries, trusted by over 150,000 organizations globally.

Since their inception in 1999 as open-source tools, these solutions have disrupted traditional practices and enabled organizations to streamline fault management and reporting processes. With advanced automation capabilities, FirstWave software enhances operational efficiency, reduces Mean Time to Resolution (MTTR), and improves overall network reliability.

By leveraging our cutting-edge technology, IT teams can confidently manage their networks, ensuring efficient operations and a secure environment tailored to their unique needs.



**NMIS**

(Network Management Information System) A complete network management system which provides fault, performance and configuration management, performance graphs and threshold alerts.

**opConfig**

An essential tool for managing network changes and compliance. Effortlessly track configurations and maintain a complete history of changes.

**Open-AuditIT**

Discover everything connected to your network with this leading discovery, inventory, and auditing application.

**opReports**

Gain valuable insights into your network's performance with opReports. Measure service levels effectively and make informed decisions that drive success across your organization.

**opFlow**

A traffic analysis tool that transforms raw IPFIX/NetFlow data into actionable insights, helping organizations understand and optimize their network performance and security.



**opEvents**

Enhance network reliability with opEvents' proactive event management. Identify network faults before they escalate, ensuring smooth operations and minimal downtime.

**opHA Message Bus**

Real-time monitoring, automated redundancy, and geographic distribution, delivering seamless communication and enhancing resilience across your IT infrastructure.

**opAddress**

Take control of your IP addresses with opAddress. Eliminate conflicts and streamline management.

**opCharts**

Visualize your network effortlessly with opCharts. Its intuitive interface provides high-level overviews while allowing quick access to detailed metrics for informed decision-making.

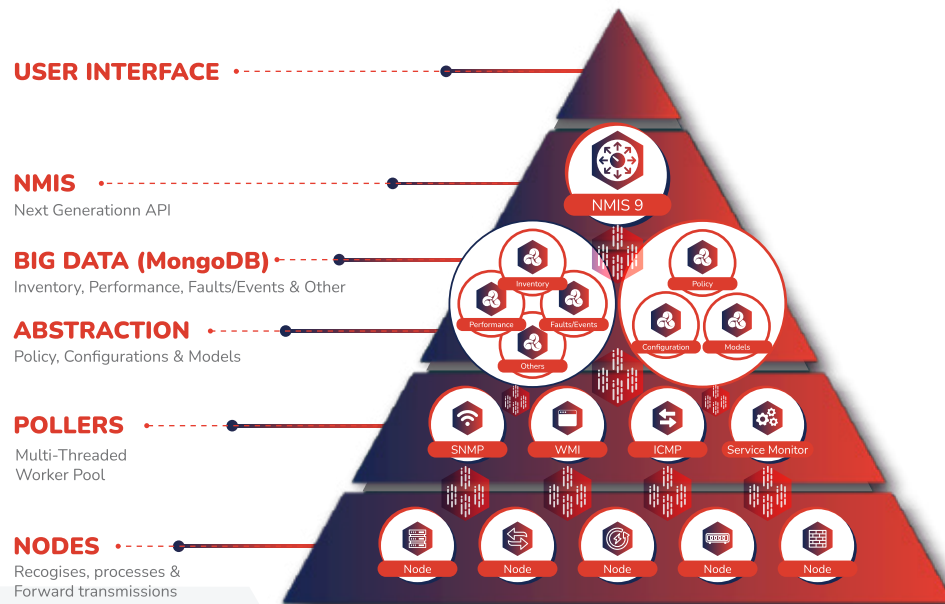
**Secure Traffic Manager**

Monitor user activity and traffic patterns to proactively manage and shape traffic flow across your network.

# NMIS 9

## Network Management Information System

# FirstWave



**NMIS (Network Management Information System)** is a comprehensive network management solution designed to assist with fault, performance, and configuration management. It offers performance graphs and threshold alerting, along with highly granular notification policies that support various notification methods. NMIS effectively monitors the status and performance of an organization's IT environment, aiding in the identification and rectification of faults while providing valuable insights for optimizing network operations.

### Sophisticated business rules engine

Configure NMIS to classify and escalate events based on their business impact, not just their technical nature.

### Pre-configured out-of-the-box solution

Start monitoring in minutes using the set-up wizard, pre-defined business rules, and extensive vendor device catalogue.

### Visible operational impact

See how device performance is impacting the health of a single device, group, or entire network.

### Automated live health baselining

NMIS maintains a live baseline of network health encompassing availability, response time, and performance, visually comparing to a previous baseline period.

### Massively scalable

From large distributed global environments down to a single office implementation, NMIS handles the data, rules, and visualization.

### Customizable alert escalation procedures

NMIS allows for customised alert escalation based on your organisational structure, operational hours, or chain of command.

# FEATURES

## BUSINESS MANAGEMENT:

### PERFORMANCE MANAGEMENT

- Integrated fault and performance management.
- Live graphs can be created quickly and easily.
- Graphing period is flexible and can have lengths up to one year.
- Graphs are interactive and you can quickly drill down for more information.
- Graphing of Interface, CPU, and Memory stats.
- Interface statistics are returned in utilization and/or bits per second.
- Health and availability metrics are generated from statistics collected.
- Threshold engine which sends alerts when thresholds are exceeded.

### REAL-TIME MONITORING

- Live baselining.
- Live performance and availability monitoring.
- Live flexible graphs.
- Live alerting and flexible notification conditions.

### CONFIGURATION MANAGEMENT

- Checks for changes to device details.
- NMIS stores contact and location information that links to the SNMP sysContact and sysLocation MIBS.
- Produces DNS and Host records from the collected IP addressing information.
- Searches interface information by node name, interface name, description, type, IP address, for matching interfaces.
- Interface information includes IP address information.
- Dynamic handling of ifIndex changes and difficult SNMP interface handling.
- List to show your inventory management including managed devices by location or type and software revisions.

### BUSINESS RULES ENGINE

- Flexible event levels can be customized based on device type, location, group or how important the device is to the business.
- Policy based actions – business actions for people to follow when a fault occurs.
- Policy based escalation, event handling and notifications.
- Planned outages – removes alerts during planned outage periods.

### FAULTS AND EVENTS

- Customizable event levels that can be implemented for different devices.
- Color coded events and statuses for fast interpretation.
- Customizable alerting system.
- Set unique event levels based on the group/location/SLA of devices.
- Events are stateful including thresholds, meaning that an event is only issued once.
- Integrated logging facility to view NMIS events and syslog messages.
- Outage time calculated for each down event.
- Planned outages aren't recorded against outage calculations and don't generate events.

### MANAGEMENT REPORTING

- Live Summary of entire managed environment into a single metric, which indicates reachability, availability, health and response time of all devices being managed.
- Reports to assist in planning and measurements against KPIs.
- Powerful out-of-the-box reporting.
- Summary pages of devices including device information, health graphs and interface

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation and maintenance of your servers.
- Support available for install and customization.
- Professional services are available for design and implementation.

### ACCESSIBILITY

- Extensive Role-Based Access control mechanisms.
- Accessible from any device.
- Single Sign On (SSO) across all our applications.

### EASY TO USE INTERFACE

- Easily modify single or groups of nodes.
- Preconfigured charts will show you data with the click of a button.
- Accessible from any common browser.

## INTELLIGENT NETWORK MANAGEMENT INFORMATION SYSTEM:

### NMIS'S MOST POWERFUL ENGINE

- MongoDB powers the database, allowing for more data to be saved and for you to get it quicker.
- NMIS has a multi-threaded approach; each action is added to a worker pool and no job is queued twice.
- NMIS has an improved I/O and scheduling, and can handle a larger node count while displayed on a more responsive interface.

### NOTIFICATION MANAGEMENT

- Powerful, out-of-the-box reporting that can be sent through email.
- Reports for utilization, outages and many more.
- Snapshot and dynamic reporting for metrics on all devices and groups of devices.

### SCALABILITY

- Performance and fault data collected in a single poll.
- NMIS is an extremely efficient monitoring platform.
- Interface designed to provide specialized views to quickly identify problems in large environments.
- Summary information of your entire network.

### EXTENSIVE SUPPORTED DEVICES

- If it has an IP address, NMIS can manage it and it will leverage the key IP of NMIS.
- If it doesn't have an IP address NMIS can probably manage it too!
- Support of SNMP v1, v2, v3 and SNMP traps.

### ESCALATION MANAGEMENT

- Create escalation policies based on device groups for high granularity.
- Notification engine can handle any "command line" notification method including email, paging, signs, or speakers.
- Integrated event manager allows a list of active events with an escalation level.
- Business hours and the contact system ensures the right people are contacted in the right way.

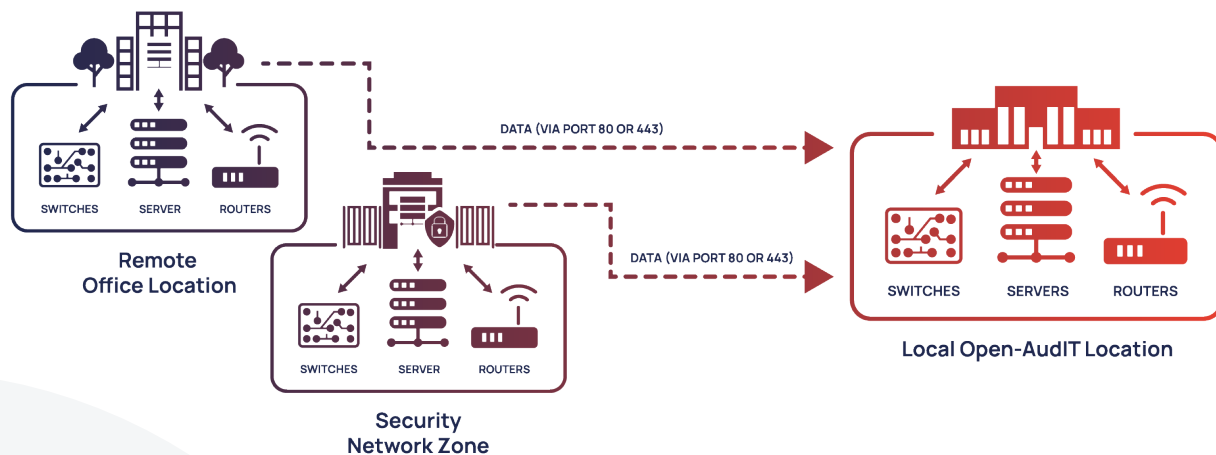
### DISTRIBUTED MONITORING

- Manage an unlimited number of nodes.
- High level of redundancy.
- Single configuration for the system.
- Access all of your information from one place.

# Open-Audit 6

## AI-Powered IT Asset Discovery, Compliance & Vulnerability Management

# FirstWave



Discover everything on your network with **Open-Audit 6**, a powerful tool designed to enhance compliance, visibility, and security. AI-driven vulnerability detection and real-time compliance insights are built on an agentless framework and scalable architecture, helping teams secure, audit, and govern their infrastructure with confidence.

### Discovery & Visibility

Automatically discovers devices across Windows, Linux, macOS, cloud environments, virtual machines, and network infrastructure — without agents. Every discovery captures detailed hardware, software, and configuration data.

### AI-Powered Security & Compliance

Identifies vulnerabilities mapped to CVEs with AI-powered risk scoring and device-level insights. Monitors compliance posture against Essential 8, NIST, CIS, and ISO 27001 frameworks with automated dashboards and alerting.

### Operations & Asset Management

Single source of truth for hardware, software, cloud, and network assets across your organisation. Automate scheduled reports in JSON, CSV, XML, or HTML and receive instant insights on configuration changes, new installs, and missing devices.

### Deployment & Integrations

Agentless design requires no endpoint installation. Fast setup on Linux or Windows Server. Integrates seamlessly with NMIS, opCharts, opEvents, and opConfig to operationalise asset intelligence across your entire network management stack.

# FEATURES

## DISCOVERY & VISIBILITY:

### AGENTLESS DISCOVERY

- Discovers Windows, Linux, macOS, cloud (AWS, Azure, GCP), VMs, and network devices — no endpoint agents required.

### HARDWARE & SOFTWARE INVENTORY

- CPU, memory, storage, software, open ports, and network information captured per device.

### CONFIGURATION CHANGE DETECTION

- Detects configuration drift and flags newly added, missing, or unauthorized devices automatically.

### CLOUD & VIRTUAL INFRASTRUCTURE

- Manage on-prem and cloud assets in a single unified view.

## DEPLOYMENT & INTEGRATIONS:

### AGENTLESS INSTALLATION

- No endpoint software required. Automated dependency setup included.

### CROSS-PLATFORM SUPPORT

- Fast installation on Linux or Windows Server.

### NMIS & OPMODULES INTEGRATION

- Asset intelligence operationalised through opCharts, opEvents, and opConfig.

## SECURITY & COMPLIANCE:

### AI VULNERABILITY DETECTION

- CVE-mapped vulnerability identification with AI-powered prioritised risk scoring and device-level insights.

### COMPLIANCE FRAMEWORK ALIGNMENT

- Essential 8, NIST, CIS, and ISO 27001 compliance dashboards and monitoring built-in.

### ENDPOINT SECURITY DASHBOARDS

- Antivirus and Firewall status tracking across all managed devices.

### HARDENING & PATCH TRACKING

- Track patching progress, software compliance, and security hardening over time.

### REAL-TIME RISK INSIGHTS

- Identify affected devices instantly and compare vulnerability exposure over time.

## OPERATIONS & MANAGEMENT:

### IT ASSET MANAGEMENT

- Single source of truth for hardware, software, cloud, and network assets across your organisation.

### REPORTING & AUTOMATION

- Scheduled reports in JSON, CSV, XML, or HTML. Custom notifications to teams, clients, or business units.

### ROLE-BASED ACCESS CONTROL

- Granular RBAC with LDAP/AD integration and RESTful API for custom integrations.

### MSP MULTI-TENANT MANAGEMENT

- Organisation-based separation with per-tenant dashboards for service providers.

## EASY TO USE INTERFACE:

### INTERACTIVE DASHBOARDS

- Real-time asset, compliance, and vulnerability data in configurable dashboards.

### AUDIT TRAILS & CHANGE HISTORY

- Full before/after comparison history across all device attributes.

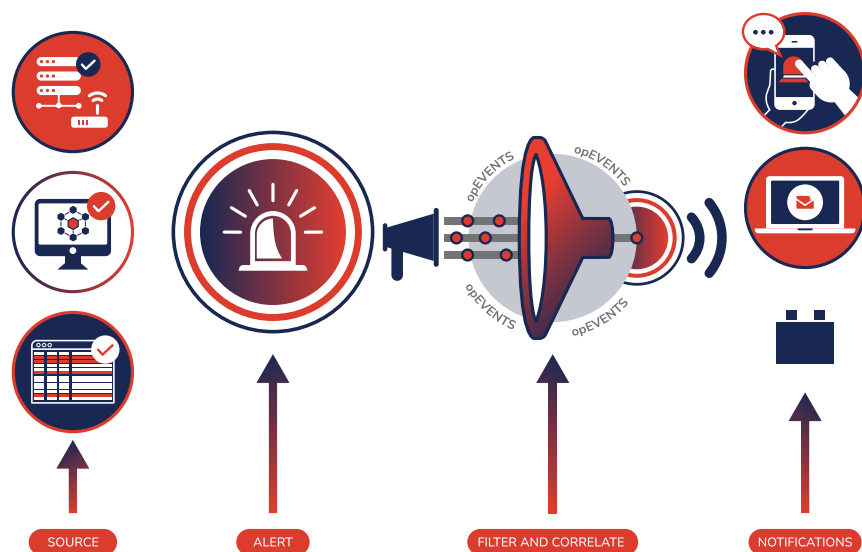
### WEB-BASED ACCESS

- Accessible from any modern browser — no desktop client required.

# opEvents

## Centralized Log and Event Management

# FirstWave



**Automate, control, lead** – opEvents is an industry-leading event management system leveraging ITILv3 best practices for service management. By centralizing event log management, it enables organizations to enhance security, streamline compliance, and maintain robust operational visibility. With intelligent automation that enriches, correlates, and organizes events, opEvents dramatically reduces mean time to resolution (MTTR) and improves network reliability. Real-time status updates through opHA Message Bus technology provide instant insights into event progression, empowering teams to proactively manage complex IT environments. The system's extendable policies automate event diagnostics and remediation, allowing technical teams to focus on strategic initiatives while maintaining a more reliable, efficient network infrastructure.

### Visibility Without Noise

Gain visibility into your network health and performance without being overwhelmed with notifications.

### Flexible Event Management

Monitor and report on events from many sources including SYSLOG, SNMP TRAP, LOG FILES and the opEvents RESTful API.

### Tailored Business Policies

Identify the event, enrich the data stream and generate detailed notifications that reflect your business environment. Use opEvents to resolve events automatically.

### Event & Log Data Consolidation

Bring all your troubleshooting and event information into one handler. Enrichment, correlation and a single pane of glass help event handling, while simultaneously lowering the amount of notifications.

### Licensed By The Node

opEvents is licensed by the number of nodes that are monitored, not the quantity of events created, meaning no surprises with billing.

### Technical Service Desk

opEvents allows you to add a status to an event while troubleshooting. All information is at your fingertips to reduce mean time to resolution.

# FEATURES

## BUSINESS MANAGEMENT:

### CUSTOM NOTIFICATIONS

- Email or SMS notifications.
- Notifications can be to one or more contacts.
- Real-time alert notifications or announcements.
- Planned outages – removing alerts during planned outage periods.
- Custom escalation policies.

### TAILORED BUSINESS POLICIES

- Detailed notifications are generated to reflect your business environment.
- Modify escalation policies to suit your organizational structure.
- Create business hours with different policies that reflect your business environment.
- Reduce event noise while prioritizing important events to your organization.

### USER MANAGEMENT

- RBAC control over devices.
- Custom business hours rules.

## PURCHASING:

### PRICING AND PURCHASING

- MSP Scale licensing available.
- Predictable license costs.
- 90-day satisfaction guarantee.
- Unlimited software use of the product
- Licensed by the node and not by the quantity of events.

### SALES AND SUPPORT

- Easy to purchase – just contact us.
- Support portal access.
- Complete documentation and support wiki.
- Pay-as-you-grow options are available.
- Free updates.

### FLEXIBLE LICENSING

- opEvents is licensed by the node count.
- There are no limits on the number of events that can be generated.
- Perpetual and Subscription licensing available.
- Infinitely scalable architecture.

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation.
- CSV import and script ready.
- Support available for install and customization.
- Automatic installation of MongoDB and agentless log collection.

### ACCESSIBILITY

- Large Community wiki.
- Accessible from any device.
- Single Sign On (SSO) across all our applications.

### EASY TO USE INTERFACE

- Quickly navigate from the event list to node details.
- Execute a user-defined script, possibly capturing the output.
- Acknowledge events from the GUI.

## EVENT MONITORING AND MANAGEMENT:

### EVENT & LOG DATA CONSOLIDATION

- Enrich events with extra information from multiple sources.
- Event correlation allows for creation of a new event, incorporating many events.
- Multiple correlations are configurable as 'clauses'.
- Event deduplication will reduce overall notification while retaining all information.
- Event storms are quietened with deduplication.
- A single pane of glass to view and clear events.
- Planned outages – removing alerts during planned outage periods

### FILTER AND NORMALIZE EVENTS

- Blacklist rules that will remove certain events.
- Whitelist rules that ensure that events are processed.
- Archive events to meet compliance standards.
- Process the events based on rules.
- opEvents relates nodes to events.
- Events can be stateful – node down, node up, etc.
- Events can be stateless – node configuration changes.

### ENRICH AND CORRELATE EVENTS

- Node details are automatically extracted from NMIS.
- opEvents utilizes additional information about nodes from NMIS to enrich the event.
- Event rules define stateful properties.
- Properties can be manually edited & updated
- Combination rules can be defined to combine events from many sources.
- Combination rules help identify patterns of behavior in your network.
- Re-occurrence rules can be defined for specific events.

### EVENT GENERATION – MULTIPLE SOURCES AUTOMATION

- Syslog Parsing.
- SNMP Traps.
- Log File processing.
- opEvents RESTful API.
- NMIS event logs.
- Custom JSON sources.
- Tivoli log file.
- Events will automatically close if a cause is resolved.

- Event Action Policy = flexible mechanism for reacting to events.
- Customization to resolve events automatically.
- Execute a user-defined script, possibly capturing the output.
- Actions can automatically change routing rules.
- Node status can be called when an event is current.
- Escalation policies will stop if issue is resolved.

### CENTRALIZED LOGGING SOLUTION

- Provide centralized logging services for the purposes of operations, compliance and audit.
- Centralized collection and archive of logs.
- Device Log Management.
- Audit and event logs.
- Active Directory Logs auditing.
- Applications Log Management.
- Cloud Infrastructure Log Monitoring.

# opCharts

## Interactive Dashboards and Charts

# FirstWave



Elevate your network visibility with **opCharts**, a powerful visualization platform that turns complex data into clear, actionable insights. Perfect for Managed Service Providers, opCharts enables the creation of custom dashboards for client reporting, offering transparent performance overviews. Utilizing user-defined metadata, opCharts combines and sorts devices into dynamic groups, providing key performance metrics at every level. Its innovative “roll-up” functionality delivers high-level abstracted views with the ability to quickly drill down into detailed metrics, ensuring fast access to critical information for those who need it most. With real-time status updates powered by opHA Message Bus technology, opCharts keeps your dashboards current, simplifying complexity and empowering strategic decision-making across your network infrastructure.

### Complete Mapping

Nested maps show the info that is relevant to you, from every device across the world down to each access point on a building’s floor, including the devices’ health metrics & events.

### Flexible Search & Display

Find any device, anywhere, quickly. Using our latest schema-driven components, the filtering and grouping of your inventory is endless across any logical or physical attributes.

### Business Service Monitoring

Highly adaptable user authorization enables organizations to create dashboards and charts for individuals and groups of users, and manage third-party vendor access more diligently.

### Easily Create Custom Dashboards

No more waiting for the network guys to build your diagrams. Simple-to-use geographic and topological mapping, custom charts, and personalized network diagrams can be effortlessly generated and added to a business dashboard in moments.

### Network Diagrams & Maps

Display your network using the latest maps. Live updates show your network health right now on a world-to-city basis. Easily set up as individual maps, or even include them in larger dashboards.

### Integrate With Everything

A RESTful API gives users the ability to extract information from any of our systems, while JSON integration allows for opCharts to display nearly anything, providing unmatched flexibility and access.

# FEATURES

## BUSINESS MANAGEMENT:

### SINGLE PANE OF GLASS

- Incorporate node data from NMIS.
- opCharts also allows multiple vendors, technologies or operating systems.
- See the current state or full history of all systems in one location.
- Flexible enough to incorporate new technologies.

### BUSINESS SERVICES

- Group all related nodes/interfaces together to have one single location to monitor services.
- opCharts uses an MSP authorization system, a user/role can be created to view particular business services.
- All nodes/interfaces added to business services will be visible to users with access to that business service.
- Monitor availability/reachability for all nodes/interfaces in a business service to ensure SLA levels.
- Real-time status available when used with opHA Message Bus.

### USER MANAGEMENT

- RBAC control over devices.
- Custom business hours rules.

## PURCHASING:

### PRICING AND PURCHASING

- MSP Scale licensing available.
- Predictable license costs.
- 90-day satisfaction guarantee.
- Unlimited software use of the product.

### SALES AND SUPPORT

- Easy to purchase – just contact us.
- Support portal access.
- Complete documentation and support wiki.
- Pay-as-you-grow options are available.

### FLEXIBLE LICENSING

- opCharts is licensed by the node count.
- There are no limits on the number of users that can be added or dashboards that can be created.
- Subscription licensing available.
- Highly scalable architecture.

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation.
- CSV import and script ready.
- Support available for install and customization.

### ACCESSIBILITY

- Extensive Role-Based Access control mechanisms.
- Accessible from any device.
- Single Sign On (SSO) across all our applications.

### EASY TO USE INTERFACE

- Out-of-the-box dashboards will show information.
- Quickly drill down on any information that is displayed.
- Accessible from any common browser.

## INTERACTIVE DASHBOARDS AND CHARTS:

### CUSTOM GROUPING

- Use grouped nodes/interfaces to create dashboards that only show relevant information.
- Group your nodes by customers to display nodes/interfaces that only apply to that customer.
- opCharts can build dashboards based on location groups to monitor a location's status.
- Use groupings to split your network into roles and group all your access nodes, distribution nodes, and core nodes.
- Create dashboards that only display nodes that are currently down or degraded.
- Group your nodes/interfaces by customer, group, location, role, status, type, vendor, or custom attributes.

### CUSTOMER PORTALS

- Self-service dashboards will reduce client interruptions while providing control and transparency.
- Use opCharts as an upsell or a service differentiator.
- Roles/User accounts can be created by clients; this can be scripted + only access provided to visible elements.
- Initial fault responses are automated.
- Custom Dashboards, Maps, Charts and Business Services are assigned to Roles.

### DYNAMIC MAPPING

- Filter your nodes/interfaces by your preferences to build geographical or network maps.
- Your filtered dashboards will populate based on the conditions you initially outlined.
- Dynamic maps can generate a geographical or topological map based on your filters.
- Use dynamic mapping to ensure the accuracy of your nodes/interfaces relating to a customer/group.
- When a map is redrawn, it will use the information that is accurate at that time.

### NETWORK & TOPOLOGICAL MAPS

- All elements can be interacted with based on their individual settings.
- Click through from this map to a single node or a group's health metrics.
- Use topological maps to quickly build out your network topology, adding subnets with one click.
- Use network maps to overlay live information on a static background of your floor plan, building plan, or even a picture of a device.
- Add interface links to your nodes to display the inbound and outbound link speeds.

### GEOGRAPHICAL MAPPING

- Live geographical maps based on the Google Maps API.
- Using the location table for a node will allow for maps to accurately represent the locations of your nodes.
- Add interface links to your nodes to display the inbound and outbound link speeds.
- Save your zoom parameters to ensure the maps are the same each time.
- Maps will cluster nodes in a similar location on the map; this can be expanded with one click.
- Node groups can be added and will show an average health metric of all nodes in the group.

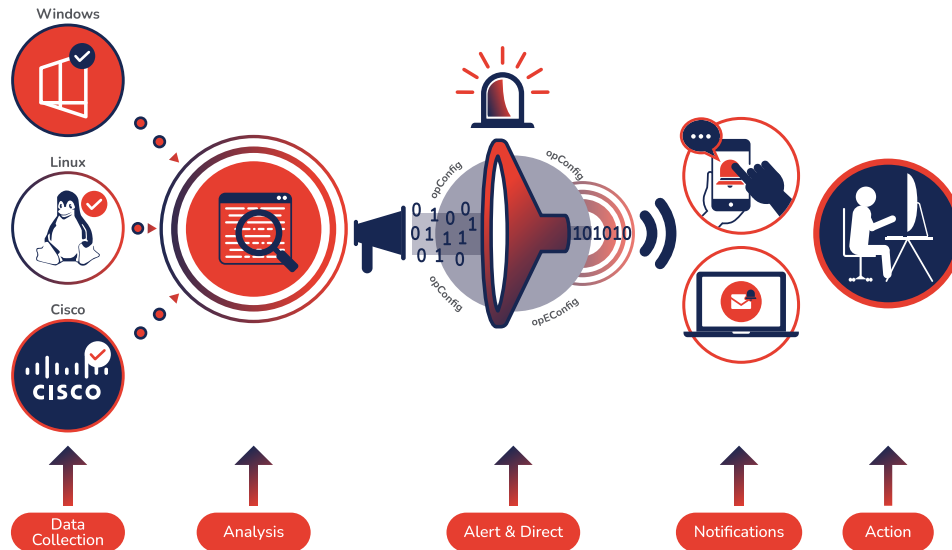
### PRE-CONFIGURED DASHBOARDS

- The nodes view will display all the nodes that are currently monitored; filter this list further to get the information you need.
- The interfaces view provides an easy-to-search list of all interfaces in your environment.
- The monitored services view lists show the status of all your monitored services.
- The Top N View shows you critical information regarding devices that have high utilization, memory, CPU load, and discard or error rates.
- Any chart that is available natively in NMIS is available in opCharts.

# opConfig

## Automated Configuration & Compliance Management

# FirstWave



Simplify configuration and compliance management with **opConfig**, the tool that makes it easier than ever to maintain control over your network. By continuously monitoring device configurations discovered by Open-Audit Enterprise or managed by NMIS, opConfig tracks changes and maintains a complete history of configuration information. This assists with risk management and regulatory compliance, including APRA, PCI-DSS, and SOX standards for device configurations, software versions, and hardware. Incorporating a virtual operator feature, opConfig empowers users to perform basic network tasks at the touch of a button, streamlining operations and enhancing efficiency. This capability supports disaster recovery, troubleshooting, and change management across multi-vendor environments. With opConfig, organizations can efficiently manage the backup and comparison of configuration data, ensuring quick problem resolution and adherence to compliance standards.

### Multi-Vendor Capability

Collect and back up configuration data from any vendor's hardware or software in any environment.

### Automate Compliance & Change Management

opConfig can automate everything from config push to alerting on changes and enforcing compliance.

### Collect, Compare & Comply

opConfig maintains a full history of configuration changes and audit results, allowing you to easily compare changes and ensure compliance.

### Compliance Policy Engine

Implement your compliance policy with PCI-DSS, HIPPA, COBIT, and more using pre-built industry standard rule sets (e.g. Cisco-NSA) or customize your own.

### Virtual Operator

Introduce operational delegation to your organization and allow troubleshooting of network devices without giving root access.

### Expandable Command Sets

opConfig gives you the ability to create robust command sets that can aid in root cause analysis of faults.

# FEATURES

## BUSINESS MANAGEMENT:

### OPERATIONAL DELEGATION

- Easy to set up operational control delegation.
- Create commands/command sets for service desk staff to perform troubleshooting activities.
- Raise alerts in opEvents for engineers to further investigate.
- Ensure consistent problem diagnosis.
- Limit access to dangerous commands on devices.

### COMPLIANCE POLICY ENGINE

- Configuration Parsers pull compliance-relevant information from devices.
- opConfig comes with preconfigured parsers for major vendors such as Cisco.
- Easily create custom parsers for certain brands/devices to react to custom sequences.
- Parse software information for devices from Open-Audit Enterprise.

### USER MANAGEMENT

- Role Based Access Control (RBAC) over devices.
- Generate troubleshooting information through the GUI without need for SSH/Telnet.
- Remotely view, track, and compare device configurations without logging in to the device.

## PURCHASING:

### PRICING AND PURCHASING

- MSP Scale licensing available.
- Predictable license costs.
- 90-day satisfaction guarantee.
- Unlimited software use of the product.
- Licensed by the node and not by the quantity of events.

### SALES AND SUPPORT

- Easy to purchase – just contact us.
- Support portal access.
- Complete documentation and support wiki.
- Pay-as-you-grow options are available.
- Free updates.

### FLEXIBLE LICENSING

- opConfig is licensed by the node count.
- There are no limits on the number of events that can be generated.
- Perpetual and subscription licensing available.
- Infinitely scalable architecture.

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation.
- CSV import and script ready.
- Support available for install and customization.
- Automatic installation of MongoDB and agentless log collection.

### ACCESSIBILITY

- Large Community wiki.
- Accessible from any device.
- Single Sign On (SSO) across all our applications.

### EASY TO USE INTERFACE

- Quickly navigate from the event list to node details.
- Execute a user-defined script, possibly capturing the output.
- Acknowledge events from the GUI.

## CONFIGURATION AND COMPLIANCE:

### MULTI-VENDOR CAPABILITY

- opConfig comes with preconfigured parsers for major vendors such as Cisco.
- Custom phrasebooks to connect to any device are easily modified or extended.
- Flexible command sets allow for custom action sequencing for any device.
- Brand or device profiles available on import.
- opConfig operates in a hybrid environment, it doesn't matter if your device is on premises or in the cloud.

### FIRSTWAVE VIRTUAL OPERATOR

- Operators are able to gain detailed information from devices without 'root' privileges.
- Better use data and link your data to information and knowledge.
- Technical leaders capture knowledge with tools that can be executed by anyone.
- Ensure consistent problem diagnosis and resolution; all staff remediate identically.
- Automate the troubleshooting of known problems.
- Easily incorporate node history when troubleshooting an event.

### COMPLIANCE CHECKLIST ABILITY

- Use configuration status documents to ensure your environment is compliant.
- Schedule checks on your environment and build new status documents to ensure compliance over time.
- Quickly assess areas that are no longer compliant.
- Run historical compliance checks on your environment based on updated policies.
- Raise alerts to NMIS/opEvents if devices are no longer compliant.

### DISASTER AND RECOVERY READY

- Maintain configuration information for every device on your network.
- Push configuration changes/updates from the GUI.
- Configuration information is stored for quick rollback if required.
- Access to the devices are controlled through RBAC.
- Create a rollback command set that will quickly rollback configuration to a gold standard.
- Protected revisions are always kept.

### AUTOMATE COMPLIANCE MANAGEMENT

- Store historical configuration data from devices to ensure compliance standards are met.
- Run historical compliance checks against all configuration data.
- Automatically detect change of configuration data and report on the change.
- Store data on a hard disk, in a database, or in both.
- Automatically import and maintain audit information from Open-Audit Enterprise.
- Use Open-Audit's device information to monitor end-of-support devices.

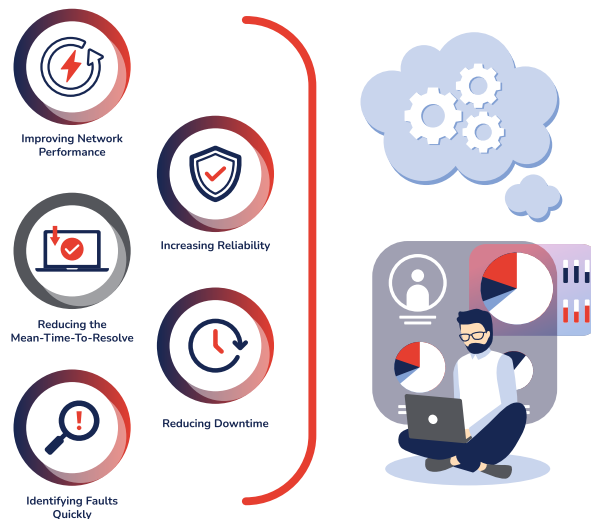
### AUTOMATE CONFIG MANAGEMENT

- Generate configuration pushes to devices from a single source of truth.
- Built-in error detection protects against failed configuration pushes.
- 'Organize multiple commands into a command set and run on demand/on a schedule.
- Use tags to easily schedule compliance tasks.
- Automatically import and maintain audit information from Open-Audit Enterprise.
- Maintain a full configuration change history.

# opReports

## Advanced Analysis and Reporting

# FirstWave



Unlock advanced analysis and reporting with **opReports**, the tool that automates the creation and distribution of detailed operational and executive-level reports. Enhance NMIS's built-in reporting capabilities with both real-time and historical insights into node-level performance, Quality of Service (QoS), WAN, response time, and interface utilization. opReports offers reporting flexibility through an intuitive interface, eliminating the need for SQL expertise or complex report generation systems. Quickly build custom reports by node, group, or time frame, and choose your preferred output format. Automate report generation to receive results directly in the GUI or via email in formats like CSV, Excel XLSX, and HTML. With opReports, you can streamline decision-making and ensure your team has access to critical performance data whenever needed.

### Actionable Insights

Reports clearly identify conditions which will require action, along with details required by engineers for further investigation.

### Expert Analysis

Expert analysis of key infrastructure health metrics including router, switch, server, virtual machine, and CPU.

### Custom Rules

Identify conditions and potential business impact, create easy to interpret "traffic lights" for IT managers and administrators.

### Deep Insights Into NMIS Data

The advanced reporting is designed to delve into the data that NMIS collects about your network. The reports deliver insights into service levels and measures the trends and performance of your environment.

### Archiving Ability

Historical comparison is available for all reports that have been generated. View trends easily on all recorded metrics.

### QoS Reporting

Industry-leading Class-Based Quality of Service (CBQoS) reporting includes detailed analysis of each interface, policy, and class where Cisco CBQoS is running, as well as full support of Cisco Hierarchical Quality of Service.

# FEATURES

## BUSINESS MANAGEMENT:

### PERFORMANCE MANAGEMENT

- Incorporate node data from NMIS.
- Measure the performance of your entire environment.
- CISCO and Juniper Quality/Class of service reporting.
- Flexible enough to incorporate new technologies

### BUSINESS SERVICES

- Group related interfaces/nodes together to have a single report to monitor services.
- opReports uses an MSP authorization system; a user/role can be created to view particular business services.
- All interfaces/nodes added to a business service will be visible to users with access to that business service.
- Monitor availability/reachability for all nodes/interfaces in a business service to ensure SLA levels.

### USER MANAGEMENT

- RBAC control over devices.
- Custom business hours rules.

## PURCHASING:

### PRICING AND LICENSING

- MSP Scale licensing available.
- Predictable license costs.
- 90-day satisfaction guarantee.
- Unlimited software use of the product.

### SALES AND SUPPORT

- Easy to purchase – just contact us.
- Support portal access.
- Complete documentation and support wiki.
- Pay-as-you-grow options are available.

### FLEXIBLE LICENSING

- opReports is licensed by the node count.
- There are no limits on the number of users that are added or dashboards that can be created.
- Subscription licensing available.
- Highly scalable architecture.

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation.
- CSV import and script ready.
- Support available for install and customization.

### ACCESSIBILITY

- Easy installation.
- CSV import and script ready.
- Support available for install and customization.

### EASY TO USE INTERFACE

- Out-of-the-box reports will show information.
- Quickly drill down on any information that is displayed.
- Accessible from any common browser.

## ADVANCED ANALYSIS AND REPORTING:

### ADVANCED REPORTING ENGINE

- Custom archiving of reports; you nominate where they are stored and for how long.
- Compare between time periods easily across any saved reports.
- Automatically identify conditions that require action as well as the necessary engineering steps for remediation.
- Identify and organize reactive and proactive priorities, including capacity planning.
- Report on any nodes, groups, or locations you wish, or even filter by regular expression.
- Users can only see the elements you give them access to.

### EXPERT RULES

- Applied to identify conditions and potential business impacts.
- Traffic light formatting that allows IT managers and administrators to quickly identify problem areas.
- Customer modification is available to reflect your operational conditions.
- Any number of repeated or one-off reports can be specified, each with their own parameters and options.

### CISCO CBQOS READY

- Detailed analysis of each interface, policy, and class where Cisco CBQoS is running.
- Identification of QoS classes which are over- or under-utilized and dropping traffic.
- Including hierarchical QoS.
- Juniper's Class of Service also available out of the box.

### PRE-CONFIGURED REPORTS

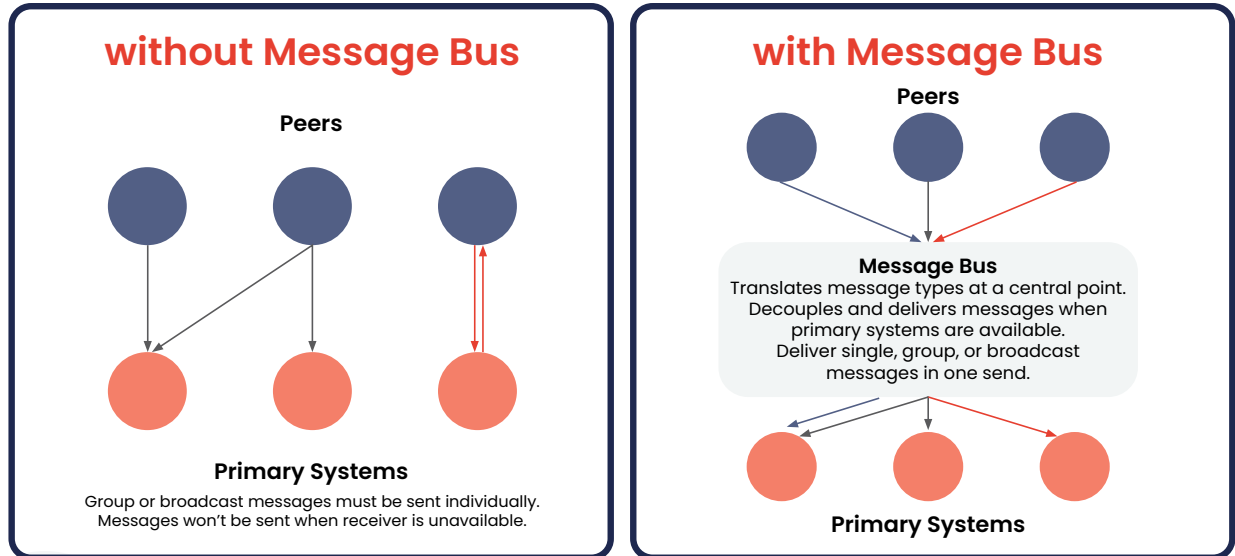
- Node Report.
- Node Health Report.
- Configuration Summary Report.
- WAN Report.
- WAN Utilisation Distribution Report.
- WAN Utilisation Distribution Summary Report.

- QoS and CoS Reports.
- Grouped Availability Report.
- Grouped Interface Capacity Report.
- Node Availability Report.
- Uptime and Response Time Report.
- Interface Utilization and Capacity Reports.
- Interface Unicast Packets Report.

- Traffic Snapshot Report.
- CPU Report.
- Free Memory Report.
- Memory Pool Report.
- Monitored Service Report.
- Traffic Usage and Summary Report.
- UPS Configured Models Report.

# opHA Message Bus

# FirstWave



FirstWave's **opHA Message Bus (opHA-MB)** is a cutting-edge solution for distributed network management, designed to provide real-time synchronization, high availability, and scalability for critical network environments. Ideal for telcos, ISPs, MSPs, banks, and other enterprises, opHA-MB ensures seamless communication across multiple pollers, offering a single consolidated view of your network infrastructure. Whether you're managing a multi-tenant environment or scaling operations globally, opHA-MB delivers the reliability and efficiency needed to keep your business running smoothly. With real-time updates and integration with tools like NMIS, opCharts, and opEvents, opHA-MB empowers teams to monitor and manage their networks with unparalleled precision.

## Real-time synchronization

Achieve instant updates across your distributed network with real-time data synchronization between pollers, ensuring you always have the most current information.

## Multi-server architecture

Utilize single or multi-master capabilities that allow pollers to report to one or many masters, supporting multi-data center deployments.

## Geographical distribution

Deploy pollers locally or at remote locations without additional costs per poller, allowing you to design your management solution to match your network's geographical needs.

## Provisioning management

Simplify platform provisioning with the ability to push changes and build new pollers at the click of a button, managing your entire monitoring fleet through a single interface.

## Multi-tenancy

Set up a low-maintenance multi-tenant solution that is configurable from a single screen, eliminating issues with overlapping IP addresses.

## Built-in flexibility

Customize opHA to match your network requirements and manage your infrastructure easily with an open-source core extended through plug-in modules.

# FEATURES

## BUSINESS MANAGEMENT:

### PERFORMANCE MANAGEMENT

- Integrate all node data from NMIS across your network for comprehensive performance insights.
- Monitor over 10,000 vendors out of the box, with flexibility to incorporate new technologies.
- Measure and optimize the performance of your entire environment with real-time updates powered by opHA Message Bus technology.

### SCALABLE SOLUTIONS

- Manage all pollers from a single screen, streamlining operations across distributed networks.
- Easily segment pollers by business importance, customer SLAs, or geographical regions.
- Push and pull data or configurations seamlessly to match operational demands and ensure consistency.

### USER MANAGEMENT

- Implement RBAC (Role-Based Access Control) for secure device management.
- Customize business hours rules to align with operational requirements.
- Ensure secure access for teams while maintaining control over sensitive data.

## PURCHASING:

### PRICING AND PURCHASING

- Benefit from MSP-scale licensing with predictable costs that grow with your business.
- Enjoy unlimited software use backed by a 90-day satisfaction guarantee.
- Flexible subscription licensing options ensure compatibility with any environment.

### SALES AND SUPPORT

- Access a dedicated support portal with comprehensive documentation and resources.
- Take advantage of pay-as-you-grow options to scale efficiently as your network expands.
- Receive expert guidance from our team to ensure smooth implementation and ongoing success.

### FLEXIBLE LICENSING

- License by node count, not pollers, allowing unlimited users and pollers for maximum scalability.
- No additional costs for adding pollers or users, ensuring flexibility for multi-client environments.

## EASE OF USE:

### EASY IMPLEMENTATION

- Simplify server installation and maintenance with guided support for customization.
- Access professional services for tailored design and implementation to meet your specific needs.

### ACCESSIBILITY

- Utilize extensive role-based access control mechanisms to ensure secure operations across teams.
- Access the system from any device, anywhere, with Single Sign On (SSO) across all applications.

### EASY TO USE INTERFACE

- Modify poller configurations effortlessly or pull data outside standard schedules with a single click.
- Navigate the system easily using any common browser for quick access to critical tools and insights.

## INTELLIGENT NETWORK MANAGEMENT INFORMATION SYSTEM:

### MULTI-TENANCY SOLUTION

- Handle overlapping IP addresses using pollers dedicated to distinct network spaces.
- Build custom portals to present relevant data to customers or teams without additional costs.
- Configure opHA as single tenant, multi-tenant, or hybrid based on your business needs.

### GEOGRAPHICAL DISTRIBUTION

- Deploy pollers in NOCs, on customer premises, or behind DMZs for optimal network management.
- Utilize multiple master server configurations for follow-the-sun operations across global teams.

### MULTI-SERVER ARCHITECTURE

- Configure single or multi-master servers based on your environment's requirements.
- Geographically diverse assets can be monitored locally for UX levels or from your NOC for health and capacity, or both.
- Ensure high availability with pollers reporting to one or multiple master servers simultaneously.
- Easily add new pollers when needed and copy known configurations to be operational quickly.

### SECURE DATA

- Assign individual pollers to customers to enhance data security and isolate environments.
- Update configurations quickly from the master server using credentials or shared keys as needed.

### CENTRALIZED MANAGEMENT

- Standardize poller configurations from the master server for consistent operations across networks.
- Access live node data across all pollers in real time using opCharts integration, supported by opHA Message Bus technology for instant updates.

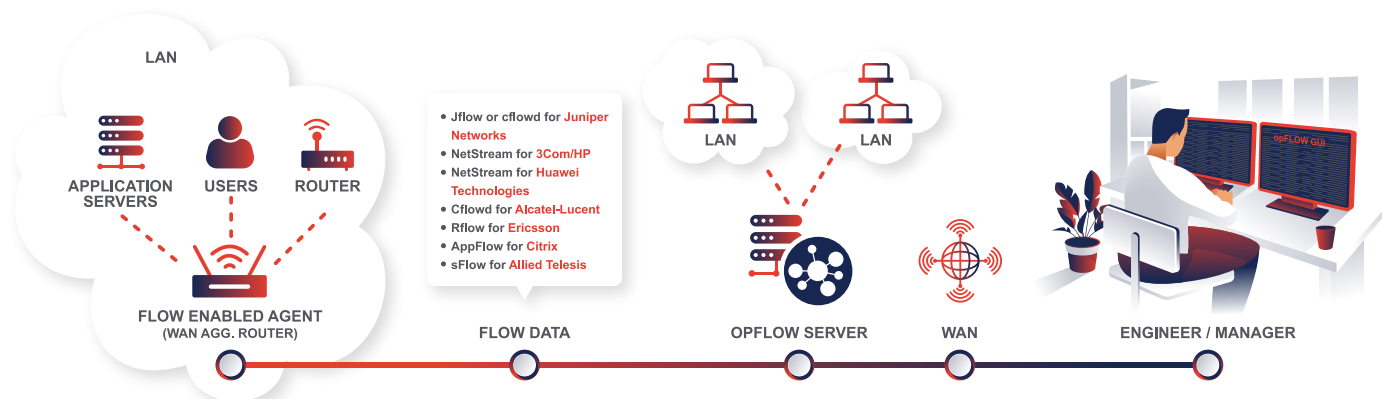
### BUILT-IN FLEXIBILITY

- Leverage an open-source core and plug-in architecture for seamless integration into any system.
- Customize configurations easily through an intuitive GUI, matching network management to infrastructure needs.

# opFlow

## Netflow collector and analyzer

# FirstWave



**Intelligent IPFIX/NetFlow summaries and conversation mapping** – opFlow is a network traffic analyzer that organizes and visualizes IPFIX/NetFlow data, empowering organizations to identify, evaluate, and respond to network usage patterns and anomalies. It enables quick detection of traffic incidents and abnormalities, reducing mean time to repair (MTTR) while enhancing network performance. By processing and summarizing network traffic from any incoming NetFlow packet, opFlow highlights bottlenecks and irregularities, offering instant summaries that can be filtered by key categories such as top utilizers, protocols, applications, sources, listeners, and more.

### Abnormality detection and threat identification

Quickly identify malicious events, such as DDoS attacks, with intelligently displayed traffic summaries. Gain actionable insights into top sources, applications, and abnormal traffic patterns to enhance network security.

### High-volume traffic monitoring

Efficiently monitor large-scale network traffic with pre-aggregated flow data processed at specified intervals, ensuring scalability and optimal performance for high-demand environments.

### Conversation mapping

Visualize detailed network communications by mapping interactions between source and destination IP addresses, ports, and protocols, enabling precise analysis of traffic flows.

### Flexible search and filtering

Easily locate specific traffic flows using advanced summarization tools to filter and map flows logically, ensuring quick access to critical data.

### Device, interface, and protocol insights

Monitor network health in real time with live updates on top utilizers or subnets. Customize filters to focus on key devices, interfaces, or protocols that matter most to your operations.

### Seamless integration with opCharts

Enhance functionality by integrating with opCharts to display agent identifiers and drill down into device health for a comprehensive view of your network.

# FEATURES

## BUSINESS MANAGEMENT:

### SINGLE PANE OF GLASS

- Incorporate node data from NMIS/opCharts.
- Allows multiple vendors, technologies, and operating systems.
- See the current flow state or full history of systems in one location.
- Display top network utilizers.

### INTELLIGENT SUMMARIES

- Display related agents/interfaces together to have one single location for monitoring traffic.
- Monitor source/destination for all traffic that flows through a device to ensure SLAs.
- Detailed reports and analysis tools turn your data into intel.

### REAL-TIME ANALYSIS

- Display traffic as it happens across the network.
- Identify abnormalities and prevent issues as they occur.
- All agents and their interfaces added to opFlow are summarized into understandable and meaningful traffic information as packets are captured.

## PURCHASING:

### PRICING AND PURCHASING

- MSP Scale licensing available.
- Predictable license costs.
- 90-day satisfaction guarantee.
- Unlimited software use of the product.

### SALES AND SUPPORT

- Easy to purchase – just contact us.
- Support portal access.
- Complete documentation and support wiki.
- Pay-as-you-grow options are available.

### FLEXIBLE LICENSING

- opFlow is licensed by the number of interfaces.
- There are no limits on the number of users that are added or dashboards that can be created.
- Subscription licensing available.
- Highly scalable architecture.

## EASE OF USE:

### EASY IMPLEMENTATION

- Easy installation.
- Support available for install and customization.

### ACCESSIBILITY

- Accessible from any device.
- Single Sign On (SSO) across all our applications.

### EASY TO USE INTERFACE

- Out-of-the-box dashboards will show information.
- Quickly drill down on any information that is displayed.
- Accessible from any common browser.

## TRAFFIC MONITORING AND ANALYSIS:

### INTELLIGENT ABNORMALITY DETECTION

- Identify malicious events such as DDoS attacks by analyzing network traffic patterns and detecting unusual spikes or high-traffic sources.
- Gain insights into top sources and applications, enabling rapid identification and mitigation of threats.

### HIGH-VOLUME TRAFFIC MONITORING

- Pre-aggregate flows within specified intervals to ensure scalability and efficient processing of large traffic volumes.
- Use parallel processing to manage substantial amounts of network traffic while maintaining database performance and data granularity.

### COMPREHENSIVE CONVERSATION MAPPING

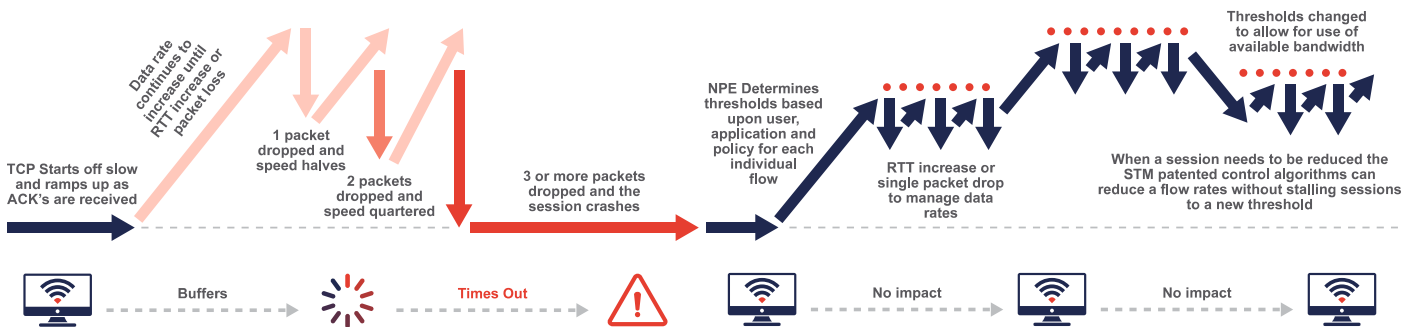
- Visualize network communications by mapping interactions between source and destination IPs, ports, and protocols.
- Provide detailed insights into traffic flows, helping to pinpoint bottlenecks and anomalies in the network.

# Secure Traffic

# FirstWave

## Manager

Real-time network traffic visibility



**Secure Traffic Manager (STM)** is a comprehensive solution for real-time network visibility, analytics, and control. Designed for both large carriers and smaller operators, STM optimizes network performance and ensures Quality of Service (QoS) across all levels. With advanced tools for live metrics and historical data, STM streamlines customer service and technical support while reducing operational costs and enhancing revenue. Utilizing deep packet inspection and packet shaping, STM provides granular control over network traffic, making it a powerful tool for managing modern network demands.

### Real-time network traffic visibility

Gain instant insights into your network traffic with live metrics to monitor performance and identify issues as they arise.

### Deep packet inspection

Examine packet contents in real-time, allowing for advanced traffic classification and security threat detection.

### Intelligent packet shaping

Optimize network performance by prioritizing critical traffic and ensuring fair bandwidth distribution among users and applications.

### Enhanced Quality of Service (QoS)

Ensure optimal performance across your network by dynamically adjusting traffic flow based on real-time conditions.

### Advanced analytics and support tools

Access live and historical data with one-click tools, simplifying troubleshooting and improving customer support efficiency.

### Scalable performance

Handle massive data realities of mobile, cloud, and IoT, capable of monitoring millions of concurrent flows per second on high-speed links.

# FEATURES

## BUSINESS MANAGEMENT:

### NETWORK OPTIMIZATION

- Improve network performance congestion.
- Prioritize critical applications and services.
- Enhance overall Quality of Service (QoS).

### REVENUE GENERATION

- Create new service offerings based on traffic insights.
- Implement usage-based pricing models.
- Attract and retain customers with improved network performance.

### COST REDUCTION

- Reduce CAPEX by optimizing existing infrastructure.
- Lower OPEX through automated traffic management.
- Minimize customer churn with proactive issue resolution.

## PURCHASING:

### FLEXIBLE LICENSING

- Scalable options for businesses of all sizes.
- Pay-as-you-grow model to match network expansion.
- Customizable packages based on specific network needs.

### ROI-FOCUSED PRICING

- Clear cost-benefit analysis for implementation.
- Demonstrable return on investment through performance metrics.
- Competitive pricing for enterprise-grade traffic management.

### SUPPORT AND MAINTENANCE

- Comprehensive support packages available.
- Regular updates and feature enhancements.
- Training and onboarding assistance included.

## EASE OF USE:

### INTUITIVE INTERFACE

- User-friendly dashboard for quick network overview.
- Customizable alerts and reporting features.
- One-click access to detailed analytics and troubleshooting tools.

### AUTOMATED MANAGEMENT

- Set-and-forget policies for consistent traffic management.
- Automatic detection and mitigation of network issues.
- Self-optimizing algorithms for continuous performance improvement.

### INTEGRATION CAPABILITIES

- Seamless integration with existing network infrastructure.
- API support for custom tool development.
- Compatible with major network management systems.

## REAL-TIME TRAFFIC MANAGEMENT:

### DEEP PACKET INSPECTION

- Analyze packet contents in real-time for precise traffic classification.
- Identify and prioritize over 1000 applications.
- Detect and mitigate security threats instantly.

### PREDICTIVE ANALYTICS

- Forecast traffic patterns using machine learning algorithms.
- Proactively adjust network resources to prevent congestion.
- Identify recurring issues and suggest long-term improvements.

### DYNAMIC BANDWIDTH ALLOCATION

- Adjust bandwidth allocation in real-time based on network conditions.
- Ensure fair usage across users and applications.
- Optimize performance for high-priority traffic during peak times.

### ADAPTIVE ROUTING

- Dynamically reroute traffic to optimize network performance.
- Automatically bypass network bottlenecks and failed nodes.
- Implement intelligent load balancing across multiple paths.

### GRANULAR CONTROL

- Manage traffic at the user, device, and application level.
- Implement time-based and location-based policies.
- Fine-tune QoS parameters for different traffic types.

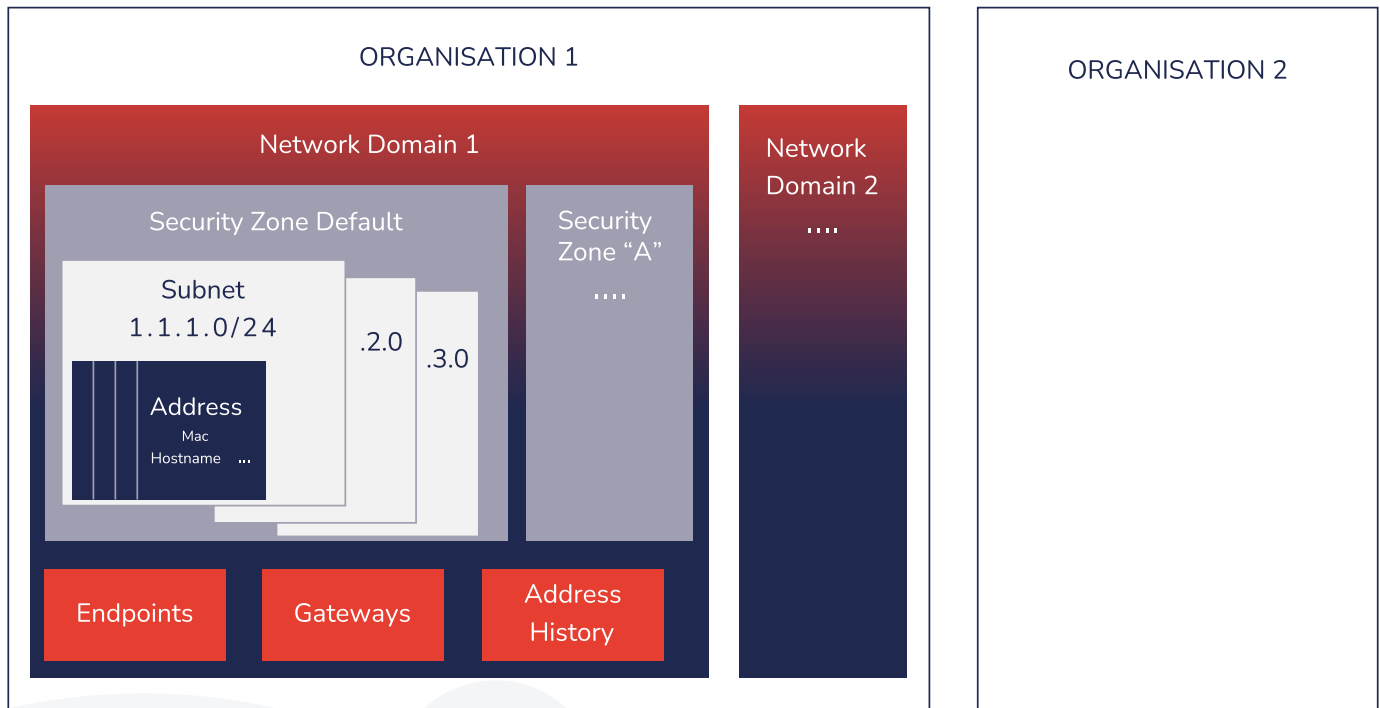
### REAL-TIME MONITORING AND ALERTING

- Provide comprehensive dashboards for instant network visibility.
- Generate automated alerts for abnormal traffic patterns or security threats.
- Offer customizable reporting for various stakeholders and compliance requirements.

# opAddress

## IP Address Audit and Management

# FirstWave



**opAddress** is a powerful IP address management solution designed to automate and streamline network IP resource tracking. By scanning networks to discover active IP addresses, subnets, and related devices, opAddress centralizes critical network information into a comprehensive database. This intelligent tool reduces manual effort, minimizes IP address management errors, and ensures optimal utilization of network resources.

### Automated IP discovery

Automatically scan and identify all active IP addresses and subnets across your network infrastructure.

### Centralized IP management

Create a single, comprehensive database for tracking and managing IP address allocations efficiently.

### Conflict prevention

Detect and prevent IP address conflicts before they impact network performance.

### Reduced manual effort

Automatically scan and identify all active IP addresses and subnets across your network infrastructure.

### Enhanced network visibility

Gain complete insight into your network's IP address landscape and device relationships.

### Scalable IP resource tracking

Support network growth with flexible IP address management capabilities adaptable to changing infrastructure needs.



**With NMIS and FirstWave we have a true partner that we can rely on to make sure we are on top of any issues on our network and have good data and analytics to make sure our customers get top-notch service.**

Bill Farmer, Principal Engineer  
**Sinch**

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# Operational Process Automation

## What is it?

Automation is about getting the right systems in place to automate repetitive tasks that will improve efficiency and ensure consistency in network teams. Ultimately, automation is about improving the Mean Time to Resolution and driving down your cost of delivery. Operational Process Automation (OPA) delivers process automation specifically to IT and network operations teams. By leveraging artificial intelligence and machine learning abilities, OPA goes beyond basic RPA capabilities to carry out advanced analysis and troubleshooting tasks.

## What can it assist with?

FirstWave software serves to augment a network engineering or system administration role, as well as emulating actions that network engineers take within a network management system, from advanced maintenance tasks to escalating potential network issues. It works effectively with other digital systems in order to categorize, resolve, and escalate potential network issues and characteristics.

## We're renowned for:

- Lower cost, higher scale;
- Richer and more flexible features;
- The ability to thrive in diverse environments;
- Faster implementation and easier maintenance.





### **Intent Based Networking Solutions**

Get continued validation that your business intent and your network configurations are always aligned. Constant monitoring allows your organization to extend the automation to include new developments while reducing the time of implementation.



### **Network Configuration and Change Management**

See discovery and documentation of your physical network infrastructure seeking any changes compared to a gold standard, or any conditions that raise alerts.



### **Lower maintenance and service costs**

Lower maintenance and service costs due to operational equipment being managed equally and efficiently.



### **Policy-Based Automation**

Move your organization away from a device-configuration-centric view and replace it with a standardized policy view, increasing the predictability and stability of your network.



### **Orchestration**

Network automation tools can easily manage your individual nodes, they can also programmatically control your network elements based on monitored conditions.



### **Simplify Your Network**

Simplify the setup, configuration, patching, backup and extension of your network.

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# What is Enterprise Services?

Implemented to provide business impact visibility, FirstWave's Enterprise Services provides insights from the perspective of a business outcome. Through an understanding of its dependencies, Enterprise Services offers a 'top-down' view of how business-critical outcomes are being delivered. In the event of issues, this then offers network managers the visibility to effectively prioritize efforts based on business impact, and identify the cause of an issue in a single click.

In an era where a failure in one location can reverberate across the globe, causing disruptions that may go unnoticed by traditional monitoring systems, Enterprise Services offers a comprehensive, real-time view that enables proactive decision-making. This transformative extension to FirstWave's industry-leading network management platform, NMIS, revolutionizes the way network impacts are identified, understood, and addressed.

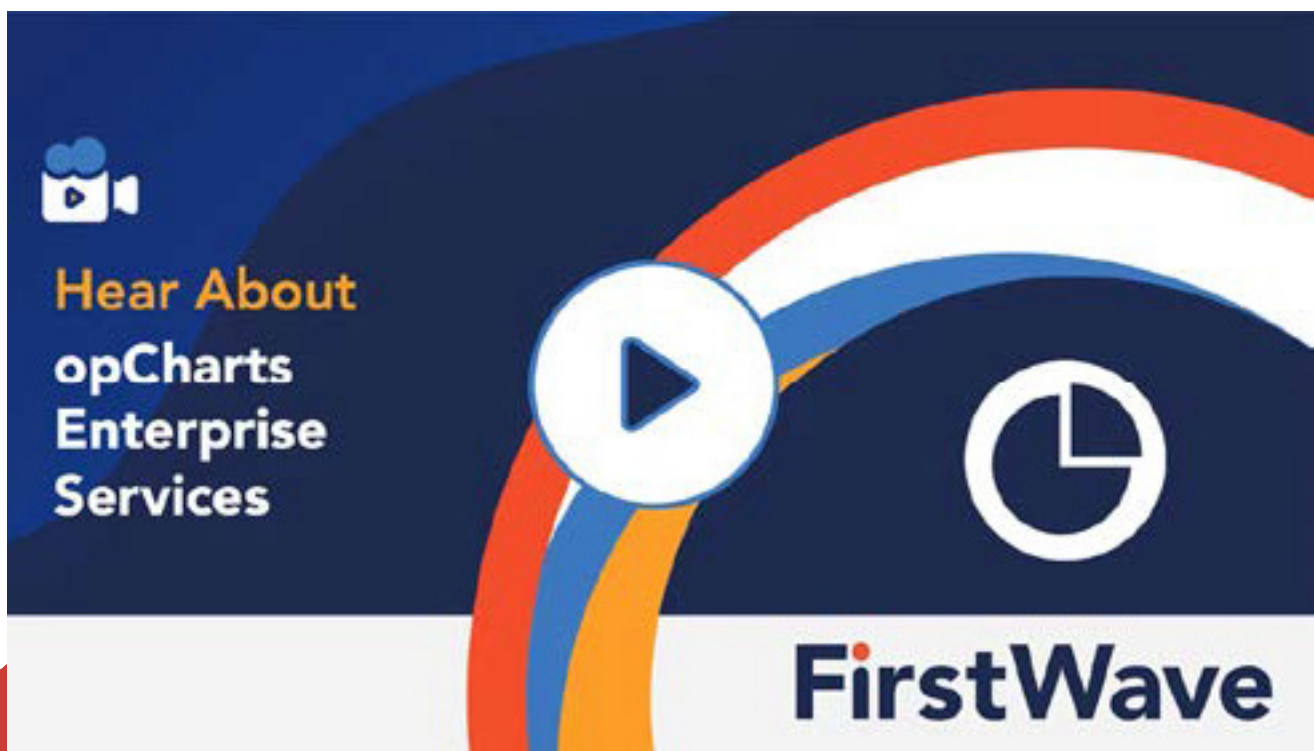
Gone are the days of siloed visibility and fragmented analysis, with 'bottom-up' visibility of issues without impact. Enterprise Services empowers network managers and CIOs to monitor and receive alerts based on genuine business impacts, thereby allowing them to proactively address potential issues that may compromise critical operations. The ability to drill down to the root cause with a single click provides unparalleled insights, enabling organizations to optimize their network infrastructure and align it with their overarching business objectives.



The Enterprise Services Monitoring extension to NMIS' infrastructure visualization platform, opCharts, re-imagines monitoring for IT networks and services and allows administrators and management to monitor and provide alerts based on the genuine business impacts, while drilling down for root cause identification in a single click.

As well as enhancing the capabilities of opCharts, the new extension integrates and empowers a range of other network monitoring modules, including FirstWave's industry leading Event Management platform, opEvents. The extension has already been implemented with a government department that requested to remain anonymous, whose collaboration has proven the real-world application and value of the enhancement.

## How Does It Work?



**Re-Imagine Your Network  
Monitoring With Enterprise Services**

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# Support

FirstWave support engineers are highly skilled in NMIS, Open-Audit and all commercial FirstWave products, and come with experience from working in Telcos, MSPs, and Software Development. They undergo constant training, ensuring that their knowledge remains up to date. Our support engineers are involved with customer implementation and rollout. Our support and development teams work closely together and are also actively involved in the open source community.

When you contact FirstWave support, the contact goes directly to an engineer who can help with the issue – FirstWave does not filter the contacts through green-level support or administrative personnel. This benefits you. You will reach an engineer who can help you, quickly, in one step.

FirstWave utilizes Atlassian software to track support cases and ensure automated escalation to provide the best support possible.

## Consulting Services

FirstWave offers consultation services that include advice on integration with other network management products, operations workshops, current state assessments or future state assessments.

## Implementation Services

FirstWave offers consultation services that include assistance and advice with migration from your existing platform to ours, basic verification of your FirstWave environment, or installation configuration and setup services.

## Development Services

FirstWave offers development services that include development to customize open-source products, customization of open-source products to collect new types of information or development, customization (e.g. device modelling), and integration of FirstWave products with other systems.

# Subscription Support Inclusions



We believe we provide the best support in the industry.  
We treat customers' issues like they are our own.

| SUPPORT TIER FEATURES  | STANDARD         | PREMIUM         | ENTERPRISE        |
|--|------------------|-----------------|-------------------|
| Number of authorized support contacts  | 1                | 2               | Two or more       |
| Cases per month  | 4                | 12              | Fair Use          |
| Access to FirstWave NMIS or Open-Audit support area knowledge base/FAQs                        | ✓                | ✓               | ✓                 |
| Access to documentation to assist in developing operational procedures with NMIS or Open-Audit | ✓                | ✓               | ✓                 |
| Support Initial Response time  | <2 business days | <1 business day | Same business day |
| Access to Support Portal to open and review cases  | ✓                | ✓               | ✓                 |
| Application configuration support  | ✓                | ✓               | ✓                 |
| FirstWave replication of faults/testing and diagnosis in FirstWave lab                         | ✓                | ✓               | ✓                 |
| Commitment to fix bugs, provide workarounds  | ✓                | ✓               | ✓                 |
| Direct access to FirstWave support via email   |                  | ✓               | ✓                 |
| Screen share for troubleshooting   |                  | ✓               | ✓                 |
| Access to early release versions of NMIS or Open-Audit   |                  | ✓               | ✓                 |
| Prioritized input into development plan  |                  | ✓               | ✓                 |
| 1-2 hour architecture workshop with a senior developer/engineer                                |                  | ✓               | ✓                 |
| Use of VPN technologies for troubleshooting  |                  |                 | ✓                 |
| 1 hour Webinar Q&A or orientation for every product you buy                                    |                  |                 | ✓                 |
| Named regional primary engineer  |                  |                 | ✓                 |

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# FirstWave

## Ready to level up?

If you need help with taking your cloud email security to the next level, please contact FirstWave and we will be more than happy to help assess your current situation and recommend a solution to help your business.

[CONTACT AN EXPERT](#)

[BOOK A DEMO](#)

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