Nakina

Network Applications

Multi-vendor management applications
for the Nakina Network OS™

Nakina Systems

Build a best-in-class network.

As a service provider, your network can be one big headache to manage. Like most other service providers, your competitive strategy involves keeping up with new technologies and evolving customer needs. That means deploying new networking equipment or software as it becomes available, or acquiring other companies that have. Either way, you're left managing several generations of networking products provided by a variety of vendors.

Each vendor's networking equipment comes with unique element management tools. That means operator's must learn multiple user interfaces, different methods and procedures for managing each vendor's system, and a dizzying array of element management software solutions. These typically don't adhere to the same standards or interoperate with one another.

The result? Huge inefficiencies. Unnecessary operating expenses. Delays in deploying new services and important software fixes. And capital expenditures for equipment that will require months to provision, prolonging the path to anxiously anticipated revenue streams.

But there's good news. Life's about to get a whole lot simpler.

Use a best-in-class Network OS™.

Nakina's suite of multi-vendor network applications and the Nakina Network OS™ collectively represent a powerful solution for managing any carrier-grade service provider network. Nakina's applications automate painstaking network maintenance and configuration processes that operators undertake routinely to manage their networks. In doing so, they dramatically reduce operating expenses while accelerating new service revenue streams.

Each Nakina application can be deployed standalone or as part of an integrated suite of best-in-class applications, from both Nakina and third party developers. All applications integrate through the Nakina Network OS™, a scalable, carrier-grade network operating system that serves as a powerful mediation layer and single point of integration between all such management applications and the NEs. The Nakina Network OS™ abstracts the complexity of peripherals from applications much like a computer operating system, allowing service providers to rapidly deploy new networking products with substantially reduced cost and effort.

Benefits

Reduce Operating Expenses (OPEX)

- Simplify network management with consistent, network-wide applications and processes
- Simplify operations and reduce training requirements using a single user console
- Get rapid investment payback in less than one year through significant OPEX savings

Accelerate Time-to-New Revenue

- Improve time-to-market for deploying new services

Eliminate Network Downtime

- Eliminate human error by automating time-consuming, repetitive operations like pre-upgrade NE audits
- Ensure data accuracy with automated network discovery
- Reduce errors with a consistent user interface

Improve Customer Satisfaction and Retention

- Eliminate customer complaints due to service fall-outs

Rapidly Integrate Best-in-Class OSS Software Solutions

- Cherry-pick the best solutions from a variety of vendors
- Easily integrate 3rd party application software with Nakina's open architecture
- Reduce unnecessary capital expenditures (CAPEX)
- Eliminate poor CAPEX decisions with automated multi-vendor network discovery
- Automate discovery and tracking of mission-critical information for all equipment in a multi-vendor network, with real-time updates as changes are made to the network

Differentiators

Nakina's solution is unique – no other vendor offers:

Scalability

- Network-wide, multi-vendor coverage for any network – from those with only a few hundred NEs to large scale networks of more than 100,000 NEs
- Network-wide concurrent use that scales from just a handful of operators to operations with more than 1,000 users

Carrier-Class Reliability and Availability

- Match 99.999% ("five nines") reliability and availability with Nakina's services-oriented architecture
- Mitigate the risk of single potential points of failure through clustering and load-balancing over a distributed network of carrier-class servers

Low Cost of Introduction

- Automate required data fill using Nakina Discovery
- Introduce newly released vendor networking equipment rapidly with the simple addition of a software adapters

Coverage of both Existing and Next Generation Networks

- Manage legacy and next generation networking equipment (SONET, SDH, DWDM, Ethernet, etc.) under one umbrella to optimize your existing investment

Automatic Discovery and Tracking of Changes in your Network

- Automate discovery and track detailed information about all equipment in a multi-vendor network, getting real-time updates as changes are made to the network instead of snapshot views that are quickly out-of-date

Applications

Nakina Open Console™

This highly flexible, extensible graphical user interface (GUI) console functions as a consolidated view of the operating environment. Users get a consolidated view of alarm conditions, graphical representations of their network topology, and the ability to drill down to detailed shelf-level graphics with the simple click of a button. While other Nakina applications can be deployed independently of Nakina Open Console™, it presents an easy-to-use, consistent user interface to optionally manage all Nakina and third-party applications.

Nakina NE Security™

Dramatically reduce and simplify security administration while encouraging strong security practices. Use a single user interface to manage passwords across all NEs, regardless of vendor. Eliminate the need to use cryptic scripts to enforce password changes on more than one NE at a time, and have the ability to concurrently define and apply NE account "templates" to any number of NEs.

Nakina Command Broker™

Nakina Command Broker allows security administrators to specify the precise commands, applications, and NEs that each unique individual network operator is allowed to access through a rich GUI. All network operator activity is centrally logged for simple retrieval and quick problem diagnosis and resolution in times of crisis.

Nakina Session Broker™

Nakina Session Broker is a standalone application that allows only authorized network operators and external users to establish communication sessions (Telnet, FTP, and HTTP) with NEs in the network. All session activity is centrally logged for security tracking and reporting.

Nakina Backup & Restore™

Automatically back up any critical network software and data on NEs across the entire network, regardless of vendor, using a consistent process and user interface. All backup and restore parameters are configurable, including target backup servers (in single or multiple locations), backup frequency, and scheduling.

Nakina Network Audit & Software Delivery™

Get your upgrades right the first time while dramatically reducing software upgrade effort from many months to a few short weeks. Prepare for software upgrades by automating network-wide 'readiness' audits of all NEs so pre-requisite conditions (like compatible card revisions) are met and the upgrade performs without errors. Deliver, activate, and commit new software loads in parallel to as many NEs in the network as required. Manually intervene at any stage or revert to a previous delivery stage with the click of a button.

Nakina PM Collector™

Collect and sort performance monitoring (PM) data from NEs across the network and make it readily available to other performance analysis and management applications. Create collection profiles that define the NEs and ports you need to focus on, whether the collection is on-demand or part of an automatic monitoring schedule.

Nakina NE Configurator™

Commission NEs in a network using a consistent user interface and procedures, regardless of vendor. Use Nakina NE Configurator to configure NE parameters as needed. Set date and time stamps, apply security templates to an NE, verify user IDs in the security template, refresh NE inventory data, and make all parameters available for general use by other applications. Service providers can finally standardize NE configuration across their entire multi-vendor network.

Nakina Inventory Browser™

View and manage networking equipment in the NE that has either been automatically discovered (with Nakina Discovery) or otherwise included (such as data about routers and services that are not discoverable). Nakina Inventory Browser™ provides a flexible query capability to search for NEs under its span of control, and lets operators drill down to shelf-level details (including circuit packs, and ports). An open interface is also provided to feed collected inventory data northbound into best-in-class third party inventory management applications.

Nakina Discovery™

Get an accurate view of your network by automatically discovering and tracking changes to your network's equipment. Eliminate preparatory manual data entry with Nakina's automated discovery process, from start to finish.


READY
BUSY
FAULT

Platform and Support Tools

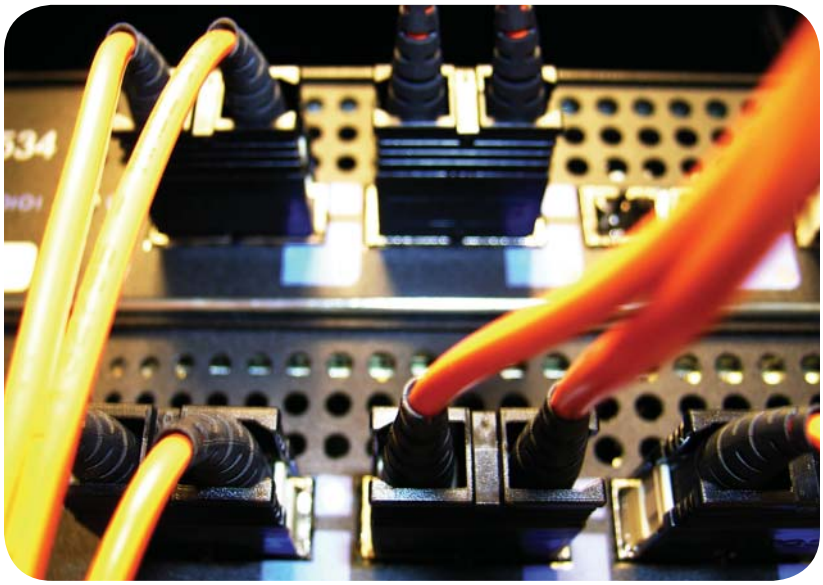
Nakina Network OS™

Nakina Network OS™ is at the core of every Nakina solution and provides a layer of abstraction between network applications and NEs. The layered, service-oriented architecture allows service providers to easily and cost-effectively integrate their own or third party applications into their operating environment. Among the services provided by Nakina Network OS™ are an NE-level discovery and inventory browsing service, a fault service for NE faults and alarms, system health and alarm services, an interface for data storage, an adapter service for application requests and managing connections to NEs, and a security service for managing logs, agents, and file servers.

Nakina Adapter SDK™

Nakina maintains an extensive library of device drivers that interface the Nakina Network OS™ with equipment from the world's leading vendors. For networking equipment not yet covered in the library, Nakina provides customers and their partners with the Nakina Adapter SDK™ (Software Development Kit), a set of pre-defined tools and software building blocks for use in developing new device drivers. System vendors and original equipment manufacturers (OEMs) can also use the Nakina Adapter SDK™ to rapidly integrate with the Nakina Network OS™, gaining instant access to the full suite of Nakina Network Applications and creating a full-blown, cost-effective, off-the-shelf element management solution in the process.

Each Nakina application can be deployed standalone or as part of an integrated suite.

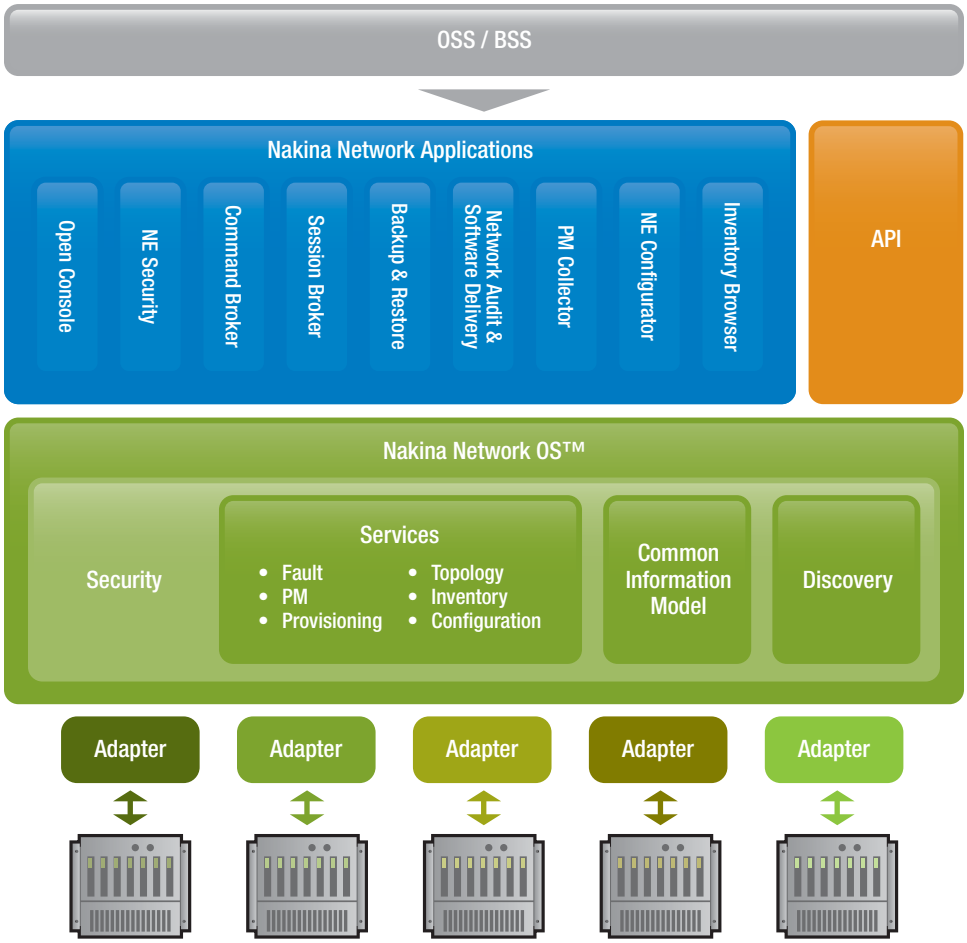


A Simple, Secure, Scalable Architecture

Nakina's Flexible Software Architecture

The Nakina Network OS™ and its multi-vendor network applications leverage business and software professionals' expertise from the world's foremost service providers and networking equipment vendors. The exclusive experience of Nakina's team with carrier-class deployments assures that best-in-class scalable applications are always delivered.

Nakina's software architecture offers service providers a platform with the scalability, robustness, carrier-grade availability, and access security features needed to implement their vision for next generation OSS management systems.



Design Philosophy

Modularity/ Application Independence	• Allows simple 3rd party integration, including service provider integration of existing custom applications • Allows Nakina to extend the suite with future applications, such as multi-vendor service provisioning and dynamic bandwidth enablement, all on the same platform
Scalability	• Tiered architecture enables clustering and load-balancing over any number of servers on a distributed network, allowing for coverage of tens of thousands of Network Elements in large service provider networks
High Availability (Carrier-Class)	• Tiered architecture allows for clustering and load-balancing over a distributed network of servers, mitigating concerns over potential points of failure and maximizing availability of the software system
Service-Oriented Architecture	• Enables data exchange between any of the Nakina Network Applications and 3rd party applications, facilitating best-in-class software deployment
Open Architecture	• Membership in the TeleManagement Forum (TMF) standards group and adherence to the shared Information Data (SID) model facilitates best-in-class 3rd party software integration • Nakina's membership in OSS Through Java™ and participation as a leading member of the Network Discovery API group developing standard Java-based interfaces for OSS services and applications
Multi-Technology Support	• Support for various Network Element system interfaces, including TL1, CLI, TMF-814, SNMP, and Next Generation interfaces • Support for various Network Element system protocols, including OSI, TCP/IP, FTP, and FTAM • Support for interfaces to 3rd party software via XML, RMI, and JMS

Simplify.

About Nakina Systems

Nakina Systems provides one platform to discover, manage and secure multi-vendor networks for network operators worldwide. Using Nakina's software, service providers can reduce their operating expenses and introduce new services more quickly into their networks. They can bolster access security and eliminate headaches caused by shared passwords on their network by using centralized security and password administration. Operators eliminate the chaos of "swivel chair management" by consolidating their view of a network's topology, faults, and activity logs. They substantially improve their productivity and competitiveness with the automation of software upgrades, system-wide backup and restore procedures, and equipment configuration. And it's all with one system. Only from Nakina.

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