Narus Unified IP Management and Security
A total network view using IBM

NARUS®

Meeting the evolving requirements of carriers and government network providers worldwide

Forward-thinking carriers should evolve from point solutions to a more holistic security and management approach, employing tools that can deliver the granularity to monitor every traffic flow across every network element, from the core out to the end user, regardless of access method. Narus, Inc. is among the first vendors to ship solutions providing the desired level of network visibility

- Brian Partridge, Yankee Group
from "Narus Is Among the First to Ship Solutions that Provide Desired Network Visibility" June 2005

HIGHLIGHTS

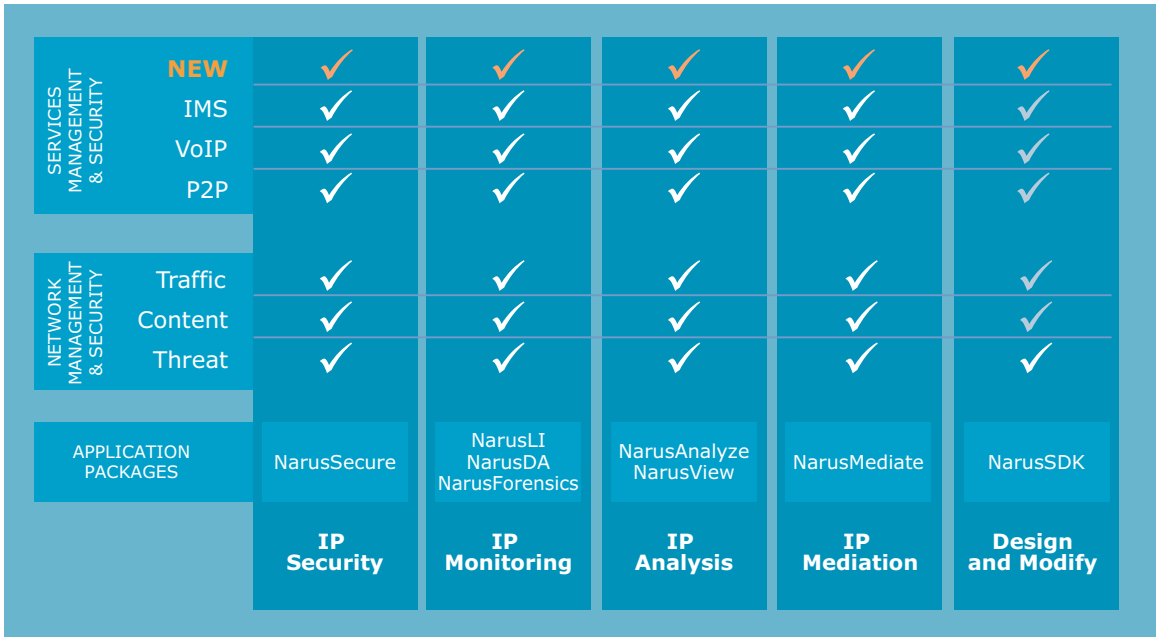
- **The only IP system that scales to support multiple applications and networks in real-time**
- **Addressing the competitive necessity of having real-time access to IP traffic at a granular, detailed level**
- **Proving the ability to quantify how emerging services such as VOIP, Skype, and peer-to-peer traffic impact their network business**
- **Unlimited options for analyzing specific IP traffic content for malicious or unwanted traffic**
- **Ability to selectively monitor traffic to support law enforcement or national security in a cost effective manner**

As IP networks grow progressively more complex, the **financial incentives of being aware of what is transpiring on their IP networks becomes increasingly critical for carriers**. VoIP traffic, for example, reveals essential information about customer usage relating to market opportunity and possible revenue lost.

Carriers need their traffic aggregated and correlated across their entire network. While point solutions are sometimes adequate for individual links and enterprise cores, to succeed today, a new breed of IP Platform is essential to provide an enhanced, multi-dimensional understanding of performance, value and security.

The Narus Unified IP Management and Security Platform provides a total network view of all IP data in a carrier's network, including VoIP and other protocol-specific data. The Narus IP Platform delivers detailed knowledge regarding IP traffic by capturing, analyzing and correlating the data from the network layer to the application layer at speeds of up to OC192.

Fulfilling the Carrier's needs in the move to IP based services and revenue



With Narus, large network operators are able to:

Create Profitable Services

- Dynamically create new services
- Satisfy increasing demands for real-time access to network content

Manage Increasing Complexity

- Ability to easily manage existing and new applications
- Real-time analysis and network-wide status reporting
- Comply with changing legal & regulatory mandates

Protect and Grow Revenue

- Deliver cost effective differentiated services
- Maintain secure networks
- Optimize customer care programs
- Controlling or reducing costs

A full suite of IP applications are available on Narus' single platform, which is deployed by some of the largest carriers and IP service providers in the world including AT&T, KDDI, U.S. Cellular, Korea Telecom, T-Mobile and Telecom Egypt.

Customers use the Narus IP platform for security, analysis, monitoring and mediation on IP networks. Narus is valued not only for simplifying the methods in which customers are able to feed the necessary information to the applications that make their businesses run, but also for providing what is required to distinguish their businesses.

Using the Narus IP Platform

Planning & Creating

Carriers use the Narus IP Platform to understand their network traffic and gain insight into their customers' use of IP services. Only with this kind of information can sound, innovative business plans can be developed. For example, knowing the number of subscribers that are using VoIP, and the ability to identify the top VoIP Service providers being used is critical information in planning – whether carriers decide to implement or partner.

Managing and monetizing

Managing to SLA's, understanding traffic routing, and establishing exactly who is using the network are critical for any deployed service. Using Narus, carriers can track network traffic for any protocol, including VoIP, to gain early views of usage, plan growth, study traffic patterns, and drive revenue by billing.

Secure and Protect

Narus' ability to aggregate and correlate traffic across an entire network delivers security unmatched by point solutions. Correlating traffic allows the earliest detection of DDOS attacks; layer 7 protocol analysis enables removal of malformed packets, a ploy often used in attacks; early identification of abnormal traffic enables early intervention, protecting the subscribers traffic and assuring SLA's

Secure Networks, Protect Revenue

Today's carriers require unified security for their networks. Malicious traffic clogs network infrastructure and eats up precious resources resulting in poor Quality of Service to end customers. NarusSecure enables carriers to detect attacks, abuse and behavioral anomalies in real time and to direct actions that can prevent security breaches, attack propagation and loss of productivity.

Profitable, tactical decisions

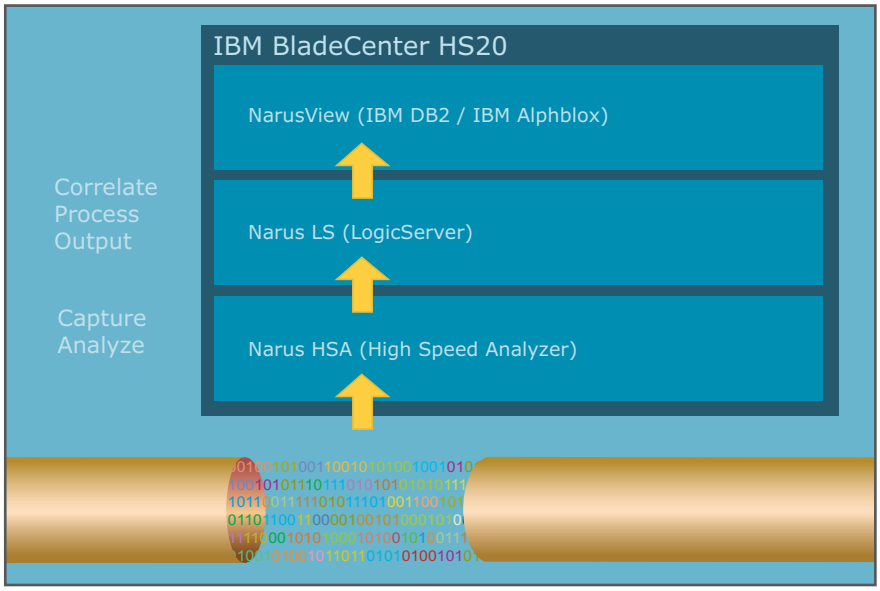
NarusAnalyze provides real-time ability to collect, process and analyze network and customer data to generate statistics, reports and information that enable the most profitable strategic and tactical decisions.

Targeted capture

Narus IP Monitoring is real-time analysis tools for IP networks. Packet-level, flow-level, and application-level usage information can be collected as well as raw user session packets for forensic analysis, surveillance or in satisfying regulatory compliance for lawful intercept. IP Monitoring is well suited for applications such as Infrastructure Protection, DDoS and Anomaly Detection, Internet Fraud Detection, and Lawfully Authorized Electronic Surveillance

Narus and IBM

The BladeCenter provides the flexibility to configure the Narus software to meet the carriers needs, whether it is a highly distributed or packaged configuration.



The above configuration shows one customer installation where the multi-tiered application of High Speed Analyzer (HSA), Logic Server (Narus Application) and IBM's reporting tool, AlphaBlox.

More about IBM Blade Center

The BladeCenter: A Scalable Platform for Next Generation Networks. The IBM BladeCenter and BladeCenter T server platforms are the embodiment of open standards, offering power and performance for IP-based, next-generation networks. The IBM BladeCenter T is NEBS3/ETSI compliant for reliable operations under environmental extremes typical of a telecom central office.

The BladeCenter is an open specification blade server platform that supports up to 80 CPUs and brims with features such as integrated servers, storage and networking, fault-tolerance, optional hot-swappable redundant power supplies and cooling, and built-in system management resources. The BladeCenter enables the integration of servers, storage and I/O between operating systems and software applications. This helps carriers create an IP-based, scalable network platform on which they can quickly develop, deploy and activate new services at reduced costs.

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For more information please visit www.narus.com
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