NetTest™

ZettaE2E

Intelligent Network Monitoring for Your LAN, WAN and ATM Network

Solutions

ZettaE2E

Intelligent Network Monitoring for Your LAN, WAN and ATM Network

Key Benefits

- Reduce current and future LAN, WAN and ATM costs
- Postpone network upgrades
- Understand and enforce who is authorized to use the network
- Proactively analyze application usage on the network
- Anticipate and plan for network growth
- Learn how new applications will perform prior to deployment
- Validate Service Provider service levels

Key Applications

- Network Operations
- Network Planning and Design
- Service Level Agreement Management
- Capacity Planning
- Network Efficiency Testing

Understanding how bandwidth is being utilized and the impact of new applications, services and upgrades on the network, along with knowing who is using the network and how, has never been more critical then it is today. Enterprise organizations need to proactively monitor the health of their networks to ensure excellent Quality of Service and maintain their revenue streams all while reducing operational expenses. Enterprise IT Operations and Network Planning Managers need an easy and efficient way to anticipate problems before they occur and project both short and long term network bandwidth needs.

Many IT managers are well acquainted with reactive network troubleshooting tools; however, these are not sufficient in identifying network problems before they occur. Thus too much time is needed to identify and isolate problems, potentially damaging an organization's reputation, diminishing customer service expectations and ultimately reducing an organization's revenue stream.

Designed for LAN, WAN and ATM networks, ZettaE2E is the only intelligent network monitoring system based on a distributed, non-intrusive architecture that fits seamlessly into any network. It is a powerful, highly scalable solution that lets you track the flow of network traffic for any part of the network from a small office to a large network operations center, and from OSI layer 1 to 7.

The key benefits of the ZettaE2E system include:

- Ensuring network reliability through proactive, non-intrusive monitoring
- Reducing current and future LAN, WAN and ATM costs
- Postponing network infrastructure upgrades
- Understanding and enforcing who is authorized to use network capacity
- Anticipating and planning for near-term network growth
- Learning how new applications will perform in the network

Ensure Network Reliability

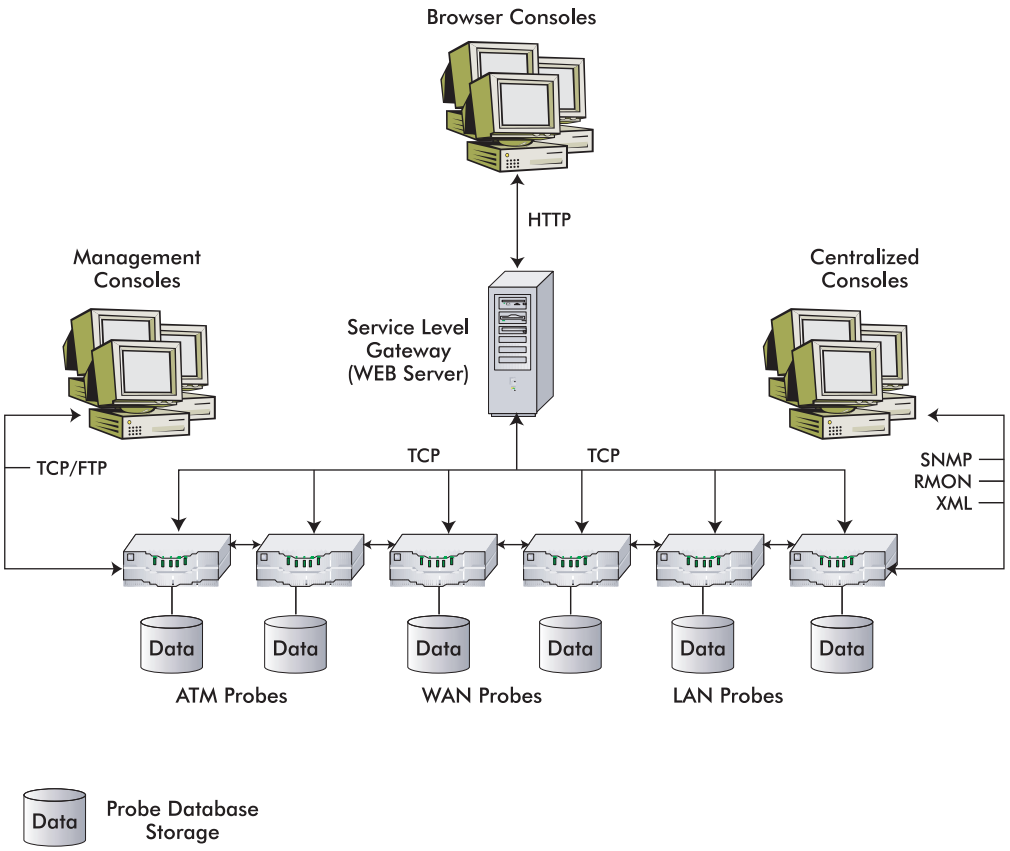
Quickly and Easily Identify and Isolate Network Problems

Never before has the need to be able to anticipate a problem in the network before it occurs been greater. IT Managers are being forced to do more with less. Reduced budgets, limited staff, increased numbers of applications and the optimal utilization of existing bandwidth require a network monitoring solution that is easy to use and proactively alerts the IT manager to a problem before it becomes critical. NetTest's ZettaE2E network monitoring system is the solution best designed to meet their needs. Unlike a system that utilizes a centralized server architecture and adds traffic to the network, ZettaE2E utilizes a distributed client/ server architecture that is non-intrusive. It is this distributed architecture that allows ZettaE2E to deliver unsurpassed data granularity.

ZettaE2E is capable of providing data points in real-time every 10 seconds, thus quickly spotting any anomalies in the network that might be cause for concern. ZettaE2E is a combination hardware and software solution with dedicated probes that have their own storage capacity and can retain data for up to 2 years, thus providing the ability to conduct historical trend analysis and appropriate network planning. The system is highly scalable enabling the addition or modification of equipment without affecting the network. A built-in Alarm Manager immediately notifies the user via email or at the system interface of a potential problem when a pre-defined threshold has been met.

The ZettaE2E system can be used independently or by sending all SNMP events to other management systems through the network.

ZettaE2E Architecture



Key Features:

- Detailed visibility from 10 seconds to 2 years
- Scalability via a distributed, non-intrusive client and probe architecture
- "Plug & Play" pre-configured system for easy installation and daily operation
- Solutions available for ATM, WAN and LAN are OC12, OC3, DS3/ATM and E3/ATM, T1, T2/PRI, E1, HSSI, DS3/WAN, E3/WAN, Serial link, 10/100 Ethernet and Gigabit Ethernet.
- Auto-discovery of protocols, IP pairs, IP conversation pairs, HTTP transfers, FTP transfers, Email transfers, VLANs, DLCIs and IP applications
- Built in Alarm Manager automatically sends alarms to a workstation, email address or pager.
- Reporting Features:
  - Over 300 pre-defined reports
  - Scheduled web posting
  - Custom reporting
- Remotely upgradeable

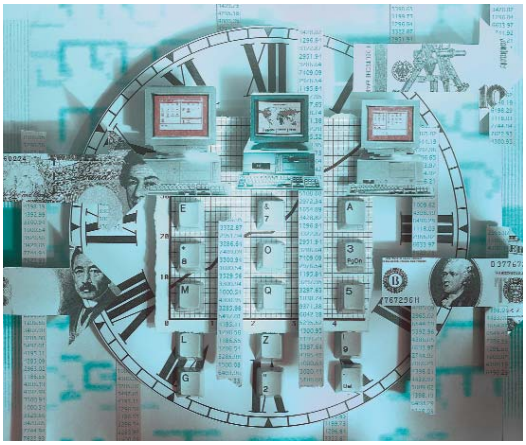
Current Customers

- Large Enterprise Organizations
  - Banking/Financial Institutions
  - Insurance Companies
  - Manufacturing
  - Healthcare
- Federal and State Governments
- Service Providers

Reduce Current and Future WAN, LAN and ATM Costs

Quickly and Easily Understand How the Network is Being Used

ZettaE2E's superior 10 second data granularity and 2 years historical trend analysis provide the IT Manager with the information needed to carefully monitor how traffic is moving across the network, providing a clear picture of where bandwidth is either over or under utilized. The ZettaE2E system has a built-in algorithm that ages the data according to the following schedule: for 60 days the data is viewable via the 10 second data points, this is followed by 10 weekly reports, 5 monthly reports and 2 annual reports. If a user would like to retain the data in 10 second increments, the data can be sent to an FTP server. Thus, the IT Manager can easily track and make an informed decision as to where additional bandwidth may and may not be needed.



In addition, the ZettaE2E system provides the decoding of over 300 protocols and complex encapsulations, Round Trip Times and over 300 pre-defined reports to aid in understanding how the network is being utilized.

ZettaE2E is very easy to install and use as it comes pre-configured, set up to auto-detect and collect thousands of data points immediately out of the box. With ZettaE2E, an IT Manager no longer needs to worry that an IP address, port, VLAN or DLCI was missed in the configuration process. In addition, ZettaE2E results can quickly be published in HTML. Active-X controls allow for further drill down of information.

Learn How New Applications Will Affect The Network

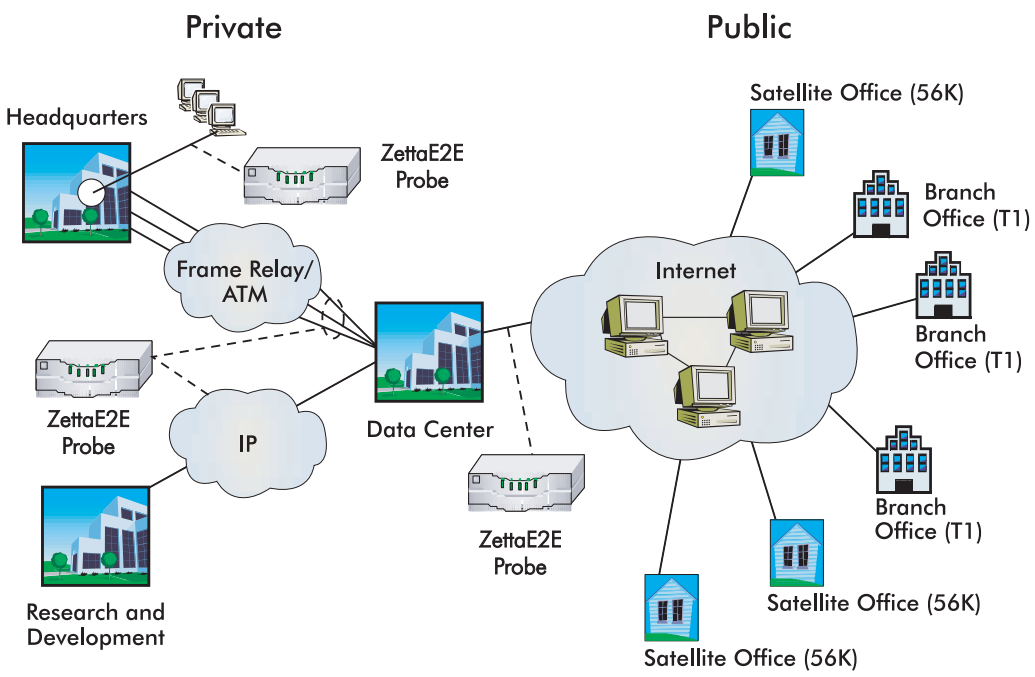
ZettaE2E easily provides insight into the effect that new applications have on network bandwidth by providing both "before" and "after" pictures of the flow of network traffic. By having a clear picture of the traffic flow before a new application was installed and then one after the installation is complete, ZettaE2E can identify whether the application actually requires more or less bandwidth then anticipated. In addition, ZettaE2E can also provide a view of user acceptance of new applications.

ZettaE2E also enables the IT Manager to validate the quality of service that is being received from Service Providers through its ability to identify available bandwidth. Thus it is now easy for the IT Manager to verify performance verse Service Level Agreement commitments.

View How Your Network Capacity Is Being Used

Through its ability to auto-detect IP addresses and view related activity, ZettaE2E is able to provide the IT Manager with a clear picture of the top talkers on the network and how and when they are using it. With ZettaE2E, unexpectedly high levels of activity from an IP address or activity from an unknown address can quickly be identified and corrective action can be taken. Thus, IT Managers can quickly stop any potentially fraudulent activity from affecting the network and the company's resources.

Typical ZettaE2E Deployment



ZettaE2E System Components

The core of the ZettaE2E system is comprised of multiple intelligent probes that perform network data collection, interpretation and processing. Probes are placed at selected access points on a WAN network (WAN probes), on strategic LAN segments (LAN probes) or on ATM links (ATM probes). The system is independent from any vendor, customer or network operating system (OSS). The probes collect the network data directly from the physical lines, not from the routers and switches. The system includes the following components:

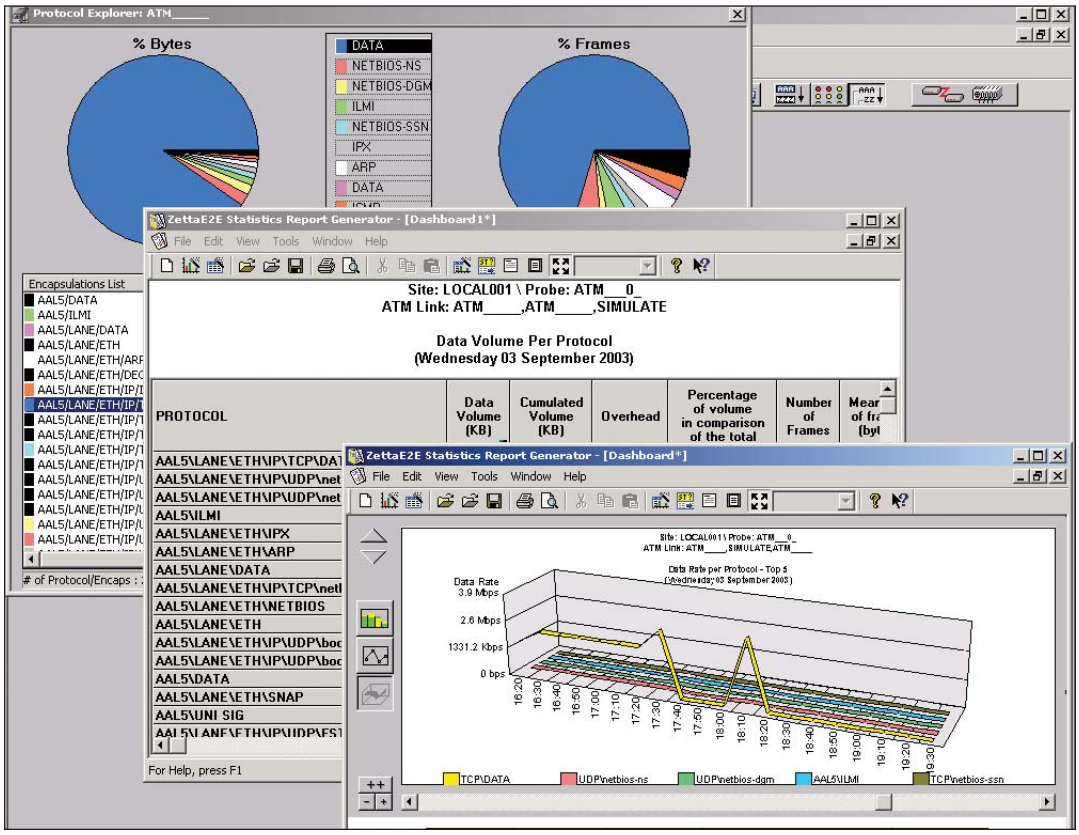
ZettaE2E Network Manager:
The ZettaE2E Network Manager is at the heart of the ZettaE2E system. It enables the remote monitoring and analysis of the network in real-time. Through the ZettaE2E Network Manager, the auto-detection of ports, protocols, applications, IP addresses and users takes place. The ZettaE2E Network Manager communicates with the probes via UDP and FTP, pulling only relevant and consolidated data to the client for viewing or Web publishing. The ZettaE2E Network Manager is comprised of a Channel Explorer, IP Explorer and Protocol Explorer.

Channel Explorer
The Channel Explorer auto-detects VCCs, DLCIs and VLANs. It provides drill down capability to see application distribution per channel, utilization per channel and average Round Trip Time per channel. It can monitor up to 32 channels with 10 second logging

IP Explorer
The IP Explorer identifies Top Talkers and Conversation Pairs, Round-Trip Time per conversation and throughput per address or conversation.

Information Window
The Information Window shows real-time bandwidth utilization.

Protocol Explorer
The Protocol Explorer allows you to see which protocols are being used on your network in real-time. It also allows you to view the structure of the protocol, including overhead size and data size.

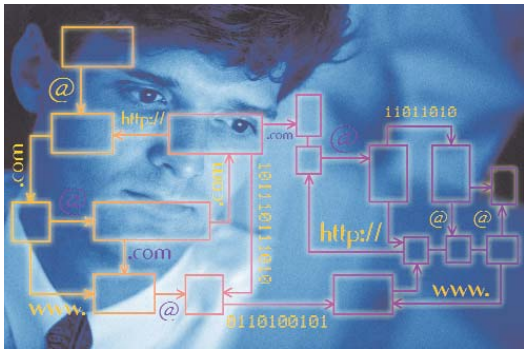


Alarm Manager:
The Alarm Manager automatically sends alarms from each probe in real-time when a pre-defined threshold has been met. All alarms are saved in a log file for further review and observation of trends. The Alarm Manager allows the IT Manager to drill down from the alarm to view who were the Top Talkers and Applications involved in causing the alarm. Alarms may be sent to the ZettaE2E Manager, SNMP stations or via email. Powerful filtering capabilities allow you to select which events to view in real-time.

Protocol Analyzer:
Each ZettaE2E probe is equipped with a protocol engine that can perform both real-time and post analysis decodes throughout the 7 layers of the network for over 300 protocols. Real-time filtering and triggering and a conversion utility to Sniffer™ format are also available. The ZettaE2E Protocol Analyzer allows you to present the frames, the decoding of a selected frame and the full data contained in the frame, all on a three window screen.

Statistics Report Generator:
The Statistics Report Generator provides immediate reporting capabilities and allows web editing of reports with active histograms and graphics. Active-X controls allow ZettaE2E to zoom in on a definite period and export the data directly from a graph.

Report Scheduler:
The Report Scheduler provides over 300 pre-defined reports and the ability to customize reports to specifically meet the user's needs. Reports can be scheduled for routine delivery or be obtained on an adhoc basis. Reports may be automatically posted to a web server, sent to a printer or intranet server. A variety of comparative and accumulative reports are available along with a Dashboard Editor that has been incorporated into the system for comprehensive reporting.



FastExpert:
ZettaE2E's FastExpert automatically generates reports based on data trends identified on each probe. It looks for periods of poor network performance and then correlates additional statistics to identify the root cause of the problem. In addition, it identifies trends that are occurring or being reversed and resources that are being under utilized as well as the applications and users involved. It provides recommendations on performance enhancements.

System Management:
The ZettaE2E system allows for easy multi-user access to all probes. Probes can be remotely upgraded from a workstation. Built-in security features allow you to limit access to probe features based on varying levels of password access.

ZettaE2E is the premier network monitoring system to meet the ever-changing needs of the network operations and planning personnel. It is a simple, yet very powerful system that will not only address the needs of today but will easily transition into meeting the needs of tomorrow.

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