

N-Form

Web-based Network Management Software Suite

Product Features

- SLA verification
- Real-time diagnostics for network troubleshooting
- Topology-tree interface
- Graphical device configuration
- Color-coded event notification/traps with filtering capabilities
- Web based, Java enabled
- Historical trend analysis
- Exception reporting
- Step-by-step report wizard
- Built-in File Manager for firmware, configurations, and scheduled reports
- Reports generated in PDF format
- User security and administration

N-Form® is a powerful proactive network management software suite from ADTRAN®, which maximizes the capabilities of ADTRAN network devices. N-Form combines a management platform and a network trend analysis tool in an easy-to-use, cost-effective web-based package.

N-Form's distributed architecture allows for a server/browser configuration. The N-Form server acts as the central network manager, while the Java-based client, a hardware independent Internet browser, is used for user input and control. The client requires no additional software, just an Internet browser and appropriate privileges. This provides for true distributed management, allowing multiple users to have management responsibilities from virtually any computer on the network.

With the use of Java and an Internet browser, users can remotely access extensive SNMP management functions such as

auto-discovery for automatic device detection, graphical device configuration, real-time diagnostics for troubleshooting, and complete color-coded trap management. Other user-friendly features include controlled polling, and event notifications via email.

N-Form also features a powerful trend analysis tool that stores performance information in a historical database. Once the information is collected, the Java-enabled report wizard allows users to view the data via a web browser in either graphical or tabular formats. Pre-configured reports are included for Service Level Agreement (SLA) verification, exception-based, and point-to-point performance monitoring. Final reports can be saved on your local hard drive or inside N-Form's public or private File Manager. Reports may also be scheduled on a recurring basis for convenience.

Network Management and Trap Manager

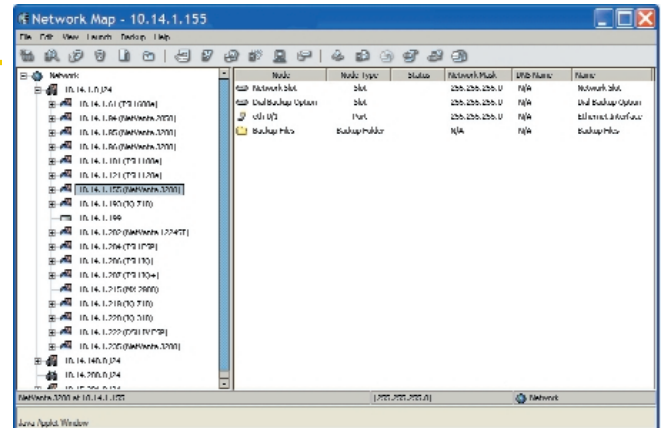


At the cornerstone of the N-Form® product suite are a network manager, an element manager, and a trap manager. These Java-enabled software utilities can remotely monitor network health, configure devices, and report alarm conditions or traps from any Internet browser.

The graphical user interface is based on a well-adopted and accepted hierarchical “Topology Tree” navigation structure. This topology-tree interface allows for high-level network health at a glance, with the ability to quickly drill-down to more detailed device configuration and real-time troubleshooting diagnostics.

To obtain device identification, N-Form offers auto-discovery. This automated feature can quickly and accurately poll the entire network to seek-and-find ADTRAN® products that are accessible. Auto-discovery is ideal for handling single device identification or an entire network, lending itself to the largest of networks. N-Form will auto-discover and populate the topology tree with device type, name and address, using a variety of methods: by individual IP address, by a range of IP addresses, or by entire subnet.

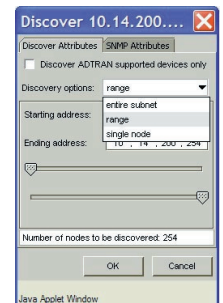
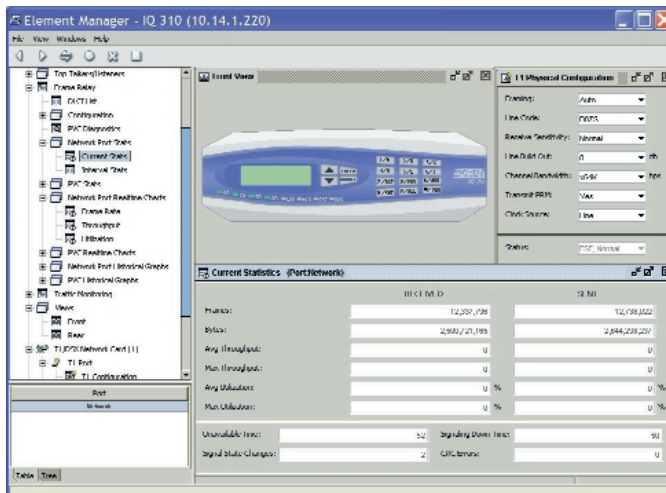
The Element Manager enables an N-Form user to configure, run diagnostics and view real-time



statistics on select ADTRAN devices. It can even display a graphical view of the device with LEDs that reflect status of the actual LEDs on the unit.

When a problem in the network arises, the event viewer eliminates guesswork and expedites troubleshooting by displaying events and traps. The Event Viewer displays device name, address, time of trap, trap description, user comments, and an acknowledgement field. For quick inspection, a designated trap severity color-code is also assigned.

N-Form makes network management easier than ever before. The system’s unique topology-tree interface makes navigation simple from the start. Features such as at-a-glance network health information, auto-discovery (for automated device detection), and graphical device configuration enhance the system’s user-friendly—yet powerful—toolset. Best of all, you can fully access these capabilities from any computer equipped with a standard web browser.



Historical Trend Analysis

| | Severity | Ack | Name | IP Address | Time | Description | Comments |
|----|----------|-------------------------------------|--------------------|-------------|-------------------------------|---|----------|
| 1 | Normal | <input checked="" type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 4:50:46 PM, 2004 | Device is now responding to ICMP echo requests (pingable) | |
| 2 | Major | <input type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 4:40:29 PM, 2004 | Device is no longer responding to ICMP echo requests (not pingable) | |
| 3 | Normal | <input type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 4:09:52 PM, 2004 | Device is now responding to ICMP echo requests (pingable) | |
| 4 | Major | <input type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 3:54:20 PM, 2004 | Device is no longer responding to ICMP echo requests (not pingable) | |
| 5 | Normal | <input type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 1:38:10 PM, 2004 | Device is now responding to ICMP echo requests (pingable) | |
| 6 | Major | <input type="checkbox"/> | 10.15.204.2 | 10.15.204.2 | Mon, Jun 14 1:33:08 PM, 2004 | Device is no longer responding to ICMP echo requests (not pingable) | |
| 7 | Normal | <input type="checkbox"/> | IQ710 Location xyz | 10.14.140.2 | Fri, Jun 11 4:00:11 PM, 2004 | Device is now responding to ICMP echo requests (pingable) | |
| 8 | Major | <input type="checkbox"/> | IQ710 Location xyz | 10.14.140.2 | Fri, Jun 11 10:53:28 AM, 2004 | Device is no longer responding to ICMP echo requests (not pingable) | |
| 9 | Normal | <input type="checkbox"/> | 10.15.204.6 | 10.14.1.199 | Fri, Jun 11 10:21:46 AM, 2004 | Device is now responding to ICMP echo requests (pingable) | |
| 10 | Major | <input type="checkbox"/> | 10.15.204.6 | 10.14.1.199 | Wed, Jun 9 4:51:32 PM, 2004 | Device is no longer responding to ICMP echo requests (not pingable) | |

N-Form also offers a powerful historical trend analysis solution with device data collection, and exception-based SLA verification reports. This provides long-term network performance analysis presented in a clear, practical manner, enabling you to make on-going planning decisions that maximize network quality and capacity planning for wide area networks.

N-Form's report wizard is an unobtrusive, easy-to-follow, step-by-step report generator that creates accurate, easy-to-read reports based on user selection. Reports can be scheduled to automatically run at regular intervals based on day, calendar week, calendar month, or quarter. These scheduled reports are then published to either the public or private File Manager.

N-Form ships pre-configured with a comprehensive set of reports that illustrate network trends. Reports include Service Level Agreement (SLA) verification, exception-based reporting, T1 performance monitoring, and many others. The resulting reports are clear, concise and offer a brief description on how to read the data and enclosed graphs and/or tables. Reports are generated in Adobe® Acrobat® PDF, allowing for reduced file size, web posting, and easy distribution.

With the combination of an element manager, report generation wizard, and an event manager, N-Form provides the tools needed to successfully manage the day to day needs of a growing network. Visit www.adtran.com/n-form for more information.

Report Generator

File View Help

Devices Reports Parameters Date Indices

Report Mode: Current Scheduled

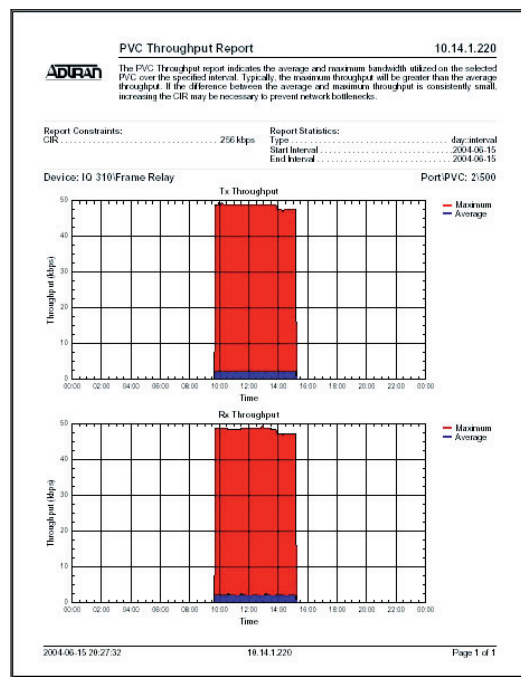
Scheduled Time Selection: Run every 7 Days

Select Start Date: June 2004

Data Resolution: Interval

Summary: For Frame Relay (10.14.1.220), create the 'PVC Reports/PVC Utilization' report for the last 7 Days starting on the day of Jul 1, 2004

Buttons: Cancel, << Prev, Next >>, Create





ADTRAN, Inc.
Attn: Enterprise Networks
901 Explorer Boulevard
Huntsville, AL 35806

P.O. Box 140000
Huntsville, AL 35814-4000

256 963-8000 voice
256 963-8699 fax

General Information
800 9ADTRAN
info@adtran.com
www.adtran.com

**Pre-Sales
Technical Support**
800 615-1176 toll-free
application.engineer@adtran.com
www.adtran.com/support

Where to Buy
877 280-8416 toll-free
channel.sales@adtran.com
www.adtran.com/where2buy

**Post-Sales
Technical Support**
888 423-8726
support@adtran.com
www.adtran.com/support

**ACES Installation &
Maintenance Service**
888 874-ACES
aces@adtran.com
www.adtran.com/support

International Inquiries
256 963 8000 voice
256 963-6300 fax
international@adtran.com
www.adtran.com/international

**For the regional office
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N-Form

Web-based Network Management Software Suite

Product Specifications

Network Management

- Auto-discovery for automatic device detection
- Alarm monitoring
- Graphical device configuration with drop-down option lists
- Color-coded exception notification/traps
- Real time diagnostics for troubleshooting

Report Generation

- Long-term trend analysis for network characterization
- Pre-formatted reports for SLA verification
- Multi-variable reports for port/PVC utilization and other Frame Relay metrics
- Exception reporting for entire network
- Easy to read and understand reports
- Step-by-step report wizard

Report Scheduler

- Automated report generation
- Perform daily, weekly, monthly, and quarterly reports
- Save reports in the File Manager for public or private access

Report Format

- Adobe® Acrobat® (PDF)

User Interface

- Web Based, Java enabled
- Hierarchical "Topology Tree" for easy navigation
- Network health "at-a-glance"
- Severity color-coded exceptions/traps
- User security and administration
- Personalized web entry for report notification

Minimum System Requirements

Recommended for Server: Data Collection

- PC-compatible computer with 1GHz processor
- **Operating Systems:** Windows NT® 4.0 with Service Pack 6 or Windows 2000 Service Pack 2
- **Disk Space:** 500 MB
- **RAM:** 512 MB
- **Display Resolution:** 1024 x 768
- Microsoft Internet Explorer version 5.5 or higher, or Netscape Navigator version 6.0 or higher
- CD-ROM for installation

Recommended for Client: Network Configuration and Reports

- Any hardware with Internet browser:
 - Microsoft Internet Explorer version 5.5 or higher
 - Netscape Navigator version 6.0 or higher

Supported Devices

- IQ 310
- TSU IQ (Rackmount)
- ATLAS™ 550
- TSU™ 100e
- TSU™ 120e
- TSU™ 600e
- MX2800™
- T3SU 300™ AC
- T3SU 300™ DC
- DSU IV ESP™
- TSU ESP™

Ordering Information

| Equipment | Part # |
|-----------------------|-----------|
| N-Form® 30 day demo | 1950822 |
| N-Form Software Suite | 1950822L1 |

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