

## Integration with Other OPNET APM Solutions

- From dashboard view, seamlessly drill into AppTransaction Xpert for in-depth analysis of individual multi-tier transactions.
- Drill-down into AppInternals Xpert for conclusive root cause diagnosis when AppResponse Xpert indicates that the server is the source of excessive end-to-end response time.
- Leverage AppSensor Xpert to display network performance data along the entire layer2/3 network path for a transaction, and inspect server performance.
- Export traffic flow data into OPNET's network performance management solutions, for network operations and planning.
- Incorporate SQL transaction performance data from AppSQL Xpert into AppResponse Xpert, for a single, unified view.
- AppResponse Xpert provides detailed information about application components and relationships to AppMapper Xpert, which automatically creates a run-time application dependency map.

## AppResponse Xpert SaaS Edition

AppResponse Xpert SaaS Edition utilizes JavaScript instrumentation to measure end-user experience for web applications. Dashboards provide detailed reporting of performance, geography, platform type, and response time breakdown. It is particularly well suited to monitoring the performance of applications deployed in the cloud.

## AppInternals Xpert™

*Deep Application Component Monitoring and Analytics*

AppInternals Xpert traces user transactions through the application and provides deep monitoring for the individual components. It tracks hundreds of thousands of system and application metrics and performs powerful correlation analytics to detect patterns of behavior that rapidly identify the root cause of application performance problems. Exclusive low overhead technology enables AppInternals Xpert to continuously trace user transactions across all application tiers, with code-level detail.

## AppMapper Xpert™

*"What's in Your Application?"*

AppMapper Xpert automatically discovers application and infrastructure relationships to create a runtime application dependency map. It leverages the instrumentation already in place for application performance management to build a comprehensive model of the application ecosystem.

## AppSQL Xpert™

*Agentless Database Performance Monitoring*

AppSQL Xpert provides deep visibility into database transaction performance through real-time monitoring. It tracks database usage for monitoring, troubleshooting, and performance optimization. AppSQL Xpert's passive approach imposes zero overhead on database operation.

## AppTransaction Xpert™

*Deep Transaction Performance Analysis and Prediction*

AppTransaction Xpert provides detailed analysis of multi-tier application transactions. Using code-level and network-level forensic data, it builds a detailed transaction model for root-cause analysis and predictive studies. AppTransaction Xpert Packet Trace Warehouse offers centralized control of enterprise-wide desktop agents that collect packet traces and environmental conditions (CPU, memory, I/O, etc.) from user desktops. It provides a federated repository of forensic data to accelerate performance troubleshooting and application mapping.

## AppSensor Xpert™

*Agentless Application and Infrastructure Monitoring*

AppSensor Xpert provides broad infrastructure monitoring, using remote instrumentation interfaces to capture performance information from infrastructure components including servers, application components, the application delivery network, and vendor-specific management systems. AppSensor Xpert supplies real-time and historical data for a more complete picture of the application's operating environment.

# AppResponse Xpert™

*End-User Experience, Network Monitoring and Analytics*



AppResponse Xpert monitors and analyzes end-user experience for all types of applications. It automatically summarizes data according to applications and user-defined business entities such as locations or departments. AppResponse Xpert also integrates with OPNET's powerful APM Xpert suite to provide deep troubleshooting. A broad range of virtual and physical appliances support the full spectrum of application environments from SMBs to the world's largest application deployments.

### AppResponse Xpert provides:

- End-user experience monitoring for web and non-web applications
- Response time decomposition (triage and troubleshooting)
- Citrix troubleshooting
- Database transaction monitoring
- Unified Communications monitoring
- Network traffic monitoring
- High volume packet storage
- NetFlow collection and reporting



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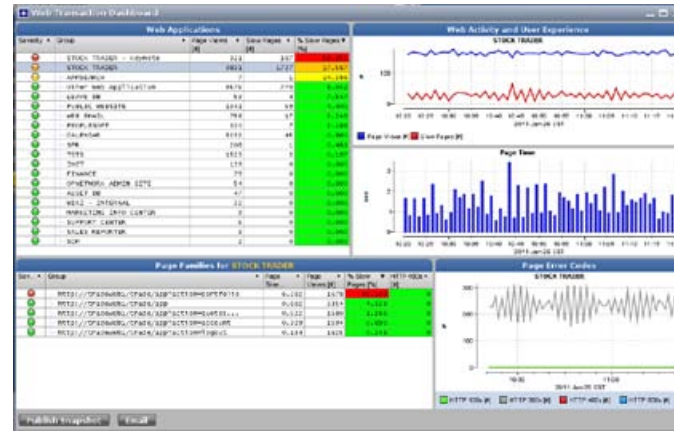


## About OPNET Technologies

OPNET Technologies, Inc. is a leading provider of application and network performance management solutions. OPNET's solutions deliver broad visibility and monitoring across infrastructure domains as well as deep data collection and analytics to enable powerful root cause diagnosis. These solutions have been operationally proven in thousands of customer environments worldwide.

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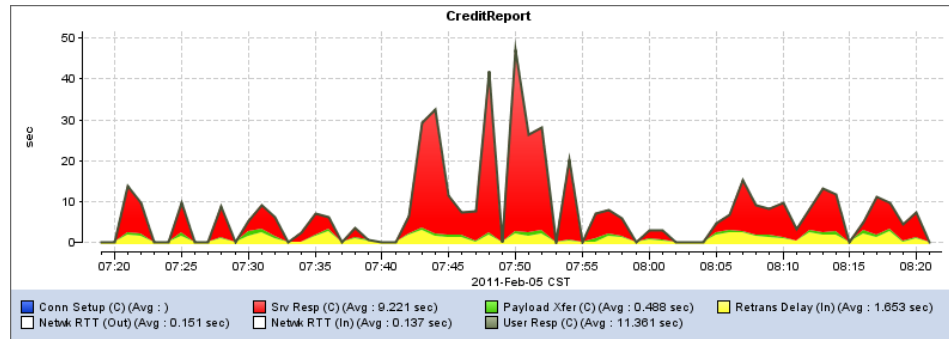




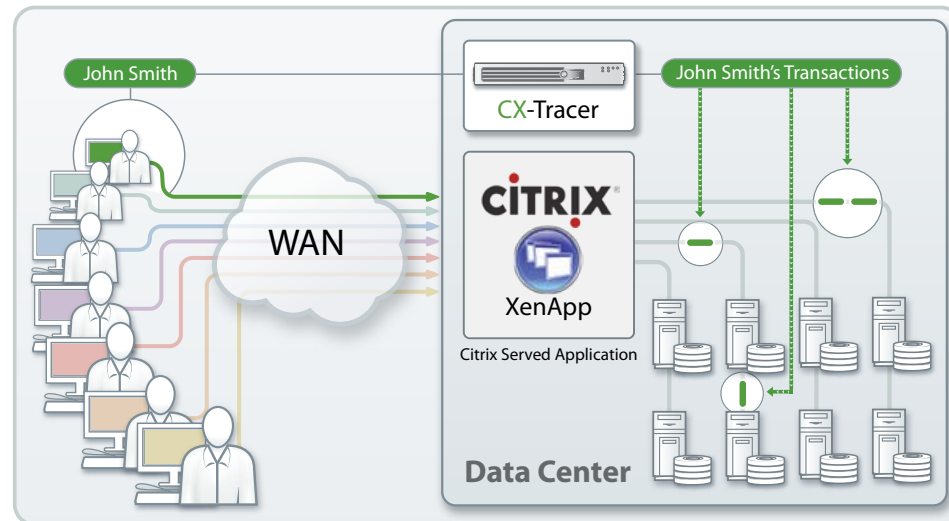
Monitor response time of web applications at the page level.

**Benefits**

- Monitor and troubleshoot end-user experience, network performance, Citrix, database, and Unified Communications—all with a single solution.
- Troubleshoot application performance problems faster.
- Detect application performance problems early, with no overhead on your application environment.
- Ensure the performance of web-based business transactions.
- Eliminate “finger-pointing” among IT teams concerning the source of application performance problems.
- Understand and address usage and performance trends for your applications and networks.
- Baseline performance to support change management.



Pinpoint the source of application response time delay.



Obtain end-to-end visibility of user transactions traversing a Citrix server.

Application	HQ - Users	Internet	Office - Cary	Office - Belgium	Office - Dallas	Office - France	Office - Nashua
EMAIL	99.2%	48.9%	92.0%	88.5%	75.6%	60.0%	95.6%
INFOSYS	100%	100%	100%	100%	100%	100%	100%
MARKETING INFOCENTER	100%	100%	100%	100%	100%	100%	100%
OPNET REQUESTS	100%	100%	100%	100%	100%	100%	100%
OPNET WIKI	93.6%	100%	99.2%	100%	100%	100%	98.9%
PEOPLESOFT	100%	100%	100%	100%	100%	100%	100%
PRODUCTDOCS	98.5%	100%	100%	100%	100%	100%	100%
PUBLIC WEBSITE	95.3%	77.7%	100%	100%	98.0%	99.5%	100%
WEB EMAIL	60.8%	30.6%	99.7%	100%	100%	100%	100%

Track performance by application, user, business division, and location.

**Key Features**

- Monitors end-user experience for all users, all applications, all the time.
- Automatically discovers applications.
- Tracks performance by application, user, transactions, business division, and location.
- Breaks down application response time into contributing sources of delay.
- Monitors and analyzes performance of web applications at the page level.
- Provides end-to-end visibility for Citrix-hosted applications, tracing user transactions through the Citrix XenApp server.
- Monitors performance of database transactions, pinpointing specific SQL statements responsible for application delays.
- Measures performance of VoIP calls while they are in progress.
- Provides accurate, end-to-end visibility in WAN accelerated applications, leveraging specialized support for Riverbed Steelhead and Cisco WAAS devices.
- Collects and analyzes NetFlow data to report on network capacity and utilization, and provide visibility into communications between remote locations.
- Alerts against SLA violations. Dynamic thresholding automatically adjust limits based on historical performance, reducing false alarms and the need for manual configuration.
- Stores performance and forensic data in large capacity, long-term storage for subsequent troubleshooting, trending, and capacity planning.
- Enables seamless drill-downs to root cause analysis.
- Dashboards and workflows can be tailored to suit user requirements.
- Diverse family of appliances supports a broad range of throughput and storage requirements.
- Software appliances restore visibility of traffic among virtual machines within a server.
- Agentless approach introduces zero overhead.

**Modules**

**CX-Tracer**

CX-Tracer is a breakthrough solution for end-to-end visibility of user transactions traversing a Citrix server. It deterministically correlates front-end and back-end application transactions to determine end-user experience and trace transactions across the Citrix tier. CX-Tracer works seamlessly with the APM Xpert suite products to enable comprehensive APM capabilities for Citrix-hosted applications.

**AppResponse Xpert Module for Database Performance**

The AppResponse Xpert Module for Database Performance monitors real-time database transaction performance, providing valuable insight into the impact on end-user experience. It rapidly pinpoints the SQL statement or database call responsible for application delay. Its agentless approach introduces zero overhead on database operation, and requires no database logging.

**AppResponse Xpert Module for NetFlow**

The AppResponse Xpert Module for NetFlow collects and analyzes NetFlow records to report on network capacity and utilization. The solution provides visibility into traffic among and within remote locations.

**Unified Communications Module**

The AppResponse Xpert Unified Communications monitors real-time VoIP calls, alerting on quality issues with calls in progress. It enables diagnosis and troubleshooting, and performs historical reporting.



**Compare AppResponse Xpert to Other Solutions**

- A single AppResponse Xpert appliance supports a variety of use cases, including:
  - End-user experience monitoring at the user transaction level (e.g., web page level)
  - Citrix troubleshooting
  - Database transaction monitoring
  - Unified Communications monitoring
  - High-volume packet capture and storage
  - Network traffic monitoring
  - NetFlow collection and reporting
  - Triage and troubleshooting
- Other solutions typically require multiple appliances and servers and cover fewer use cases.
- Web transaction response time is measured at the page level -- the same way users experience it. Many vendors offer only HTTP request/response performance measurement.
- Flexible deployment options include both hardware and virtual appliances.
- One-minute resolution for aggregated performance statistics is more precise than the typical 5- and 15-minute collection intervals.
- Web application performance is reported for all individual transactions.
- Dashboards and reports are easily customized to provide application-specific, intuitive screens and workflows adapted to the needs of your staff.
- Simple, fast deployment delivers rapid ROI and low TCO.