

# Application Transactions Real Time

## Why capture Application Transactions Real Time

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Network-aware NPM solutions have provided a visibility into TCP level performance; having a broad view of whether the degradations comes from the network conditions, the server processing time or the quantity of data sent back and forth still has value. It enables IT operations to pinpoint the origin of a broad performance slowdown.

Nowadays people need a precise vision of where applications are failing to deliver a proper performance and to quickly identify transactions with errors and slow response times.

A diagnostic should not require any complex post treatment and transactions should not be presented as packet decodes. Teams expect that data to be easily available and in a format understandable by everyone (network, systems, database, applications teams...).

## Transaction Level Application Performance Monitoring

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Performance Vision is a 100% non-intrusive solution:

- Agentless: no agent to install (neither on clients, nor on the servers)
- No code modification or injection
- No impact on performance (no logging overhead on your server)
- No need for specific rights on the monitored systems

## Performance Vision's Unique Features

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### Focused on Application Transactions!

Many vendors speak about transactions and provide the details of a transaction with a packet decoder.

When performing application performance diagnostics it is important to manipulate data not at packet level but at the application layer to decide which transaction you need to take a closer look at.

In the first steps of troubleshooting you need to be able to:

- See application transactions, not packets so that the data is understandable by all teams...
- Sort data by many criteria: number of queries, individual response codes, error statuses, processing times, network data transfer times...
- Filter information on response codes or even on the details of a request...

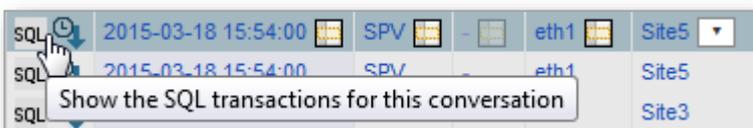
Performance Vision allows you to do all this on a very large range of transactions, covering hours or days of data, meaning you are able to manipulate a huge number of transactions (in millions or more).

SQL Query	#Queries	#Errors	SRT
create table [redacted] ( [redacted] timestamp)	75	0	76ms
create table [redacted] ( [redacted] [redacted])	30	0	72ms
select current_date, current_time, to_char(now(), 'Day'), extract(day from ...)	3	0	70ms
CREATE OR REPLACE [redacted] (varchar) RETURNS varchar AS...	18	0	62ms
FROM [redacted]	0	0	52ms
JOIN [redacted] ON ([redacted])	0	0	46ms
JOIN [redacted] ON ([redacted])	0	0	35ms
LEFT JOIN [redacted] ON ([redacted])	0	0	30ms
AND [redacted]	0	0	24ms
LEFT JOIN [redacted] ON ([redacted])	0	0	23ms
AND [redacted]	0	0	23ms
LEFT JOIN [redacted] ON ([redacted])	0	0	19ms
AND [redacted]	0	0	19ms
LEFT JOIN [redacted] ON ([redacted])	0	0	19ms
AND [redacted]	0	0	17ms
WHERE [redacted] > 0	0	0	17ms
AND NOT [redacted]	0	0	17ms
AND [redacted] LIKE 'test%'	0	0	16ms
AND [redacted] LIKE '%'	0	0	16ms
ORDER BY [redacted]	0	0	16ms
CREATE TABLE [redacted] (source text, user money, imageid int)	0	0	16ms

## Real time, Really real time!

Performance Vision records APM data both at network and application levels, 24 x 7. This means that your performance data is available from layer 2 to layer 7 almost instantly.

You do not need to extract a network capture and insert it into another module to view the layer 7 transactions from a network flow... A single click is enough to move from network performance data to application transaction details.



## All transactions in details

When it comes to troubleshooting, it is critical to be able to deep dive into the details of how similar transactions performed at different point of times to understand what influenced performance (network conditions, server status).

Capturing all transactions makes sense provided you can actually provide both an overview of the transaction performance (evolution graphs, top reports, etc...) but also the details for each transaction (client / requester, server, query details, response code, performance metrics, network conditions, etc...)

## Application coverage

Performance Vision offers one of the broadest real time transaction analysis coverage on the market. Examples of application transactions decoded in real time:

- Web Applications (HTTP/HTTPS)

- Databases (MS-SQL, Oracle, MySQL, PostgreSQL, MariaDB)
- Name Resolution (DNS, mDNS, Netbios-WINS)
- Storage and File Transfer (CIFS, SMB v1, v2, v3)
- VoIP (RTP, SIP, SCCP-Skinny, MGCP)

All these application transaction analyses are provided by default, without any option or additional module.

## Coverage of Today's Datacenters : Physical & Virtual Networks

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Most datacenters now massively integrate virtualization systems to save costs, deployment time and to gain flexibility and resilience. As a consequence, a lot of the server to server traffic is exchanged between virtual machines through the switches embedded in virtualization chassis.

This means that a significant part of the traffic which is strategic for performance troubleshooting does not reach the physical switches.

To conduct an efficient performance troubleshooting you need to have a visibility on the traffic flowing through both physical and virtual switches. Capturing data on the virtual network has a certain number of consequences:

- You cannot extract all the traffic to analyze it (most virtualization chassis do not have dedicated NICs for that purpose).
- You need to capture traffic inside the virtualization chassis through the virtual switches (e.g. VMware Virtual Distributed Switch - VDS).
- You cannot require significant resources on each vSphere host you need to capture traffic in. The capture engine must be discrete and rely on minimal resources.

Performance Vision virtual pollers matches all these criteria and natively extends the vision from the physical network to the virtual network.

## It's « all-in »

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Performance Vision natively integrates all these features:

- Network to transaction level performance measurement
- Real-time application transaction analysis
- Physical and virtual traffic capture.

This is all running on a single, totally integrated platform. There are no options, no modules, and no software running on several appliances. It is all native and easy to use.