



HP TransactionVision 5.0 software

Data sheet



HP TransactionVision is a business transaction management product that gives you visibility into enterprise transactions to measure health, performance and business impact. It allows you to track transactions from end-to-end and all points in between.

Manage what matters most.

The success of your business depends on transactions, and transactions are growing in complexity as business processes evolve. Initiatives like service-oriented architecture (SOA), outsourcing and regulatory compliance further add to this complexity. They make managing transaction quality and performance all the more critical yet harder to do. At the same time, IT is being challenged to prove its value to the business and to communicate to the business in terms that the business understands.

Past solutions for managing transaction quality and performance have either been from a bottom-up approach, where IT infrastructure such as systems and networks are monitored to ensure that the critical infrastructure that carries transactions is healthy, or from a top-down approach, where business processes are monitored at a high level to determine the health from a business perspective. Both approaches are powerful and contribute to achieving better transaction performance, but ultimately they are not measuring precisely what is most critical to both the business and IT: the actual transactions moving through the enterprise.

HP TransactionVision software provides a new approach to measuring transaction health. It actually tracks and measures individual transactions as they progress through your enterprise. It provides the convergence between low-level systems and network monitoring and high-level business process monitoring to complete your business service management strategy and link your IT objectives with your business objectives.

Do you know where your transactions are?

Companies in the overnight delivery business learned years ago that the key to consistently meeting delivery objectives is to track every package through each step in the delivery process. It is not enough to know that the lights are on in their distribution centers, their trucks all have gasoline and their delivery personnel are showing up to work. These might be valuable metrics to monitor to understand different aspects of the health of a delivery business, but they are not helpful when a customer calls to ask when an urgent package is going to be delivered. They are also not especially useful to a business analyst who needs to understand the flow of packages through a company's operations in order to optimize the delivery process.

With HP TransactionVision, your business gets a similar level of visibility into your online transaction processing that a package tracking system gives to overnight delivery services. You can know where every transaction is at every second of every day. When there is a problem with a transaction, you can drill down to the tracking information to see the breakdown of processing time at each step and determine if a transaction has encountered problems that made it fail. And, all of this tracking data can be aggregated to give you an operational view of your entire transaction processing infrastructure to isolate trouble spots causing delays or failures.

What's more, HP TransactionVision goes beyond the package tracking solution to see inside the box. By extracting key data from transaction payloads, HP TransactionVision can determine precise customer impact in monetary terms. This capability is critical in high-value transaction environments like banking payments and in highly regulated environments like securities and insurance.

Key features and benefits

Provides non-intrusive architecture for quick implementation

Tracking transactions is an intuitive concept, but where exactly are the touch points that are critical to track? Other solutions require highly invasive approaches, such as requiring changes to your middleware configuration or worse, requiring source code changes to the applications being monitored to generate explicit touch-point tracking records. Intrusive approaches such as these make adoption of such solutions expensive and time consuming and in some cases technically impractical.

HP TransactionVision uses an innovative approach of gathering tracking records at middleware boundaries rather than deep in the monitored applications themselves. This patented technique leverages standard middleware interfaces to gather transactional events that include middleware metadata, such as queue names and message identifiers, as well as business content, such as customer identifiers and transaction values. The resulting events therefore provide the links down to the infrastructure through the metadata and up to the business service through the business content data. This establishes the critical link between IT and the business required by business service management.



Enables auto-discovery of transaction flows to reduce time-consuming modeling

Other attempts at business transaction management have required users to first model the flows of their enterprise transactions. This is typically a labor-intensive process that is error prone and often out of date before it is completed due to ongoing changes in the transaction flows as business requirements change. Furthermore, solutions that map transaction instances to a modeled expected flow often do not handle unexpected departures from the model gracefully.

HP TransactionVision does not assume that a model exists that describes all possible transaction flows. It simply monitors transactions and discovers the transaction paths, instance by instance, as it observes them executing across the enterprise. In fact, HP TransactionVision can aggregate the transaction instance flows together and report a complete model that describes the paths of transactions through the environment. In short, you don't tell HP TransactionVision how you think your transactions flow; it tells you how they actually flow based on observing real transactions as they are processed.

The discovered models can be used by business process monitoring products, such as HP Business Process Insight software, to jump-start the as-is modeling process. In addition, they can drive change management products, such as HP Universal CMDB software, to detect changes in transactions that are undetectable using IT infrastructure configuration data alone.

Captures key performance metrics to help you understand performance and availability across the enterprise

HP TransactionVision monitors transactions end-to-end and all points in between. It isolates problems down the offending application or middleware component and enables your staff to quickly zero in on the culprit rather than wasting time investigating each tier in isolation. And HP TransactionVision has integrations with other HP Business Availability Center software products, such as HP diagnostics software and HP Real User Monitor software. These integrations enable HP TransactionVision to drill down into the offending components for root-cause analysis, thereby drastically reducing mean-time-to-repair.

Directly measures the business impact of IT failures and successes

The promise of business service management (BSM) is to directly link IT performance with business performance. However, most attempts at BSM simply attempt to link an IT failure with an impacted business service without providing an objective measure of the severity of the failure. Such solutions tend to focus on the bad news and do not provide metrics that reflect the positive impact on business when things are working well.

HP TransactionVision collects not only technical information about your transactions but also business content. From this information it can determine the actual business impact of the transaction, good or bad, based on actual business data, such as transaction value and customer impacted. Aggregated business impact views show service-level compliance and operational risk to key customers, for example.

Scales to handle large transaction volumes in demanding environments

The HP TransactionVision design allows the software to process very large volumes of transactions in near real time in environments like banking, e-commerce, securities and communications, while reducing performance overhead to your transaction processing times. Tracking data is stored in common relational databases for security and easy reporting.

Keeps data storage in check with smart filtering of tracking data

HP TransactionVision includes sophisticated filtering capabilities that allow you to specify precisely which types of tracking events are required to be captured and stored. Using these filters, you can narrow your focus down to just the transaction types and level of detail that you need to capture. Changing the filter criteria is completely dynamic, so you can, for instance, capture only coarse grain details when the system is performing well and then switch, in real time, to a finer level of granularity to have more data to help resolve a problem.

Provides broad technology coverage across all tiers in the enterprise

HP TransactionVision has broad support for the major middleware and infrastructure technologies commonly used in your enterprise. It tracks transactions through J2EE application servers, messaging middleware such as WebSphere MQ and JMS implementations, integration technologies like brokers and process engines, and mainframe transaction monitors such as CICS and IMS. HP TransactionVision also supports web services invocations through HTTP or messaging middleware interfaces.

For those instances where transactions flow through middleware technologies or proprietary communication schemes not supported out of the box, HP TransactionVision provides an extension API that can be used to generate explicit tracking records to remove blind spots in the transaction flow.

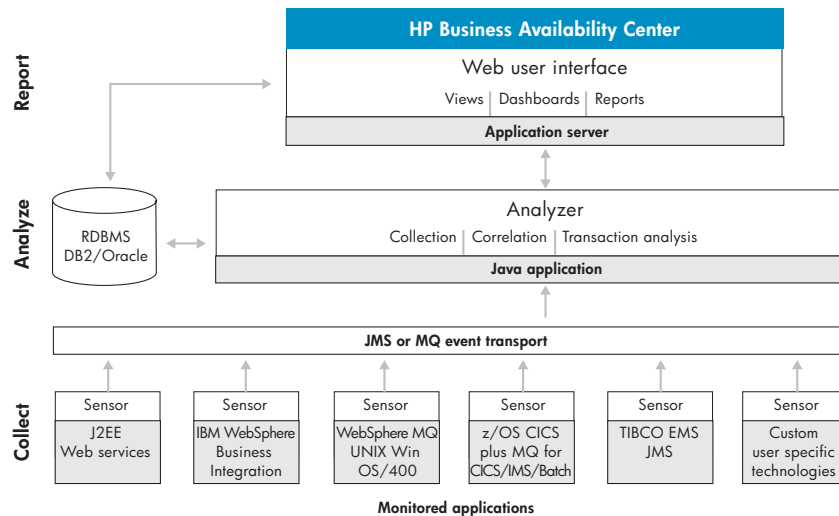
Increases SOA manageability by tracking through to the back end

One of the primary advantages to SOA is that it abstracts the business service implementation details from the consumer of the service. This is a great advantage in quickly building new business services based on composite applications that reuse existing applications in the enterprise. But when things go wrong, this same abstraction can become a hindrance in resolving the problem because it conceals the back end application dependencies of the web service. As SOA enables more and more complex solutions in the future, this problem will continue to get more profound.

HP TransactionVision complements SOA by providing tracking of web services invocations from inception through middle integration tiers and into back-end systems like mainframe CICS applications or enterprise applications such as SAP.

Figure 1. HP TransactionVision architecture

HP TransactionVision's three-tier architecture enables scalability and accessibility to both business and IT users.



How does it work?

HP TransactionVision is implemented in three tiers:

- Sensors are small software components that collect transaction tracking events through interfaces provided in middleware technologies, such as application servers, messaging and transaction monitors. They are available for a broad set of operating platforms and middleware technologies and are extendable to cover technologies that are not supported out of the box. Think of the sensors as the bar code scanner in the package tracking analogy above. The sensors report tracking metadata, such as timestamps and application identifiers, as well as business content data from message payloads.
- The Analyzer is a Java™ application that receives tracking events from the sensors through web services or messaging middleware, such as WebSphere MQ or JMS. The Analyzer correlates the individual tracking events together into a directed graph that describes the flow of each transaction instance being monitored. It attaches latency metrics to the nodes and arches in the graph that describe the time spent at each step of the transaction. The tracking events as well as the correlated transaction flow graphs are all stored in a relational database, such as Oracle®, DB2 or Microsoft® SQL Server.
- The HP TransactionVision user interface is provided through a J2EE web application. All configuration and management of the solution is provided through this web interface as well as access to all views and reports of the data stored by the Analyzer.

Figure 2. Transaction component topology

HP TransactionVision automatically discovers transaction flows and displays them graphically.



Of these three components, only the Sensors run on your production servers, and they are optimized to reduce impact on your transaction performance. The Analyzer and user interface web application usually run on separate servers out of band of your transactions. The communication between the Sensors and the Analyzer is message-based, so there is no tight coupling that could cause transaction latency due to HP TransactionVision communications.

Figure 3. Transaction dashboard

Performance can be reported by transaction type or by business data such as impacted customer.



Link IT with business objectives.

HP TransactionVision software is the HP solution for measuring and managing business transactions. It serves as a critical part of business service management strategy—tying IT infrastructure management to the needs of the business.

Through its ability to actually track and measure individual transactions as they progress through your enterprise, HP TransactionVision links together low-level systems and network monitoring and high-level business process monitoring.

Ultimately, HP TransactionVision helps you complete your business service management strategy, link your IT objectives with your business objectives and optimize business outcomes.

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To access technical interactive support, visit Software Support Online at www.hp.com/managementsoftware/services.

To learn more about HP Software Customer Connection, a one-stop information and learning portal for software products and services, visit www.hp.com/go/swcustomerconnection.

System requirements*

Hardware	Intel® (Windows® or Linux), IBM PA-RISC (AIX), Sun SPARC (Solaris) for Analyzer
Transaction analyzer/web application UI software	Operating system: <ul style="list-style-type: none">• Windows 2003 Server SP2• Red Hat Enterprise Linux 3.0 and 4.0 WS/ES/AS• AIX 5L, 5.2, 5.3• Solaris 8, 9, 10 Database <ul style="list-style-type: none">• Oracle versions 9.2.0.5 and 10.2.0.1• MS SQL Server 2000 with SP3a• DB2 8.1 FixPack 11• DB2 8.2 FixPack 4• DB2 9.0 Application server <ul style="list-style-type: none">• WebSphere Application Server V5.1.1• WebLogic Application Server 8.1.4, 9.2
Browser	Microsoft Internet Explorer 5.5 SP2, 6.0 SPs, 7 with Sun Java 1.5.0 plug-in

Ordering information

Product number	Product name
T6630AA	HP TransactionVision 5.0 English Software Media or E-Media
T6631AA	HP TransactionVision Analyzer Foundation Software LTU
T6632AA	HP TransactionVision Distributed Sensor per CPU Software LTU
T6633AA	HP TransactionVision Mainframe Sensor per MSU Software LTU
T6634AA	HP TransactionVision MQ Client Sensor per 1000 Clients Software LTU

* For more detailed software requirements, see HP TransactionVision 5.0 Release Notes.

A complete solution

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To learn more

For more information about HP TransactionVision software, contact your HP representative or visit www.hp.com/go/software.

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