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The Forrester Wave™: Passive Agent End User Experience Monitoring, Q3 2007

by Jean-Pierre Garbani
for IT Infrastructure & Operations Professionals



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Four Vendors Compete In A Close Race

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EXECUTIVE SUMMARY

Forrester evaluated four independent vendors of desktop-based end user experience monitoring solutions across 43 criteria and found that the technologies used are relatively equal and well-adapted to the intended market segments, while the major differences lie in the way they report information. Serden Technologies and Knoa Software lead the evaluation but only just. Serden's strategy of providing extensive data-mining functionality gives its solution a slight edge in the ability to serve more than one market segment, and Knoa's current offering appears more mature than its peers'. PremiTech and Symphoniq closely compete, both forming part of the Leader category. While there are many other solutions on the market most are relatively old or very much application-specific. Focusing this evaluation on small creative vendors dedicated to passive agent experience monitoring as opposed to large multifarious enterprises allows us to examine this space's most innovative and generic technologies and leads us to a more balanced comparison.

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NOTES & RESOURCES

Forrester conducted product evaluations in July 2007 and interviewed four vendor companies: Knoa Software, PremiTech, Serden Technologies, and Symphoniq.

Related Research Documents

["The Forrester Wave™: Appliance-Based End User Experience Monitoring, Q2 2007"](#)

June 21, 2007

["Managing IT From The End User Perspective In 2006"](#)

December 15, 2006

["Managing Performance From The End User Perspective"](#)

November 5, 2004

THE KEY DIFFERENTIATORS OF DESKTOP-BASED AGENTS

The key takeaway from the Forrester Wave™ on appliance-based end user experience monitors was that several products — using similar architectures — addressed different preoccupations of IT management.¹ Desktop-based passive agents are another example of this specialization trend. Appliance-based products provide performance data that mostly addresses the performance and availability parameters of an online transaction, regardless of the device from which the transaction originates. Desktop-based products, on the other hand, add the end user device dimension to the performance parameters. Not only does a desktop-based agent better reflect the true end user experience — which the desktop's performance could strongly influence — but it also provides insight into other parameters such as application usability and end user behavior. The preliminary conclusion that we can reach by looking at the type of information provided is that while appliance-based solutions mostly address the business and IT operations, desktop-based solutions address both IT operations and the application development side of the IT organization (see Figure 1).

Another area that is of interest for some IT organizations is the agent's ability to collect data on user working patterns and the desktop itself: which offline applications are used, how they are used, and the actual performances of the desktop itself. This is, of course, of definite interest when planning desktop refresh cycles.

Finally, many enterprises still use a mix of applications that use a variety of presentations and transport mechanisms, from IBM 3270 mainframe to client/server applications. Because desktop-based agents collect data at the user-machine level, they are protocol-independent by design and are one of the only solutions on the market to collect real user data in these instances.

Figure 1 The Difference Between Appliance- And Desktop-Based Solutions

	Availability	Transaction performance	Desktop performance	App usability	App accuracy	Non-IP apps
Appliance-based passive agent	✓	✓	✗	✗	✓	✗
Desktop-based passive agent	✓	✓	✓	✓	✓	✓
Typical data user	IT ops	IT ops	IT ops	App dev	Business & app dev	IT ops

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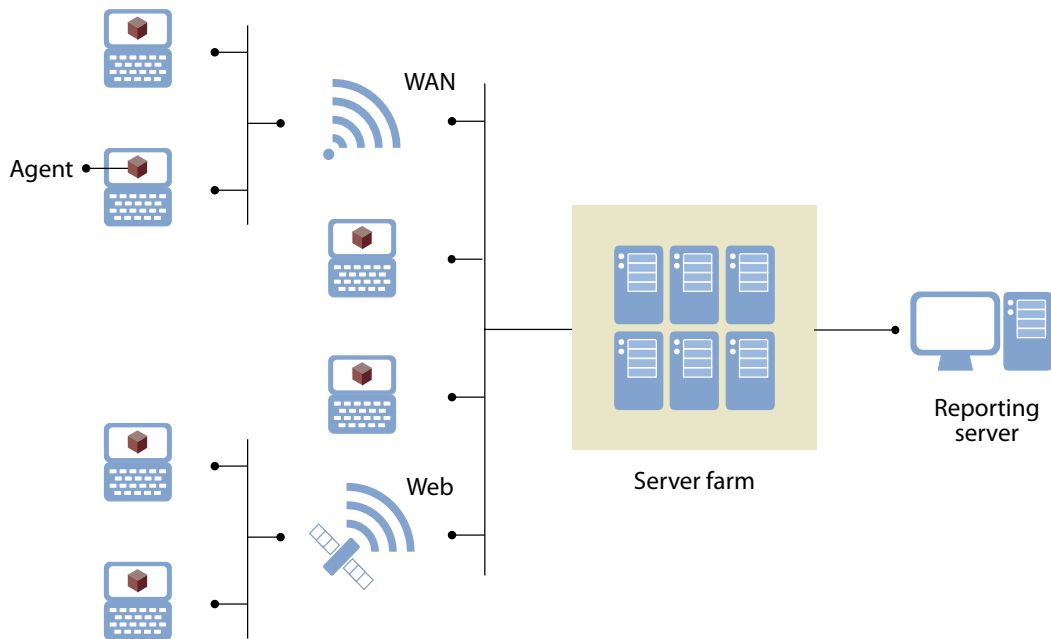
Source: Forrester Research, Inc.

Product Architecture

All the products participating in this evaluation have a similar architecture: The desktop agent reports the data collected to a server used for administration and reporting (see Figure 2). Agents usually require a small footprint and consume few resources at the user-machine level. With the exception of Symphoniq, which uses JavaScript embedded within the Web pages the end user requests, all products use a central agent administration, which takes care of agent distribution, configuration, and updates with a minimum of manual intervention. This is an important point: In previous versions of this type of product, agent administration was seen as a burden, whereas the four products examined here have actually automated the agent administration to the extent that this should no longer be regarded as an obstacle to adoption.

The main difference between passive agent and appliance-based end user experience monitoring is that, in the former, the desktop must be able to accept an agent. This usually means that hosts belong to the enterprise itself. In most instances, this will limit the diffusion of this type of product to internal users; Symphoniq's product is the exception, as it trades the advantages of a transient agent for a limitation to Web-based performance application monitoring.

Figure 2 The Typical Architecture Of Passive Agent End User Monitoring Products



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Source: Forrester Research, Inc.

Market Segmentation

Although the evaluated solutions appear to have the same goals as appliance-based offerings, the market segmentation differs slightly:

- **It is addressed to internal users.** As stated before, to download an agent on a user machine, the enterprise has to own the user machines in most cases. However, Symphoniq offers a transient agent, which is downloaded within a Web page and therefore does not theoretically require ownership of the desktop.
- **The IT infrastructure and operation segment includes the desktop.** The choice of this solution over an appliance-based solution means that, aside from online performance data, there is a wealth of data available about the desktop itself — such as applications, resource usage, and capacity. This would serve IT operations well where desktops represent a sizable investment and where refresh cycles must be planned carefully.
- **The application development group may also be interested.** One of the key parameters that these products capture is user behavior and, potentially, the problems that may occur at the application interface level. Understanding these issues and streamlining the user application interface may provide significant productivity gains.

Selecting a vendor in this context is a two-step evaluation:

- **First, select the type of technology.** While the matrix presented above can certainly be expanded to include more constituencies and parameters, it can be used as a basis for selecting the right technology as a function of: 1) the enterprise constituencies interested in the data; and 2) the type of data available from each type of technology.
- **Then, select the right vendor.** Both Forrester Wave evaluations on end user experience show the different market segments that each vendor best addresses: Once the type of data has been selected, the way each product structures its analysis and reporting must be the second criterion for vendor selection.

PASSIVE AGENT END USER EXPERIENCE MONITORING EVALUATION OVERVIEW

To assess the state of the desktop-based passive agent end user monitoring market and see how vendors stack up against each other, Forrester evaluated the strengths and weaknesses of several young companies.

After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria (see Figure 3). We evaluated vendors against approximately 43 criteria, which we grouped into three high-level buckets:

- **Current offering.** This set of criteria is intended to highlight the differences between current products. As all the products use the same basic architecture, we emphasized the differences in product administration, as this was a major issue in the past. We also considered the network load that the connection between the data collector and reporting server creates. We stressed reporting features, as the conversion of data into information is the major criterion by which the different products adapt to specific market segments. In products aimed at performance management, we regarded integration with system management solutions as a major decision point.
- **Strategy.** We considered the vendor strategies and the relative importance of the product for the vendor. To avoid discriminating against larger vendors through the focus criteria, we selected vendors that are comparable in size and focus. This removes a major point of contention and actually allows us to compare product strategies in a more balanced context.
- **Market presence.** We considered vendors' financial strengths and staff size to show that these companies, although small by large IT management software vendor standards, have achieved a significant market presence and present satisfactory guarantees to potential and current clients of present and future viability.

Figure 3 Evaluation Criteria

CURRENT OFFERING	
Architecture	What product architecture and underlying platform (hardware and operating system) are used?
Agent architecture	What data collection agent architecture is used? Is a permanent, downloaded agent or a dynamic agent used during the session? How are agents administered and maintained?
Initial configuration	Is there any upfront set-up work that must be done to train or script the agent to collect the target information?
Type of data collected	What are the different types of information collected that relate to the desktop?
Updates and changes	Are any changes to the agent/server script required when an application is changed/updated by: 1) adding a new transaction, and 2) modifying a transaction? Does the company offer professional services for this maintenance? What is the average professional services fee for this kind of change?
Desktop load	How do the monitoring technologies impact the desktop/laptop?
Reporting links/interface	What is the network connection for report transmission and report access? What is the estimated network load for this access?
Monitoring capabilities	What type of data is collected by the agent?
User monitoring capabilities	Does the transaction response-time monitoring component cover all of the transactions in the application, or just predefined transactions? Is the end-to-end transaction time captured with the granularity to show navigation time and execution time separately?
Real-time capabilities	Can thresholds be set for specific protocol/transaction response times and can alerts be forwarded to an event console in real time? Is there a capability to integrate different, related events into a single one?
Console integration	Can the product forward information to an event management console, and which integrations with such consoles are available out of the box?
Reporting capabilities	What are the product's reporting capabilities; specifically: archiving, data export, performance management, transaction debugging, content errors, and transaction error reporting capabilities?
Product scalability	Can the product reporting scale easily handle increases in the number of business process and in volume of transactions? What are the limits, in number of transactions, for a single instance of the product at the server level?
Integration with other products	Can information from this product be integrated with another management product (for example infrastructure monitoring systems, transaction performance diagnostic systems, network diagnostic systems, service-desk ticketing systems, and SLA management systems)? If yes, which products and to what extent?

Source: Forrester Research, Inc.

Figure 3 Evaluation Criteria (Cont.)

CURRENT OFFERING	
Implementation scale	How is the product implemented in customer environments? If a sample of end users is described, what percentage of the user base is typically covered?
Time and cost of implementation	What is the average time and cost to implement for a major application deployment (more than 5000 end users)?
STRATEGY	
Focus	How strongly does the vendor focus on end user experience management? What percentage of total revenues does the vendor derive from the end user experience management market?
Planned evolution	What strategic plans does the vendor have to further develop their solution? What is the planned evolution of the product within the next 12 months?
Go-to-market strategy	How does the vendor promote and sell its products? What is the sales strategy? Does the vendor OEM? Does the vendor have partnerships with complementary vendors? Does the vendor sell directly or through reseller channels?
Pricing	How is the product priced?
MARKET PRESENCE	
Installed base	How large and extensive is the product's installed base?
Employees	How many people does the vendor devote to this product?
Revenue	How strong is the vendor's financial position?
Cash	How strong is the vendor's cash position?

Source: Forrester Research, Inc.

Evaluated Vendors Are Innovators With Market Experience

Forrester included four vendors in the assessment: Knoa Software, PremiTech, Serden Technologies, and Symphoniq. Each of these vendors (see Figure 4):

- **Is a startup company with a mature product.** While these four vendors are exclusively small, innovating companies, we selected the ones with the strongest market experience and a referenceable customer base.
- **Is very focused on end user experience monitoring and management.** As stated earlier, many solutions are available from larger vendors, but innovation and focus go hand-in-hand, and the goal was to look at the best solutions available.
- **Provide products that fit a relatively narrow definition.** The products had to be: 1) desktop-based to complement the previous Forrester Wave on appliance-based solutions; and 2) exclusively passive agents that capture real end user experience.

Figure 4 Evaluated Vendors: Vendor Information And Selection Criteria

4-1 Evaluated product information

Vendor	Product evaluated
Knoa Software	Knoa Experience And Performance Manager
PremiTech	Performance Guard 5.0
Serden Technologies	Interact ES
Symphoniq	TrueView

4-2 Selection criteria

Product maturity	The vendor must have a mature product and technology.
Market presence	The product must bring new features to the market that are relevant to end user experience.
Market focus	The company must be almost exclusively dedicated to this type of product.
Growth rates	The product sales must have experienced a strong growth over the past year.

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Source: Forrester Research, Inc.

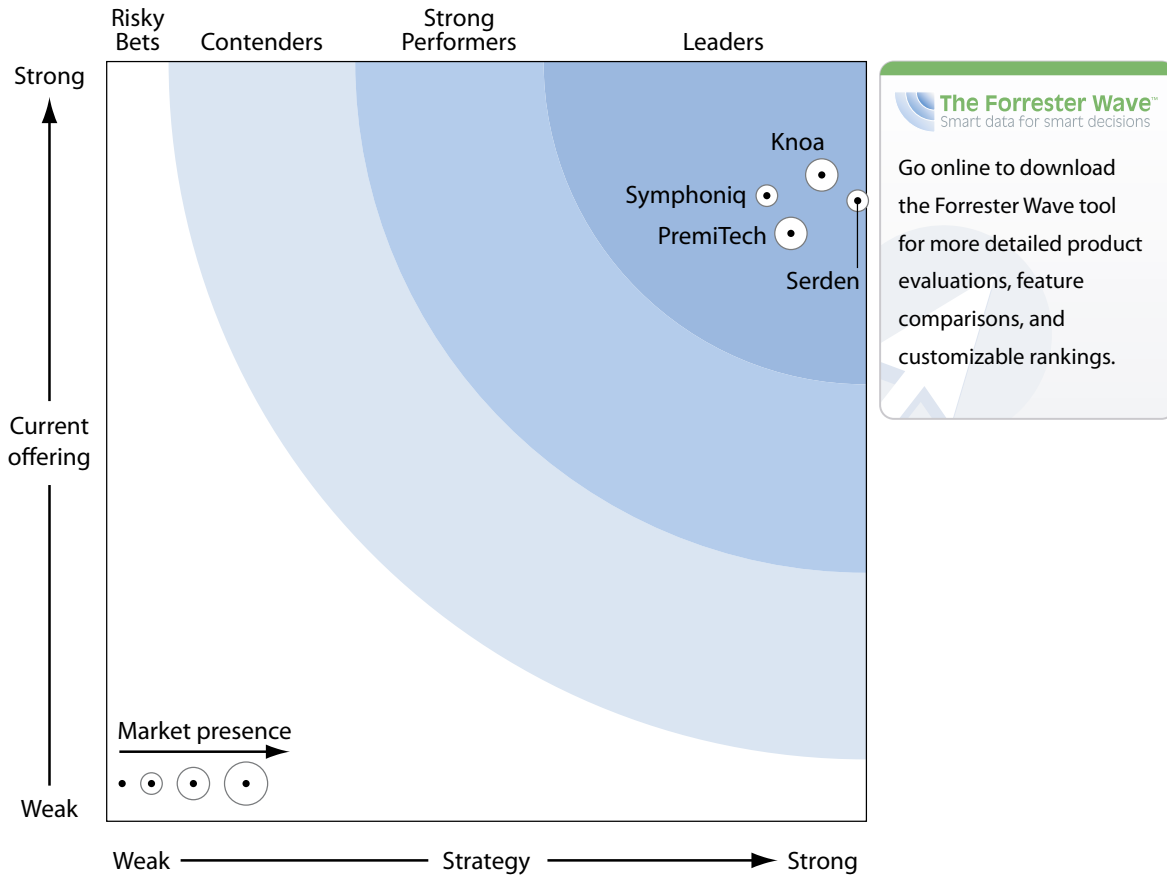
EVALUATION ANALYSIS

The evaluation uncovered a market in which (see Figure 5):

- **The primary driver is true end user experience.** This transcends the infrastructure and the performance of the application as a whole to reach the desktop.
- **Products have the ability to serve multiple constituencies.** All the products evaluated have the ambition to be a “one-stop shop” that serves all the needs of the enterprise in terms of application performance and end user experience. Contrary to the appliance-based end user experience monitoring market, where products have become specialized, the diversity of data captured and the diversity of reporting available make desktop-based passive agents a potential “universal” solution.

This evaluation of the desktop-based passive agent end user experience monitoring market is intended to be a starting point only. Readers are encouraged to view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

Figure 5 Forrester Wave™: Passive Agent End User Experience Monitoring, Q3 '07



Source: Forrester Research, Inc.

Figure 5 Forrester Wave™: Passive Agent End User Experience Monitoring, Q3 '07 (Cont.)

	Forrester's Weighting	Knoa Software	PremiTech	Serden Technologies	Symphonia
CURRENT OFFERING	50%	4.32	3.87	4.08	4.12
Architecture	5%	5.00	5.00	5.00	5.00
Agent architecture	5%	5.00	5.00	5.00	5.00
Initial configuration	5%	5.00	4.00	5.00	5.00
Type of data collected	5%	5.00	4.00	5.00	3.00
Updates and changes	5%	5.00	3.00	4.00	5.00
Desktop load	5%	5.00	5.00	5.00	5.00
Reporting links/interface	5%	4.00	2.00	3.00	4.00
Monitoring capabilities	5%	5.00	4.00	4.00	3.00
User monitoring capabilities	5%	5.00	4.00	4.00	2.00
Real-time capabilities	5%	4.00	3.00	4.00	3.00
Console integration	5%	5.00	3.00	5.00	3.00
Reporting capabilities	10%	4.65	2.15	3.30	3.70
Product scalability	5%	4.00	5.00	4.00	4.00
Integration with other products	10%	4.00	5.00	4.00	5.00
Implementation scale	10%	4.00	4.00	4.00	4.00
Time and cost of implementation	10%	2.00	4.00	3.00	5.00
STRATEGY	50%	4.55	4.50	4.95	4.35
Focus	25%	5.00	5.00	5.00	5.00
Planned evolution	25%	5.00	5.00	5.00	5.00
Go-to-market strategy	25%	5.00	4.00	5.00	4.00
Pricing	25%	3.80	4.00	4.80	3.40
MARKET PRESENCE	0%	3.70	3.14	2.48	2.39
Installed base	30%	3.60	5.00	2.30	2.60
Employees	30%	2.25	1.50	1.75	1.75
Revenue	30%	4.80	2.80	3.20	2.60
Cash	10%	5.00	3.50	3.00	3.00

All scores are based on a scale of 0 "weak" to 5 "strong".

Source: Forrester Research, Inc.

VENDOR PROFILES

Leaders

- **Serden Technologies.** Serden's Interact ES is an intelligent agent that can be deployed with an N-tier reporting server for large-scale implementations. The agent is maintenance-free and does not require any preconfiguration. The agent collects parameters that cover data that is relevant to IT, business units, and application developers. A strong advantage of Interact ES is its historical repository, where the data can be statistically manipulated through an OLAP component and exported to other applications.²
- **Knoa Software.** Knoa's solution competes closely with Serden's. The company's key aim is to provide a technology that is able to cover all the potential needs of an IT organization in terms of end user experience measurement. Like Interact ES, the Knoa End User Experience and Performance Manager offers an OLAP-based approach for data manipulation.³
- **Symphoniq.** TrueView is an integrated suite of products aimed at incident and problem resolution for Web-based applications. Consequently, the agent is lightweight and downloaded through a Web page. The data the agent provides is correlated with data provided by the different components of a Web application — such as the Web server and application server — to provide a 360-degree view of the application. While this is a different proposition to other competitors in this evaluation, TrueView is a very competent application performance management solution.⁴
- **PremiTech.** A few years ago, PremiTech entered the market with Performance Guard, a solution aimed mainly at Citrix users. Citrix's acquisition of Reflectent Software, one of PremiTech's competitors, altered Performance Guard's target market. The 5.0 edition comes with a revised technology and a new sales model. PremiTech has now adopted a software-as-a-service (SaaS) model, with a streamlined implementation and set up to support it. Reporting is done through HTML, with a major bias toward problem-solving and performance root cause analysis.⁵

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 5 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.
- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with several customers of these products.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and readers are encouraged to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve.

ENDNOTES

¹ The Forrester Wave™: Appliance-Based End User Experience Monitoring, Q2 2007 examines in detail eight vendors of appliance-based solutions and their capabilities in terms of reporting. This can be used as a guide to determine which vendor is the best fit for the intended use of the data, as each of the vendors in the evaluation has tailored its reporting to a specific market segment. See the June 21, 2007, "[The Forrester Wave™: Appliance-Based End User Experience Monitoring, Q2 2007](#)" report.

² View the vendor summary for more detailed analysis on how Serden Technologies fared in this evaluation. See the September 27, 2007, "[Serden Offers A Versatile Passive End User Experience Monitoring Agent](#)" report.

- ³ View the vendor summary for more detailed analysis on how Knoa Software fared in this evaluation. See the September 27, 2007, “[Knoa’s End User Experience Monitoring Agent Focuses On App Usability And Performance](#)” report.
- ⁴ View the vendor summary for more detailed analysis on how Symphoniq fared in this evaluation. See the September 27, 2007, “[Symphoniq’s Passive End User Experience Monitoring Agent Is Built For Web Applications](#)” report.
- ⁵ View the vendor summary for more detailed analysis on how PremiTech fared in this evaluation. See the September 27, 2007, “[PremiTech’s Passive End User Experience Monitoring Agent Is Performance-Oriented](#)” report.

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