

Yphise Software Product Assessment

Independent quotations of software products

BUSINESS SERVICE MONITORING (BSM)

For aligning the IT operations on business needs.

EXECUTIVE volume

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Yphise is committed to providing IT Executives and Managers with the best independent research on methods and solutions to optimize IT cost, value and risk. Yphise research results from an open and operational framework of practices aimed at measuring and improving IT efficiency according to the requirements of large companies

Yphise is an independent company that conducts ongoing research programs for IT Executives and Managers. Yphise has a dedicated research team in order to guarantee independence, consistent results and timely updates.

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Yphise conducts two exclusive ongoing research programs : 1/ Yphise Software Assessment, 2/ YBRM (Yphise Business Risk Management).

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2/ YBRM (Yphise Business Risk Management)

YBRM provides IT Executives and Managers with an open framework of operational best practices aimed at optimizing IT cost, value and risk. It covers all IT processes in order to guarantee effective operational management. YBRM is a pragmatic approach. It includes a scoring model for easy periodical self-assessment. It leads to immediate improvement of each IT process through use of the released best practices. YBRM also provides roadmap for optimizing IT cost, value and risk as required by large companies.

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FOREWORD

The EXECUTIVE volume summarizes the results of independent research conducted by Yphise on the assessed market segment.

This market segment has been selected under the Yphise ongoing research program, which identifies the software products that represent a valuable investment for large companies.

- This volume outlines Yphise opinion on the value of the products.
- It shortlists the products of interest, according to expected benefits by IT Executives.
- It scores the shortlisted products after their in-depth ISO 9001-certified assessment by Yphise. The Yphise list of requirements includes several hundred control criteria (REQUIREMENTS volume). The charts in this volume aggregate the detailed results for each product (DETAILED ASSESSMENT volume). The REQUIREMENTS and DETAILED ASSESSMENT volumes are available at <www.yphise.com>.

(See the **YPHISE SOFTWARE ASSESSMENT** chapter.)

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The EXECUTIVE License provides IT Executives, software vendors and service providers with an accurate understanding of the best products on the market, according to the requirements of large companies.

MARKET SEGMENT

BSM solutions help monitor the critical services delivered by the IT to the business. They provide IT and business operators with a real-time view of the business service status and performance. They help understand the dependencies between the IT environment and the business services.

Business service monitoring (BSM) solutions help model the business services and their relationships with all the IS components (e.g. applications, infrastructure). They collect the IT events that impact the business services. They control and monitor the business services over time according to service level agreements (SLAs).

Benefits for the business

➤ **Increasing the business efficiency thanks to improved quality of service**

Business efficiency is tied to IT performance. The business requires that IT deliver the expected level (availability and response time) on the IT infrastructure and that the applications be efficient. Business efficiency is deteriorated by degraded IT performance (e.g. unavailability, long response time) and inappropriate priorities in incident handling. IT is used to solving the incidents according to technical priorities instead of business priorities. This is due to a lack of understanding of the actual status of the business and of the incident relationship with and impact on the business.

BSM solutions provide the IT with a business-oriented view of the IS. They help IT teams handle incidents according to business priorities. They take business requirements and needs into account in order to assess and qualify the criticality of incidents. They improve the service level delivered to the business.

BSM solutions decrease the cost due to business unavailability. They decrease the time lost in incident resolution. They decrease the cost of this resolution. They improve the company image in the eyes of customers, thanks to improved reliability.

➤ **Increasing the business value of the IT investments**

The business value of the IS is tied to keeping the IT in line with business needs, requirements and objectives. The IT often lacks understanding of the business priorities. It considers the IS from a technical point of view and lacks in-depth understanding of the IS contribution to the business. This leads to non-optimized investments, disconnected from the real, actual business priorities.

BSM solutions leverage the IT investment. They relate the IS components (hardware and software) to business services. They highlight the improvement required.

BSM solutions decrease the cost and time for planning the IT improvements and for negotiating the business and the IT, because they provide a single base for deciding on useful investments. They increase the return on investment of each IT project or investment.

Benefits for the IT processes

➤ **Incident and problem management**

The incident management process guarantees the resolution of incidents as soon as possible, in order to ensure activity recovery. The problem management process identifies the root cause of an incident, in order to avoid any reoccurrence.

BSM solutions evaluate the impact of incidents on business services, in order to set priorities accurately. They interface with specific solutions (e.g. event management, supervision console) to identify the impact of any IT incident on the business. They also identify the root cause of incidents, through impact analysis functions or diagnostic functions. This makes it possible to transfer the incidents quickly to the proper team. BSM solutions help identify a problem quickly and to alert the impacted business.

BSM solutions reduce the time needed to resolve the incidents and to reduce the problem gravity.

➤ **Service level management**

The service level management process must arrange service level agreements and demonstrate compliance with these agreements. This requires understanding which services are delivered to the business. This also requires analyzing which applications or infrastructure components contribute to the various business services.

BSM solutions help identify the business services and the relationships between infrastructure components, applications and business services. They measure in real time the delivered service levels of critical business services. They retrieve all the events that can impact the business services and manage the rules needed to analyze the criticality and risk of these impacts.

BSM solutions help measure, control and optimize service levels for the business. They help identify the incident impact of events (incidents, changes) on the business and reduce the time required to solve incidents.

➤ **Service continuity**

In the event of disaster, information systems must restart according to accurate time frames and conditions for the business processes.

BSM solutions help identify as soon as possible the business services impacted by incidents. Through predictive analysis functions, they help analyze the estimated

deviance risks. Thus, they prevent eventual disasters. BSM solutions also make it possible to reduce the cost and duration of disaster recoveries. They allow quick identification of the impacts of incidents on the business and help identify the root causes.

BSM solutions improve business continuity management. They limit the disaster risks and help optimize risk resolution.

➤ **Business partnership management**

The business partnership management process must guarantee the collection, understanding and processing of business needs. Collaboration of business units with the IT department often fails due to a lack of common wording and reference.

BSM solutions help improve the business satisfaction and provide IT and business with a single reference. They help understand how the IT supports the business. BSM solutions help assess the business user satisfaction with regard to the various business services. They monitor the various business services and agreements according to business needs. They use application performance management (APM) measurement to evaluate user satisfaction with regard to applications.

BSM solutions help improve the services delivered by IT to the business and optimize the business understanding of the IT contribution to operations.

➤ **Improvement strategies**

The improvement strategy process includes performance assessment as well as identification of any useful improvement that requires implementation.

BSM solutions centralize all information on business services in real time (e.g. service levels, incidents). They retrieve information from various external tools, such as change management, service desk, service level management or IT asset management (ITAM) tools, in order to identify any critical event impacting on the business services. This information helps in the decision-making process related to the IT evolution. BSM solutions also provide analysis features aimed at assisting in the implementation of the best investment strategies.

BSM solutions contribute to the IS improvement and optimize decision making in the area of IT improvement strategies.

➤ **IT risk control**

IT governance requires management of the risks that information systems represent for the company. Companies must guarantee compliance with regulatory requirements (e.g. Sarbanes-Oxley, Basel II). They must manage the risks related to legal obligations tied to the IS.

BSM solutions control the risks that IS incidents pose for business operations. They monitor and detect any event that impacts corporate business processes. They improve risk resolution.

BSM solutions limit the risks that IT can represent for business processes.

➤ **Industrialization**

The industrialization process must ensure that the information system operates according to the service level expected by the business. In each application project, the industrialization process develops the operational tools and instructions required to deploy and operate. It manages the risks posed for operation effectiveness in operations. It designs and manages technical solutions aimed at guaranteeing the effectiveness in operations.

BSM solutions contribute to the industrialization process, because they improve the IS effectiveness in operations. They check whether the IS delivers the services required by the business. They monitor the IS operations through various alarms and dashboards, and they evaluate dysfunction. They analyze the incident root causes.

BSM solutions reduce the costs of implementing the performance monitoring technical services.

➤ **Outsourcing strategies**

The outsourcing strategies process guarantees the effective use of outsourcing for projects, maintenance, operations or other services.

BSM solutions help evaluate the service level delivered to users by applications. This service can be delivered by the corporate IT department or via an external partner. APM solutions help identify and control the effective service level delivered by external suppliers.

BSM solutions help control and monitor externalization.

YPHISE SHORTLIST

Positioning of the market segment

The evaluated market segment is a specific one, with a precise positioning and list of software products. To avoid confusion, we differentiate it from the following list of market segments. A product belonging to one of these market segments is inappropriate for attaining the expected benefits.

➤ **Application performance management (APM) solutions**

Application performance management (APM) solutions measure the service level delivered to business users by applications or transactions. They measure the application availability (i.e. success rates), the response time as perceived by end-users and the integrity of data displayed to end-users. APM solutions monitor performance and provide alerts in case of incidents. They help diagnose performance incidents, i.e. identify the root cause of an incident.

APM solutions can supplement BSM solutions. BSM solutions can collect application availability and performance measurements from APM solutions in order to provide a real-time view of service availability. Integration of APM and BSM solutions is required.

E.g. HP Business Availability Center (HP/Mercury), ClientVantage (Compuware), Foglight (Quest Software), ITCAM (IBM), Newtest (Auditec) and TM-ART (BMC).

➤ **Business activity monitoring (BAM) solutions**

BAM solutions provide business operators with a real-time view of the business activity status and key performance indicators. They issue an alert when any activity is blocked or delayed. They detect unusual business situations, risks and opportunities.

Business activities include services delivered to the end-user, monitored by BSM solutions. This is why some BAM solutions may use the measurements provided by BSM solutions. However, BAM solutions do not focus on service management, as so the BSM solutions. The measurements differ. BSM solutions are provided for IT purposes, as BAM solutions focus more on business needs.

E.g. BusinessBridge (Systar), webMethods Optimize (Software AG), TIBCO Business Factors (TIBCO) and Websphere Business Monitor (IBM).

➤ **Business intelligence (BI) solutions**

BI solutions help managers, business operators or analysts monitor and understand business activity for decision making. They focus on providing user-friendly functions for querying and reporting the data in datamarts or operational systems.

BI solutions do not focus on service management. They do not provide and manage a real-time view of the service status. They do not provide impact analysis functions or features for managing the relations between IT and business.

E.g. BusinessObjects (BusinessObjects), Cognos BI (Cognos), Hyperion BI+ and SAS Business Intelligence (SAS Institute).

➤ **Business process management (BPM) solutions**

Business process management solutions (BPM) help design, deploy, execute and monitor enterprise business processes. They orchestrate the various business services, automated or manual, required to process business. They manage the business rules applied to the business process. They support the integration of all applications and services into the information system required by business processes. They drive the process execution according to business requirements. They monitor how processes run, from a technical and a business point of view.

BPM solutions focus on business processes or service execution, while BSM solutions focus on monitoring and control. BPM solutions provide some monitoring functions, but they cannot display a comprehensive view of the IS for the business.

E.g. BPM Suite (IBM), SUN Java CAPS (SUN), TIBCO iProcess Suite (TIBCO) and webMethods Fabric (Software AG).

➤ **Configuration management database (CMDB) solutions**

Configuration management database (CMDB) solutions store, organize and manage the configuration items (CIs) that contribute to business service delivery. The CMDB is a key concept of ITIL. The CMDB provides a structured data model in order to manage the various categories of CIs (e.g. business processes, business services, applications, infrastructure components) and the various relationships between these CIs. The CMDB manages all the data related to CIs in the information system in order to support operations (including incidents, problems, changes and service levels). CMDB solutions contribute to understanding the dependencies between CIs, thanks to impact analysis functions.

BSM solutions provide a real-time view of the current status and performance of CIs. BSM solutions rely on information in the CMDB. The CMDB defines what to monitor, while the BSM solutions set the status and indicators and present this information in real time.

E.g. BMC Atrium CMDB (BMC), IBM CCMDB (IBM), HP UCMDB (HP) and Managed Objects (Managed Objects).

➤ **Enterprise architecture modeling (EAM) solutions**

Enterprise architecture modeling (EAM) solutions help IT and business architects model how companies run. They provide a graphical representation of the business processes, company organization, IT services, infrastructure architecture and

application design. They manage the relationships and dependencies between all business and IT enterprise components. They represent a static view of the organization, current or strategic. They do not monitor the actual status of each component in the architecture.

BSM solutions provide real-time views of the business services status and performance. They focus on a current and updated view of business services. BSM solutions can retrieve the business processes and their decomposition into business services, applications or infrastructure from EAM solutions.

E.g. ARIS Business Architect (IDS Scheer), Corporate Modeler (Casewise), MEGA Modeling Suite (Mega) and System Architect (Telelogic).

➤ **Enterprise service bus (ESB) solutions**

Enterprise service bus (ESB) solutions make IS heterogeneous services communicate, regardless of technologies and platforms. Communication relies on data transfers, called "messages" in this report. ESBs contribute to service execution. They ensure mediation between services and endpoints. They do not monitor how business services run. They only monitor how cross-service communications run.

ESB solutions can be integrated into BSM solutions in order to provide information on the actual service level delivered. However, ESB solutions do not provide information on all the business services. BSM solutions provide real-time information on all the critical business services that IT needs to monitor.

E.g. AquaLogic Service Bus (BEA System), BusinessWorks (Tibco), IBM WebSphere Enterprise Service Bus (IBM), Sonic ESB (Progress Software) and webMethods Fabric (Software AG).

➤ **Network and system monitoring (NSM) solutions**

NSM solutions measure server and network performance. They check whether IT elements are running or not. Network monitoring tools measure the network traffic and bandwidth use. Server monitoring tools measure the performance and availability of servers.

However, NSM solutions cannot identify dependencies between components and the business. To identify the impact of failures, it may be useful to complement a NSM solution with BSM. BSM solutions also need to retrieve events and information from NSM solutions. Integration of NSM and BSM solutions is required.

E.g. BMC Patrol/BMC Performance Manager (BMC Software), IBM Tivoli Monitoring/IBM Tivoli Netcool Precision IP (IBM), HP Application Infrastructure Management Software (HP), ServerVantage (Compuware), Unicenter Network and Systems Management (Computer Associates).

➤ **Server configuration compliance audit (SCCA) solutions**

Server configuration compliance audit (SCCA) solutions check, control and score the compliance of server and desktop configurations against configuration and security rules. These rules can be specific to the company or based on standard frameworks and best practices.

SCCA solutions are not aimed at checking the service status in real time; they audit the configuration compliance. They control activation of software and services, but they do not provide information on actual use. BSM solutions do not check, control or score the configuration compliance.

E.g. CCS & ESM (Symantec), NetIQ Secure Configuration Manager (Attachmate) and Tivoli Security Compliance Manager (IBM).

➤ **Service level management (SLM) solutions**

Service level management (SLM) solutions help the IT department define the IT service catalog, negotiate the service level objectives and reach an agreement on these objectives. They provide both service providers and users with reports in order to assess the service delivery against the service level agreements (SLAs). SLM solutions can correlate the information provided by application performance management (APM) solutions or BSM solutions in order to compare it to the defined SLAs.

BSM solutions allow the monitoring of critical business services. The list of business services can be retrieved from SLM solutions. To manage alerts on services, the BSM solutions also need to retrieve thresholds or SLAs from SLM solutions. It is essential to manage the integration of SLM and BSM solutions.

E.g. Business Service Level Manager (Managed Objects), Guarantee (Oblicore), SAS ITSLM (IT Service Level Management, SAS Institute), ServiceFlow (DigitalFuel) and Unicenter Service Management (Computer Associates).

➤ **Service support management (SSM) solutions**

Service support management (SSM) solutions provide an integrated set of helpdesk functions. They help manage and resolve incidents. They manage helpdesk tickets created by business users to warn of incidents and help the resolution of the incidents by the IT department.

SSM solutions do not monitor or check the actual status of the IT infrastructure and services. They only record and manage user feelings in regard to the delivered services. It could be useful to complement a BSM solution with an SSM solution in order to retrieve incidents for the monitoring of business services. Integration of SSM and BSM solutions is required.

E.g. BMC Remedy Service Desk (BMC Software) and HP ServiceCenter Software (HP).

The shortlist for the evaluated market segment

Each product shortlisted by Yphise contributes to model business services in relation with the IT components. They help monitor the service levels and detect the incidents that impact these services. They also provide diagnostic and analysis features for improving the IT performance.

In January 2007, Yphise assessed the CMDB market segment. This earlier study is final from the BSM scope. The CMDB report focused on management of critical configuration items (CIs) that contribute to business service delivery.

BSM solutions rely on information managed in the CMDB to identify the service definition (business services and IT associated components) and help manage impacts. The CMDB defines what to monitor, while BSM solutions set the status and indicators and display this information in real time. However, our assessment report does not focus on CMDB capabilities. A BSM solution must include CMDB capabilities in order to be efficient or must demonstrate advanced integration into CMDB solutions.

Our final shortlist is as follows:

- BMC BEM/SIM (BMC);
- HP BAC (HP);
- IBM TBSM (IBM);
- Managed Objects (Managed Objects); and
- WideVision (Systar).

➤ **BMC BEM/SIM (BMC), Version 2.0**

BSM for BMC is an overall strategy, not a specific product, i.e. business service management. The vendor includes in this BSM strategy all the ITIL processes, called "BSM routes to value" by BMC (Service Level Management, Incident & Problem Management, Infrastructure & Problem Management, Service Impact & Event Management, Asset Management & Discovery, Change & Configuration Management, Capacity Management & Provisioning, Identity Management).

Our requirements focus on the definition, management and monitoring of business services. This differs from what BMC calls BSM, which involves several distinct products in the BMC BSM strategy, especially the BMC Atrium CMDB solution (for definition and management of services), BMC Service Level Management (for definition of SLAs related to services), Dashboards & Analytics (for monitoring), BMC Event Manager and BMC Service Impact Manager (to identify the relationships and impacts between services and the business).

Our assessment report focuses especially on assessment of BMC/SIM capabilities and on integration into third-party BMC products, such as BMC Atrium CMDB.

➤ **HP Business Availability Center (HP), Version 7**

HP announced in December 2006 a new offer called BTO (Business Technology Optimization). This offer includes various products grouped into three lines: strategy, applications and operations.

The HP BSM strategy includes various products in the BTO operations line. The HP BSM strategy includes management of SLAs and OLAs (Service Level Management module), performance measurement (End-User Management module with BPM and RUM products, Business Process Insight module and Transaction Vision module), infrastructure monitoring (System Availability Management module with Sitescope and OVO products) and analysis of relationships between infrastructure, applications and services (Application Mapping product, which relies on HP Universal CMDB).

All the modules are part of the HP BAC (Business Availability Center) solution. This solution also includes two other modules for root cause analysis (Problem Isolation and Diagnostics). All the modules are provided with the Business Service Dashboard for monitoring and reporting and with a light version of Universal CMDB. This CMDB represents an essential part of the HP BSM strategy. Our requirements focus on the capabilities provided by the two solutions: UCMDB and BAC.

HP BAC 6.6 was launched in March 2007, with a new release (Version 7) expected in late October. This demonstrates the vendor's commitment to the DMS market segment.

➤ **IBM Tivoli Business Service Manager (IBM), Version 4.1**

IBM acquired Micromuse in December 2005 in order to develop its BSM offer. TBSM is part of the IBM Service Management product line. This product line also includes the IBM Tivoli CCMDDB (Change and Configuration Management Database), which can be used as referential for business service management. However, the TBSM solution can be used without the IBM CCMDDB.

The Service Management product line also includes other products such as IBM TSLA (for SLAs definition and management), Omnibus (Event Management) or ITCAM (for performance measurement). The Omnibus solution is part of the IBM BSM offer.

Release 4.1 was launched in April 2007. Version 4.2 is announced for the end of the year. The vendor has announced improvements in development of multilingual interfaces and integration into third-part products. This demonstrates the vendor's commitment to this market segment.

➤ **Managed Objects (Managed Objects), Version 4.0**

Managed Objects is a pure player vendor, specialized in business service management (BSM) as defined in our assessment report. This demonstrates the vendor's commitment to the BSM market segment.

The Managed Objects solution (formerly Formula) was released in September 2006. It includes the CMDB 360° product and two modules: Business Service Dashboard (BSD) and Business Service Level Management (BSLM).

➤ **Widevision (Systar), Version 1.4**

Systar is a specialist in business activity monitoring. BAM is Systar's core business. Systar focuses on facilitating the BAM implementation. It proposes various alternative prepackaged implementations of BusinessBridge depending on the targeted users, i.e. ServiceVision for IT staff, BusinessVision for business process monitoring and WideVision for monitoring across business services. Its BSM offer is called "BAM for IT". All Systar investments target the BAM area. This demonstrates the vendor's commitment to the BSM market segment.

The Systar BSM offer includes the ServiceVision and WideVision modules. Our requirements list focuses mainly on the WideVision modules: WideVision Alert (management of alerts according to priorities), WideVision for Services Health Check (service monitoring) and the SLA module. Release 1.4 was launched recently, in August 2007.

BSM terminology is used by various vendors. Other vendors provide so-called BSM solutions. However, most of these solutions do not focus on BSM as defined in our market segment definition. They do not cover the full functional scope of our list of requirements or provide better interaction with the other market segments identified (e.g. SLM, BAM or BPM).

In the first quarter of 2007, Compuware acquired Centauri Business Service Manager from Proxima. Compuware should confirm its commitment to BSM market segment. However, our experience demonstrates that an integration period is required. This is why the product was not shortlisted. In the same way, Quest Software acquired Magnum Technologies in the second quarter of 2007 in order to improve its monitoring functions.

Market trends

The shortlisted products are consistent with the major trends in this market segment.

➤ **Business service definition**

One of the main difficulties of implementing a BSM solution is efficiently modeling the business services and their relationships with IT components and managing the updates over time. It is indeed complex to identify the IT elements associated with business service management. Monitoring of business services cannot be efficient if these business services are not accurately defined and updated. Some BSM solutions provide automatic functions aimed at helping to define and update the business services, especially via integration into and synchronization with CMDB solutions (see Positioning) and also via management of automated discovery processes or management of models. Nevertheless, improvements are still required on these points.

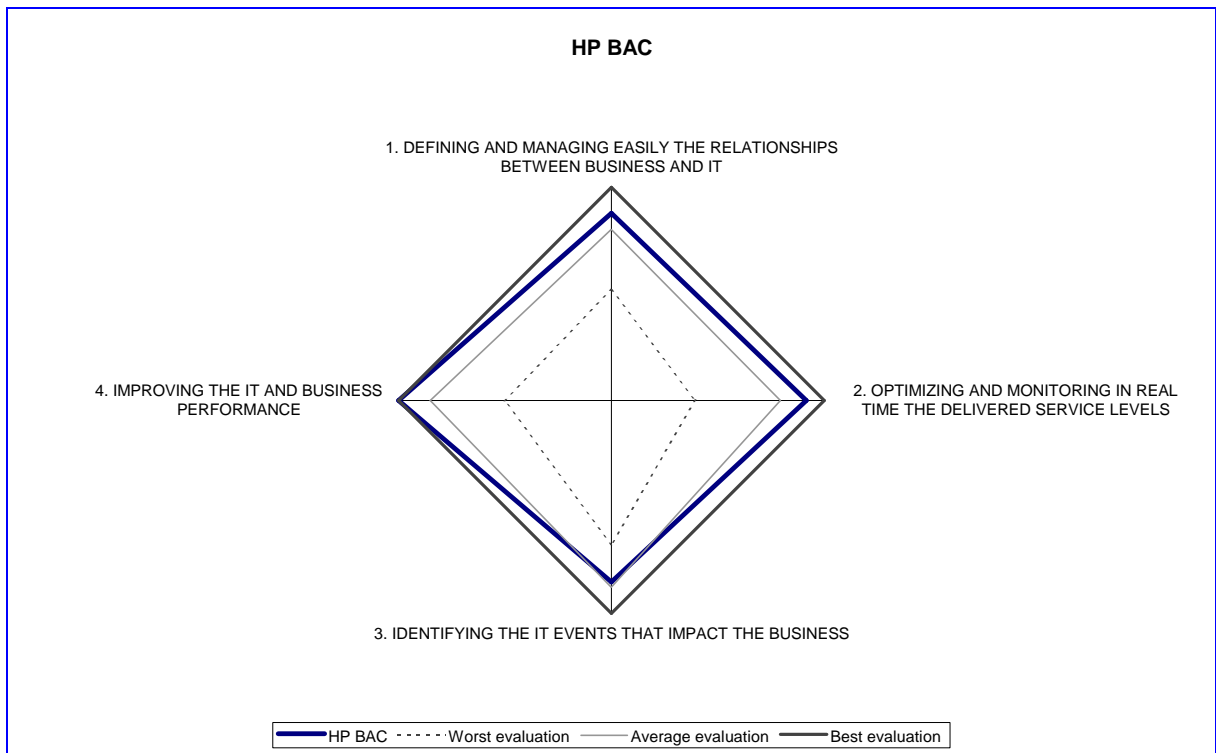
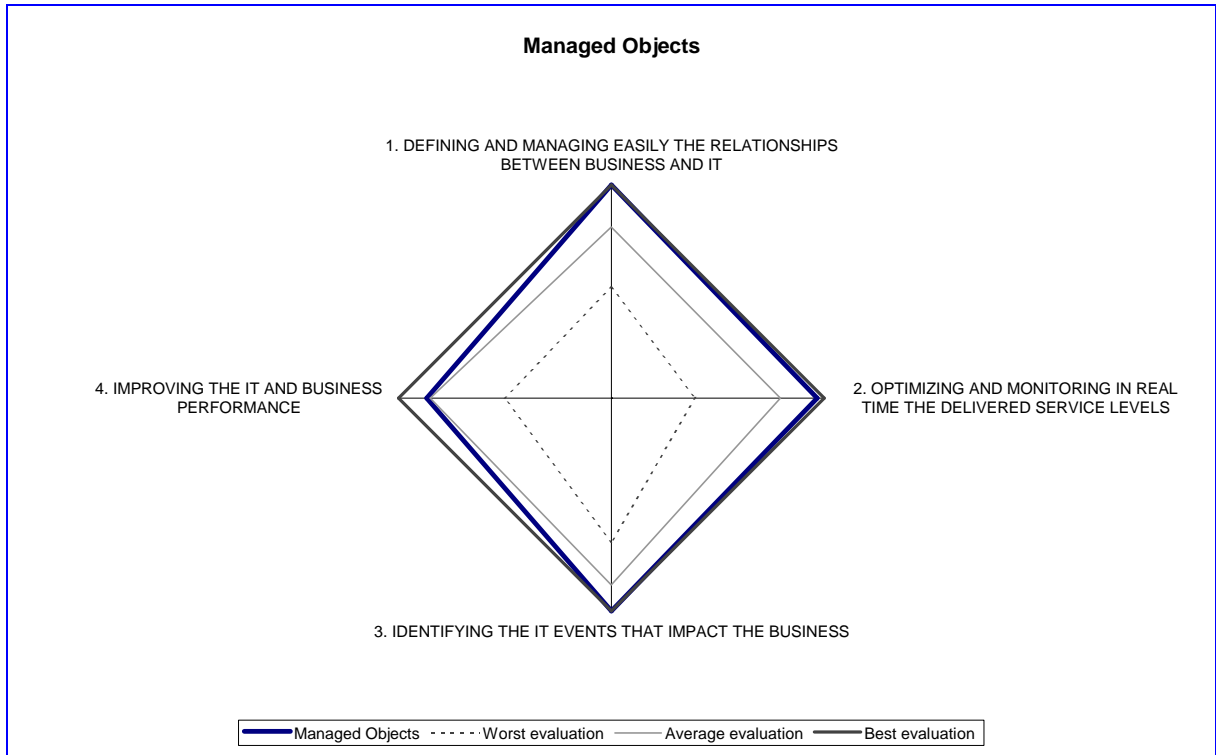
➤ **Situation analysis and predictive information**

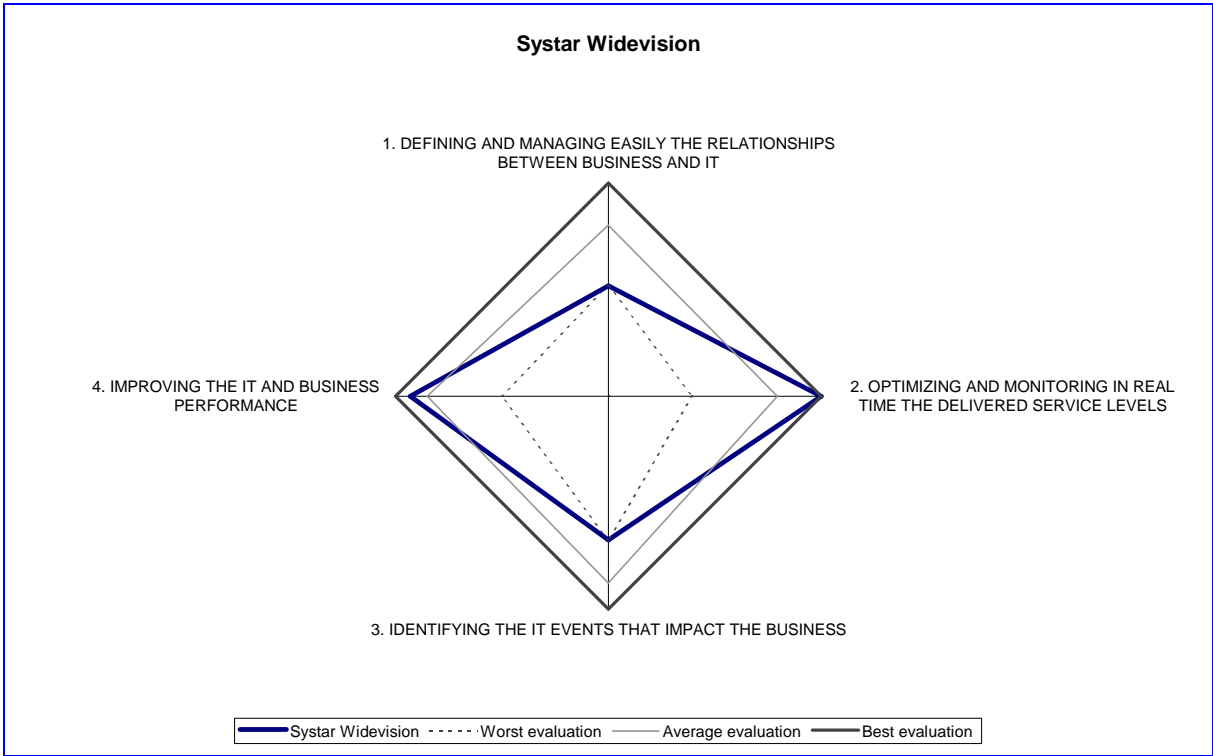
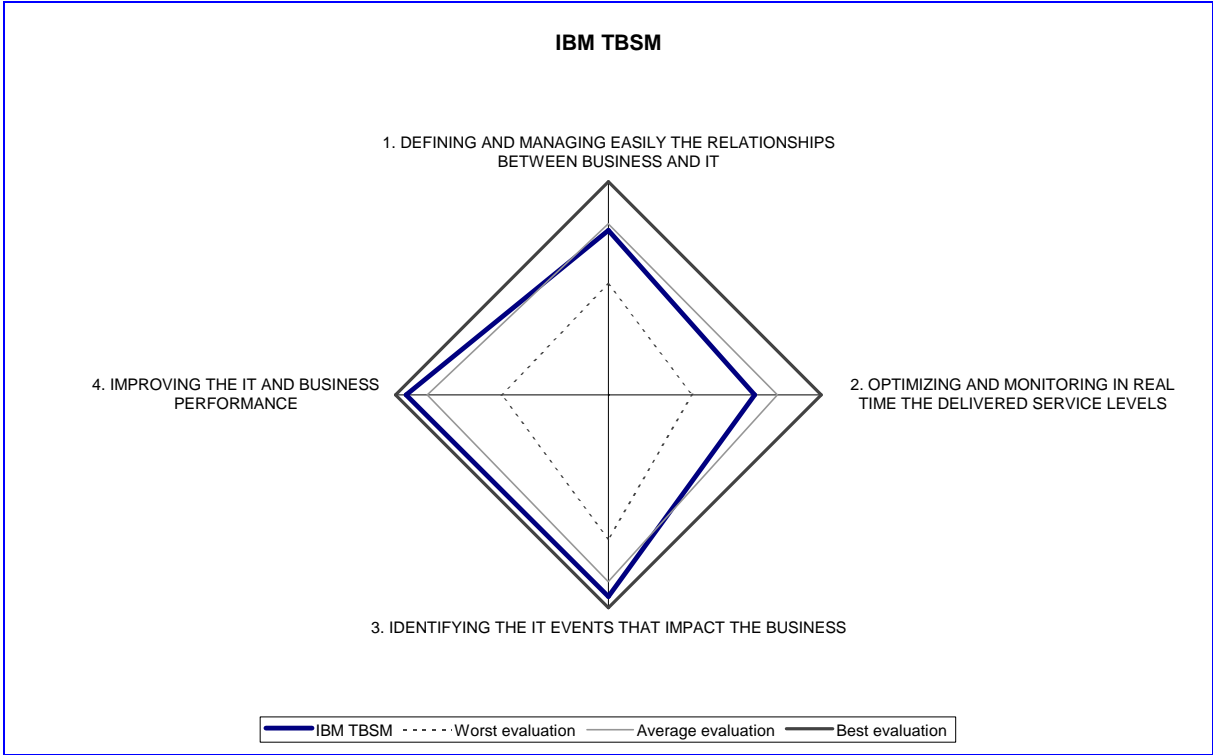
If it is useful to alert the IT team of an incident, it is even more interesting to be able to warn the teams before an incident occurs. Some BSM solutions provide functions for assessing the potential risks of threshold exceedance, in particular in the case of service levels. They help anticipate deviances from SLAs concluded by IT and business. Some BSM solutions also provide functions pertaining to historical data analysis. They make it possible to manage trends and anticipate risks according to events. Nevertheless, several solutions do not yet provide even simple analysis functions. Improvements are required on these points.

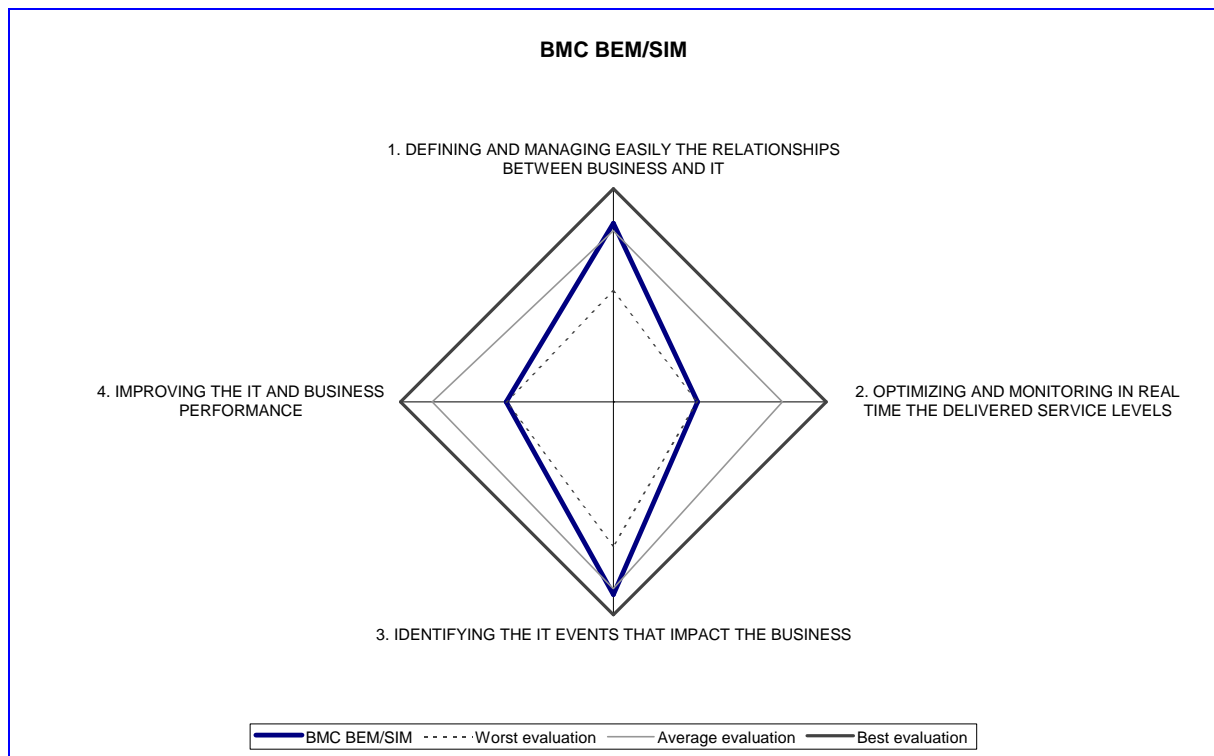
➤ **Alert management**

BSM solutions have an operational objective. They provide real-time monitoring of the business service status and of the events impacting these services. Many events are issued from IT monitoring solutions, but all these events do not require the same treatment or the same priority. It is often difficult for IT users to identify the events or incidents in terms of priorities. BSM solutions help prioritize the events, in particular according to impact on the business or according to service levels agreed to by the business and IT. They help alert the IT team by integrating the information on the impact of events. All the solutions cannot yet manage comprehensively the alarms following the events. Improvements are still required on these points.

YPHISE RANKING







The above charts are presented in order of final top-down ranking of the shortlisted products after their in-depth ISO 9001-certified assessment by Yphise.

The four assessment dimensions show the expected benefits by large companies. They aggregate more than 180 functional or technical control items. This list of requirements is practical, in order to evaluate the capacity of the products to provide an adequate return on investment. It is also proactive in order to appreciate the upcoming perspectives.

Comments

The detailed assessment of the shortlisted products demonstrates that the best ones have the strengths that would be useful for large companies and would represent a valuable investment. The assessment results demonstrate that the shortlisted products are valuable. However, there are significant differences among the products in the coverage of the different assessment dimensions.

We remind you that building a Proof of Concept in the targeted technical environment and for the expected value-added benefits remains a requirement.











- **Managed Objects (Managed Objects)** is an efficient and powerful solution. It provides the best coverage of our list of requirements. This highlights its maturity and suitability for investing in the BSM market segment. The vendor provides a single, comprehensive solution for defining, managing and monitoring the business services. The solution includes all the capabilities required for operational monitoring of the delivered services to the business. In particular, the solution provides powerful capabilities in order to easily define the services and monitor these services by means of comprehensive dashboards. It also demonstrates advanced functions for real-time

management of the impact of IT components on services. The vendor is independent, which facilitates interfacing with third-party tools (such as CMDB, monitoring or helpdesk solutions).

- **HP Business Availability Center (HP)** is a comprehensive solution. The solution demonstrates advanced capabilities in the four assessment dimensions and provides good coverage of our list of requirements. The solution provides the required functions for meeting the main needs in this market segment. The vendor provides a light version of its CMDB solution (HP UCMDB) with its HP BAC solution, which assists in business services definition and in impact management. However, the light version does not provide all the functions identified in our list of requirements (e.g. discovery, data federation and so on). To meet all the objectives announced by the BSM, it can be useful to associate HP BAC with HP UCMDB.
- **IBM Tivoli Business Service Manager (IBM)** is a valuable solution. It can be used without the CMDB provided by the vendor (IBM CCMDB). However, the solution will be more efficient if supplemented by the CMDB. The IBM TBSM solution demonstrates strengths in real-time management of business services. It provides advanced functions for retrieving and managing the IT events from third-party solutions and for assessing the business impact. The vendor provides its own event management solution, Omnibus, with IBM TBSM. TBSM can be usefully coupled with other IBM solutions such as CCMDB (for defining and updating the business service model), TSLA (for SLA management) or ITCAM (IT performance measurement). Because of limited analysis or reporting functions, it can be also useful to associate the solution with third-party BI solutions.
- **Widevision (Systar)** is an interesting solution. In particular, it demonstrates strengths in the monitoring and analysis functions. The solution provides efficient dashboards for the monitoring of business services. It is one of the only products to provide advanced analytical functions for analyzing historical data and for displaying predictive information (e.g. assessing the risk of service disruption). Widevision also demonstrates interesting functions for managing IT event priorities and, thus, for optimizing the treatment of these priorities.
- **BMC SIM/BEM (BMC)** can be a useful solution when associated with other BMC solutions. The solution itself does not meet the main requirements listed in our BSM market segment definition. BMC SIM/BEM is not really aimed at monitoring the business services in real time for operational purposes. Meeting our BSM requirements would require the use of various BMC solutions such as BMC SIM, BMC BEM, BMC Atrium CMDB, BMC SLM solutions and BMC Portal. Associated with other BMC solutions, the vendor demonstrates strengths in business service modeling (with its CMDB) and in event or impact management. However, the vendor does not really provide comprehensive dashboards or analytic functions for monitoring purposes.

1. DEFINING AND MANAGING EASILY THE RELATIONSHIPS BETWEEN BUSINESS AND IT

Improving the business service definition and change
Defining accurately the business services

Managed Objects		
HP BAC		
BMC BEM/SIM		
IBM TBSM		
Systar Widevision		

1. DEFINING AND MANAGING EASILY THE RELATIONSHIPS BETWEEN BUSINESS AND IT

Optimizing the impact analysis or decision making for IT investment requires defining and managing the relationships between IT and the business. It requires efficient modeling of the business services and of the relationships between the services and the IT components (e.g. applications, servers, databases). It also requires facilitating the definition of models and optimizing the update over time.

Comments

1.1. Despite some ranking differences in "Defining accurately the business services", all the products manage an extensible data model in order to define the business services and the relationships between services and IT components. However, the products differ in how they manage this model. Some manage a basic data model in their BSM solution, while others can manage a comprehensive, object-oriented data model with the use of their own configuration management database (CMDB) solution associated with their BSM solutions. There are other differences between the solutions in ability to define the business services graphically or to retrieve the business services from third-party tools (external CMDB solutions, enterprise architecture modeling solutions, import files).

1.2. Four of the five shortlisted products rank close to one another in "Improving the business service definition and change". They all provide automatic processes in order to populate the data model (discovery process or synchronization with CMDB). There are some differences in how the products manage the discovery in the BSM solution or via a third-party solution and in how they support the changes.

- **Managed Objects (Managed Objects)** stands out in the two assessment dimensions. The solution stands out in "Defining accurately the business services", because it allows easy definition of the business services via an internal data model (Managed Objects provides, within the same solution, both CMDB and BSM capabilities) or graphically (via its SVG editor). Managed Objects is also an open solution, which facilitates interfacing with third-party tools (such as an external CMDB).

The solution stands out in "Improving the business service definition and change", as it provides comprehensive discovery processes with its BSM solution. The product provides its own discovery solution—Managed Objects BTI (Business Technology Insight)—and standard adapters for other discovery solutions. The solution also makes it possible to manage changes and to support version comparisons (operational CMDB versus Gold CMDB).

- **HP Business Availability Center (HP)** demonstrates good coverage in the two assessment dimensions. The solution stands out in "Defining accurately the business services", as the vendor embeds a light version of its CMDB (HP Universal CMDB) with











its HP BAC solution. The UCMDB provides an out-of-the-box, structured and comprehensive data model in order to define the business services.

HP BAC also demonstrates advanced functions in "Improving the business service definition and change". It provides predefined elements (e.g. software elements) and interesting capabilities (TQL views) for facilitating the business service definition. However, some functions (such as discovery processes) are not provided out-of-the-box in HP BAC, and they require a UCMDB license.

For further information, see the detailed assessment volume (Business Service Monitoring, DETAILED ASSESSMENT volume, Yphise, September 2007).

2. OPTIMIZING AND MONITORING IN REAL TIME THE DELIVERED SERVICE LEVELS

Identifying and monitoring in real time the service levels
Conducting the improvement strategies

Systar Widevision		
Managed Objects		
HP BAC		
IBM TBSM		
BMC BEM/SIM		

2. OPTIMIZING AND MONITORING IN REAL TIME THE DELIVERED SERVICE LEVELS

A service level agreement (SLA) is associated with each service. BSM solutions must optimize the service levels delivered to the business. It is essential to identify the service levels required for each critical business service of a company. It is also important to monitor in real time these service levels in a customized way, according to user profiles, whether business or technical profiles. The information obtained must help implement the required improvement strategies.

Comments

2.1. Four of the five shortlisted products demonstrate good coverage in "Identifying and monitoring in real time the service levels". They all allow the definition of SLAs for business services or the retrieval of SLAs from third-party solutions. They all allow the management and monitoring of these SLAs. There are differences between the products in ability to provide comprehensive functions for managing the SLAs (e.g. consolidation functions, calculation rules) and for using the baselines that facilitate SLA definition.

2.2. Despite differences in "Conducting the improvement strategies", all the products provide dashboards or reports in order to monitor the services and the service levels. There are differences in capacity to manage comprehensive graphical views on dashboards or to help display and analyze information (e.g. filters, trends, financial impact).

- **Managed Objects (Managed Objects)** provides good coverage in the two assessment dimensions. The solution provides an SLM module—Business Service Level Manager—which is integrated in its solution in order to define and manage the SLAs. Managed Objects especially stands out in "Conducting the improvement strategies", as it provides comprehensive and easily customizable dashboards and reports.
- **HP Business Availability Center (HP)** stands out in "Identifying and monitoring in real time the service levels". HP BAC provides a SLM module to define comprehensive SLAs. It includes predefined KPIs and a SLA wizard to facilitate the KPI definition.
- **Widevision (Systar)** stands out in the two assessment dimensions. It stands out in "Identifying and monitoring in real time the service levels", particularly because it provides valuable baselining functions. The solution can define SLAs according to baselines from selected historical data. Widevision also stands out in "Conducting the improvement strategies", as it provides filtering, search and analysis functions. For example, the solution can identify forecasts (high or low) according to SLA baselines.
- **BMC SIM/BEM (BMC)** ranks low in two assessment dimensions, because the product does not provide efficient functions for monitoring the services and service levels. To manage the SLAs, the vendor provides a third-party solution, BMC Service Level Management, which is not comprehensively integrated into BMC SIM/BEM. It provides

several solutions aimed at monitoring the business services: via the BMC SLM solution (to monitor the SLAs), via BMC Portal or BMC Dashboard. None of these solutions allows an accurate monitoring of the services.

For further information, see the detailed assessment volume (Business Service Monitoring, DETAILED ASSESSMENT volume, Yphise, September 2007).

3. IDENTIFYING THE IT EVENTS THAT IMPACT THE BUSINESS

Identifying the impact on the business
Retrieving the events which impact the business

Managed Objects	
IBM TBSM	
BMC BEM/SIM	
HP BAC	
Systar Widevision	

3. IDENTIFYING THE IT EVENTS THAT IMPACT THE BUSINESS

Real-time analysis of business service performance requires identifying and retrieving the events that impact the service levels. It is essential to retrieve any information affecting the service levels. The solutions must demonstrate integration functions aimed at retrieving the data. It is also necessary to evaluate and define how the retrieved events affect the performance, status and the availability of business services.

Comments

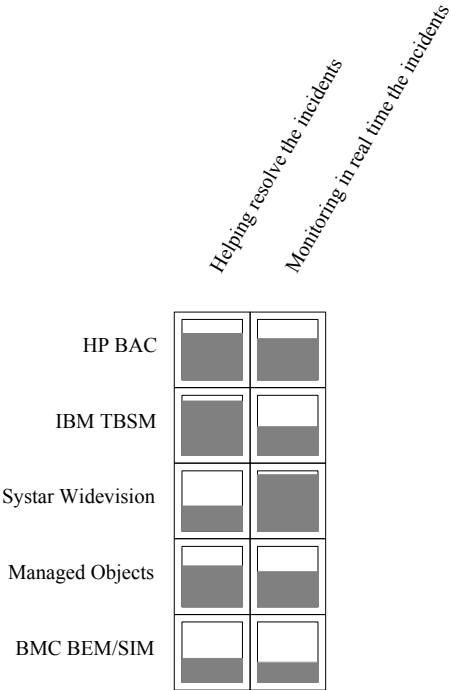
3.1. The shortlisted products rank close to one another in "Retrieving the events that impact the business". They all make it possible to retrieve events from third-party solutions (e.g. server, network monitoring, APM). There are differences in how they retrieve the events and manage these events (e.g. event impact management, event normalization).

3.2. Despite some ranking differences in "Identifying the impact on the business", all the products manage the relationships between the IT components and services in order to help identify the impact. They all allow visualization of the impact of an incident. There are differences between the products in simulation functions and in management of the impact of incidents on business/IT elements.

- **Managed Objects (Managed Objects)** stands out in the two assessment dimensions. It stands out in "Retrieving the events that impact the business", because it provides standard connectors and technologies in order to retrieve events. It stands out in "Identifying the impact on the business", as it provides comprehensive algorithms for managing the impact on business or IT elements. Some algorithms are predefined and can be customized via calculation rules (e.g. average, bands, count, highest, lowest element). The default method of calculating a status is to reflect the condition of the most critical child element.
- **HP Business Availability Center (HP)** provides good coverage in the two assessment dimensions. The solution can retrieve external events, especially from HP solutions (e.g. HP OVO, Sitescope). The solution manages the impact rules via the TQL. The rules make it possible to define, according to a specific event, the selected impact elements (retrieved from CMDB relationships), the impact scope (any, all, range) and the criticality. The solution provides a simulation function for analyzing an impact (test event).
- **IBM Tivoli Business Service Manager (IBM)** demonstrates advanced capabilities in the two assessment dimensions. The solution stands out in "Retrieving the events that impact the business", because the vendor provides, along with its BSM solution, its Omnibus solution for event management. IBM TBSM provides comprehensive functions for retrieving, normalizing and managing the events from various third-party solutions.

For further information, see the detailed assessment volume (Business Service Monitoring, DETAILED ASSESSMENT volume, Yphise, September 2007).

4. IMPROVING THE IT AND BUSINESS PERFORMANCE



4. IMPROVING THE IT AND BUSINESS PERFORMANCE

Improving the service levels requires a quick response when it is necessary to solve identified incidents. Thus, it is become necessary to have monitoring functions and pushed alarms in order to be informed of the incidents. It is also necessary to identify quickly the root-cause components, in order to solve the problems.

Comments

4.1. Despite ranking differences in "Monitoring the incidents in real time", all the products make it possible to alert IT users according to service status. They all manage various alerts (e-mails, red color, script). There are differences between the products in ability to prevent incidents (e.g. alert before reaching an SLA threshold) or identify a status evolution over time.

4.2. Despite some differences in "Helping resolve the incidents", all the products provide drill down functions for identifying the component causing an incident. They all manage integration into service desk solutions in order to create and send incident tickets. There are mainly differences in integration into third-party diagnostic solutions.

- **Managed Objects (Managed Objects)** demonstrates good coverage in the two assessment dimensions. The solution manages alerts via scripts. These scripts are predefined (e.g. sending an e-mail), or they can be customized via formulascript (JavaScript). The solution also supports some functions for incident prevention, such as "service level warning", which identifies the predicted time for service level disruption and provides an alarm accordingly. Managed Objects also helps resolve incidents via integration into various service desk solutions, as well as automatic or manual functions for creating the incident ticket.
- **HP Business Availability Center (HP)** demonstrates good coverage in the two assessment dimensions. The solution provides comprehensive alert functions that integrate preventive actions, i.e. alerts according to a measure degradation (e.g. if a measurement degrades by more than 15%, an alarm is generated by the solution). HP BAC also provides comprehensive root-cause analysis functions.
- **Widevision (Systar)** stands out in "Monitoring the incidents in real time", because the solution demonstrates powerful functions for monitoring incidents and providing alarms. An alarm can be defined according to a timer, an event, a threshold or impact/priority information. The alarm can be notified in various ways (e.g. mail, pager, phone, speaker, SNMP notification, Windows NT Event Viewer, Windows Messenger). The solution also manages an "advisory level", a projected trend aimed at assessing a situation (better or worse).

For further information, see the detailed assessment volume (Business Service Monitoring, DETAILED ASSESSMENT volume, Yphise, September 2007).

YPHISE SOFTWARE ASSESSMENT

Yphise ongoing research program

Yphise identifies and certifies the best software products on the market, according to the requirements of large companies.

The Yphise ongoing research program has three goals.

1. **It selects each year the market segments** where good software products offer strengths that represent a valuable investment for large companies. Yphise focuses on those market segments dealing with issues and priorities of interest to IT Executives.
2. For each market segment, Yphise **identifies the shortlist of products** of interest, according to expected benefits for IT Executives.
3. **Yphise assesses each shortlisted product and certifies the best ones.** The opinion outlined by Yphise relies on detailed assessment of the products in order to accurately evaluate their capacity to attain the expected return on investment. The Yphise ISO 9001-certified methodology allows for a rigorous scoring of each product. Yphise certifies the products that demonstrate the required strengths.

Yphise unique experience

Thousands of investment decisions made by large companies have used Yphise independent research.

1. **Yphise has assessed over 150 software products each year since 1985.** Yphise has unparalleled experience in the recognition of winning strategies in software vendor claims.
2. **Yphise covers all areas of interest to large companies** in order to develop, operate, maintain and secure the applications to compete. Yphise has unique expertise in evaluating the investment priorities that various families of software products represent, on the basis of issues of interest to large companies.
3. **Yphise is ISO 9001-certified in software product assessment.** This worldwide quality standard guarantees independence and focus on key issues of interest to large companies.
4. **Yphise judgment relies on a detailed assessment** of the products, including hundreds of control criteria designed to meet the needs of large companies. Our lab is located in Paris, France, across from Pompidou Center. The numerous vendors who visit us appreciate this very convenient location.

5. **The YBRM (Yphise Business Risk Management) research program** guarantees a sharp focus on requirements useful to large companies. YBRM manages an open framework of practices in order to optimize IT cost, value and risk. Yphise software assessment takes in account the results of this unique research.
6. **All Yphise results are released** in order to help IT Executives and Managers, software vendors and service providers monitor the software market according to the requirements of large companies.

Purpose of each released volume

The released results are designed to cover the needs of IT Executives and Managers, from the planning of investment priorities to the selection of products, including the negotiating with service providers of products to use in their solutions.

➤ **The EXECUTIVE volume and the EXECUTIVE Licence**

The EXECUTIVE volume is designed to appreciate the investment priorities for the large companies, to identify the shortlist of products, or to evaluate the solutions from service providers that include software products.

The EXECUTIVE volume is produced after in-depth analysis of the evaluated market segment. The ranking of the shortlisted products aggregates the results from the detailed assessment.

The Yphise ongoing research program selects each year the most valuable market segments according to the investment priorities of large companies. Yphise produces an EXECUTIVE volume on each evaluated market segment. The EXECUTIVE License grants IT Executives and Managers, software vendors and service providers online access (at yphise.com) to all the EXECUTIVE volumes released during the year. This license allows for effective monitoring of the software market according to the requirements and priorities of large companies.

➤ **The list of useful requirements to create value for large companies**

Yphise produces on each market segment the useful list of requirements in order to accurately score the software products according to expected benefits by large companies (REQUIREMENTS volume).

This list of requirements is practical, in order to evaluate the capacity of the products to provide an adequate return on investment. It is also proactive, in order to appreciate the upcoming perspectives. It provides IT Managers, software vendors and service providers with a reference set of functional and technical characteristics in order to develop effective software products. Yphise has vast expertise in producing accurate and useful lists of requirements.

➤ **The detailed assessment of the shortlisted products**

The Yphise ISO 9001-certified assessment of each product provides accurate results. Each assessment includes hundreds of control criteria and allows rigorous scoring of products.

The DETAILED ASSESSMENT volume provides results in tables for quick access and accurate comparison between products. The SELECTION ASSISTANT provides results in Excel format in order to customize all the data and weights according to your specific opinions and needs. These tools allow accurate trade-off when selecting a product, before the Proof of Concept in order to validate it according to your own specific use and technical environment.