Business Service Management

Managing IT operations from a business perspective

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HP Lead Solution Consultant
Vivit Anwendertreffen, 13. 11.2007

Technology for better business outcomes
## Agenda

- Definition of Business Service Management
- HP Approach to BSM
- HP Software for BSM
  - HP BAC Dashboard
  - HP BAC EUM
  - HP BAC SLM
  - HP BAC Sitescope
  - HP BAC BPI & HP TransactionVision
  - HP Diagnostics
Definition: Business Service Management

• Forrester Research
  “Software that dynamically links business-focused IT services to the underlying IT infrastructure. A business-focused IT service may be a specific IT service or part of a business process, but it must support a significant, visible business metric for a business owner.”


• Gartner
  “To qualify for the BSM category, a product must support the definition, storage and visualization of IT service topology via an object model that documents and maintains parent-child relationships and other associations among the supporting IT infrastructure components”
## HP approach to Business Service Management

| Consolidate service health management for application and infrastructure | • Proactively manage business and operational service levels  
|• Consolidate event and in-depth performance tools into a single view  
|• Automate the creation and maintenance of service dependency maps |
| Minimize business risk | • Manage from an end-user and business service perspective  
|• Prioritize IT issues based on business service levels and impact  
|• Accelerate root cause analysis through advanced analytics and problem resolution |
| Integrate with key IT service management processes | • Link business service management with IT service management solutions to optimize the service lifecycle  
|• Facilitate alignment across IT domains to optimize event, incident, problem, change and configuration processes  
|• Drive service management from a common service model |

Industry-leading application and operations management with a complete discovery and dependency mapping solution
Business service management
HP Software comprehensive approach

Top-down business view

Business availability
- Business transaction management
- Business service level management
- End-user experience
- Diagnostics and guided problem isolation

Consolidated infrastructure operations
- Service impact analysis
- Cross-domain correlation and root cause
- Consolidated event and performance
- Infrastructure lifecycle management

Bottom-up infrastructure view

Integration with key ITSM processes

UCMDB
Service dependency mapping

Discovery services

Event
Service level management
Incident
Problem
Change
Configuration
Release
HP Software for Business Service Management
HP BTO Software Centers

- **STRATEGY**
  - Project & Portfolio Management Center
  - CIO Office
  - SOA Center
  - CTO Office

- **APPLICATIONS**
  - Quality Management
  - Quality Center
  - Performance Center
  - Application Security Center
  - SAP, Oracle, SOA, J2EE, .Net

- **OPERATIONS**
  - Business Service Management
  - Business Service Automation
  - IT Service Management
  - Operations Orchestration
  - Business Availability Center
  - Client Automation Center
  - Service Management Center
  - Operations Center
  - Data Center Automation Center
  - Identity Center
  - Network Management Center
  - Universal CMDB
# HP Business Availability Center

## Foundation

<table>
<thead>
<tr>
<th>Universal CMDB</th>
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<tbody>
<tr>
<td>(Discovery, Federation, Reconciliation, Visualization, Change tracking)</td>
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<thead>
<tr>
<th>Alerts and notifications</th>
<th>Service impact analysis</th>
<th>Enterprise reporting</th>
<th>Third-party integrations</th>
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HP Operations Center

Operations Dashboard

Operations management
(Operations/Performance Manager)

Consolidated reporting
(Performance Insight)

Service impact management
(Operations Manager Dependency Mapping Automation)

Server and storage infrastructure management
(Systems Insight Manager, Essentials)

System performance management
(Performance Agent/GlancePlus)

Application infrastructure management
(Smart plug-ins, SiteScope)

Foundation

Common agents  |  Correlation  |  User roles  |  Universal CMDB integration  |  Third-party integrations
HP Network Management Center

Operations Console
(Operations Manager)

Network fault and availability
(NN Mi series)

Network change and configuration
(Network automation)

Network performance and planning
(Performance insight, Perf. iSPI)

Network plug-ins
(IPT, MC, MPLS, ATM)

Network process automation
(Process automation)

WAN optimization
(RAMS)

Foundation

Element management systems
Correlation
Live network
Universal CMDB integration
Third-party integrations
BSM: Monitoring business processes

<table>
<thead>
<tr>
<th>Business service metrics</th>
<th>Customer response time at website</th>
<th>Time for order processing</th>
<th>Availability of SAP order mgmt service</th>
<th>Availability of Billing Service</th>
<th>$ Order Backlog at Billing</th>
<th>Response time of shipment to partner</th>
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<tbody>
<tr>
<td>Business process monitoring</td>
<td>E-commerce</td>
<td>Order management</td>
<td>Billing</td>
<td>B2B shipment</td>
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<tr>
<td>Business service monitoring</td>
<td>BPM</td>
<td>Operations Mgr</td>
<td>Sitescope</td>
<td>BPM</td>
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<td>IT service monitoring</td>
<td>Impact and performance events</td>
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HP Universal CMDB
Automatisches Discovery der Umgebung, inklusive von Beziehungen zwischen Applikationen, Services

Prozesse, Applikations spezifische Daten, weitere Attribute zu den CI's

HP Universal CMDB (uCMDB)
Automatische Entdeckung der Umgebung (Discovery)

Entdeckung von CI’s, Relationen, CI Details, Applikationen, Services

Physical Infrastructure
- Physical assets (Servers, network, storage etc.)
- Application elements (J2EE, ERP/CRM, etc.)

Logical Infrastructure
- VLANs, subnets, links

Applications and services
- Application and service models
- Service dependency maps

Relationships (Physical and Logical)
- Peer relationships
- Parent-child
- Complex relationships

Agent based discovery (ED Integr. geplant)
- Enterprise Discovery, Radia
Die Universal CMDB Komponenten

- Autodiscovery – automatische Erfassung der IT Landschaft von Layer 2 bis Layer 7
- Impact Analyse – Analyse eines simulierten oder realen Fehlers
- Visualisierung – Unterstützt die Visualisierung und berechnet graphische Sichten
- Management Services – Echtzeit Status, Verarbeitung und Management von CIs
- Enrichment - TQL basierende Regeln, die Ausnahmen, logische Object und Erweiterungen erstellen und verwalten
- TQL - Topology Query Language Abfrage basierend auf Objekt Relationen
- Data Services – Datenzugriff, History, Object class Modell und CMDB Schema
Discovery Resultate – Applikationen und Infrastruktur Visualisierung

Verstehen von Abhängigkeiten durch “Discovery” und “Mapping”
Visualisierung und Drill Down
Impact Analyse – Simulation der Change Auswirkungen in ihrer IT-Umgebung
Federation with authoritative repositories

**Business Avail. Center**
- Improve availability, prevent problems
- Operational KPIs, end-user performance

**Service Manager**
- Reduce MTTR, minimize support costs
- Process artifacts, RFCs, incidents, problems

**AssetCenter**
- IT financial management, sw/hw asset management
- Contracts, ownership, financial, licenses etc.

**Change & Config Center**
- Business Services based configuration mgmt.
- Policies, release process artifacts and DSL

**SOA Center**
- Identify rogue web services, map services
- SOA library, policies, performance KPIs

**Operations Center**
- Monitor health and performance, filter events
- Performance metrics, deep configuration data

**Network Mgmt. Center**
- Optimize network avail., performance & bandwidth
- Network performance, configuration data

**Third party products**
- Leverage domain specific meta data, process outcomes

**HP UNIVERSAL CMDB**
- CIs, CI attributes, relationships, business services
Visualizing

HP BAC Dashboard
HP Business Availability Dashboard

Business Service Management in Real-time

- Associate infrastructure and applications to business processes, customers, business units, etc.
- Understand severity and business impact of performance and availability events
- Drill down into individual components and measurements to localize problems
My BAC
Geographic Maps
BAC Dashboard displays SC Tickets Status in Real Time
Avail/Perf Breeches open a ticket in SC
End User Monitoring
- Business Process Monitor
- Real User Monitor
HP End User Management

Understand the end user experience

- Proactively resolve business process issues before end users experience them
- Gain real-time visibility into the Quality of Experience (QoE) of real users
- Triage user problems to the specific tier of the application - network, database, system
Service Level Monitoring

HP BAC Service Level Mgmt
HP Service Level Management

Manage by Business Service Levels

- Manage by business-centric service levels with real-time visibility
- Ensure alignment between LOBs and IT by measuring and reporting on service levels from an end user perspective
- Translate business goals into IT operational level agreements (OLAs)
SLA Provisioning

Enable setting predefined service objectives (Platinum, Gold, Silver, Bronze) and assign them to services.
SLM forecasting

- Analyze if a SLA is going to be breached upon previous behavior
## SLM for OperationsCenter Metrics

### Mercury Business Availability Center - Service Level Management

#### SLA Reports > SLA Summary > ECA SLA

**View**: Week to date

- **Primary grouping**: KPI
- **Secondary grouping**: Time Interval

**Application (%)**

<table>
<thead>
<tr>
<th>ECA SLA</th>
<th>Business House 24x7</th>
<th>Business House 24/7</th>
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<td>ECA SLA</td>
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### Notes:
Service Level Management displays reports according to the SLK's time zone.
External Monitoring Integration

HP System Availability Management (Sitescope)
HP System Availability Management

Monitoring the Infrastructure

• Availability and performance monitoring for systems, applications, application components, and network devices

• Lowest TCO and fastest time to value with agentless architecture

• Manages entire distributed application environment with over 65 supported targets and best practice-based solution templates
Business Process Monitoring

- HP Business Process Insight
- HP TransactionVision
Business Process Modeling & Health Monitoring

Wie ist der Zustand jeder Geschäftstransaktion, wo ist sie im Gesamtprozess und wieviel ist sie wert?

Business Applikationen & Datenquellen
Durch Open Adaptor oder iWay-Technologie

Business Service SLO’s über BPI Metriken/Schwellwert

Zuordnung des IT Infrastruktur Zustands für jeden Prozessschritt

Business Prozess Monitoring & Business Impact

Applikations & Infrastruktur Monitoring (OpenView und Dritthersteller)
Automatic Business Transaction Discovery & Monitoring

- Automatically generated
- Individual transaction flow
- Event timing, size, and errors

Event type, app name, server name
Event performance
Latency between events
Transaction Analysis View

- Automatically generated
- Individual transaction flow
- Timing for every step

Performance of step

Latency between steps
Application Problem Analysis

HP Diagnostics
HP Diagnostics
Isolate and Diagnose the Problem

- Diagnose complex J2EE, .NET, and ERP/CRM application problems
- Isolate performance issues to the specific application component
- Correlate multiple problems based on user impact to business processes
HP Diagnostics am Beispiel J2EE

Welche EJB-Aufrufe werden ausgelöst?
Welche Methoden werden ausgeführt? Wie lange brauchen sie und welche sind langsam?
Was sind die langsamsten Methodenaufrufe in dieser VM-Instanz? Warum sind sie langsam?
Welche Transaktionen werden ausgeführt? Welche Verzögerungen gibt es?
Welche JSPs werden durch diese URL aufgerufen?
Welche EJB-Aufrufe werden ausgelöst?
Welche SQL-Abfragen werden in der Datenbank getätigt?
Was macht Benutzer B?

USER A → USER B → USER C

URL → URL → URL

JSP → JSP → JSP

EJB → EJB → EJB

METHOD 1 → METHOD 2 → METHOD 3

INSTANCE 1 → INSTANCE 2 → INSTANCE 3

SQL 1 → SQL 2 → SQL 3

13 November 2007
HP Diagnostics
HP Diagnostics - Drilldown
“Operations” Bridge
HP Service Dependency Mapping
Operations Manager – uCMDB

Apache nodes and CIs are ready for agent-based monitoring in Operations.
Operations Manager – uCMDB Integration: Leverage key UCMDB values in OpsMgr
Summary
**Why HP Software for BSM?**

<table>
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<tr>
<th>Consolidated service health management</th>
<th>Provide comprehensive visibility into the performance and availability of critical business and infrastructure services</th>
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<td>Minimize Business risk</td>
<td>Prioritize issues based on business impact and accelerate resolution through automated problem isolation</td>
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<tr>
<td>ITSM process integration</td>
<td>Integrate with key ITSM processes to enable comprehensive Service Management</td>
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*Manage IT operations from a business perspective*
Q & A
Definition der CMDB Strategie

Lösung orientiert sich an Geschäftsanforderungen

**Business Service Management**
Erhöhung der Verfügbarkeit und Orientierung der IT an Geschäftszielen

Definition kritischer Business Services in der CMDB kombiniert mit BSM

**IT Service Management**
Prozess Alignment und Verbesserung der Produktivität

Nutzung aktueller Statusfunktionen in CMDB für "closed loop" Change Management

**Change & Configuration Mgmt**
Minimierung des Geschäftsrisikos aufgrund von Changes

Start mit Discovery der CIs und Services; Nutzung von Impact Analysen für Change Konflikte & Risiko

**Schlüsself-Initiativen**
Visibilität und Kontrolle für Initiativen wie z. B. DC Konsolidierung

Opportunistische Nutzung von Initiativen als Startpunkt für CMDB

**Bereiche**
Business Services, Geschäftseinheiten, Lokationen, Technologie Stacks, etc.

Nutzung bestehender CMDB Informationen für neue Initiativen
Change & Configuration Management

Reduzierung des Business Risikos

Vorteile

• Analyse der Auswirkung und des Risikos jeder einzelnen Änderung
• Koordination und Kommunikation über Organisationsgrenzen hinweg
• Proaktive Erkennung von potenziellen Ausfällen
• Auditierung der geplanten und Erkennung aller ungeplanten Changes

Funktionen

• UCMDB CI Definitionen werden genutzt um Kollisionen zu erkennen
• Business Service Definitionen in UCMDB werden genutzt um Change-Aktivitäten auf Basis von Business Services zu visualisieren
• Change Reports aus UCMDB für Auditierung
• UCMDB Change Impact Analysen zur Erkennung von auftretenden Risiken aufgrund von Changes
BAC and ServiceCenter
BAC-SC Integration Flow

ServiceCenter Server

SiteScope

ServiceCenter Monitor

WS Communication

Dashboard

SLM

DB

BAC

BUS

ServiceCenter Web tier
SLA Reports with SC data

Business Availability Center - Service Level Management

View: Week to Date

SLA Reports > SLAs Summary > Ticketing Demo

Primary groupings: KPI
Secondary groupings: Time Interval

MTBF (hh:mm:ss) | MTBSI (hh:mm:ss) | MTTR (%)
--- | --- | ---
Ticketing Demo | 1 day, 9 hours | 00:50:45 | 100.000
DB Services | 1 day, 9 hours | 00:50:45 | 100.000
DB Services monitor | 1 day, 9 hours | 00:50:45 | 100.000

Extended | Failed | No Data | Downtime

Note: Service Level Management displays reports according to the SLA's time zone.
Ticketing Integration configuration (SAM Admin)

- SC server properties
- Incidents type and status
OperationsManager & Sitescope
HP SiteScope and HP Operations Manager – How they work together

- HP SiteScope serving as a satellite or super agent of Operations
- Forwarding of SiteScope alerts into the Operations Manager
- SiteScope populates Service Navigator/Service Maps
  - Service maps show SiteScope’s data/status
- First integration aims at quick value for existing customers – additional integration under investigation for subsequent releases
- Available for Operations for Windows and Unix
How it looks in HP Operations Manager for Windows Service Map

Service Map shows SiteScope's topology/status
How it looks in HP Operations Manager for Unix Service Navigator