SAP IT Infrastructure Management

Dirk Smit – ALM Engagement Manager
SAP Africa – dirk.smit@sap.com
Challenges in managing heterogeneous IT environments

- Determine the value that IT contributes to the business
- No ability to match IT service cost with infrastructure and business processes
- No visibility to business impact – lose money by the minute
- Aligning the IT with strategic business priorities
- Measure how costs can be saved through Outsourcing or Cloud offers

- Too many tools in use for IT management
- Too many department have a say and do not cooperate
- Problem resolution for IT errors takes too long and costly
- Missing link between service request, change management and business impact
- Analyze how changes will increase the value of IT
- High cost for tracking infrastructure changes, documentation of changes
Our Solution –
SAP IT Infrastructure Management

- Understand the business requirements and match them against the landscape
- Align the business demands with the IT costs to show the value
- Reduce the effort and cost by over spanning disciplines in IT management
- Secure the revenue stream from business processes through fast error detection and resolution and reduced downtimes
- SAP IT Infrastructure Management is the first step to the concept of ERP for IT

- Optimize the level of overview of the IT landscape
- Define and monitor KPIs for IT performance in alignment with the business
- Reduce the cost for managing and monitoring by reducing the number of tools required
- Reduced complexity through easy visualization reduces the time for error resolutions
- Automatic documentation of changes and infrastructure incidents means less time and cost to analyze the IT problems
Expanding the Value of SAP Enterprise Support With SAP IT Infrastructure Management

- SAP Solution Manager 7.0
- SAP Solution Manager 7.1
- SAP Solution Manager 7.1 + SAP IT Infrastructure Management

- Business Process & Application Management
- IT Infrastructure Management

SAP vs. non-SAP
Value Proposition

- Simplify complex infrastructures and focus on matching the demand
  - Intelligent and automatic discovery to detect dependencies
  - Graphical representation of actual infrastructure
- Concise cost projections in improvement projects for technical infrastructure
  - Ensure optimal decision path for each demand
- Faster value generation from IT to business
  - Quickly deploy new landscape components without risks
  - Re-assign resources to business-critical and value-adding tasks
- Ensure business continuity through precise business impact analysis
Configuration Management with SAP Solution Manager


Systems are registered in System Landscape Directory and synced to Landscape Management Database, where customers can use SAP delivered templates or deep model applications own applications.

Infrastructure components are auto-discovered by SAP IT Infrastructure Management CMDB and automatically linked to systems in Landscape Management Database.
Enterprise Architects model business processes with BPM tools (like ARIS, Solution Manager, …)
→ Modeling stops on system level

How to close the gap between infrastructure and enterprise architects?
Configuration Management with SAP Solution Manager provides **single source of truth**

CMDB’s provide auto discovery of infrastructure with inventory management and network management
→ Modeling stops at physical server level in CMDB
What is the Product/Solution?

• SAP IT Infrastructure Management consists of functional areas:
  – Infrastructure Discovery and Management
    • Printers, routers, switches, PCs
    • Dependencies and topologies in the network
    • Real-time information on infrastructure components and their status
  – CMDB
    • Asset- and inventory data
    • Database for configuration items, relations and dependencies
    • Normalized data for faster integration and evaluation
  – Integration to SAP Solution Manager
    • Direct access of data from SAP Solution Manager
    • Incident, problem, change linked to infrastructure information
    • Enhanced monitoring information inside SAP Solution Manager
Best in class auto discovery of infrastructure components

Objects
- HP-UX
- Sun
- Microsoft
- Operating Systems
- IP Phone, ...

Active Components

Normalization
- Description
- Name
- Operation Status
- Type

Nodes
- Device
- Fan
- Interface
- Measuring Section
- Memory
- Port
  - Detect Managed Object Definition
  - Managed Object Variables
  - Relations
  - Properties
    - Config
      - not defined yet
      - Administration Status
      - Connector
      - Description
      - Duplex State
      - GBIC
      - Interface Index
      - Name
      - Net Topology
      - Operation Status
      - Path Cost
      - PVID
      - QoS Queue Mode
      - Spanning Tree Status
      - Speed
      - Switch Port Index
      - Type
      - Performance
      - Accounting
      - Sequences
      - Power Supply

...
Real-time Access to all your Device Types

- Product Specific Module for all common Device Models
  - Consistent look & feel and intuitive handling via graphical display
  - Support of all standard and proprietary Management Information Bases
  - Support of the most important management protocols (SNMP, CIM, WMI/WBEM)
  - Development of new Product Specific Modules at a standard rate
Easier Network Management and Planning

Topology Overview

Visual Assisted Analysis

Overview of distributed Networks

System Network Status
SAP Solution Manager

Central IT Management Application for System Landscapes
Change Management for Software and System Changes
IT Service Management for incidents and problems
System Monitoring for system availability
Process monitoring for business continuity
...

Managing the SAP Landscape in a single solution...what about the rest?
What is the Product/Solution?

IT infrastructure
Asset inventory
Dependency mapping
Discovery
Network & System Monitoring
Provisioning
Dashboards
Reports
CMDB
SAP Solution Manager integration
SAP Solution Manager
IT infrastructure
CMDB
SAP Solution Manager
**Business Process Management**

- Solutions (landscape + business process)
- Business Processes e.g. Order-to-cash
- Business Process Steps e.g. Goods issue

**Application Management**

- Technical scenarios
- Connection / Interfaces
- End-users
- Applications / Products / Product instances e.g. SAP CRM
- Application Server e.g. SAP ABAP WAS
- Databases e.g. SAP MaxDB
- Operational Systems e.g. Linux

**Infrastructure Management**

- Storage
- Server Hardware
- Network
- Virtualization
- Client Hardware
- Printer
Drilling Deeper Into the Solution
Future Direction: Enterprise Resource Planning for IT

ERP for your business

- Financial mgmt.
- Risk and compliance mgmt.
- Marketing and sales; customer satisfaction
- Sourcing
- Human resources

Enterprise resource planning for IT

- Demand, project, and portfolio mgmt.
  Service, application, and project portfolio mgmt.
  Project management

- IT service management
  Services catalog (service design & delivery)

- SAP IT Infrastructure Management
  Hardware, network, operating system and database
  Infrastructure assets and inventory

- Configuration management

- CIO dashboards

- IT reporting

SAP Enterprise Support customers can extend ALM seamlessly with IT infrastructure management.
Detailed View of all your Infrastructure Components
View to Network Dependencies of a Server

All direct network neighbors of the selected host are given in a list and shown with the details below.
Make IT Infrastructure Alerts visible in SAP Solution Manager Alert Inbox

Provide graphical view of devices in SAP IT Infrastructure Management

Manually defined output devices like printers etc.

Corresponds to Network devices of technical system (e.g. routers, switches, …)
Make IT Infrastructure Alerts visible in SAP Solution Manager Alert Inbox

Alerts for network adapters and storage devices of single hosts

<table>
<thead>
<tr>
<th>Alert Name</th>
<th>Category</th>
<th>Managed Object</th>
<th>Type</th>
<th>Current</th>
<th>Priority</th>
<th>Worst</th>
<th>Total</th>
<th>Changes</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirm Panin Rate</td>
<td></td>
<td>dteexn008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network device failed</td>
<td></td>
<td>pwdf2769</td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage not available</td>
<td></td>
<td>vml2216</td>
<td></td>
<td></td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>vml2215</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>usa6q43</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>uscgq43</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>vml2257</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>usdbq43</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>pwdf2769</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File System Full</td>
<td></td>
<td>vml2251</td>
<td></td>
<td></td>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Last Refresh 19.10.2010 15:10:59 CET
Choose value help in new incident.
Key Take-Aways

- Holistic ALM and IT infrastructure management on SAP Solution Manager for SAP Enterprise Support customers
- Intelligent and automatic discovery to detect dependencies and simplify management of heterogeneous technical infrastructures
- Scalable expansion of SAP Solution Manager usage to proactive infrastructure monitoring and alerting for the entire IT infrastructure
- ITIL-compliant SAP Solution Manager processes with full access to a proven Configuration Management Database (CMDB)
- Faster value generation from IT to business ensures business continuity through precise business impact analysis
Thank You!