Software Asset Management (SAM) and ITIL Service Management - together driving efficiency

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Agenda

Registration & refreshments 18:00

Presentation 18:30

– ISO 19770-1 and ITIL V3 mapping
– The asset management lifecycle
– Data gathering and modelling
– Relevance of all of the service management lifecycle functions to SAM
– Software in the service catalogue and portfolio
– Maturity measurement and benefits
– Discussion

Finishing around 20:00

– Wine, finger food and informal networking.
Service Management and SAM

What is Service Management?
- Service management is a set of specialised organisational capabilities for providing value to customers in the form of services.
  - Transforming resources into valuable services
  - Efficient delivery of services
  - Supported by an extensive body of knowledge, experience and skills.

What is SAM?
- SAM is the effective management, control and protection of software assets within an organisation and the effective management, control and protection of information about related assets which are needed in order to manage software assets.

So SAM is:
- A resource to deliver services efficiently
- Knowledge
- A valued service
Your company

• How often do SAM and Service management talk to each other?

• Why is SAM not considered part of service management?

• Is the SAM department listed as a valued service in the service catalogue?
Processes
ISO 19770-1 framework and processes

**Lifecycle**
- Development
- Acquisition
- Release
- Deploy
- In-use
- Incident
- Problem
- Retire

**Core SAM processes**
- Operations management
  - Relationship and contract
  - Service level
  - Security
  - Financial
- Inventory management
  - Asset identification
  - SW asset inventory
  - SW asset control (libraries)
- Verification and compliance
  - Asset record verification
  - License compliance
  - Compliance verification
  - Conformance verification

**Organisational processes**
- Control environment
  - Corporate Governance
  - Roles and responsibilities
  - Competence
  - Processes and policies
- Planning and Implementation
  - Planning
  - Implementation
  - Monitor and Review
  - Continual improvement

Does not require efficiency or compliance
Asset tracking - software

- Request
- Approve
- Procure
- Goods in
- Pay
- Release
- Deploy
- In-use
- Incident
- Problem
- Retire
- A = Recognition tables
- B = Upgrade / downgrade

- SW asset inventory
- SW asset control (libraries)
- CMDB
- Relationship and contract
- Asset Identification
- Asset record verification
- License compliance
- Compliance verification
- Conformance verification
Asset tracking – hardware

- **Asset record verification**
- **SW asset control (libraries)**
- **CMDB**
- **SW asset inventory**

**Processes**:

1. **Request**
2. **Approve**
3. **Procure**
4. **Goods in Pay**
5. **Release**
6. **Deploy**
7. **In-use**
8. **Incident**
9. **Problem**
10. **Retire**

**Relationship and contract**
The CMS model (and SACM)
ISO 19770-1 framework and processes

Lifecycle

Lifecycle process interfaces

Development
Acquisition
Change

Release
Deploy
In-use
Incident
Problem
Retire

Core SAM processes

Operations management
- Relationship and contract
- Service level
- Security
- Financial

Inventory management
- Asset Identification

SW asset inventory
HW

SW asset control
(libraries)

A

Verification and compliance
- Asset record verification
- License compliance
- Compliance verification
- Conformance verification

B

Planning and Implementation
- Planning
- Implementation
- Monitor and Review
- Continual improvement

Organisational processes

Control environment
- Corporate Governance
- Roles and responsibilities
- Competence
- Processes and policies

Does not require efficiency or compliance
SAM and ITIL V3

Operations management

- Supplier management
- Service level
- Information security
- Financial

Control environment

- Corporate Governance
- Roles and responsibilities
- Competence
- Processes and policies

Service asset and configuration management (SACM)

CMS

Acknowledgement ISO/IEC and ITIL V3
ITIL V3

Service Design
- Service Catalogue Management
- Service Level Management
- Supplier Management
- Capacity Management
- Availability Management
- IT Service Continuity Management
- Information Security Management

Service Transition
- Transition Planning and Support
- Change Management
- Service Asset and Configuration Mgt.
- Release and Deployment
- Service Validation
- Evaluation
- Knowledge Management

Service Operation
- Event Management
- Incident Management
- Request Fulfilment
- Problem Management
- Access Management

Continual Service Improvement
- Seven step improvement
ITIL V3 Lifecycle and SAM

**Service Design**
- Service Catalogue Management
- Information Security Management

Example
- The Solution
- The initiation of the project
- Selection of suppliers
- Procurement costs

**Service Operation**
- Request Fulfilment
- Asset lifecycle
- Procurements

**Continual Service Improvement**
- On going improvement

**Service Transition**
- Change Management
- Service Asset and Configuration Mgt.
- Release and Deployment
- Knowledge Management

Example
- Vendor agreements
- The end of the project

**Service Strategy**
- Service Strategy

Example
- Cloud
- Sourcing
- Outsourcing
- Virtual Applications

**Service Operation**
- Service Operation
People, Process, Technology

Strategy and vision

Policies

People

Process

Technology

Procedures

Policies

People

Process

Technology

Procedures
Typical inefficient SAM processes

Acquisition

- Request
- Approval
- Agreement to purchase
- Purchasing
- Goods in
- Deployment
- Payment

Under Licensed

- Deployed Software
  - SW
  - HW
- Procurement data
  - HW
  - SW
- Contract management

Manual process

- License Position (Compliance)

Acquisition

Non-Standard

- No stock check
- Approvals go straight to purchasing
- SAM manager makes all decisions
- Strategy is not considered
- Media gets lost
- Deployment process not integrated
- Wrong package used for deployment
- Imbedded software not authorised
- Manual compliance process
- All SW uses the same process
- Poor software payment authorisation
- DSL (DML) likely to be uncontrolled

No links with service management
Efficient SAM processes based on Service Management

Automated and integrated

- Service mgmmt integration
- Process tailored to software
- Controlled approvals
- Stock check
- Responsibilities organised
- Deployment via AD group
- Links to packages
- Imbedded SW licensed
- Compliance based on SKU
- Controlled payments
- Usage management

- Request
- Approvals
- Stock check
- Purchasing
- Goods in
- Payment
- Deployed assets
- DSL

- CMS
- SW
- HW
- Procurement data

- Contract management

- Knowledge management -automated
- Usage
- License Position (Compliance)
## Catalogue

### Procurement

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKU</td>
<td>Number</td>
</tr>
<tr>
<td>Reseller pt no.</td>
<td>Number</td>
</tr>
<tr>
<td>Software name</td>
<td>Text</td>
</tr>
<tr>
<td>Description</td>
<td>Text</td>
</tr>
<tr>
<td>Vendor</td>
<td>Drop down</td>
</tr>
<tr>
<td>reseller</td>
<td>Drop Down</td>
</tr>
<tr>
<td>Price</td>
<td></td>
</tr>
<tr>
<td>Contract number</td>
<td></td>
</tr>
<tr>
<td>License pool</td>
<td>Max</td>
</tr>
<tr>
<td></td>
<td>Min</td>
</tr>
<tr>
<td>License type</td>
<td>Per seat</td>
</tr>
<tr>
<td></td>
<td>Per user</td>
</tr>
<tr>
<td></td>
<td>Per processor</td>
</tr>
<tr>
<td></td>
<td>Enterprise</td>
</tr>
</tbody>
</table>

### Service introduction /portfolio

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service introduction status</td>
<td>Aware of application</td>
</tr>
<tr>
<td></td>
<td>Being evaluated</td>
</tr>
<tr>
<td></td>
<td>Rejected</td>
</tr>
<tr>
<td>In–use status</td>
<td>Pre approved</td>
</tr>
<tr>
<td></td>
<td>Buy</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
</tr>
<tr>
<td>Retired</td>
<td>Sell</td>
</tr>
</tbody>
</table>
## Catalogue

### Introduction considerations

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>Business value /impact</td>
<td></td>
</tr>
<tr>
<td>Business impact</td>
<td>High/Low</td>
</tr>
<tr>
<td>Last review</td>
<td></td>
</tr>
<tr>
<td>Next review</td>
<td></td>
</tr>
</tbody>
</table>

### Operational considerations

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment</td>
<td>Packaged yes/no</td>
</tr>
<tr>
<td></td>
<td>Package number</td>
</tr>
<tr>
<td></td>
<td>Type (SCCM/AD/etc.)</td>
</tr>
<tr>
<td></td>
<td>AD Group</td>
</tr>
<tr>
<td>Access controls</td>
<td></td>
</tr>
<tr>
<td>Quantity before</td>
<td></td>
</tr>
<tr>
<td>package creation</td>
<td></td>
</tr>
</tbody>
</table>
## Workflow rules

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval before removing</td>
<td></td>
</tr>
<tr>
<td>Special approval before purchasing</td>
<td></td>
</tr>
<tr>
<td>Special email to user</td>
<td></td>
</tr>
<tr>
<td>Approvals required</td>
<td>Department</td>
</tr>
<tr>
<td></td>
<td>Business (owner)</td>
</tr>
<tr>
<td></td>
<td>IT technical</td>
</tr>
<tr>
<td></td>
<td>IT Service</td>
</tr>
<tr>
<td>Owner</td>
<td></td>
</tr>
<tr>
<td>Deploy before license</td>
<td></td>
</tr>
</tbody>
</table>

## Storage

<table>
<thead>
<tr>
<th>attributes</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media storage location</td>
<td></td>
</tr>
<tr>
<td>License storage location</td>
<td></td>
</tr>
</tbody>
</table>
Catalogue Summary

The catalogue will allow:
• Users to select their own applications
• Pre approved products
• Profiling of users
• Workflow to be more efficient (automated or manual)
• Workflow decisions based on catalogue parameters
• Reduce repeated IT approvals.
• Better control by the appropriate owners
• More accurate budgeting
• Better asset tracking using manufactures part number
• Better records for management decisions
• More accurate SKU based compliance reporting and risk reduction
• Better use of resources
• Makes support easier
• Includes base builds and embedded software
Technology
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Low</th>
<th>Mid Range</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Discovery</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Software Discovery</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Usage</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Recognition of internal software</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Intelligent reporting</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ability to expand</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ability to remove software based on usage</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ability to remove software based on profile</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Automatic deployment of software by profile</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Integration with other support functions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Expected technology cost per PC(seat): £30 → £50
Technology map

Technology is required for all these processes.
An integrated solution is preferred

Acknowledgement ISO/IEC
People
Current conflicting priorities

Service Asset Configuration manager

- Relationships and Dependencies
- Business continuity

SAM manager

- Legal compliance and control
- Risk Management

CMDB

Single controlled storage

Inconsistent records

CMDB

Network, Cables, Switches

Servers (Working applications)

Workstations

Services

Working status

Installed software
Centralised data

Service Asset Configuration manager
- Relationships and Dependencies
- Business continuity

SAM manager
- Legal compliance and control
- Risk Management

Decide who manages the workstations?
Collecting Data

Typical lifecycle with inconsistent records and poor workflow

Improved lifecycle using service management (and workflow) with consistent record collection
### People and roles

<table>
<thead>
<tr>
<th>Management and planning</th>
<th>SACM owner</th>
<th>SAM team</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Configuration management plan</td>
<td>- policies and standards</td>
<td>- create process and procedures.</td>
</tr>
<tr>
<td>- Manage config mgmt plan</td>
<td>- plan CMS</td>
<td>- Technology</td>
</tr>
<tr>
<td>- Scope/info/stds/plans/proc’s</td>
<td>- Control Mech.</td>
<td>- evaluate</td>
</tr>
<tr>
<td>- Scope/info/stds/plans/proc’s</td>
<td>- Status</td>
<td>- recommend</td>
</tr>
<tr>
<td>- Scope/info/stds/plans/proc’s</td>
<td>- Approval</td>
<td>- implement</td>
</tr>
<tr>
<td>- Scope/info/stds/plans/proc’s</td>
<td>- location</td>
<td>- customise</td>
</tr>
<tr>
<td>Configuration identification</td>
<td>- CI classes</td>
<td>- SW master copies</td>
</tr>
<tr>
<td>- Ci naming</td>
<td>- agree assets / CIs</td>
<td>- asset CIs</td>
</tr>
<tr>
<td>- Ci ownership</td>
<td></td>
<td>- documentation CIs</td>
</tr>
<tr>
<td>- Ci relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configuration control</td>
<td>- Control Mech.</td>
<td></td>
</tr>
<tr>
<td>- Control Mech.</td>
<td>-manage CMS</td>
<td></td>
</tr>
<tr>
<td>- Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status accounting and reporting</td>
<td>- Value of each status</td>
<td>-SW master copies</td>
</tr>
<tr>
<td>- Value of each status</td>
<td></td>
<td>- asset CIs</td>
</tr>
<tr>
<td>- Location</td>
<td></td>
<td>- documentation CIs</td>
</tr>
<tr>
<td>Verification and audit</td>
<td>- baselines Vs Audit data</td>
<td>- audits</td>
</tr>
<tr>
<td>- baselines Vs Audit data</td>
<td>-inventory</td>
<td>- inventory</td>
</tr>
<tr>
<td>- CMS to actual</td>
<td>-CMS to actual</td>
<td>-CMS to actual</td>
</tr>
</tbody>
</table>

Note: procurement is ‘Request Fulfilment’
The SW catalogue is SAM
SAM maturity
Measuring SAM maturity - example

What **percentage** of user PCs and servers are **included** in a centralized software inventory/CMDB (configuration management database); which is populated by a software tracking tool?

<table>
<thead>
<tr>
<th>KPI</th>
<th>Basic</th>
<th>Standardised</th>
<th>Rationalised</th>
<th>Dynamic</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSF</td>
<td>No centralised inventories</td>
<td>68% to 95%</td>
<td>95%</td>
<td>98% +</td>
<td>Part of ITIL Configuration management</td>
</tr>
<tr>
<td>Technology</td>
<td>&lt;68% (of HW)</td>
<td>Manually centralised inventories</td>
<td>Centralised discovery tool for dynamic reconciliation</td>
<td>Dynamic reconcile (compare procurement / discovery) Exceptions are continually reducing</td>
<td>Discovery technology</td>
</tr>
</tbody>
</table>
Example maturity results

HW Outsourced

Small company

Blue chip

Small company
## Maturity Model (SOM) - KPIs

<table>
<thead>
<tr>
<th></th>
<th>Basic 1</th>
<th>Standardised 2</th>
<th>Rationalised 3</th>
<th>Dynamic 4</th>
<th>ITIL Integrated 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets are basically uncontrolled</td>
<td>No policies</td>
<td>Assets are controlled with manual processes.</td>
<td>Assets are actively controlled but not fully centralised</td>
<td>Asset management fully automated and centralised</td>
<td>Asset management integrated with ITIL</td>
</tr>
<tr>
<td></td>
<td>No SAM owners or accountability</td>
<td>Limited policies</td>
<td>Published polices</td>
<td>Enforced policies</td>
<td>Integrated, policies</td>
</tr>
<tr>
<td></td>
<td>No electronic records available</td>
<td>Senior execs Informal</td>
<td>Senior exec responsive</td>
<td>Senior exec highly involved</td>
<td>Senior exec accountable</td>
</tr>
<tr>
<td></td>
<td>No technology</td>
<td>Some electronic records</td>
<td>Various electronic formats</td>
<td>Single electronic format</td>
<td>SAM integrated with config. Mgmt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low coverage and inaccurate technology</td>
<td>Partial centralised technology</td>
<td>Technology has full coverage and is trusted</td>
<td>Technology fully integrated</td>
</tr>
</tbody>
</table>
Typical company - SAM journey

<table>
<thead>
<tr>
<th>Year</th>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Basic</td>
<td>1</td>
</tr>
<tr>
<td>2009</td>
<td>Standardised</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>Rationalised</td>
<td>3</td>
</tr>
<tr>
<td>2011</td>
<td>Dynamic</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Integrated</td>
<td>5</td>
</tr>
</tbody>
</table>

Potential Under Licensing (RISK)

- 40%
- 20%
- 10%
- 5%
- ?%

SAM initiatives
- Centralised procurement
- Processes improved
- Variety of records
- Compliance mitigation

SAM plan
- Centralised data
- Documented processes
- Defined roles
- Discovery technology

Measures SAM plan
- KPIs, SLAs
- User satisfaction
- Process efficiency
- SAM technology

Integration
- People
- Processes
- ITSM /SAM technology

Expense  Department benefit  Operational benefit  Corporate benefit  Valued service
## Operational benefit

<table>
<thead>
<tr>
<th>New function/process</th>
<th>Operational benefit</th>
</tr>
</thead>
</table>
| New ability to cross reference a leased PC with an asset number | • Easier location and identification of PC’s for return to leasing company  
|                                                            |   • Better data for the refresh team                                                 |
|                                                            |   • Engineers are dispatched to the correct site with accurate knowledge of PC configuration. |
| Interactive process cross references SAM technology to Active Directory | • Has stopped refresh errors.    |
| Ability to track faults to asset types                    | • Improved help desk reporting                                                      |
| More granular information on failure rates and identification of failed assets | • Data for Supplier reviews                                                     |
## Corporate benefit

<table>
<thead>
<tr>
<th>Process improvement</th>
<th>Corporate benefit</th>
<th>Corporate value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manageable recovery process</td>
<td>Reduced uncontrolled costs</td>
<td></td>
</tr>
<tr>
<td>Better PC tracking</td>
<td>Reduced controlled costs</td>
<td></td>
</tr>
<tr>
<td>Faster incident resolution</td>
<td>Improved efficiency</td>
<td>IT is a valued service</td>
</tr>
<tr>
<td>More granular reports</td>
<td>Reduced risk</td>
<td></td>
</tr>
<tr>
<td>Less time wasted by engineers</td>
<td>Better strategic decisions</td>
<td></td>
</tr>
<tr>
<td>Improved vendor negotiations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved repair management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licences used more efficiently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software used more efficiently</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Valued Service

IT is a valued service when IT are involved in strategic decisions.

Gartner Survey

In a company where IT is involved at board level in strategic decision and where information is available then the spend profile for IT will be:
• 70% is available for capital spend
• 30% is required to keep the service operational.

In a company’s where IT has no say in strategic decisions the business will be demanding changes faster than IT can react, and the result on IT spend will be:
• 30% can be used for capital spend
• 70% is required to keep the service operational.

For IT to be effective requires good control and accurate data. It requires SAM and Service management to work together.