
SACM Automation

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Service Asset and Configuration Management (SACM) according to ITIL (Rance, 2011) is a topic in all organisations. Although stakeholders from the financial department or IT operations agree on the importance of accurate records on IT assets, few are satisfied with their current process and its tool support. One reason for the status quo may be that SACM is not a core process in most organisations. Yet, it is individual enough to hamper the use of standard software. We have evidence that SACM is structured enough to be an ideal candidate for workflow automation.

Challenges

Service Asset and Configuration Management (SACM) has the task of keeping record of IT assets. Assets are also called configuration items and can be hardware, software, IT services, and documentation. Information on assets is stored in the so-called Configuration Management System (CMS) that itself consists of one or more Configuration Management Databases (CMDB). SACM has process interfaces to almost all other processes of IT Service Management. Some of the most important interfaces are depicted in fig. 1.

The challenge in devising an effective and efficient SACM is not so much the design of a suitable CMDB. The stakeholders know quite well which attributes are important for the relevant asset classes. The real challenge is in the design and enforcement of processes that keep the CMDB up to date.

The participants in processes like Change Management, Release and Deployment Management, Incident Management come from several organisational units and have roles that may be derived from standard ITIL roles but that are non-standard in each organisation.

An SACM solution must guarantee that all authorised changes to the state of assets are recorded correctly

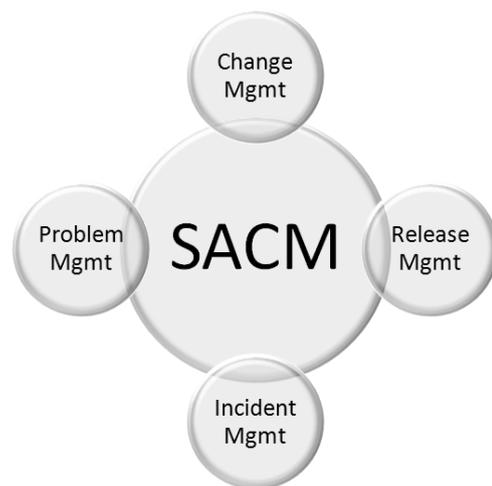


Figure 1: *Process Interfaces of SACM*

and instantly. The user interface of the SACM solution must be designed in a way that it facilitates this task. One aspect of this is that all hardware assets have a unique identifier attached to them. This can be done by a barcode, a qr-code, or an RFID.

The SACM solution must be available everywhere: when an asset is handed over from the IT department to a user, it would be useful to scan a signature of the recipient using a mobile device like a tablet or smartphone.

Organisations change constantly. Changing responsibilities, holiday replacements, and hierarchical escalation are issues that an SACM solution must be able to deal with.

And last but not least, the SACM processes themselves change because of continuous process improvement (Miers, 2006).

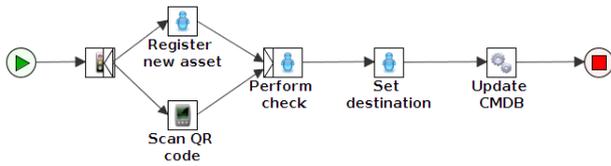


Figure 2: A YAWL workflow

Workflow Prototyping with YAWL

YAWL is an open-source Workflow Management System that is being developed since 2003 (Hofstede et al., 2010). If you specify the control flow (cf. fig. 2), the data, and the organisation of a workflow, the system generates an executable workflow. At this stage, the generated workflow prototype has no connection to the existing IT infrastructure, but it can be constructed with minimal effort. In previous projects we have managed to do several iterations within a single workshop. The strength of this approach is the immediate connection of modeling processes and "playing" with the resulting system together with subject matter experts.



Figure 3: Project phases: SACM

Our way of proceeding is depicted in fig. 3. In the first step, the CMDB is designed. This step can be replaced by analysing an existing CMDB. In the second step, the workflow prototype is constructed using workshops with subject matter experts. Then the effort for constructing a production workflow system and its integration in the existing IT infrastructure is estimated. The decision to go to the next phase is thus be based on solid ground.

Rheni GmbH

Rheni GmbH is a consulting and information technology services company founded by Prof. Hense in 2006 on the business campus of Bonn-Rhein-Sieg University.

Rheni combines long-standing experience in the broad field of business information systems with the verve and the innovative spirit of excellent young employees. Rheni's vertical range of production covers fundamental issues in IT-management as well as software-architecture and software development.

Prof. Hense has founded a competence center for process automation (Hense, 2012) and has organised the first international YAWL-Symposium (Freytag et al., 2013).

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