Improving Service Asset and Configuration Management with CA Process Maps

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Executive Summary

Challenge

As organizations embrace the knowledge that IT service excellence is a contributor to effective competition, many stumble when attempting to achieve this end. What these enterprises are striving for is a true conversion to IT Service Management (ITSM), which focuses on creating and managing services across their lifecycles — from planning and delivering new IT services to maintaining and supporting day-to-day activities. A key step toward meeting these goals, Software Asset and Configuration Management (SACM), helps to manage the data needed to facilitate ITSM. Unfortunately, many organizations lack formal guidelines for the best ways to embark on the SACM journey, and therefore struggle when attempting to achieve true ITSM and service excellence.

Opportunity

In order to effectively navigate these difficulties, organizations need visibility into their specific ITSM needs, as well as best practices that formalize and simplify the process every step of the way. CA’s ITSM process maps borrow from the concept of an urban subway system to provide a visual interpretation of each step, activity and key relationship that is relevant to navigating continuous IT service improvement. Specifically, the Service Transition ITSM process map outlines a route for SACM that leads enterprises through the steps of the SACM journey, toward the end point — and ultimate goal — of achieving and maintaining accurate service configurations.

Benefits

By following a well-defined, visual interpretation of the SACM journey, organizations attain a clear vision of the tasks needed to maintain accurate service configurations. These steps not only help to provide a clear, simplified concept of how to best progress through SACM, but they also aid in the discovery of IT configurations and their relationships, reduce the costs of configuration management and help drive the smooth adoption of ITSM best practices — and provide the grounds for ongoing, enterprise-wide IT service excellence.
Finding the Right Path to IT Service Excellence

As more and more organizations realize that achieving IT service excellence is a key component of success, many have trouble bringing existing practices in line with this goal. This happens in large part because many infrastructure managers don’t make the association between business services and IT. Historically, IT has focused on the reliability and availability of systems and components — and not on which IT services the technology supports, their business context or value.

What these organizations lack and are striving for is a true conversion to IT Service Management. With ITSM, the focus shifts toward creating and managing services across their lifecycles — from planning and delivering new IT services to maintaining and supporting day-to-day activities — all within a cycle of continuous improvement.

The Information Technology Infrastructure Library version 3 (ITIL® V3) includes a new ITSM approach that provides a framework of best practices while shifting the focus from processes to the service lifecycle. Concentrating on the service lifecycle provides critical guidance for IT organizations seeking to improve service quality and align operations with business goals in order to create value for the enterprise and its customers.

However, the best-practice guidelines outlined in ITIL V3 for the service lifecycle are complex and difficult to interpret. Moreover, they are not designed to provide definitive advice about implementing ITSM processes. Therefore, many IT organizations set forth on an ITIL journey lacking a firm idea of the end point or path that will lead them there.

ITSM and Service Asset Configuration Management

A subset of ITSM, Service Asset Configuration Management is a two-fold process. The first part revolves around the management of a service asset across its lifecycle, with attention to providing financial accountability and governance. The second step, configuration management (CM), provides a logical model to identify, control, maintain, verify and report on the assets and resources comprising an IT infrastructure, as well as their constituent components and relationships.

Simply put, SACM is the process responsible for managing the underlying data other ITSM processes use to enable and facilitate specific activities. The best practices contained within SACM can improve IT performance, increase process maturity, provide accurate data to help answer questions relating to other ITSM processes and empower decision making at all levels of the enterprise.

However, many organizations still lack the ability to understand several critical SACM concepts, such as:

- The true impact of an outage
- If a proposed change should be accepted
- The effect of change on business processes
- The causality between an incident and change
- Rationalizing software licenses with their acquisition costs
It's not that the data you need isn’t available. Rather, it is stored in such disconnected islands as informal databases, spreadsheets or even people’s brains — and so it is not readily accessible to support critical decision making with ease or consistency.

Clearly, refining your SACM processes is a key step toward achieving true ITSM. But before you undertake your SACM journey, you need to plan and define its purpose, scope, objectives, policies and procedures. In other words, you need to begin by determining where you want to be once your SACM process is in place.

To this end, CA developed a set of tools to help you simplify both ITIL v3 implementations and ITSM processes. The CA ITSM process maps, which are CA’s visual interpretation of ITIL v3 — and also provide graphical representations of SACM — borrow from the concept of an urban subway system to illustrate every process (or track), each activity (or station) and the key relationships that are relevant to navigating continuous IT service improvement.

The CA ITSM process maps describe the five phases of the service lifecycle: Service Strategy; Service Design; Service Transition; Service Operation and Continual Service Improvement. For this discussion, we will focus on the Service Transition process map, which helps organizations develop and improve capabilities to transfer new and modified services to production — and visualize the key steps of the SACM process.

Service Transition: Outlining the SACM Journey

In the CA ITSM Process map for Service Transition, the critical junction with Service Asset and Configuration Management is crossed. ITSM demands the active management of configuration items (CI) and relationships that are critical to business services. This map plots the course for SACM — and the ultimate goal (or endpoint) of maintaining accurate service configurations — by outlining the following key actions along the way:

• Manage and Plan
• Identify Configurations
• Configuration Control
• Service Portfolio Management
• Audit
Manage and Plan
As you embark upon your SACM journey, your first stop recommends building a plan that provides a clear vision of what you want to achieve. Here, you need to define and communicate the goals and objectives, as well as the deliverables, of your SACM process. Communicating these points is crucial for keeping the momentum of your project rolling. At this stage, you must also document expected benefits in order to build a business case to support your ITSM program and gain full stakeholder backing. This step includes the following phases:

- High-level requirements
- Scope
- Policies
- Organizational responsibilities
- Individual processes and procedures
HIGH-LEVEL REQUIREMENTS SACM is often considered and overly onerous process because organizations do not properly communicate the key benefits that it will achieve. List the business goals, and any necessary deliverables, your SACM process will address. Identify key stakeholders and create a communications plan to ensure that those involved understand their roles.

SCOPE Determine the breadth and depth you plan to cover, including the level of granularity you wish to achieve, which should provide insight into total project costs. Your scope should include a level of depth that provides control while supporting agility. It’s best to start from the top and work downward. If you cannot immediately identify a need to control the next level, err on the conservative side — you can always add extra layers later.

POLICIES Outline the policies and internal and external standards to which the SACM process must conform — from guidelines governing naming conventions and the classification of Configuration Items (CIs) to how the Configuration Management System (CMS) will be updated. Once these are defined the roles and responsibilities to continue the process management and design must be published.

ORGANIZATIONAL RESPONSIBILITIES Establish the organizational roles responsible for carrying out the policies you just outlined. This requires creating and filling the necessary positions and giving individuals the correct level of authority to carry out their responsibilities.

INDIVIDUAL PROCESSES AND PROCEDURES Identify the procedures for the SACM journey and determine any intersections with complementary processes.

Identify Configurations
After defining the high-level requirements, scope, policies, responsibilities, processes and procedures, your next action should be to define in detail the classifications for Service Assets (SAs) and CIs to ensure they adhere to a firm standard that eliminates the possibility of duplication or redundancy. Start by determining the classification types of a relatively small group of SAs and CIs. You’ll want to focus on defining the classes and families for this group — where the family points to a high-level identifier, such as hardware; and the class designates something more specific, such as UNIX server or Windows server.

After arriving at your preferred classification scheme, you can establish the important attributes that need to be recorded for each SA and CI. Again, keep the list relatively small to start, so you can easily manage it at the outset and then grow it as you start metrics.

Once you have created classification types, you need to think about the unique naming conventions for your individual SAs and CIs. Your organization probably has existing documentation in place to aid this step in the process.

In addition to classification types, you must also consider the types of relationships that make sense for your organization. There is often the temptation to attempt to define every possible relationship that may exist between and among SAs and CIs. However, just as you did with classification types, start by selecting a relatively small number of relationship types and build from there as necessity dictates.
Creating the Configuration Management System
While not a formal stop outlined on the SACM map, the process of populating your CMS — the repository of configuration data containing the identified and controlled resources within your IT infrastructure — is a necessary step that must be taken to ensure a successful journey.

Your CMS should federate disparate sources of data into a logical single entity that can be leveraged by other ITSM processes. Reconciliation of federated data also helps you avoid creating multiple CIs for the same resource — a common mistake that can render a CMS useless.

In addition, your CMS should be able to automatically discover configuration data and provide visibility into the different roles that will access this information and use it to make decisions, including impact analysis that supports change management.

After implementing your CMS, you should begin targeting and recording groups of CIs. Repeat this process one group of CIs at a time to build your CMS. Compiling CIs in this manner will help you view these items as pieces of the overall infrastructure and identify their relationships and dependencies.

BUILDING RELATIONSHIPS
A key benefit of a CMS is its ability to put a CI in context of the overall infrastructure by defining its logical and physical relationships with other CIs. This brings together your islands of disparate data by using the sophisticated rules required to convert a set of information into a formal relationship. For example, to create a relationship among hardware, equipment and contracts, you might need to compare hardware acquisition dates with contract lifetimes.

Establishing relationships should drive you to extend your sources of information to include application management databases, infrastructure databases, security databases, network analysis systems and more.

What’s more, because graphics help bring understanding to complex concepts, it is very important to visualize the contents of the CMS and use this information to improve decision support.

Configuration Control
As you progress along the map, the next stop is the configuration control activity, which ensures that there is adequate control over changes made to the CMS. This step is best implemented after building your CMS, as it relies on a fully defined CMS to be completed. No SA or CI should be added, modified, replaced or removed from the CMS without an appropriate level of formal documentation or procedures. This duty should fall under the responsibility of Change Management, and will require the same amount of rigor that is applied to such areas as procurement and licensing.
Service Portfolio Management
After achieving firm configuration control, your next activity is to ensure that each SA and CI is properly managed. Essentially, each piece of data you collect about a specific SA or CI must be “owned” by someone in your organization. This way, you can eliminate any deviation between the view of configurations provided by your CMS and the SAs present in your physical infrastructure. Maintaining this ownership facilitates a streamlined adoption of SACM processes and helps you avoid redundant maintenance activities.

Audit
Implementing SACM is a long-term initiative that requires a progressive approach to support proper adoption and use. After all, a CMS that is not up to date can easily negate any expected return on investment (ROI) and effectively nullify the value of SACM activities.

To avoid the damaging effects of such a situation, the final action on the SACM journey recommends performing periodic audits of the operational environment and comparing these against the preferred environment maintained within the CMS. This ensures the accuracy of your CMS by verifying the physical existence of SAs and CIs and validating the recording process.

Moreover, these best practices will help you estimate the deviation between your planned environment and your actual infrastructure. Because any such deviation implies a risk, it is a good idea to define criteria for acceptable levels of risk as you start your SACM journey, so you can mitigate deviation before it occurs.

SACM: A Key to Achieving IT Service Excellence
Automating ITSM through technology can help your organization reduce the amount of resources required to achieve ITIL v3 best practices. This assists your IT department in improving the quality of its services while embarking upon a continuous IT service excellence program focused on fostering business growth.

As you reach the end point of the SACM journey outlined in the CA Service Transition process map, your organization should have a better handle on the steps needed to maintain accurate service configurations. Specifically, bringing SACM processes in line with ITIL best practices can help you:

- Better support all aspects of ITSM by harnessing accurate SA and CI data
- Improve service levels and become more customer focused
- Control costs through support for better license and configuration management
- Enhance the relationship between IT and the business
- Foster the smooth implementation of other ITSM processes
SECTION 4: CONCLUSIONS

The goal of Service Asset and Configuration Management is to facilitate ITSM by managing the underlying data needed for these activities. However, doing so requires rigorous processes, appropriate communication plans and support commitments — as well as an outline detailing where to start and how to proceed through the journey.

Following the SACM steps outlined in the CA Service Transition process map gives organizations a clear view of how their SACM journey will take shape and illustrates the key stops en route to achieving accurate service configurations. This results in:

- More focused SACM process
- Better planning and resource allocation
- Improved configuration management
- Stronger integration with ITSM and ITIL best practices

SECTION 5

About the Author

Peter Doherty has nearly 25 years experience in the IT industry, with expertise in the areas of service delivery and support and enterprise network and systems management. For the last 15 years, Peter has worked in consulting and project management roles with a heavy emphasis on service management systems. Peter is a regular presenter at international IT Service Management Forum (itSMF) conferences. He delivered the keynote address at the inaugural itSMF Korea conference in 2005 and won the President’s Award for best paper at the 2004 itSMF Australian conference. Peter holds the Information Systems Examination Board (ISEB) Manager’s Certificate in IT Service Management. During the ITIL V3 refresh, Peter served as a contributing author to the Service Operations book.

To learn more about the CA ITSM process maps, visit ca.com/itil.
Notes
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