Organize your configuration data efficiently

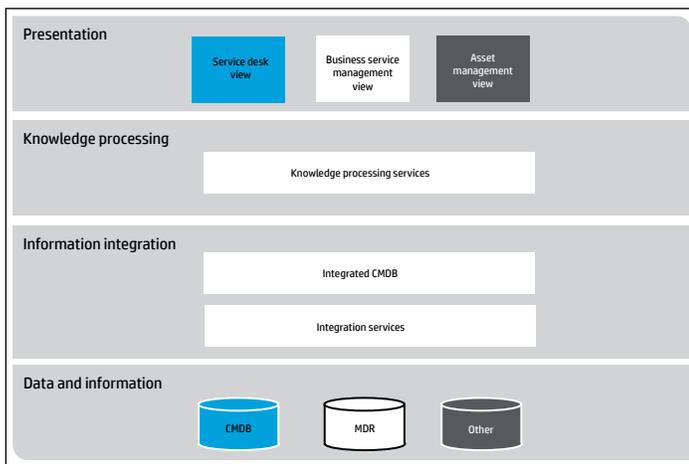HP Configuration Management System software

Market drivers for CMS

A configuration management system facilitates proper configuration management and provides increased visibility into the services topology. Typical CMS drivers include support for the following types of initiatives:

• Configuration management, viewed as an underpinning for many IT processes and a foundation for addressing compliance-related requirements.
• Change impact analysis in support of the change management process.
• Business/service impact analysis to enable high levels of availability and performance for mission-critical services.

Large enterprises make hundreds to thousands of changes per month. Many of these changes frequently result in IT service failures at some level. Why so many flawed change decisions? Because most service desk teams and change managers have limited visibility into the potential impact of the many disparate changes that they initiate or authorize during each change cycle. This is where a CMS can help by providing an accurate representation of the "relationships" that connect each configuration item (CI) to the larger IT environment. A CMS empowers informed decision making by providing IT with a deeper understanding of technical and business dependencies. This, in turn, helps companies avoid costly service disruptions.

Business service management (BSM) tools identify events and issues that impact performance and availability across the enterprise. As issues arise, how do operations teams decide which fires to put out first, second, and third? An accurate and current CMS delivers a service dependency map that allows these teams to understand and prioritize an effective response to these issues. This allows IT to tackle the most critical and impactful issues first—shortening the mean time to repair (MTTR) for critical services.

Figure 1: Defining CMS

Presentation
- Service desk view
- Business service management view
- Asset management view

Knowledge processing
- Knowledge processing services

Information integration
- Integrated CMDB
- Integration services

Data and information
- CMDB
- MDR
- Other

Overview of CMS

The Information Technology Infrastructure Library (ITIL) v3 defines the CMS as tools for collecting, storing, managing, updating, and presenting data about all configuration items and their relationships. (Please see figure 1.) A key function of a CMS is simply about collecting configuration data from data "providers" to supply configuration information to data "consumers." Federation works behind the scenes to connect many different data sources. Collecting configuration data is an important part of the CMS because there are many potential providers of configuration data across an enterprise. Companies need to ensure that they leverage reliable sources of configuration data within their CMS. Effective discovery tools can help by automating the discovery of configuration item data and their dependencies to help build a service dependency map. Organizations need to ensure that automated discovery and dependency mapping approaches are capable of discovering a diverse set of configuration types and relationships including network, server, application, and storage-related types. A CMS also supports the configuration management process by providing configuration validation as part of the configuration management lifecycle. Finally, a CMS lets you use both service and element configurations to navigate the IT "data swamp" in order to find the right data you need, in the right service context, to solve most IT problems.

Federation capabilities are becoming an increasingly important characteristic of the CMS as it gives all consumers an effective means to pull data from a provider without the need to permanently replicate and then keep in sync or maintain the data. Think of federation as being the "glue" that harnesses the configuration data and helps to turn the data into actionable information. Any configuration-related data that can be associated to either a service configuration or an element configuration can be accessed using federation through a CMS.

Presenting accurate and current information to consuming solutions, like the service desk and BSM tools, is a prime use case for a CMS but other use cases, or consumers, of the CMS include initiatives in areas such as:

- Data center transformation
- Application transformation
- Virtualization
- Cloud computing
- Compliance reporting
- Disaster recovery
- Business continuity
- Asset management

Figure 2: HP CMS
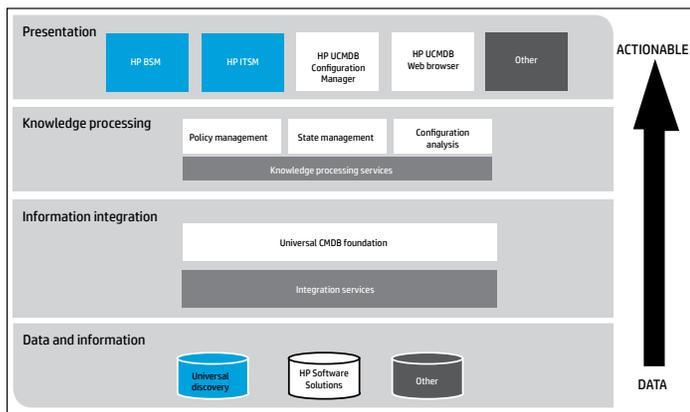
Overview of HP CMS

The HP Configuration Management System solution closely aligns with the ITIL v3 CMS definition, as you can see in figure 2. HP discovery products provide rich discovery capabilities to populate the HP Universal Configuration Management Database (UCMDB) and federation allows the integration of many more data sources including both HP software products and third-party products. The HP CMS is leveraged to serve actionable configuration information to consuming solutions including HP products, such as HP Business Service Management software, HP Operations Center software, HP Service Manager software, and HP Asset Manager software.

Within the HP CMS, the UCMDB acts as an integrated CMDB. The UCMDB is based on three key elements: a rich data model, visualization, and federation to additional data repositories. The UCMDB provides multi tenancy within a single UCMDB, impact analysis, change tracking, and reporting capabilities to transform CMDB data into comprehensible, actionable information that helps answer critical questions and solve business problems. Most importantly, the UCMDB provides other IT solutions both service context and CI-level information. These solutions not only include the HP software products, but also a broad range of third-party products. Using the UCMDB browser, non admin users can search and find direct information from the CMS system, using natural language queries, making the IT information available and accessible.

HP Universal Discovery (UD) software provides the basis for understanding what makes up the services that IT delivers, from the physical layer of the data center all the way to the business process layer. HP Universal Discovery and the HP Universal CMDB are tightly integrated and share the same DNA. Unlike network-oriented discovery products, UD explores CIs from Layer 2 through Layer 7 of the Open System Interconnection (OSI) model, as well as deep-device and application-specific information. In addition, UD delivers focus on hardware discovery and software inventory, and is the trusted data source for IT Asset Management solutions. Importantly, it also explores and maps the relationships between these elements and contains relationship types. It is object-oriented, allowing specific CIs and relationships to be discovered using a library of discovery patterns.

HP Universal Discovery clients get access to current discovery content via a live network. The HP Live Network is a 24/7 platform for delivering up-to-date content for UD. For customers who have purchased UD, HP Live Network delivers access to downloadable content packs, integration packages, and documentation. This allows clients to discover new types of applications and resources without having to wait for the next product release.

Another component of HP CMS is the HP Universal CMDB Configuration Manager (UCMDB-CM) which introduces policy-based topology and inventory configuration governance. Purpose-built specifically for configuration managers and configuration owners, it provides the ability to do powerful analysis with the rich CI data and its topology provided by UD and UCMDB integrations. HP UCMDB Configuration Management makes it possible to analyze IT environments in order to move toward fewer standards and improve IT management processes. This helps you improve data quality in your configuration management system (CMS), avoid single points of failure, achieve geographic redundancy of applications and drive changes based on configuration standards. The solution also helps improve the stability of your environment, deliver standardized services and improve the resiliency of your architecture. It provides configuration managers/owners the tools to easily set up both topology and inventory configuration policies and automatically determine where they are out of compliance with organizational standards. UCMDB-CM delivers out-of-the-box clustering analysis and policy enforcement, allowing you the capabilities to leverage cluster resiliency policies upon installation to identify single points of failure within your environment and ensure that all clusters are symmetrical.

One of HP's unique differentiator is the HP CMS Best Practices, which describe the most common approaches to help you design, build, and operate your CMS. The HP CMS Best Practice Library defines best practices for a broad range of topics related to building and maintaining an ITIL v3 CMS including:

- Foundations of CMS
- CMS design and planning
- CMS deployment
- Configuration management process
- CMS process governance
- Roles and responsibilities

HP clients are provided with full access to the CMS Best Practices and to the authors in a bid to help them deploy their CMS successfully.

Contact Information

To find an HP Software and Solutions sales office or reseller near you, visit **managementsoftware.hp.com/buy**.

To learn more about HP Software Customer Connection, a one-stop information and learning portal for software products and services, visit **hp.com/go/swcustomerconnection**.

Learn more

For more information on

HP CMS software, go to **hp.com/go/CMS**.

HP Universal Discovery software, go to **hp.com/go/UD**.

HP Universal CMDB software, go to **hp.com/go/UCMDB**.

HP UCMDB Configuration Manager software, go to **hp.com/go/CM**.

Get connected
hp.com/go/getconnected

Get the insider view on tech trends, support alerts, and HP solutions