

IBM Tivoli Change and Configuration Management Database

Highlights

- Deliver efficient, cost-effective management solutions by integrating IT processes, data and people and automating operational management product use
- Leverage automated discovery, application mapping and visualization capabilities to facilitate a comprehensive view of attributes and relationships between configuration items and supported business services
- Facilitate internal and regulatory compliance by enforcing policies as well as tracking and recording changes across your organization
- Employ best-practice change management processes with impact assessment and visibility of schedules to reduce business impact
- Help ensure configuration data is current through change and configuration process management
- Visualize all critical intelligence regarding the infrastructure through data consolidation and federation capabilities

Gain control of your environment by managing IT as a business

With infrastructures reaching new levels of complexity, common IT changes — such as updating patches on dozens of servers — can create incidents and problems that are often discovered by end users and business customers.

Changes can quickly disrupt business services due to lack of:

- Effective change management processes.
- Visualization of business services that may be impacted.
- Knowledge of potential scheduling conflicts.
- Assessment of the change.

Consequently, as technology becomes more closely intertwined with day-to-day business functions, technology-centric management practices are slowly evolving to a more business-centric focus, via service management.

IBM Service Management offers a comprehensive approach that enables organizations to align business insight and innovative technology by helping you optimize the intersection of people, processes, information and technology.

Take the first step to successful IT service management

The first step toward a successful IT service management implementation is to federate information within a robust change and configuration management database. IBM Tivoli® Change and Configuration Management Database (CCMDB) — a key element of IBM Service Management — provides an enterprise-ready configuration management database and platform upon which you can standardize and share information that helps integrate people, processes, information and technology.

Tivoli CCMDB automatically discovers information about the IT infrastructure and the relationships between the components within it. Through the use of discovery library adapters, data can also be consolidated from any source of intelligence, operational management products (OMPs), customer-developed applications or databases. Once the data is consolidated, it can be visualized to assist in change impact assessment or incident analysis.

Provide intelligence about the infrastructure

One of the challenges of managing the IT infrastructure with a business-centric focus is being confident that the configuration database is up to date. Tivoli CCMDB delivers automated, configurable process workflows for change and configuration management, helping to ensure that your data is consistently accurate and current. You can leverage the federated information in Tivoli CCMDB to:

- Visualize business services and drill down to see detailed configuration information.
- Assess key information about configuration items (CIs) and their relationships, including information from other management tools.

- Assess and anticipate the business impact of changes and problems.
- Assess all pending change and release schedules.

Through the integration, automation and optimization of data, workflows and policies, Tivoli CCMDB helps align the ongoing management of your IT infrastructure with your business priorities — while helping to reduce and eliminate the impact that organizational complexity has on managing the infrastructure.

Manage configurations the way you want via open, user-friendly technology

Tivoli CCMDB takes the complexity out of change and configuration management by federating information from multiple data sources scattered across your environment to help you better understand configuration items, their current attributes and the relationships between them. The platform acts as a collection point for process artifacts such as requests for change (RFCs), service level agreements and more.

Designed from the ground up and built on the industry's leading middle-ware, Tivoli CCMDB delivers the tools that enable flexibility to manage your

configurations and changes the way that makes sense for your organization. It offers:

- **An open, federated configuration management database** that serves as a highly scalable platform to integrate data from virtually any source, including OMPs and customer-developed repositories.
- **An open and extensible data model** that can be extended to include customer-specific data attributes and CIs.
- **Agent-less, credential-free, automated discovery and mapping** to identify CIs, their attributes and dependencies.
- **Automated CI reconciliation engine** with user-configurable rules to ensure customers can determine which CIs are selected for inclusion.
- **Tooling** that enables customers to discover unique environments within their IT infrastructure.
- **Easy access** via an application programming interface (API) and graphical user interface (GUI).
- **An open standards-based business intelligence reporting tool** (BIRT) based on Eclipse technology to report on any attribute or data item contained within the database.
- **Automated, configurable ITIL-based processes** for change and configuration management.
- **Completely Java™ EE-based technology.**
- **A configurable workflow engine** to easily add automated workflows through a drag-and-drop interface — no developers required.

- **Audit and control of CIs** through workflows, configuration comparisons and detailed change history reports.
- **Integration with third-party service desks** at the data and functional level.

Create and manage CI life-cycle states that are meaningful to your environment

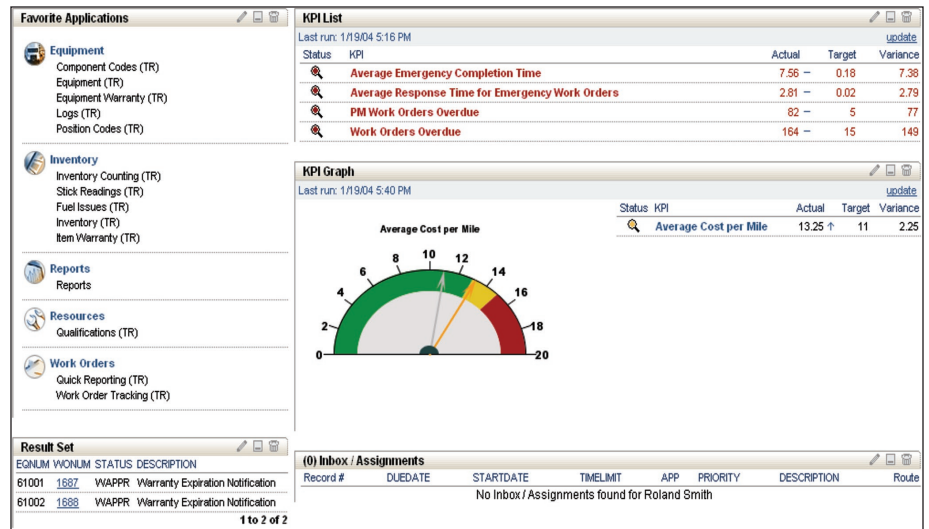
The flexibility built into Tivoli CCMDB enables you to create life-cycle states that work best with your organization’s needs. By applying life-cycle states, a customer can:

- Differentiate like CIs, so each can be managed to a given state, such as “production” or “test.”
- Manage state transitions.
- Protect production machines from improper changes.

Establish meaningful configuration controls

Tivoli CCMDB enables you to perform audits and provide notifications of unauthorized changes, and to automatically remediate an unauthorized change. Use Tivoli CCMDB to:

- Establish authorized CI definitions.
- Promote deployed CIs to authorized CIs when the configuration warrants.
- Build a collection of CIs that represent a specific business unit, geography or application.



The easy-to-use graphical user interface in Tivoli CCMDB promotes role-based change and configuration management.

Reduce educational requirements and promote role-based management

Tivoli CCMDB allows users to configure the GUI so they can see the data that is important to them and their job. It also enables administrators to restrict user access to items that are authorized for that role. The GUI enables:

- Access to key performance indicators such as pending RFCs, which can be viewed immediately on opening the start center by a change manager.
- Graphic or list-formatted data displays.
- Views of other tools or applications, via pull-down menus or embedded desktop links.

The configurable interface is standardized across the IBM Service Management product portfolio, greatly reducing required training time. In addition, no coding is required to configure role-based interfaces. The information is preserved in metadata, so during release-to-release upgrades, data, workflow and screen configurations upgrade as well.

Leverage built-in change and configuration management processes

Tivoli CCMDB comes with an out-of-the-box change process to help reduce scheduling conflicts and problems caused by changes. You can use

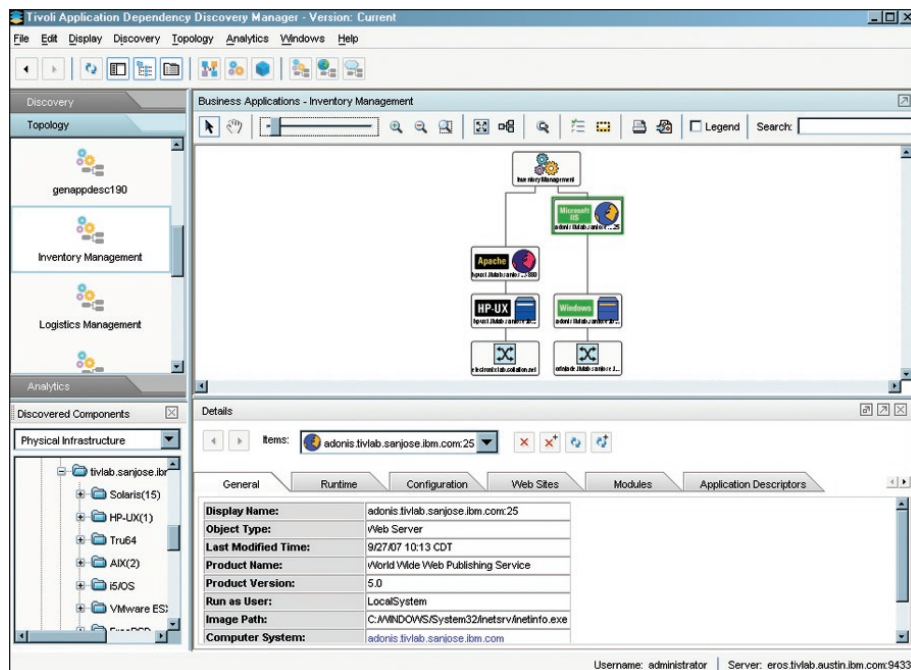
change templates to drive different change flows depending on the type of RFC and the target CIs. Combined with a strong reconciliation engine and configuration management process, this change management process helps to ensure a trusted database on which to base business decisions and prevent invalid and contaminated data from being introduced.

Tivoli CCMDB includes the IT Infrastructure Library® (ITIL®) process for change management as well as enhanced capabilities not found in other tools, such as:

- **Calendar of change view** to show daily scheduled implementation tasks and conflicts.
- **Impact assessment** to understand the business and technology impacts of upcoming changes.
- **“Show change window conflicts”** to identify tasks that fall outside of approved change windows.
- **Schedule of change implementations** to enable customers to see change windows.

Enhance productivity through advanced relationship mapping capabilities

Tivoli CCMDB leverages the advanced discovery capabilities of IBM Tivoli Application Dependency Discovery Manager to help automatically create



Configuration management topology views show relationships between CIs and the attributes stored within Tivoli CCMDB about those CIs.

and maintain application infrastructure maps that include complete run-time dependencies, deep configuration values and accurate change histories.

Tivoli CCMDB discovery solutions support hundreds of infrastructure components out of the box, including:

- Operating systems such as IBM AIX,® Linux,® Microsoft® Windows,® HP-UX, Sun Solaris and IBM z/OS.®
- Software components such as Web servers, application servers, databases and middleware solutions.

- Network elements such as routers, switches and load balancers.
- Packaged applications such as SAP.

Integrate and share data across complex organizational silos

Without the ability to integrate data, organizational silos only see information provided by their management tools. Tivoli CCMDB eases the challenge of collecting data from disparate sources, enabling you to gain an accurate, comprehensive view. As a result, you can obtain a greater understanding

of the implications that actions and changes may have beyond a siloed domain.

An innovative discovery library can translate information from virtually any source — including existing tools and repositories of configuration information, off-the-shelf operational management products and customized applications — into a common data model. Tivoli CCMDB continually helps preserve the accuracy of captured information through:

- **Data integration and federation**, offering a single master view of CIs to maintain connectivity to and relevance of source data.
- **Reconciliation**, to avoid duplicate CI entries from multiple, siloed sources.
- **Native discovery and application mapping**, showing details of the supporting infrastructure and maps of business applications and their relationships.
- **Configuration item information subsets**, used to define discovered information into an auditable, customized set of manageable CIs.

Perform audits and enforce policies to enhance compliance

To meet today's strict regulatory and internal compliance requirements,

Tivoli Change and Configuration Management Database at a glance

Hardware minimums:

Discovery server system:

- 2–4 CPUs running a minimum processor speed of 2GHz
- 2–4GB memory
- 100GB available disk space

Process integration platform server:

- 2–4 CPUs running a minimum processor speed of 2GHz
- 2–4GB memory
- 100GB of available disk space

Supported operating systems:

- AIX 5.2 or 5.3 on IBM System i™ or IBM System p™
- Red Hat Enterprise Linux 4.0 AS/ES x86-32
- Windows 2003 Enterprise Edition x86-32

The following are included with the product, with a restricted use license:

- IBM DB2 Universal Database™ Enterprise Server Edition 8.2 + FixPack 3
- IBM DB2® ALPHABLOX® 8.3
- IBM Tivoli Directory Integrator 6.0
- IBM WebSphere® Application Server 6

IT managers need to assess system configurations against predefined, authorized baselines — such as authorized CIs versus installed CIs — and they need the ability to consistently integrate, enforce and verify compliance policies.

Tivoli CCMDB enables you to integrate policies in accordance with compliance measures. For example, you can better assess the security privileges of configuration files for financial and other

systems that should only be accessed by authorized users. You can then use built-in reporting tools to demonstrate regulatory compliance.

Comprehensive change history records provide a starting point for addressing compliance and audit requirements, to view changes and compare CIs. Quickly assessing changes helps speed time to resolution and significantly increases your ability to verify compliance.



For more information

To learn more about how Tivoli CCMDB can help your organization leverage an open-architected integration platform for implementation and automation of successful service management initiatives, contact your IBM representative or IBM Business Partner, or visit ibm.com/tivoli

About Tivoli software from IBM

Tivoli software provides a set of offerings and capabilities in support of IBM Service Management, a scalable, modular approach used to deliver more efficient and effective services to your business. Helping meet the needs of any size business, Tivoli software enables you to deliver service

excellence in support of your business objectives through integration and automation of processes, workflows and tasks. The security-rich, open standards-based Tivoli service management platform is complemented by proactive operational management solutions that provide end-to-end visibility and control. It is also backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli customers and business partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world — visit www.tivoli-ug.org

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