

Federated CMDB Integration of IT Service Management Databases

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Abstract

Federated CMDB (Configuration Management Database) integrates various types of IT service management information and visualizes the whole structure of IT system.

It is getting harder for IT service administrators to grasp the configuration of large-scale and complicated IT system. This is because the configuration data are distributed among multiple management middleware products in different formats. It needs exceeding efforts and costs, however, to aggregate and maintain all configuration data in a single database.

Federated CMDB virtually integrates distributed configuration data by managing the locations of data sources. Federated CMDB supports various data sources such as relational databases and spreadsheets, and associates data items in different sources with each other. Then Federated CMDB provides an integrated view of the whole IT system to facilitate management and operations. Federated CMDB also provides a good groundwork for effective application of ITIL (IT Infrastructure Library).

Technology

- **Federation:** Virtually integrates existing data sources by their locations without a centralized gigantic database.
- **Reconciliation:** Identifies and assembles data items among databases, and associate them with each other automatically.
- **Intersectional Query:** Traverses data items among databases transparently to provide an integrated view of the system.
- **Common format RCXML:** Adopts a resource configuration schema RCXML (Resource Control eXtensible Markup Language) which covers the life cycle of IT system.
- **International standard conformance:** Compliant with the draft of the CMDB federation standard, which was proposed by 6 companies in the industry including Fujitsu to be discussed at DMTF.

Application Examples

Federated CMDB is embedded into the Systemwalker middleware family to provide the following applications.

- Federated CMDB associates the observed configuration of IT system with the planned configuration for comparison. This helps the administrator find misconfigured items in the current system.
- Federated CMDB provides a total view of layered IT system from physical network connections to application links. When an incident occurs, the administrator can analyze the extent of the impact across the layers on this view instantly.

