

The ServiceNow Configuration Management Database

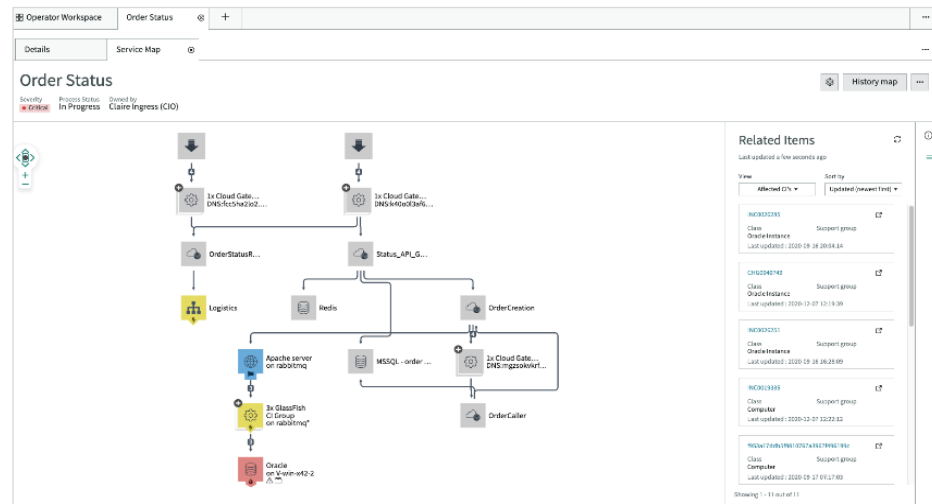
The IT challenge

With so much of the modern enterprise powered by IT, digital infrastructure and service visibility is critical. With an accurate, up-to-date view of your IT environment, you fix service issues faster, reduce operational and security risks, lower costs, increase agility, and make better business and technical decisions. However, this visibility is an elusive and constantly moving target. IT faces a proliferation of software, virtualized infrastructure, cloud services, containers, and mobile devices, and change is now measured in minutes. Consolidating, correlating, and maintaining complex, rapidly evolving data from multiple data sources is an enormous challenge, particularly when you are dealing with unknown IT components, inconsistent data quality, and ill-defined relationships between components.

That's why configuration management database (CMDB) projects have a reputation for misstarts, lengthy implementations, and ongoing maintenance challenges. Instead of creating a trusted repository for configuration item (CI) data, CMDB initiatives often result in limited business value and unrewarded effort.

The ServiceNow solution

The ServiceNow® Configuration Management Database is an easy-to-use, cloud-based single system of record for your IT infrastructure and digital service data. It works seamlessly with your ServiceNow applications, delivering out-of-the-box value across the entire IT value stream—helping you to diagnose service outages, evaluate the service impact of changes, manage your assets, improve compliance, and more. And it's designed to support dynamic virtualized and cloud environments, giving you the real-time visibility, you need to keep pace.



End-to-end service and infrastructure visibility

Consistent and extensible data model

The ServiceNow CMDB is built on a single data model with a standard taxonomy, predefined semantics, consistent format, data quality standards, and common processes. Every ServiceNow application uses this data model, ensuring that the ServiceNow CMDB delivers value out of the box and that ServiceNow applications work seamlessly with each other. You can also easily extend this data model—for example, you can extend out-of-the-box tables and views with a few mouse clicks.

A trusted single system of record

Break down data silos by consolidating, correlating, and validating CI data from multiple data sources.

Keep pace with dynamic cloud environments

Works seamlessly with ServiceNow ITOM Discovery to provide real-time visibility of virtualized and cloud environments, including VMWare, Citrix, Amazon AWS, Microsoft Google GCP, IBM Cloud, Kubernetes, and serverless technologies such as AWS Lambda.

Automatically add service context

Pair with ServiceNow Service Mapping to automatically map your digital services to your IT infrastructure. Diagnose service issues faster, understand the business impact of changes, and align operational priorities with business needs.

Accelerate time to value

A single, consistent data model that is used by every ServiceNow application. This ensures that ServiceNow applications can use CMDB data out of the box and that they work seamlessly with each other.

Ensure data integrity and health

Provides multiple ways to ensure data correctness, completeness, and compliance. These include an automated mechanism to prevent duplicate CIs, comprehensive health dashboards, on-demand and scheduled data certification, and automated remediation workflows.

Automatically populate your CMDB from multiple sources

By pairing the ServiceNow CMDB with ServiceNow® ITOM Discovery, you can automatically populate your CMDB with infrastructure data from multiple sources. ITOM Discovery discovers both physical and logical infrastructure CIs—such as containers, virtual machines, storage, databases, and applications—as well as the relationships between these CIs. And it's built for real-time cloud discovery, with out-of-the-box support for Amazon AWS, Microsoft Azure, Google GCP, IBM Cloud, Kubernetes, and serverless technologies such as AWS Lambda.

When the same information is available from multiple sources, Discovery lets you decide which sources should be used to populate your CMDB, giving you control down to the attribute level. It provides detailed reports that show available discovery sources, identify data discrepancies between sources, and pinpoint data gaps. This allows you to maximize CMDB data quality and completeness by choosing the best data sources. And because ServiceNow stores a complete history of discovered data from each source, you can easily switch sources at any time.

Ensure data consistency and integrity

ITOM Discovery works hand-in-hand with the ServiceNow CMDB to ensure data integrity and consistency. For example, it ensures that discovered data is mapped to the right location in the CMDB data model. This allows ServiceNow applications, forms, and workflows to use the data out of the box and increases reporting accuracy. At the same time, the ServiceNow CMDB's Identification and Reconciliation Engine (IRE) normalizes discovered data across sources and prevents the creation of duplicate CIs.

Confidently ingest third-party data

ITOM Discovery also includes Service Graph Connectors—certified integrations that allow you to ingest data from third-party systems directly into your CMDB. These connectors are developed and tested by third-party vendors under ServiceNow's rigorous engineering oversight and prescriptive guidance. This ensures data timeliness, integrity, and consistency for third-party data in the same way that Discovery does for discovered data. This includes leveraging the IRE and enforcing compliance with the CMDB data model.

You can also create your own third-party data integrations using the same technologies used to build Service Graph connectors, such as IntegrationHub ETL. Data can also be imported into the CMDB using web services, direct database imports, and Excel® files.

Requires a separate license. ITOM Discovery can be licensed standalone or as part of ServiceNow ITOM Visibility.

Automatically add service context to your CMDB

With ServiceNow® Service Mapping, you can add service context to your CMDB by automatically mapping your application and technical services to your IT infrastructure. Service Mapping builds on discovered CI data by identifying all the CIs that support a service, along with their service-specific relationships. Think of this like a city bus map—Discovery shows you all the roads and junctions (infrastructure) in your city, while Service Mapping shows you the specific route that each bus (service) takes. Service Mapping provides multiple mapping methods, including top-down mapping for mission-critical services on premises and in the cloud, tag-based and service mesh mapping for cloud-based services, and traffic-based mapping for fast initial service mapping. Refer to the ServiceNow® ITOM Visibility data sheet for more details.

Measure and manage data health

The CMDB Health Dashboard gives you a complete view of the health of your CMDB, including completeness, correctness, and completeness KPIs for CI classes. Starting with this high-level view, you can then drill into health details for specific services, groups of CIs, and individual CIs to pinpoint the root cause of CMDB health issues. You can also compare your CMDB health to industry-standard benchmarks calculated using aggregate information across similar ServiceNow customers.

The ServiceNow CMDB also includes a powerful remediation framework that allows you to take corrective actions when there is a health issue. For instance, you can automatically trigger remediation workflows when a CMDB health check fails. There is also a built-in data certification capability which allows you to assign certification tasks to data owners—for example, confirming that CI attribute values are as expected. This can be done on a scheduled basis or on demand.

Powerful visualization and reporting

The ServiceNow CMDB gives you a clear graphical view of complex IT infrastructure and service relationships. For instance, you can drill down from top-level service maps into specific CI data, filter visualize data based on configurable criteria, visualize planned and unplanned changes on a history timeline, and overlay in-flight incidents, problems, and changes on displayed maps. You can also quickly create your own dashboards and generate reports for scheduled distribution, and you can query the CMDB on-demand using a simple, intuitive query builder.

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