servicenow.

Maintain a healthy CMDB
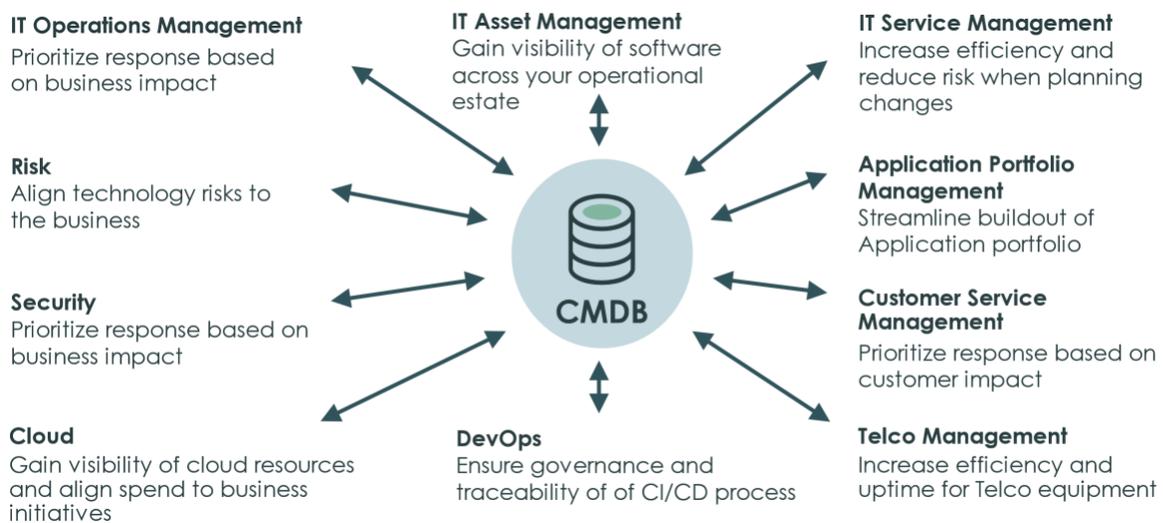
What's in this Success Insight

The health of your Configuration Management Database (CMDB)—having accurate, current, complete data—is critical to delivering value with ServiceNow®. This Success Insight will help you maintain a healthy CMDB by showing you how to deploy a healthy CMDB, monitor its health, and take steps to improve its health when needed.

This Success Insight answers these key questions:

1. Why is it important to maintain a healthy CMDB?
2. What are the steps to successfully deploying a healthy CMDB?
3. How should I monitor and proactively manage CMDB health?

1. Why is it important to maintain a healthy CMDB?

Your CMDB is a key component in your success with the Now Platform® and a vaulable decision support tool for IT Service Management and many other enterprise process (as shown in the graphic below).

IT Operations Management
Prioritize response based on business impact

IT Asset Management
Gain visibility of software across your operational estate

IT Service Management
Increase efficiency and reduce risk when planning changes

Risk
Align technology risks to the business

Application Portfolio Management
Streamline buildout of Application portfolio

Security
Prioritize response based on business impact

Customer Service Management
Prioritize response based on customer impact

Cloud
Gain visibility of cloud resources and align spend to business initiatives

DevOps
Ensure governance and traceability of of CI/CD process

Telco Management
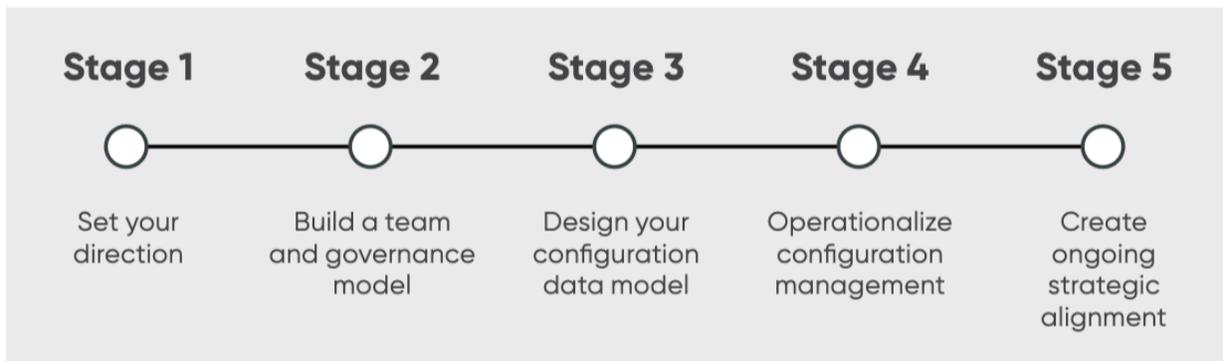Increase efficiency and uptime for Telco equipment

For example, ServiceNow customers have found that a healthy CMDB and ServiceNow IT Service Management can result in:

- 38% faster incident resolution

- 82% fewer failed changes

- 604% more incidents resolved with problem management

Overall, ServiceNow customers have found that a well-configured CMDB can save you as much as 40% in IT costs and is critical to avoiding unplanned outages. But to get the most value from your CMDB, **you need to keep it healthy and populated with current and accurate information**. Data quality in the CMDB should be an essential goal of any organization. If internal CMDB customers (e.g., system admins, IT support staff) lose trust in CMDB data quality, they'll go rogue and start using their own data sources, hurting the value of ServiceNow at the organization. Common examples of innaccurate data in the CMDB include duplicate, stale, and incomplete configuration items (CIs).

2. What are the steps to successfully deploying a healthy CMDB?

A healthy CMDB doesn't just happen. Every successful CMDB deployment needs a detailed configuration mangement plan for implementing, designing, and sustaining a configuration management capability. Below are the five key steps to a successful CMDB deployment. For more detailed step-by-step guidance, please visit CMDB and Discovery deployment.

Stage 1	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
Set your direction	Build a team and governance model	Design your configuration data model	Operationalize configuration management	Create ongoing strategic alignment

a) **Set your direction.**

Defining a great configuration management capability—and ultimately deployment a healthy CMDB—starts with clear goals, actionable objectives, and measurable business outcomes. Refer to *Stage 1* of the Plan your successful CMDB deployment Success Playbook for more detailed guidance and examples.

- **Write well-defined goals and objectives.** Ask yourself these questions:

What	What do you want to accomplish?
How	What is your approach, and what are your constraints and assumptions?
Why	What business outcomes will your CMDB support?
Measure	How do you know that you're on track?

- **Identify strategic company and IT initiatives.** Align your CMDB so it supports your business and IT strategy. Start by identifying your company's key initiatives (digital transformation, for example) and key IT department initiatives (such as aligning IT with the business).

> **Practitioner insight**
>
> Use the same language that your company already uses when describing strategic business initiatives. Your stakeholders will understand more quickly and you'll get faster buy-in.

- **Define a set of supporting use cases.** These use cases will guide the data you include in your CMDB. Use cases should directly tie to your strategic company and IT initiatives. Here are some examples:

Strategic Initiative	Use case	How does this tie back to the CMDB?
Align IT with the business	An IT component breaks. How do we know if this affects one of our mission-critical business services?	Create an accurate, up-to-date view of which infrastructure components support each of your critical business services.
Expand customer base	We want to add new interactive services to our existing customer website. How do we make sure our website will continue to scale?	Track website infrastructure and applications to provide input for performance optimization and enterprise architecture evolution.
Improve information security	We need to ensure PCI DSS compliance. Which parts of our infrastructure do we need to protect and audit?	Add CI attributes to indicate which IT components store or have access to customer credit card information.
Cloud-first strategy	We're going to migrate our inventory control system to the cloud. How do we plan this migration?	Identify all of the inventory control system components that need to be migrated by creating a service map.

b) Build a team and governance model.

Succesful deployment and maintenance of a healthy CMDB requires resources to own and manage it.

- **Build your configuration management team –** Team members should be freed up to focus on their configuration management responsiblities rather than being bogged down in daily "keep the lights on" support. Clearly define, document, and communicate each team member's role and responsibilities. This gives the right people ownership, accountability, and authority.

- **Set up a configuration control board (CCB) –** The CCB is a steering committee that oversees your configuration management program and has strategic decision- making responsibility and accountability for the business. For example, the CCB decides when to add a new CI class. Voting members of your CCB should be leadership team members who are directly accountable for the strategic initiatives of the IT department and close enough to the day-to-day infrastructure support team efforts to understand the use cases.

- **Get early buy-in from executives –** Buy-in creates credibility and trust, giving your team the support it needs to drive change and it's critical to securing funding for team personnel and activities. You'll be more likely to get executive support If you can articulate how your CMDB will support the strategic goals and objectives of your executives.

c) Design your configuration data model.

Your CMDB is populated with CIs. To decide what data you're going to keep in your CMDB, define which CI classes you need. Before you start, familiarize yourself with the capabilities and design options for the CMDB. Review this CMDB Design Guidance White Paper to find out more.

- **Start simply and grow gradually –** Don't try to build a comprehensive CMBD right away. Start simply and then make incremental improvements as your configuration management capabilties mature. Decide which CI classes and attributes you need to support the data needs of the goal, objectives, and use cases you created.

- **Take advantage of out-of-the-box CI classes –** Out-of-the-box (OOTB) CI classes included with the ServiceNow CMDB support a wide range of common use cases, and you can use OOTB ServiceNow Discovery capabilites to populate these CIs in your CMBD. You can also extend OOTB classes, creating new additional attributes using the CI Class Manager's wizard-style interface.

> 💡 **Practitioner insight**
>
> Be careful to use CIs correctly. By definition, a CI is something that can change, so there's no point in creating CIs for things that never change.

d) Operationalize configuration management.

Now that you have your configuration data model, it's time to populate your CMDB. Use automation to populate your CMDB as much as possible to keep your CMDB data accurate. While you can manually add data to your CMDB, it's very hard to ensure accuracy and manually keep your CMBD up to date as your IT environment changes. So limit manual data additions to the critical few that can't be populated automatically.

- **Automatically populate your CMDB with ServiceNow Discovery –** Discovery will find all of the network infrastructure, servers, applications, and other components in your IT environment and create corresponding CIs. This includes discovering public cloud infrastructure, such as Amazon AWS and Microsoft Azure.

- **Discover your business services –** In addition to populating your CMBD with CIs, you need to know the relationships between CIs and what CIs support what business services. Use ServiceNow Service Mapping to create business service maps that map all of the CIs that support each service and how they're related. Start by identifying your most critical business services and map these first.

- **Populate and maintain non-discoverable information –** You'll have a small percentage of CMDB data that is not discoverable (possibly service decriptions, business capabilities, or business goals). You'll need to populate and maintain these CIs and attributes manually. Identify corresponding business process owners and make them responsible for updating the information.

e) Create ongoing strategic alignment.

Effective two-way communication with business stakeholders is critical to maintaining CMDB data quality because CMDB use cases need to stay aligned with changes in the business strategy and new business initaitives.

- **Give your configuration control board the wheel to drive stakeholder alignment –** The CCB will help you prioritize and evolve your configuration management roadmap.

- **Tailor your configuration management plan to align with major projects –** Assign a configuration management team resource to each strategic project so they'll understand how it impacts configuration management. This will help them proactively manage requests new CI classes or attributes.
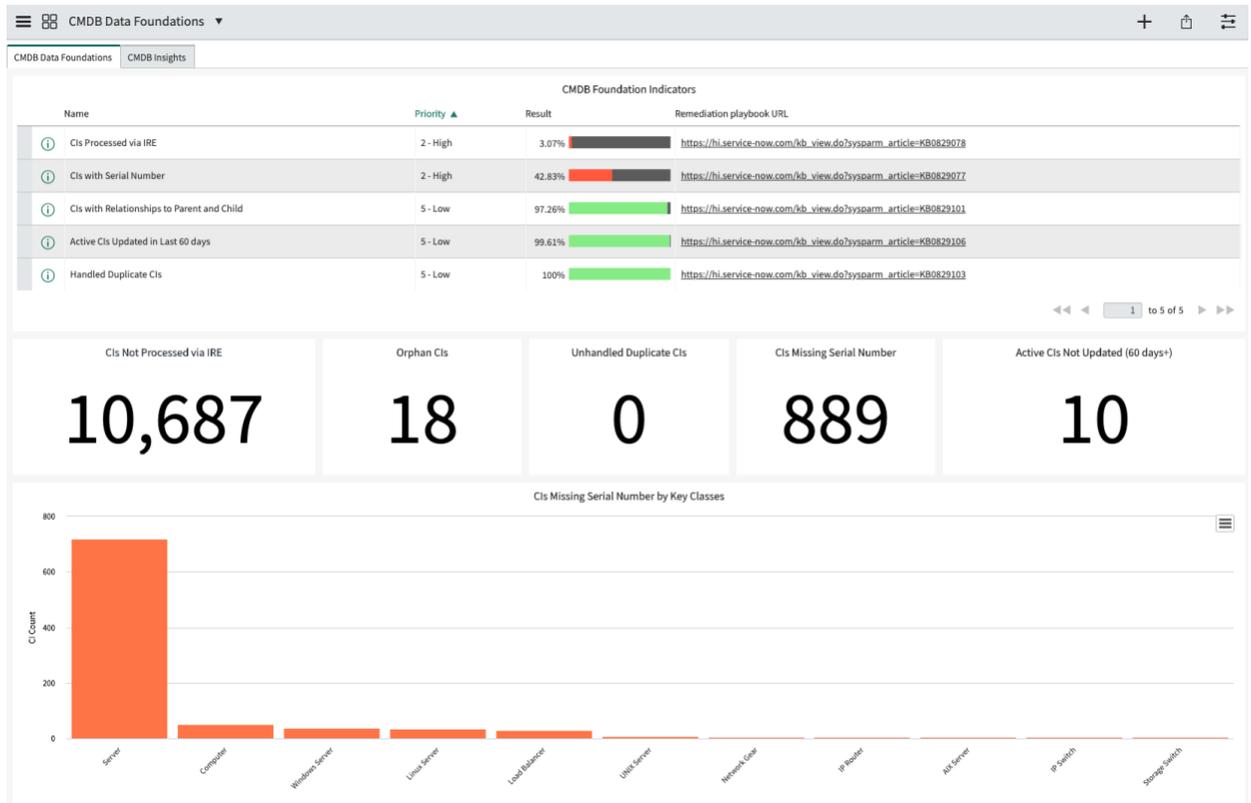
5

3. How can I monitor and proactively manage CMDB health?

Maintaining a healthy CMDB doesn't stop with successful deployment. Follow these steps to monitor and proactively manage the health of your CMBD.

a) **Monitor system health in the CSDM and the CMDB Data Foundations Dashboard.**

The CSDM and CMDB Data Foundations Dashboards is a ServiceNow Store app that contains dashboards that provide insights into key health indicators of your CMDB and Common Service Data Model (CSDM). The app provides recommendations to make certain that your CMDB and CSDM are properly configured for optimal usage and to mitage any potential risks. To get started with the app, follow these steps:

- **Familiarize youself with the CSDM and CMDB Data Foundations Dashboard App –** Watch the video introduction, read the overview on Now Community, and review the product documentation.

- **Request the CSDM and CMDB Data Foundations Dashboards app –** Go to the Store website to request the application.

- **Review the CMDB Data Foundations Dashboard –** The dashboard, as shown in the example below, evaluates various configurations and customizations in the CMDB and checks that important data is valid and properly configured. It also identifies and provides visibility into potential risks in the implementation.

	Name	Priority ▲	Result	Remediation playbook URL
ⓘ	CIs Processed via IRE	2 - High	3.07%	https://hi.service-now.com/kb_view.do?sysparm_article=KB0829078
ⓘ	CIs with Serial Number	2 - High	42.83%	https://hi.service-now.com/kb_view.do?sysparm_article=KB0829077
ⓘ	CIs with Relationships to Parent and Child	5 - Low	97.26%	https://hi.service-now.com/kb_view.do?sysparm_article=KB0829101
ⓘ	Active CIs Updated in Last 60 days	5 - Low	99.61%	https://hi.service-now.com/kb_view.do?sysparm_article=KB0829106
ⓘ	Handled Duplicate CIs	5 - Low	100%	https://hi.service-now.com/kb_view.do?sysparm_article=KB0829103

1 to 5 of 5

CIs Not Processed via IRE	Orphan CIs	Unhandled Duplicate CIs	CIs Missing Serial Number	Active CIs Not Updated (60 days+)
10,687	18	0	889	10

- **Remediate issues using remediation playbooks –** Click the **Remediation playbook URL** link for an issue identified on your dashboard to access a knowledge article on HI (HI credentials required) with next steps and guidance for remediating the issue. (The full list of remediation playbooks are located in the HI Knowledge base—login required.)

b) **Conduct a deep dive with CMDB Health dashboards.**

   CMDB Health dashboards aggregate key performance metrics and offer actionable insights that allow you to monitor and improve the performance and health of your CMDB. Review How do I use the CMDB health dashboard? for more information on the benefits of using CMDB health dashboard, the metrics the dashboard tracks, and best practices for setting it up.

c) *Manage and control change.*

   Effective change management is critical for a healthy CMDB. Uncontrolled change creates risks, breaks configuration management processes, and creates an unreliable CMDB. To effectively manage changes to your CMDB:

   - **Use ServiceNow Change Management to handle change requests –** And use the Proposed Change function for updates of non-discoverable, manually-entered data.

   - **Make sure that changes are reviewed and approved before they're made**

   - **Use the Identification and Reconciliation Engine (IRE) to import new data in your CMDB –** IRE processes help maintain data integrity in the CMDB, preventing duplicate CIs by uniquely identifying CIs and CI attributes by allowing only authoritative data sources to write to CMDB.

   - **Configure permissions so that only authorized users can make changes to your CMDB**

   - **Communicate changes to stakeholders**

Concluding takeaway

The CMDB is a key component in your success with the Now Platform. It acts as a single, reliable source for configuration information across all your ServiceNow applications. To get the most from your CMDB, you need to keep it healthy and populated with current and accurate data.

Terms and definitions

Business services – A business service is a set of interconnected applications and hosts that are configured to offer a service to the organization.

Configuration item (CI) – A CI is the fundamental building block of a CMDB. A CI represents an item under configuration management, such as a router, a server, an application, or even a

logical construct such as a portfolio. Each CI in the CMDB must have at least one unique identifier that does not change for the life of that CI.

Configuration management database (CMDB) – The <u>configuration management database (CMDB)</u> is a purpose-built data warehouse describing the components managed to deliver your products and services. These are called configuration items.

Configuration management – Configuration management is the process for maintaining the consistency of a product's performance, functional, and physical attributes with its requirements, design, and operational information throughout the life of the product.

Common Service Data Model (CSDM) – <u>The Common Service Data Model (CSDM)</u> is a standard and consistent set of terms and definitions that span and can be used with all ServiceNow products on the Now Platform. These terms and definitions form the basis for the CSDM framework.

servicenow

Additional resources

- Announcing Foundational Excellence for Your CMDB (Now Community)

- CMDB and Discovery deployment

- Common Service Data Model (CSDM) 3.0

- Configuration Management and CMBD for dummies (ServiceNow Special Edition)

- Configuration Management Database (CMDB) product documentation

- 5 steps to successfully deploying a health CMDB (eBook)

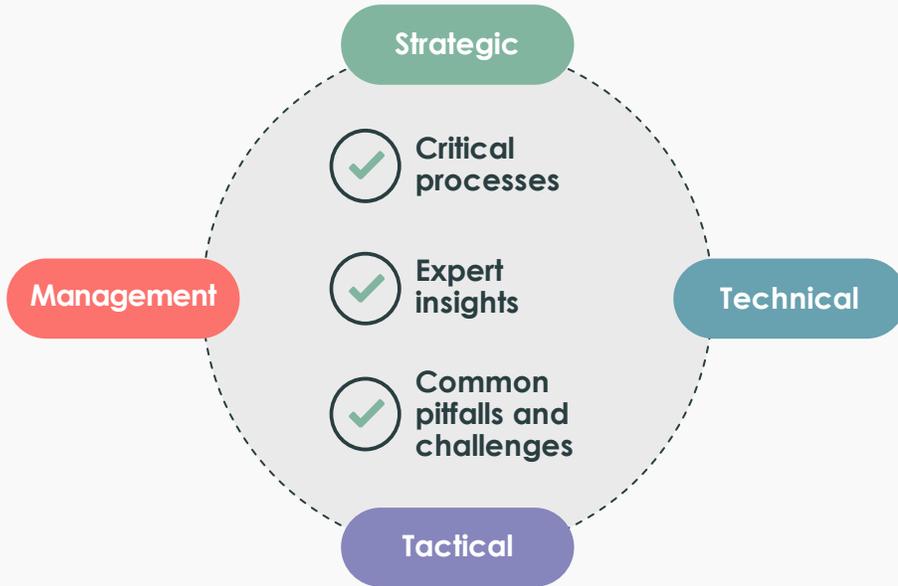Additional resources are also available on our Customer Success Center.

If you have any questions on this topic or you would like to be a contributor to future ServiceNow best practice content, please contact us at best.practices@servicenow.com.

Customer Success Best Practices

ServiceNow's Best Practice Center of Excellence provides prescriptive, actionable advice to help you maximize the value of your ServiceNow investment.

Definitive guidance on a breadth of topics

Strategic

Management

Technical

- ✓ Critical processes
- ✓ Expert insights
- ✓ Common pitfalls and challenges

Tactical

Designed for:

- Executive sponsors
- Platform owners and teams
- Service and process owners

Created and vetted by experts

Best practice insights from customers, partners, and ServiceNow teams

Based on **thousands of successful implementations** across the globe

Distilled through a **rigorous process** to enhance your success

Proven to help you transform with confidence

Practical

Actionable

Value-added

Expert-validated

Get started today.

Visit **Customer Success Center**.

Contact your ServiceNow team for personalized assistance.