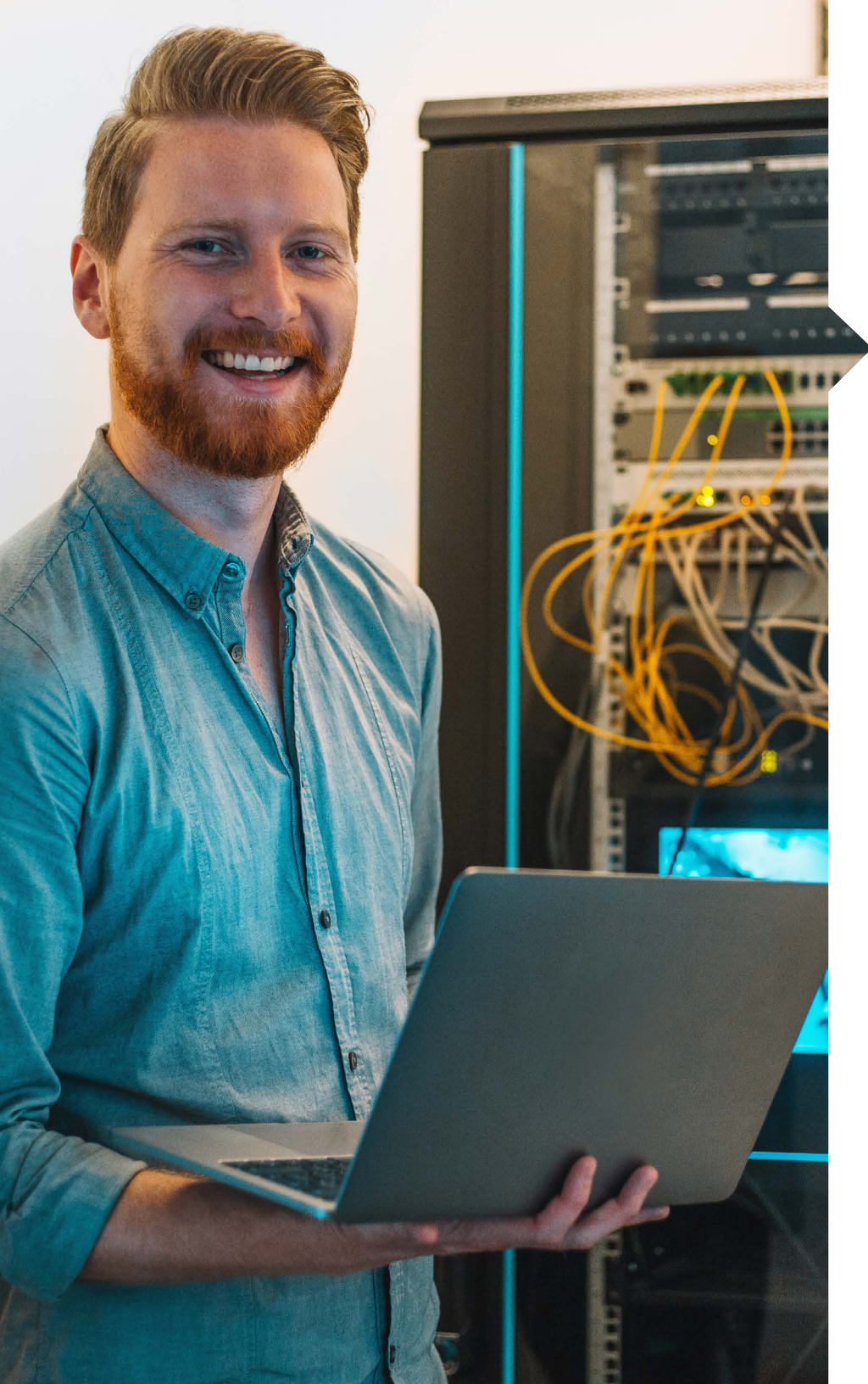
A woman in a white shirt and black pants and a man in a grey sweater and blue pants are standing in a server room. They are looking at a laptop held by the man. The server racks are illuminated with blue light.

5 steps to successfully deploying a healthy CMDB



Introduction

Your CMDB is a critical tool for maintaining high service availability. A healthy CMDB helps you to:

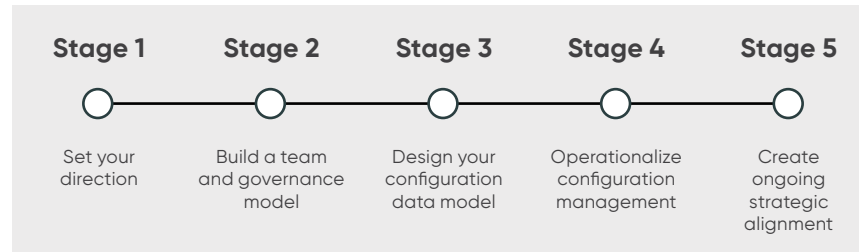
- Prevent business service outages
- Identify and respond to service outages more quickly
- Diagnose and fix service outages faster

A healthy CMDB doesn't just happen. Every successful CMDB deployment needs a detailed Configuration Management Plan. When you clearly identify your objectives and develop a comprehensive strategy for attaining and sustaining these capabilities, you lay the foundation for better business service health.

In this eBook, we take you through the some of the common practices for creating and maintaining a healthy CMDB. Follow this guidance, and you'll be on the road to a great CMDB and improved business service health.

Five steps to a healthy CMDB

Here are five key steps to a successful CMDB deployment. These steps aren't necessarily linear—you'll want to optimize your approach to meet your organization's unique needs. However, you need to address all of these to maximize the benefits of your CMDB.



Follow these steps, and you'll dramatically improve service health. You'll also be able to:

- Understand the organizational value of each of your business services
- Know who uses your business services and predict future consumption
- Identify where to invest and where to scale back
- Track your service delivery costs and find out how to optimize them
- Reduce technical debt and risk by seeing which technologies underpin your services

Let's examine each of these steps in more detail.

A man with glasses is sitting at a desk, looking at a laptop. He is wearing a dark sweater over a collared shirt. The background shows a modern office with large windows and a staircase.

Step 1: Set your direction

Great configuration management starts with clear goals, actionable objectives, and measurable business outcomes.

Write well-defined goals and objectives

Companies with successful CMDB deployments always articulate what they want to accomplish. They document their approach, determine their desired business outcomes, and identify how they will measure results.

When you're setting goals and objectives, ask yourself the following 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?

[This document](#) gives you examples of how to effectively set goals and objectives.



Identify strategic company and IT initiatives

Your CMDB needs to support your business and IT strategy. Start by identifying your company's key initiatives. These might include things such as:

- Digital transformation
- Business growth through acquisition
- Expanding your customer base
- Moving to subscription-based product licensing

Don't forget to include strategic initiatives within your IT department, such as:

- Aligning IT with the business
- Adopting a cloud-first strategy
- Enhancing information security
- Automation and machine learning
- Implementing blockchain

Expert Tip: When describing strategic business initiatives, use the same language that your company already uses. Your stakeholders will understand more quickly, and you'll get faster buy-in.

Define a set of supporting use cases

Write down a list of use cases that support these strategic 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 are 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.

Note that while we've just given one sample use case per initiative, you will probably have multiple use cases for each.

Step 2: Build a team and a governance model

Now that you have set your direction, it's time to build your governance structure and configuration management team.

Creating governance

Set up a Configuration Control Board (CCB). This is a steering committee that oversees your configuration management program, making sure that it delivers value, stays on track, and operates effectively.

Voting members of your CCB should be team leaders who are directly accountable for strategic IT initiatives while being close enough to support teams to understand day-to-day operations.

Make sure that you formally structure your CCB meetings. Publish a meeting agenda, record and track action items, and issue minutes. Not only does this increase the effectiveness of your CCB, it also provides evidence to senior leadership of the value your CCB is delivering.

This [CCB Charter document](#) is an example of how our customers implement governance through a CCB.

Building your configuration management team

Here are three key ways to make your configuration management team a success:

- Get early buy-in from executives. This creates credibility and trust, giving your team the support it needs to drive change. If you can articulate how your CMDB will support the strategic goals and objectives of your executives, you are much more likely to get their support. That's another reason why setting your direction – see Step 1 – is so important.
- Make sure that your team members are free to focus on their configuration management responsibilities, 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 ensures ownership, accountability, and authority.

Defining roles and responsibilities

Here's a typical example of how a ServiceNow customer defined the roles and responsibilities of its configuration management team. Note that these roles cover both the CCB and operational teams.

Role	Responsibility	Title
CM Executive Sponsor CCB process owner	Oversees configuration plan implementation in all departments across the company.	Senior executive
Configuration Manager CCB chair	Manages delivery of CM services and documentation of operating procedures.	Senior IT manager
CM System Analyst	Performs daily CM tasks with minimal supervision	IT analyst
CM Specialist	Performs daily CM tasks with direction from CM system analyst	IT admin

To find out more about these roles, please read [this detailed guide](#).



Step 3: Design your configuration data model

Now, it's time to decide what data you are going to keep in your CMDB. You do this by defining which CI classes you need.

Before you start, familiarize yourself with the capabilities and design options for the CMDB. To find out more, look at this [CMDB Design Guidance White Paper](#).

Start simply and grow gradually

It's a mistake to try to build a comprehensive CMDB right away. Start simply and then make incremental improvements as your configuration management capabilities mature. Decide which CI classes and attributes you need to support the data needs of the use cases you identified in Step 1. If you find yourself defining CI classes or attributes that aren't needed for these use cases, you're off track.

For example, if you need to include storage in your CMDB, you might start off with CIs for physical storage arrays. The next step could be to add file systems, and then logical unit numbers (LUNs) after that. By taking this approach, you can launch basic capabilities quickly, and then introduce additional CI classes over time as you grow your capabilities and scope.

Leverage out-of-the-box CI classes

We highly recommend starting with the standard CI classes included with the ServiceNow CMDB. These are designed to support a wide range of common use cases, and you can use out-of-the-box ServiceNow Discovery capabilities to populate these CIs in your CMDB (more on that later).

Most ServiceNow customers start the CI classes they need to support incident and change management. These CIs typically represent IT components such as:

- Servers and virtual machines
- Storage arrays
- Databases
- Applications
- Network equipment
- Load balancers
- Security appliances

You can also extend out-of-the-box classes, creating new classes with additional attributes. ServiceNow's CI Class Manager provides a wizard-style interface that helps you to do this.

Warning: Make sure that you 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. Also, a CI must have a unique nomenclature that remains constant.

A woman with brown hair tied back, wearing a blue lanyard and a dark jacket, is talking on a mobile phone. She is in a server room with racks of equipment and cables visible in the background. A large black arrow points from the image towards the text on the right.

Step 4: Operationalize configuration management

Now that you have your configuration data model, it's time to think about getting your CMDB up and running. However, creating a healthy CMDB isn't a one-time activity. To maintain a healthy CMDB, you need to put processes and tools in place to keep your CMDB up to date and accurate—and you need to document these in your Configuration Management Plan. Otherwise, your CMDB will fall into disrepair, and all of your hard work will be lost.

Think about questions such as:

- What information—for example, operational status—do stakeholders need for each CI?
- How do you ensure that this information is clear, concise, and valid?
- Which CIs can you keep up to date automatically?
- Which CIs have to be updated manually, and who is responsible for this?
- How do you control changes in your CMDB?
- How do you monitor the health of your CMDB?

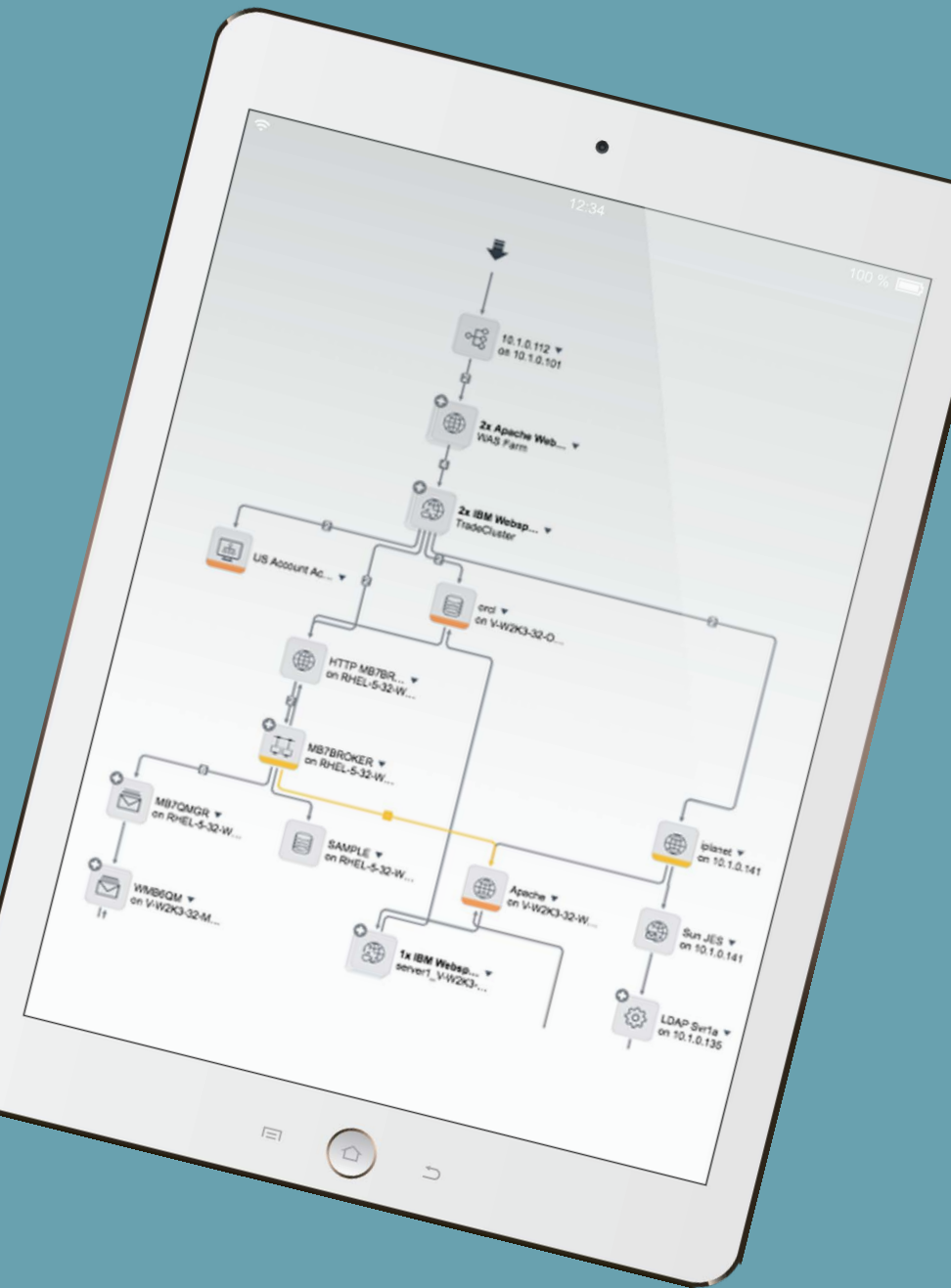


Discover your IT infrastructure

While you can add all your CIs to your CMDB manually, this will take a long time, and it's very hard to keep your CMDB up-to-date as your IT environment changes. The good news is that you can use ServiceNow Discovery to automatically populate your CMDB. 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.

When your IT environment changes, Discovery can update your CMDB automatically. This means that you always have an accurate, up-to-date infrastructure view—which is a critical foundation of a healthy CMDB.

Expert Tip: Make sure that identification rules are properly defined so your CMDB doesn't have any duplicate CIs. Duplicate CIs will create confusion, lead to duplicated work, and adversely affect your operational processes. They can also result in a loss of traceability, which can lead to audit issues.



ServiceNow Service Map

Discover your business services

Just discovering your IT infrastructure isn't enough. To provide high-performing business services, you need to know how these services are delivered. For instance, which applications are part of the business service, which servers do they run on, how do the different parts communicate, and which web servers and load balancers support the service?

Again, you could figure this out manually, creating service maps that document the topology of each of your business services. Unfortunately, this is a considerable undertaking, and it's almost impossible to keep these maps up to date once you have created them.

Instead, use ServiceNow Service Mapping to create business service maps. Start by identifying your most critical business services and map these first. For each service, Service Mapping will work its way through your infrastructure, identifying all of the CIs that support the service and how they are related. It stores these relationships in your CMDB and automatically updates them if they change.



Populate and maintain non-discoverable information

A small percentage CIs and attributes are not discoverable—usually less than 5%. For example, some CI attributes provide business-related information such as who owns a CI—or the criticality of a business service. Clearly, these types of attributes can't be discovered.

You will need to populate and maintain these CIs and attributes manually. However, it's a mistake to try to do this by yourself. Instead, identify corresponding business process owners and make them responsible for updating information. For example, if someone owns your server infrastructure, make them responsible for updating and periodically validating non-discoverable server attributes. Similarly, if someone owns a particular business service—for example, your warehouse management system—have them update and validate the attributes of that business service CI.

You will also want to periodically audit this non-discoverable information in your CMDB. There are two types of formal audits—functional and physical—that organizations typically perform on a regular basis.



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. For example, if someone incorrectly marks a server as out-of-service, this could ultimately lead to a service outage.

To avoid this, do the following:

- Use ServiceNow Change Management to handle change requests
- Ensure that changes are reviewed and approved before they are made
- Configure permissions so that only authorized users can make changes to your CMDB
- Communicate changes to stakeholders

Expert Tip: We strongly recommend that you use ServiceNow Change Management's Proposed Change function to manage updates of non-discoverable attributes.



ServiceNow CMDB Dashboard

Monitor the health of your CMDB

Once you have the tools and processes in place for a healthy CMDB, you need to keep it healthy and resolve issues as they arise. The best way to do this is to monitor your CMDB using the ServiceNow CMDB dashboard. Using the dashboard, you can monitor key CMDB health KPIs, including:

- Completeness—scorecard of CIs with unpopulated mandatory or recommended attributes
- Correctness—scorecard of orphaned, duplicate, and stale CIs
- Compliance—scorecard of the results of CI audits

As well as aggregate scorecards, you can also drill into CMDB health details for specific business services, groups of CIs, and individual CIs. This allows you to pinpoint CMDB health problems and request corrective action—for example, by following up with corresponding CI owners or business service owners when CIs become stale (i.e. haven't been updated recently).

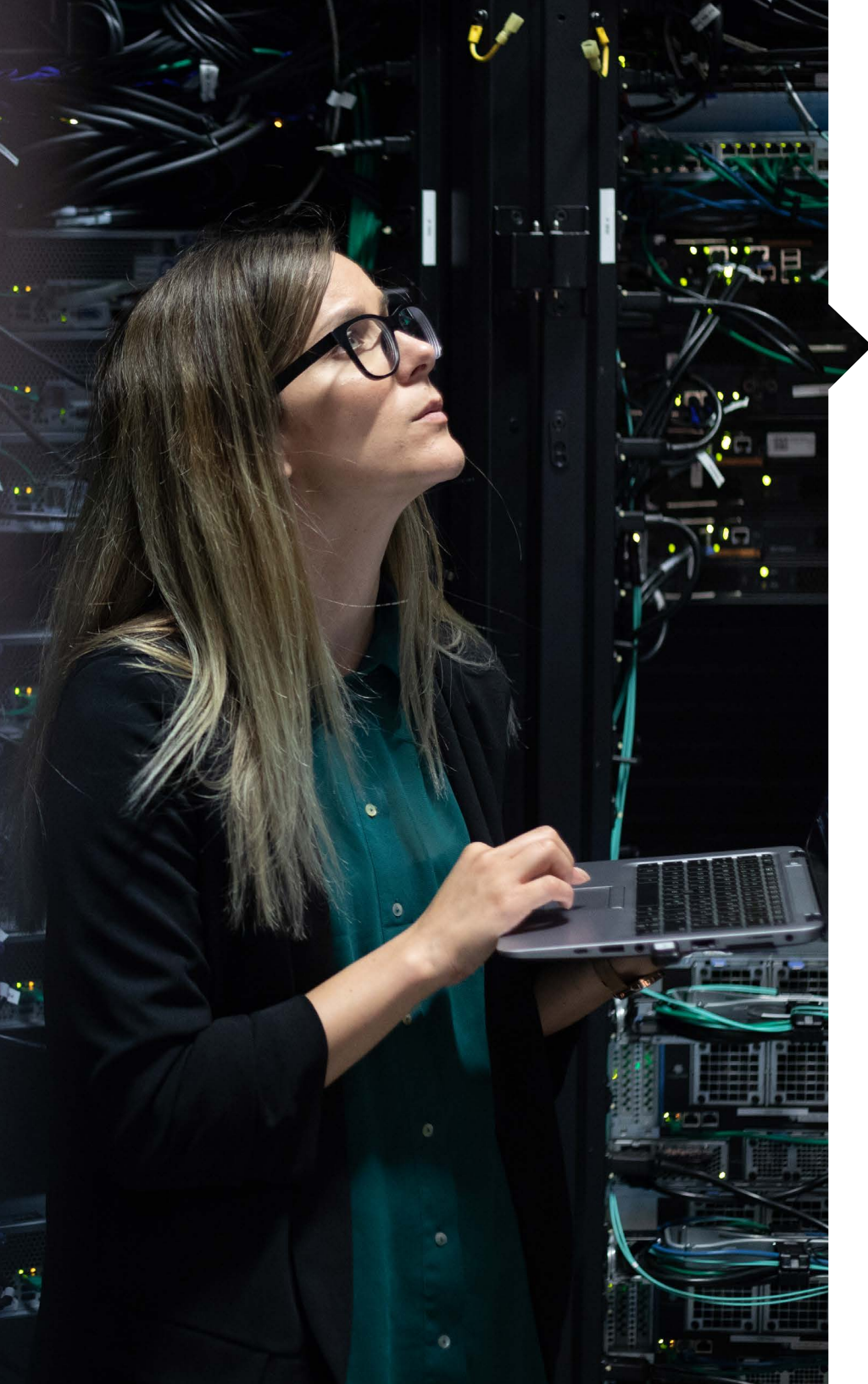
A woman with dark hair, wearing a red and white striped long-sleeved shirt, is sitting at a desk in a server room. She is looking down at a laptop, with her hands on the keyboard. In the background, there are rows of server racks with many yellow indicator lights. A large white arrow points from the server racks towards the text on the right.

Step 5: Create ongoing alignment

A Configuration Management Plan is a living document. Your business isn't standing still, and neither can you. You need to stay aligned with business strategy and respond to new business initiatives. Effective two-way communication with business stakeholders is critical so that you understand their needs and they understand how you plan to support these.

Leverage your Configuration Control Board to drive this alignment. This is where you can prioritize and evolve your configuration management roadmap to maximize the benefits for your business. By providing leadership and managerial oversight, your CCB should create a forum for effective decision-making—turning the discipline of configuration management into a high-value asset for your business.

Also, tailor your configuration management plan to align with major projects. Assign a configuration management team resource to each strategic project, so they understand how it impacts configuration management. For example, think about the first project in your business that uses containers. The last thing you want is a request for new CI classes two days before go-live.



Let's recap

Your business depends on you to deliver high-quality business services. To do this, you need a healthy CMDB supported by good configuration management processes. With a healthy CMDB, you can:

- Prevent business service outages
- Identify and respond to service outages more quickly
- Diagnose and fix service outages faster

Achieving and maintaining a healthy CMDB isn't magic. Follow the five steps in this guide and you'll lay the foundation for a successful CMDB deployment.

And, you'll enjoy the payoff—dramatically better business service health.

Your journey doesn't end here!

Visit the Customer Success Center to learn even more about how you can get the most from ServiceNow.

[LEARN MORE](#)

ServiceNow was founded on a very simple idea: that work should be easier.

That getting simple stuff done shouldn't be so hard and complex stuff should be manageable. Today, the entire enterprise—IT, HR, customer service, security, and beyond—can tap into the power of the Now Platform™ to create a better experience for employees, users, and customers, and transform the way work is done.