The CMDB wake-up call:
## Why visibility still fails in 2025

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8 steps future-ready teams take to build a successful CMDB

A configuration management database (CMDB) plays a crucial role in IT service management (ITSM)—but its effectiveness depends on how well it can adjust to the challenges posed by hybrid, multi-cloud and temporary IT environments. Unfortunately, the number of people who can see their technology assets is declining: Only 43% of respondents in *Flexera's 2025 State of ITAM Report* fully understand their IT assets and their impact on business outcomes, down from 47% year over year. Treating your CMDB as a stagnant storage system or mistaking it for IT asset management (ITAM) can lead to issues such as poor data accuracy, low usage and limited business benefits.

Does your organization have complete visibility into IT assets and their impact on business outcomes?

43%	56%	2%

■ COMPLETELY ■ SOMEWHAT ■ NOT AT ALL
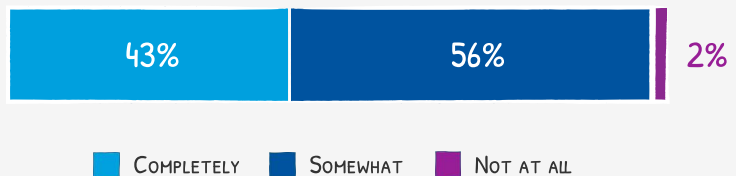
There's still room for improvement when it comes to the ability to look at IT environments holistically

Source: Flexera 2025 State of ITAM Report

Understanding how to design, implement and evolve your CMDB to deliver real-time visibility, support agile operations and drive measurable business outcomes is paramount. This guide outlines best practices for how to make it happen.

This guide is tailored for IT leaders and platform managers—such as CIOs/CTOs, heads of enterprise architecture, IT operations directors, ITSM/ITAM managers and ServiceNow/Jira architects—who are prepared to update their CMDB to achieve real-time insight and strategic influence.

> **Flexera** normalizes data in your CMDB to ensure its relevance and usability, empowering organizations to shape strategic initiatives and address critical business challenges.
>
> **JASON LILLEBOE,**
> SENIOR SOLUTIONS ARCHITECT, FLEXERA

Clarify the purpose: Your CMDB ≠ ITAM

One of the most common—and costly—mistakes is conflating ITAM and a CMDB. While both manage data about technology assets, their purposes are distinct:

> ITAM tracks the lifecycle, cost and compliance of assets

> A CMDB maps configuration items (CIs) and their relationships to support service delivery, change impact analysis and incident resolution

You don't want to overload your CMDB with every asset, but you still want to ensure that every asset is accounted for. Make sure to include only assets that are critical to service delivery and subject to change control. ITAM is important in helping define those relationships and data points in your CMDB. It also helps define the impact of change in the technology organization through clean, current, comprehensive and contextualized inventory.
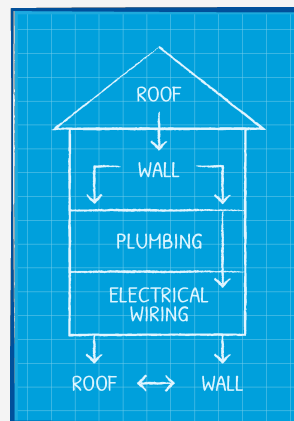
The blueprint for your CMDB

A simple way to think of your CMDB is as the architectural blueprint of the house. It shows:

> How rooms connect

> What systems are dependent on others

> The relationships between components:

- The roof connects to walls

- The walls connect to the foundation

- The plumbing connects to the bathroom and kitchen

- The electrical system connects to lighting, outlets and appliances

On the flipside, think of ITAM as the inventory of what's inside that house:

> What you own

> Where it's located

> How much it costs

> How many you have

CMDB

ITAM

10 LIGHT FIXTURES
$50 each, Ceilings

2 HVAC UNITS
$2.500 each, Attic

4 KITCHEN APPLIANCES
various cost, Kitchen

3 SMOKE DETECTOR
$30 each, Hallway

*Your CMDB is like the blueprint of a house;
ITAM is like the inventory inside*

Best practices for your CMDB

Building a successful CMDB is essential for maintaining a clear and accurate inventory of your IT assets and their relationships. Here are eight key steps to guide you through the process.

→ STEP 1:

Define use cases and stakeholder needs

In order to cultivate a successful CMDB, you need to begin by understanding who will use it and why. Conduct interviews across IT and business units to gather use cases. For example:

- A **change manager** needs to see infrastructure dependencies to assess risk

- A **security analyst** needs to identify vulnerable software versions

- A **finance leader** needs visibility into asset utilization for budgeting

Document these needs and align them with your business goals. This will help ensure your CMDB is built with purpose and instead of becoming a data dumping ground.

→ STEP 2:

Establish inclusion and exclusion guidelines

Not all data belongs in your CMDB. Use clear criteria to determine what should be included. This disciplined approach prevents scope creep and ensures data remains relevant and manageable.

Include CIs that:

- Are critical to service delivery

- Have dependencies with other components

- Are subject to change management

- Require visibility for incident or problem resolution

Exclude components that:

- Are standalone or non-critical (e.g., desks, printers)

- Lack ownership or governance

- Aren't updated through change control

→ STEP 3:

Shift to continuous discovery and real-time updates

Traditional discovery methods—such as manual entry or scheduled scans—can't keep up with today's dynamic environments. To maintain CMDB accuracy you need to:

- **Implement event-driven discovery** that updates your CMDB in real time

- **Integrate with cloud APIs** to track ephemeral assets like containers and serverless functions

- **Use streaming data processing** to reflect changes as they happen

- **Adopt change versioning** to track the lifecycle of short-lived assets

These practices ensure your CMDB reflects the current state of your IT environment—not a snapshot from last week.

→ STEP 4:

Map service dependencies visually and intelligently

Modern CMDBs must go beyond asset lists to show how services are interconnected. Use business service dependency mapping (BSDM) tools to:

- **Visualize relationships** between applications, infrastructure and cloud services

- **Support impact analysis** for changes and incidents

- **Enable faster identification** of root causes

Leverage domain-specific connectors and machine learning to infer hidden dependencies and predict service impacts.

> " One of the biggest wins was integrating Flexera One with existing CMDB and procurement systems, which helped to eliminate data silos and empowered stakeholders with real-time, actionable insights. And as a result we saw reduced audit exposure, optimized cloud spend and a more strategic ITAM across the board. "
>
> **AJAY KUMAR,**
> CONSULTANT,
> INSIGHT ENTERPRISES

→ STEP 5:

Implement proactive data quality management

Data quality isn't a one-time task; it's a continuous process. You want to establish practices that ensure your CMDB remains a trusted source of truth. Build a data quality program that includes:

- **Statistical forecasting** to predict data decay

- **Automated normalization and reconciliation** across systems

- **Scoring mechanisms** for completeness, accuracy, relevance and timeliness

- **Feedback loops** from monitoring tools to update records in real time

- **AI-powered anomaly detection** to flag inconsistencies and trigger remediation

→ STEP 6:

Track KPIs that demonstrate business value

Avoid relying solely on technical metrics like "percentage of CIs with complete attributes." Instead, link your CMDB performance to business outcomes:

- **IT service impact metrics:** MTTR reduction, change success rate, incident volume

- **Business value metrics:** Time saved, cost avoided, improved user satisfaction

The cost of doing nothing

Linking your KPIs to business outcomes is essential. For example, consider "ElecMart," a major online retailer, whose CMDB fails during peak shopping season due to database corruption. Their website and mobile app become unresponsive, halting order processing. With downtime costing $14,000 per minute, a one-hour outage costs nearly $840,000, damaging customer trust and potentially impacting future revenue.

In this instance, a reliable CMDB can help facilitate faster triage by quickly identifying the root cause and blast radius—and it could have helped with preventative maintenance before an outage.

With downtime averaging roughly **$14,000** per minute, an hour could cost your business close to **$1 million**.

— IT outages: 2024 costs and containment

→ **STEP 7:**

Integrate your CMDB with ITSM and broader ecosystems

A CMDB doesn't operate in isolation. Make sure to integrate your CMDB with:

- **ITSM platforms** like ServiceNow or BMC for seamless incident, change and problem management

- **Discovery tools** for real-time updates

- **Monitoring systems** for feedback loops

- **Finance and procurement systems** for enriched asset data

Flexera One can enhance your CMDB with curated data from over 5.7 million products and 250 million market data points, enabling better decisions across IT and business functions.

> " **With Flexera…** each set of stakeholders is assured the [CMDB] data they're using is accurate and consistent **across business units.** "
>
> JEFFREY WEST,
> SVP TECHNOLOGY BUSINESS MANAGEMENT,
> NORTHERN TRUST

Unknown assets create critical risk

Don't risk millions in downtime

GET A FREE CMDB HEALTH CHECK →

→ **STEP 8:**

CMDB and AI: Unlocking strategic intelligence

What's the relationship between artificial intelligence (AI) and your CMDB? AI delivers its best results when powered by clean, high-quality data. Your CMDB is only a foundational source for organizational AI if the data it holds is consistent, complete and current. Without this, even the most advanced AI models can produce flawed insights and erode trust.

When your CMDB data is inaccurate—such as outdated asset relationships or misclassified dependencies—AI may misinterpret critical connections, leading to poor risk assessments and unreliable impact analyses. That's why data preparation is essential. Key data preparation steps include:

- **Normalization:** Standardize formats and naming conventions

- **Deduplication:** Eliminate redundant entries

- **Validation:** Ensure accuracy and completeness

Clean CMDB data not only improves AI performance but also enhances explainability. Data that's well-organized and traceable makes it easier to understand how AI makes decisions. This is important for compliance, governance and executive confidence.

Ultimately, investing in CMDB data quality is the first step toward unlocking AI's full strategic potential. It transforms data into a trusted asset that drives smarter, faster and more confident decision-making.

> " AI agents are only as effective as the data they consume—and poor CMDB data will lead to inaccurate insights, failed automation and increased operational risk. Normalizing and enriching discovery data is essential to create a trusted source of truth. "
>
> **ADAM JEFFRIES,**
> SENIOR SOLUTIONS ARCHITECT,
> FLEXERA

Impact of data quality on AI performance

	High-quality data	Low-quality data
AI insights	Accurate, reliable actionable	Flawed predictions, poor decisions
Pattern learning	Learns meaningful patterns	Struggles to learn patterns
Explainability	Well-structured, traceable conclusions	Difficult to trace conclusions
Trust	Foundation of trustworthy AI	Lack of trust in outcomes

Investing in CMDB data quality is the first step toward unlocking AI's full strategic potential

From static repository to strategic asset

A contemporary CMDB is not simply a repository of data, but a dynamic and intelligent framework that promotes adaptability, durability and creativity. By implementing these strategies, you can revolutionize your CMDBs into influential tools for understanding and taking action.

This process demands a clear vision, disciplined implementation and ongoing development. However, the benefits are significant: Envision a future with reduced disruptions, quicker decision-making and improved synchronization between IT and your company.

Prevent downtime and cost overages with a free CMDB health check and get clarity in minutes—no setup, no obligation

GET STARTED →

Flexera helps organizations understand and maximize the value of their technology, saving billions of dollars in wasted spend. Powered by the Flexera Technology Intelligence Platform, our award-winning IT asset management, FinOps and SaaS management solutions provide comprehensive visibility and actionable insights on an organization's entire IT ecosystem. This intelligence enables IT, finance, procurement and cloud teams to address skyrocketing costs, optimize spend, mitigate risk and identify opportunities to create positive business outcomes.

More than 50,000 global organizations rely on Flexera and its Technopedia reference library, the largest repository of technology asset data. Learn more at **flexera.com**.

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