Maximizing Your ServiceNow CMDB Investment to Get to a Life Without Outages

WHITE PAPER

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SUMMARY

Though business growth is the assumed objective of any for-profit enterprise, it does not come without its challenges. For IT professionals, a growing organization typically means more employees, assets and/or customers requiring additional monitoring and support. Most modern IT environments are already far too complex and dynamic to rely on traditional tools, and growth only exacerbates this problem.

One strategy for managing increasing organizational complexity is the adoption of the IT infrastructure library (ITIL), a framework of best practices that aligns IT services with business needs. Configuration management databases (CMDBs) **like the solution offered by ServiceNow** are the key to implementing ITIL-based management. In its most basic definition, a CMDB is a repository that acts as a data warehouse for information technology (IT) installations. It holds configuration items (CIs), which are the fundamental structural units of a configuration management system. Examples of CIs include individual requirements documents, software, models and plans.

If you don't know what components make up your environment — and how all of those assets relate to one another — how can you monitor, manage and support them?

HELPFUL GUIDELINES FOR CMDB ADOPTION

Despite their many benefits, CMDBs have received some bad press in recent years from detractors whose CMDB projects failed to deliver a positive return on investment. But these outcomes shouldn't imply that CMDBs are a bad idea in general — rather, they highlight the importance of careful planning and implementation.

Implementing and using a CMDB is a complex process that is unique to each company, but adhering to the following basic principles can help steer you in the right direction.

Start with the process and not the data.

The first and most important decision is what to put into and, more importantly, not put into your CMDB. The natural first inclination is to start with the "list of what we've got" and build from there — but this is a mistake. Using the CMDB as a dumping ground for information ultimately dooms its projects to failure. It results in massive amounts of irrelevant data that cause response times for CMDB applications to slow down due to long query times and the return of too much information for applications to filter through efficiently.

The data in a CMDB is like a river, and you need to focus on what's upstream as opposed to the water that's already passed under the bridge. Before you start populating data into a CMDB, determine the appropriate information model to build into it. An appropriate information model must be able to answer business questions and solve business problems. Autopopulating CMDBs with discovery data alone isn't sufficient.

Don't swallow this elephant whole.

Speaking of processes, it's important to treat CMDB implementation as a "process" or journey, not as the construction of a data warehouse that you set up once and forget. Your best bet is to start with one team and work out the details, get feedback and fix any problems.

Attack additional domains one at a time, and don't add more teams until you've addressed any issues with the first. By taking an incremental, or staged, approach with your CMDB, you and your management team will be able to see a steady cadence of successes over time.

Automate or fail — there are no other options.

A Software-Defined IT Operations™ (SDITO) and CMDB integration enables monitoring automation. From adding new devices to tracking decommissioned ones, automation is a must. There is simply no other way to keep pace with the cloud scale of modern IT environments.

If it's not in the CMDB, it does not exist.

Determine and document a strategy for identifying, populating and maintaining information in your CMDB — and then enforce it. No change requests, no user IDs created on it, no calling support. Period. This addresses the users most obviously working outside the system, but there will still be those that are more difficult to detect. This brings us to our final point.

Find and correct those not following the process.

IT Ops pros often ask if a SDITO solution discovers new devices. The answer? It absolutely does, but you can augment that functionality. Simply discovering the existence of a device doesn't tell you everything you can know to fully understand its value. Yes, you can start monitoring it, but who owns it? What's its business function? Who needs to know when it's down? These are among the many nondiscoverable questions that a CMDB will answer. Your best bet is to import devices from your CMDB into SDITO, and then periodically scan for unknown devices. Use that list to find who's not following the process.

Implementing a CMDB is a complex undertaking involving the coordination of multiple teams, resources and applications — but with careful forethought, it can reduce the burden placed on an enterprise IT team and pave the way for long-term growth.

REDUCING COMPLEXITY

A key to maximizing investments in CMDBs is reducing complexity, but this is virtually impossible if organizations rely on legacy tools that aren't designed for today's modern environments.

SDITO reduces IT complexity by enabling customers to shed unnecessary tools while building a scalable infrastructure that can easily meet increasing demand. With SDITO, organizations can build real-time models of their hybrid IT environments, which provide holistic views of the health and performance of their infrastructures and make it easier to predict and eliminate outages. SDITO can reduce downtime by 50 percent and IT spend by 15 percent in its first year of use.

By reducing IT complexity and integrating a SDITO solution with a CMDB, you can eliminate the sort of data silos that impede automation and ensure your team is making decisions based on the most accurate and up-to-date information available.

Think of a CMDB as the central hub for IT service management, acting as the foundation that stabilizes your systems and applications and grants you greater control over your organization's infrastructure. A CMDB stores devices, components and other entities of IT infrastructure as CIs and typically includes extensive data on each CI. They can also store how different CIs relate to one another in various application or business service contexts.

One of the greatest benefits of a CMDB is its ability to resolve different references to the same CI. For example, here are some of the ways applications can refer to the same Oracle database:

- **Oracle Database name = Ora_Ecomm**
- **Oracle Server ID (SID) = Ora_123**
- **Oracle Server connection "listeners" host and port = EcommSvr:86**
- **Oracle Server connection "listeners" ip and port = 198.192.4.23:86**
- **Oracle connection TNS names = EcomrcMainDB, EcomrcSalesDB, & EcomrcInventoryDB**

Discovery, monitoring and integration tools should all be able to look up a CI within a CMDB using any of these various aliases. For a monitoring application, this is the difference between understanding that one database exists and not seven.

Because they're responsible for all pieces that impact service delivery, CMDBs are often referred to as the "single source of truth" within an IT environment. Manually updating your monitoring systems is both error-prone and inefficient. And if your system doesn't have critical information about a CI, there's a good chance an incident will not be resolved efficiently — or at all.

SDITO-CMDB INTEGRATIONS

SDITO integrations with CMDB tools (e.g., ServiceNow) are popular combinations for IT organizations that need modern monitoring solutions combined with reliable service management. A SDITO-ServiceNow CMDB integration will allow you to monitor your environment, identify discrepancies and automate programmatic fixes in some scenarios.

SDITO can track CIs and their lower-level components in real time as they are changing — often many times per minute or even per second. Many organizations use the CMDB as the starting point for an IT infrastructure monitoring solution, using the CMDB to seed the infrastructure elements that need to be monitored. Having this operational perspective of the CMDB provides a more holistic view of the IT infrastructure model and the services built on top of it.

Key Benefits of SDITO-CMDB Integration

Decreased Downtime	**Reduce interruptions by integrating your monitoring and management tools to ensure they're operating with the same real-time data.**
Accurate Data Records	**Detect new CMDB device objects and updates, significantly lessening the burden of populating and maintaining your monitoring system.**
Improved System Coordination	**Self-manage the setup, configuration and mapping between systems to easily tune your environment for tracking and management.**
Customized Synchronization	**Adjust the polling interval to sync the list of devices and their statuses — from a default of once per day down to as fast as your systems will support.**
Enhanced Information Sharing	**Improve resource coordination and communication between IT Ops and IT service management teams to cut down on human error and issues related to out-of-date information.**

FUTURE-PROOF YOUR SERVICENOW CMDB WITH THE CERTIFIED ZENOSS SDITO INTEGRATION

With the certified Zenoss-ServiceNow CMDB integration, Zenoss SDITO can poll the CMDB for information about devices and components – adding devices to be monitored, if necessary, and linking those items with their counterparts in the CMDB. This eliminates operator cycles spent on populating the monitoring system with information from the CMDB. Additionally, this allows Zenoss to create incidents linked to CIs in the CMDB – giving IT teams continuously up-to-date, accurate and actionable information on the service issues they are working to resolve. You can also configure the integration to update fields in the CMDB with information discovered by Zenoss.

The certified integration ensures that ServiceNow-approved best practices are utilized in the design and implementation of the Zenoss integrations for the ServiceNow CMDB, ensuring higher return and faster time to value.

As IT moves further into the world of shortened development cycles, automated cloud deployments and microservices, going without a CMDB will no longer be an option. The pertinent question, then, is not if you need one but how it should be built.

A SDITO approach eliminates the overhead associated with managing a complex web of low-value tools while reducing downtime and even providing the ability to address network issues before disruptions occur. By supporting and informing Zenoss IT monitoring tools with a reliable CMDB, you can help optimize your IT environment and ensure its reliability and scalability for years to come.

Looking for more information on certified integrations between Zenoss and ServiceNow?

Check out our data sheet exploring incident management and CMDB.

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Zenoss works with the world's largest organizations to ensure their IT services and applications are always on. As the leader in Software-Defined IT Operations,™ Zenoss develops software that builds comprehensive real-time models of hybrid IT environments, providing unparalleled holistic health and performance insights. This uniquely enables Zenoss customers to predict and eliminate outages, dramatically reducing downtime and IT spend.

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