

# CMDB Implementation

A T a l e o f T w o E x t r e m e s

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# Introduction

One of the “quality problems” to have, as your business grows is the challenge of managing all your resources. As the number of your employees grow and your IT assets expand, it is difficult to ascertain exactly what and where all your assets are. It is important to get more visibility on what applications and services are running on each asset, how they interact, and the business impact if these resources are down, responding poorly or slowly, or jeopardized by security threats.

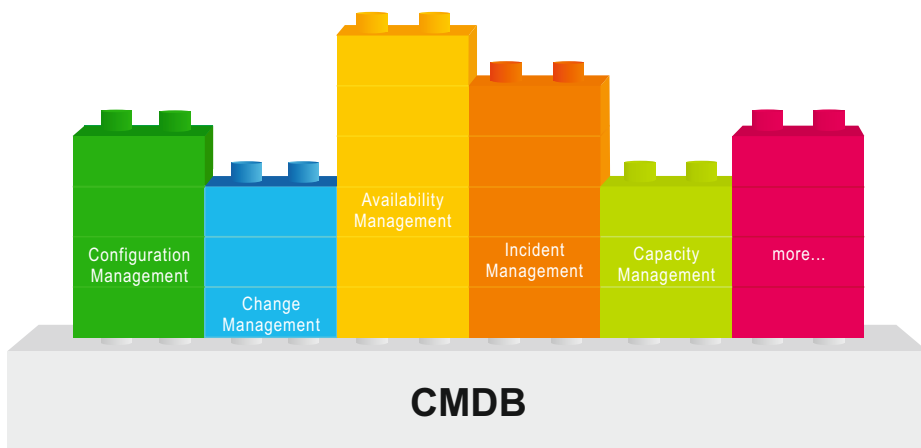
The Configuration Management Database or CMDB is an ITIL process that is predominantly being used in datacenters to manage their Configuration Items (CIs). I have always wondered why can't CMDB processes be used for managing regular IT assets. As managing the IT network and their resources are becoming harder and harder, it makes sense to adopt CMDB and reap the benefits and get a grip over your IT. Lets not get started about the number of horror stories I have heard on trying to implement CMDB successfully. Lets face it if you don't know what is in your IT and how all the assets are related together, you don't stand a chance to manage, improve and support them efficiently. This whitepaper will discuss more on the easier ways to successfully implement and deploy CMDB, and how you can adopt CMDB for rest of the IT.

# ABCs of CMDB

For those who have not heard of CMDB, it is defined as Configuration Management Database. It is the core process of a successful ITIL implementation. CMDB is a repository of CIs (Configuration Items) that contains pivotal information like relationship, ownership and dependencies of business-critical CIs that directly impact uptime, service levels and the end-user experience. The purpose of CMDB is to perform these key functions,

- Account for all IT Services and configurations within the organization.
- Provide accurate information about each CI.
- Define relationships & dependencies of each CI.

Every action performed in IT requires some information to make a decision. In fact, the relationship between information and decisions is also applicable for everything beyond IT. With no information or data, the decision is just a gut feel or guesswork. So the chances of hitting a home run with just a gut feel are very low. To make the right decisions, you need the right data. To make it more effective, you need this information from the right source and that source is CMDB. The whole purpose of CMDB is to give you the right information to make right decisions.



# Is Implementing CMDB difficult?

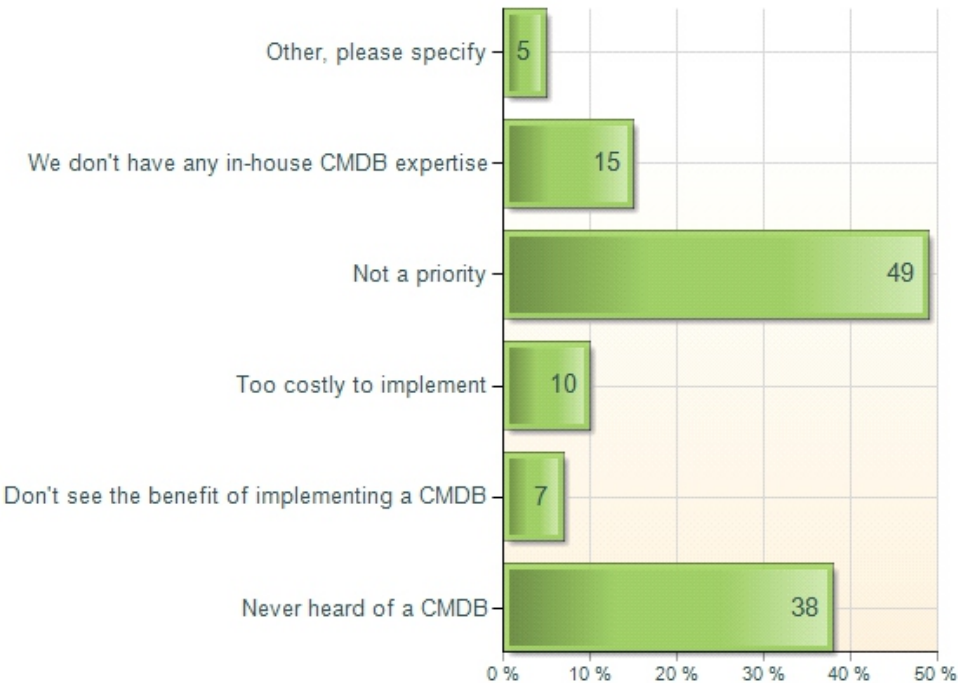
**Why is your organization not implementing a CMDB?**



In our recent survey, we found that most organizations are not ready to adopt CMDB. We were somewhat surprised to learn that they have not even heard of it or don't think it as a priority. Most of the IT guys who tried implementing CMDB have failed or dropped it in the planning stages itself. It's true that implementing a CMDB can be challenging at times. But many have implemented and found the benefits to be significant. The reason for failure could either be poor planning or setting the wrong expectations. In my opinion, the best way to implement CMDB is to simplify the process and keep to the basics, first and foremost, capturing the details of the CIs. In other words, define the depth of CI categories you want to discover and maintain in CMDB. Secondly, setting your expectations correctly - what is it you want to achieve from the CMDB? Don't introduce unnecessary workload and pressure; instead set the goals and scope right and work on that which you can manage and achieve. You can always add additional CIs as and when you grow to achieve broader configuration management.

**Why is your organization not implementing a CMDB?**

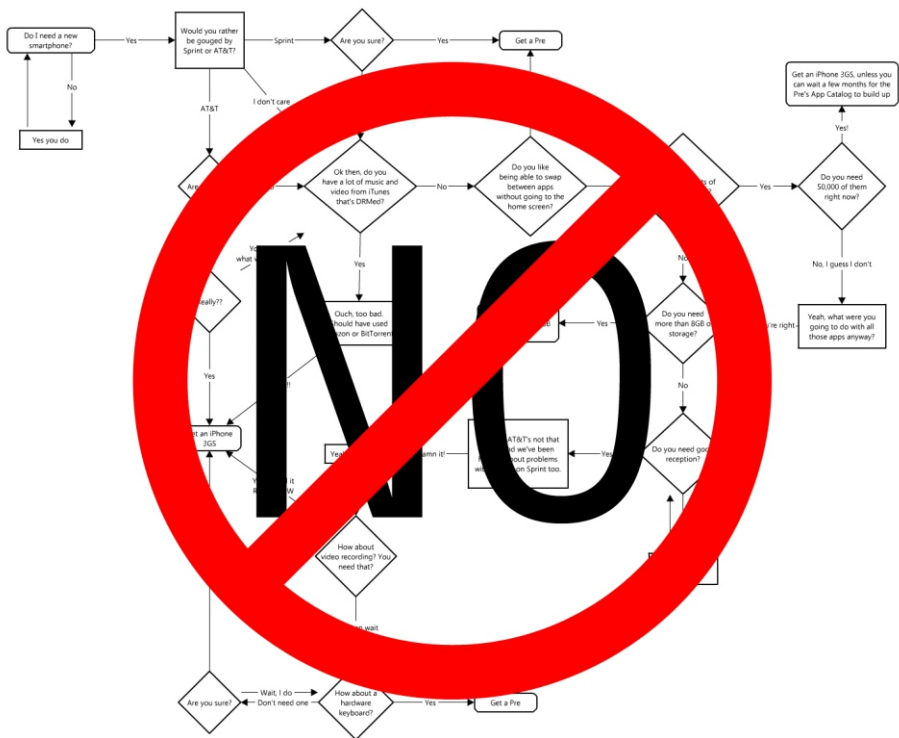
(Multiple answers allowed)



# **Simplifying CMDB Implementation**

**Step 1: Forget the textbook processes.**

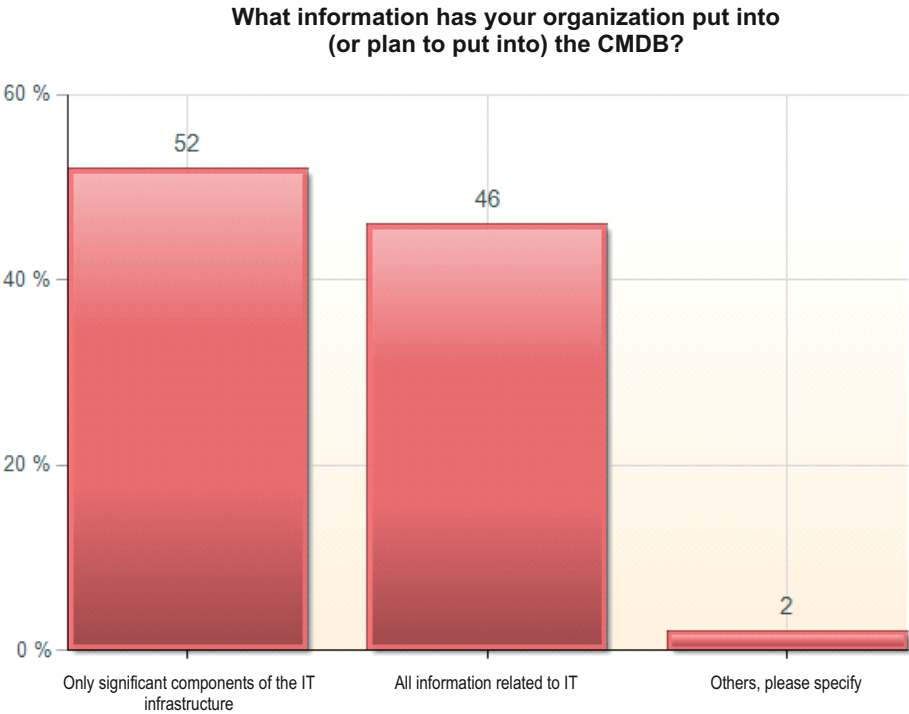
The primary prerequisite for a successful journey to CMDB is to forget what the books have taught us and apply common sense. Do not embark on the road to CMDB just for the sake of adopting ITIL. It is very important to implement processes at the right time; also, the help desk should be mature enough to handle the process, or the journey could jump the tracks..



# Defining your CIs

- A tale of two extremes

What is a CI? Well, anything under the roof of your organization related to IT is a CI – servers, the applications running on them, and the user details. One of the frequent questions I have encountered in all CMDB implementations is whether even the chairs and desks are considered as CIs. Before I share my opinion, let me share how it is practiced in the market today. As the CMDB is predominantly used for managing datacenters, only those business-critical assets that are related to datacenters are defined as CIs. As far as I can tell, including physical assets such as chairs and desks in your CMDB is one scenario and focused CMDB solely on IT and datacenter assets related to business critical CIs is the other. Finding the balance between these two extremes is what we will discuss later in this whitepaper. Even in our recent survey, when we asked our audience what they want to have in their CMDB, half of our audience wanted all information related to IT in their CMDB.





**All critical CI's or  
just the datacenter  
related CI's**

## **Step 2: Decide what should be in your CMDB**

As more businesses today implement CMDB as a core part of Service Management for datacenters, questions are now arising about the boundaries of the CMDB. Many have felt the CMDB has no role outside datacenters; but a growing number are seeing that the value of CMDB is not limited to just datacenters. The fact is that CMDB is relevant for areas outside datacenters and can be used for the entirety of IT infrastructure.

So, lets define the contents of the CMDB as:

- IT elements that are business critical
- How these elements are related to each other
- How these relationships impacts your business

A classic example is provided by the Hummer army vehicle, which was later introduced to consumers so that they could enjoy the experience. Similarly CMDB can also fall in the same path and can be later adapted and expanded beyond the datacenter to manage all day-to-day IT Infrastructure.

Scenario:

Acme Inc. had an Internet outage for nearly half of its business. When analyzed, they found that an agent had tried to open and close a few ports in the firewall to use a discovery tool. The part he missed was that there were two main links connected to the firewall and he had closed those ports accidentally without knowing the business impact. This small incident turned out to be a disaster where half of the Acme employees were unable to connect to the Internet. However, if with a proper CMDB in place, the agent would have known the business impact of the CI and would have handled the situation better with the right information from the CMDB.



# Relationships

**It's always complicated**

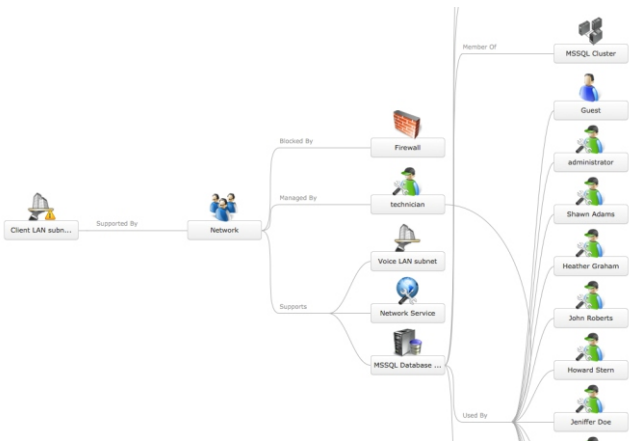


**Step 3: Create relationships for business-critical CIs based on business impact.**

Everyone knows that personal relationships are always complicated, and so are the relationships between CIs. It is important to know what is running on your machines, how they are related and the impact it creates if an asset is down or unavailable. One of the core purposes of the CMDB is to know the relationships of CIs so that you can get a clear visibility on your network and make the right decisions.

**Scenario:**

Let us say that you want to update the windows service pack on a server and restart it after installation. But, the same server also hosts an accounting application which is being used by 20 users from the finance department. If you don't have the proper CMDB in place, you will not be aware of the other software running in the server and the relationship with the users. So a normal software installation could lead to a disaster and create a huge business impact. Hence it is very important to know the relationship between and among CIs.



# Conclusion

Many may not be aware of the CMDB or it might not be viewed as priority to implement now, however it is important to get most out of the CMDB in a simplistic manner. CMDB is the heart of ITIL, which controls every other process and aligns them appropriately. As discussed, follow the three simple rules: forget the complexities, define your CIs properly with just business-critical assets and get clear visibility on the relationships between CIs – to maximize your business efficiency.

## About ServiceDesk Plus

ServiceDesk Plus is the flagship product of ManageEngine. ServiceDesk Plus is completely web-based IT help desk software with integrated asset management module. It is built with state-of-the-art ITIL functionality including Incident Management, Problem Management, Change Management, Release Management, Service Catalog and CMDB. It comes with different editions catering to end users' needs. ServiceDesk Plus is also now available in the on-demand SAAS model.

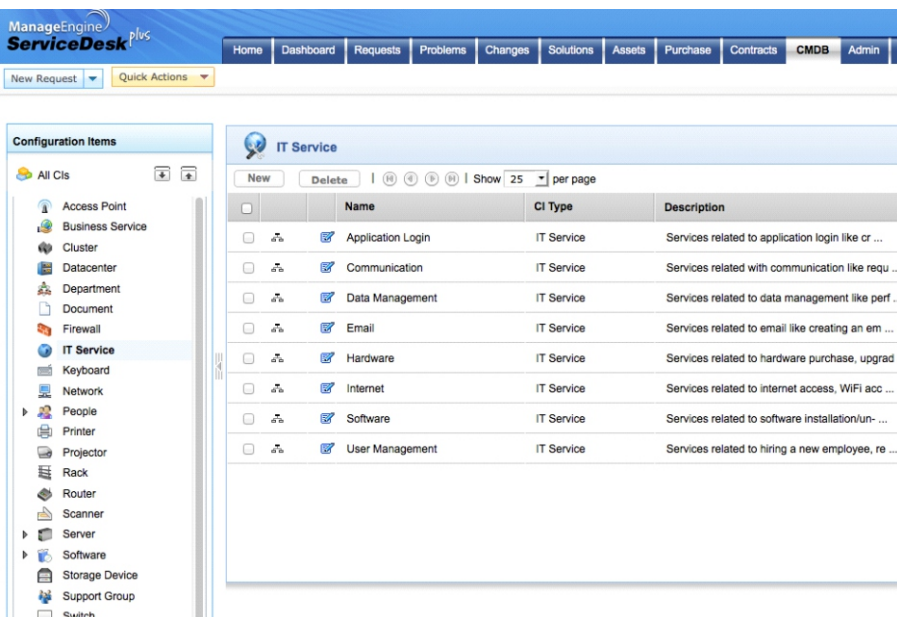
Website: [www.servicedeskplus.com](http://www.servicedeskplus.com)

Online Demo: <http://demo.servicedeskplus.com/>

## CMDB in ServiceDesk Plus

ServiceDesk Plus provides complete visibility on your network to understand the assets in your environment and provides complete control to make changes on a regular basis. ServiceDesk Plus's CMDB functionality maintains information about all CIs, including their attributes and relationships with which you can deliver the IT services.

## Easy to configure & deploy



The screenshot displays the ManageEngine ServiceDesk Plus web interface. The top navigation bar includes links for Home, Dashboard, Requests, Problems, Changes, Solutions, Assets, Purchase, Contracts, CMDB, and Admin. The CMDB section is active, showing a list of Configuration Items (CIs) under the 'IT Service' category. On the left, a 'Configuration Items' sidebar lists various asset types like Access Point, Business Service, Cluster, Datacenter, Department, Document, Firewall, IT Service (selected), Keyboard, Network, People, Printer, Projector, Rack, Router, Scanner, Server, Software, Storage Device, Support Group, and Switch. The main table lists IT Services with columns for Name, CI Type, and Description.

|                          | Name              | CI Type    | Description                                       |
|--------------------------|-------------------|------------|---|
| <input type="checkbox"/> | Application Login | IT Service | Services related to application login like or ... |
| <input type="checkbox"/> | Communication     | IT Service | Services related with communication like requ ... |
| <input type="checkbox"/> | Data Management   | IT Service | Services related to data management like perf ... |
| <input type="checkbox"/> | Email             | IT Service | Services related to email like creating an em ... |
| <input type="checkbox"/> | Hardware          | IT Service | Services related to hardware purchase, upgrad ..  |
| <input type="checkbox"/> | Internet          | IT Service | Services related to internet access, WIFI acc ... |
| <input type="checkbox"/> | Software          | IT Service | Services related to software installation/un- ... |
| <input type="checkbox"/> | User Management   | IT Service | Services related to hiring a new employee, re ... |

Get visibility and control over your attributes & dependencies

Jump to | Personalize

ChangesSolutionsAssetsPurchaseContractsCMDBAdminReportsSupport

View DemoPopulating the CMDB

Populating the CMDB

Populating CMDB in 3 easy steps

1 Identify the project scope

2 Population of CIs

3 Creating the information model

The first step involves identifying the project scope and defining appropriate CI Types under which business critical CIs can be classified. The high level relationship diagram between CI Types(as shown in the diagram for example) needs to be defined as per your organization's environment.Each CI Type has its own attributes and relationships and are defined with key stakeholders like Service Catalogue or Change Management stakeholders etc.

Out of the Box CI Types

Relationships between CI Types

Business Services

Consists of

IT Service

Hosted on

Server

Runs

Application

Depends on

Database

Users

Web Server

Is member of

Cluster

Maximize the service availability.

Dashboard

All My Assets

Asset Summary

|              |    |           |    |
|--------------|----|-----------|----|
| IT Assets    |    | Others    |    |
| Workstations | 22 | Scanner   | 0  |
| Printers     | 4  | Printer   | 0  |
| Routers      | 2  | Projector | 10 |
| Servers      | 12 |           |    |
| Others       | 24 |           |    |

Total:74

Scan failed for 23 Workstations [Troubleshoot]

Last Scanned : Mar 12, 2010 12:15 AM

Workstations

Workstations by OS

Software

Software Licensing Status

PO & Contracts

Purchase Order Summary

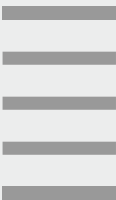
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# ServiceDesk Plus Editions

**Standard | Professional | Enterprise**

**Standard | All Purpose Help Desk Software**

- Support
- Self-Service Portal
- SLA Management
- Business Rules
- Reports



**Professional | IT Help Desk + Asset Management**

- Inventory Management
- Software Asset Management
- Purchase Management
- Contract Management
- Software License Compliance



**Enterprise | ITIL Ready Help Desk Software**

- Incident Management
- Problem Management
- Change Management
- CMDB
- Service Catalog



# About the author



**Arvind Parthiban** has over 6 years of experience in ITSM and ITIL and has demonstrated expertise in worldwide service desk implementations and consulting. As a highly skilled trainer and consultant, Arvind has assisted global companies such as DHL Global, Wolters Kluwer, Urban Outfitters, Pre Corp USA, Smart Tech CA, Stroz Ilc, Franklin University and more with their IT needs.

Working currently as Senior Product Consultant and Marketing Manager for ManageEngine, he has the opportunity to oversee complete implementation processes in various environments and understand the many real-time issues faced by IT administrators. Arvind shares his immense knowledge in blogs ([www.absolutehelp.in](http://www.absolutehelp.in)). In his recent whitepaper “When Reality Hits ITIL Implementations,” Arvind insists that it is very important to understand your environment and get the basics in ITIL right before proceeding any further. You can reach the author at [arvind@manageengine.com](mailto:arvind@manageengine.com) for any queries or feedback.

# About ManageEngine



ManageEngine is the leader in low-cost enterprise IT management software. The ManageEngine suite offers enterprise IT management solutions including Network Management, Help Desk & ITIL, Bandwidth Monitoring, Application Management, Desktop Management, Security Management, Password Management, Active Directory reporting, and a Managed Services platform. ManageEngine products are easy to install, setup and use and offer extensive support, consultation, and training. More than 55,000 organizations from different verticals, industries, and sizes use ManageEngine to take care of their IT management needs cost effectively. ManageEngine is a division of ZOHOO Corporation. For more information, please visit [www.manageengine.com](http://www.manageengine.com).

#### Big 4

Acquired Products  
Complex Integrations  
Expensive Business Model

#### Independent Point Products

Lower Price points  
No Integration  
Vendor Viability

#### ManageEngine

Single Vendor  
Integrated Value  
Affordable Price Point

**ManageEngine** Enterprise IT Management Software used by over 55,000 customer including 3 out of every 5 fortune 500 companies.

# IT Management Portfolio

| Network               | Servers & Applications      | Desktop            | ServiceDesk               | Windows Infrastructure | Event Log & Compliance | Security               |
|-----------------------|-----------------------------|--------------------|---------------------------|------------------------|------------------------|------------------------|
| Network Monitoring    | Server Monitoring           | Desktop Management | Helpdesk                  | Active Directory       | Windows Event Log      | Vulnerability Analysis |
| Netflow Analysis      | Application Perf Monitoring | Asset Management   | ITIL ServiceDesk          | SQL Server             | Syslog Management      | Patch Management       |
| Network Config. Mgmt. | End-User Experience         | Remote Central     | Software License Tracking | Exchange Server        | Firewall Log Analyzer  | Password Management    |
| Config. Mgmt. Network | Experience End-User         | Central Remote     | Tracking License Software | Server Exchange        | Analyzer Firewall Log  | Management Password    |
| Analysis Netflow      | Monitoring Perf Application | Management Asset   | ServiceDesk ITIL          | SQL Server             | Management Syslog      | Management Patch       |
| Monitoring Network    | Monitoring Server           | Management Remote  | Helpdesk                  | Directory Active       | Event Log Windows      | Analysis Vulnerability |

**ManageEngine is the only IT management vendor  
focused on bringing a complete  
IT management portfolio to the mid-size markets.**





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