

Designing and Implementing The CMDB

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Enabling Best Practice in IT Infrastructure Management!

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Overview

- Getting the requirements right
- Designing the CMDB structure
- Capturing and updating
- Using the CMDB
- Implementation issues

The CMDB “Concept”

- A knowledge base that is shared across IT teams covering all configuration items (CIs) and their relationships with other CIs. Could cover....
 - Hardware .. servers, networks, desktops
 - Software .. modules, applications, systems
 - Services .. Email, electronic payments, credit checks
 - Processes .. Customer checks, sales, finance
- Why have a CMDB?
 - Reduce duplication and effort across teams
 - Common references for controls, reporting and logging
 - Speed up change processes
 - Enable end to end understanding

CMDB Requirements

- What does the CMDB have to do?
 - Provide a list of CIs and dependencies
 - Provide a history about CIs
 - Associate various details with CIs
- Or... does it
 - Enable impact analysis for incidents & changes
 - Help assign changes, incidents, problems to owners
 - Identify service / component mapping for recovery, billing and risk management
 - Ensure releases can be deployed with minimal disruption

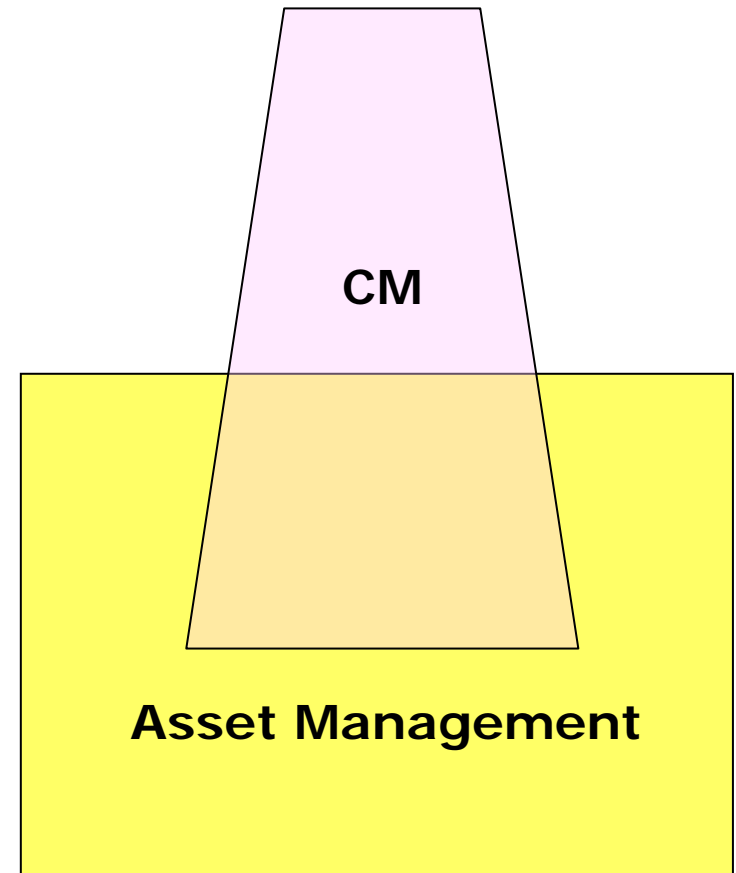
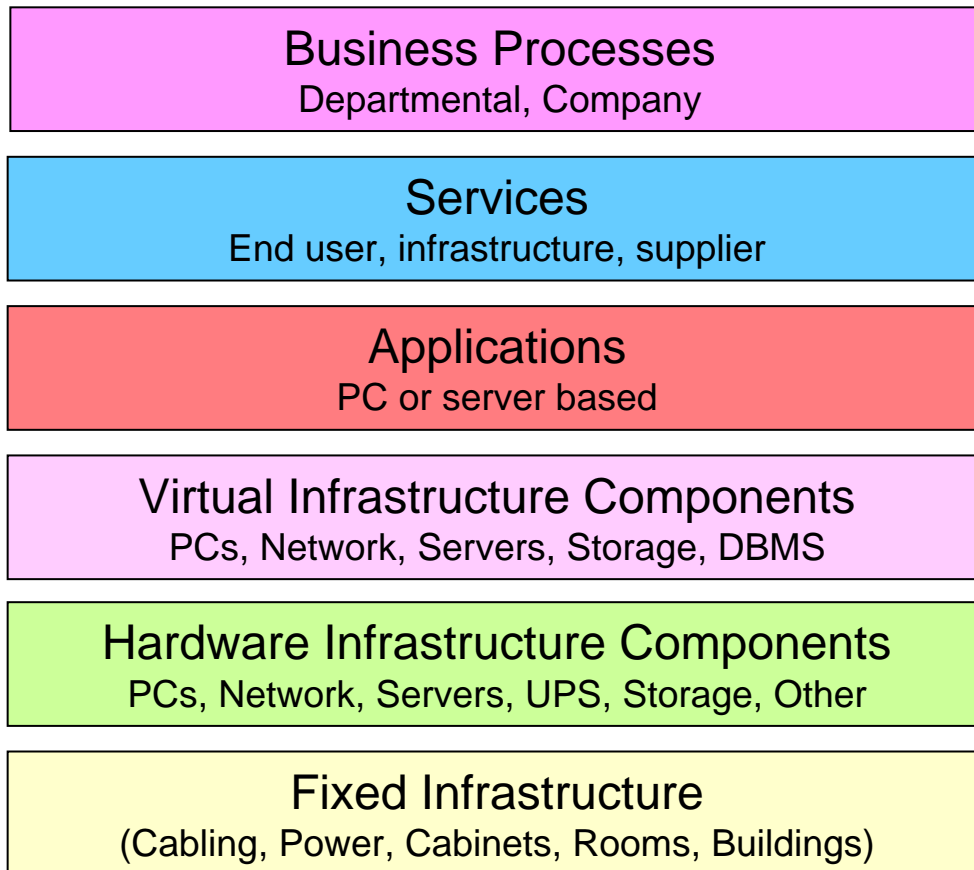
**The Features
Viewpoint**

**The Benefits
Viewpoint**

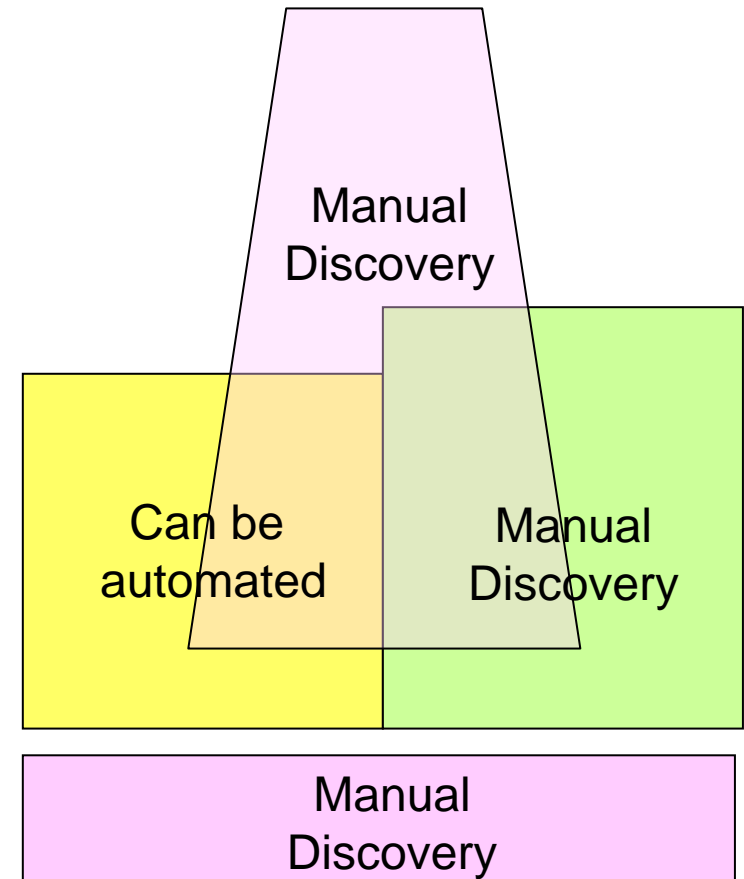
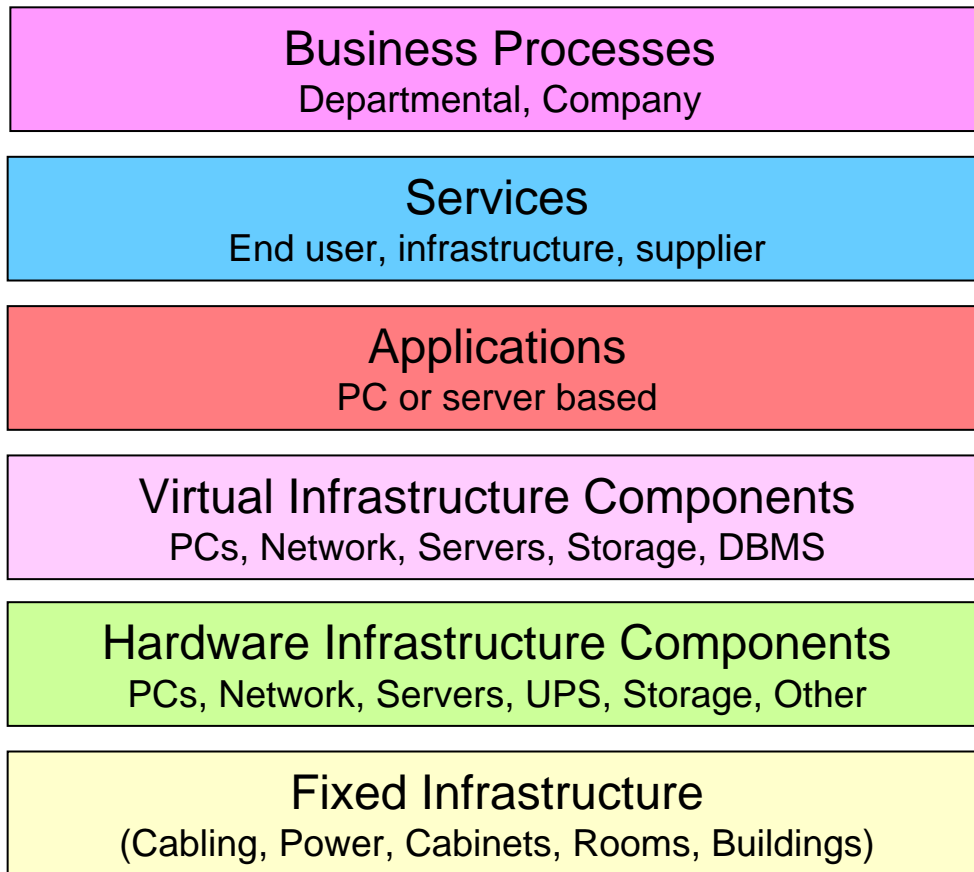
Questions

- Do you have to do asset & configuration management together?
- Do all assets have to be CIs?
- Do all CIs have to be assets?
- Is 80% accuracy worth aiming for
 - Asset management
 - Configuration management

Setting Scope for CM



Automated Discovery?



CI Attribute or Relationship?

If we have a server as a Configuration Item, should we record the following as an attribute? or create another CI with a dependency?

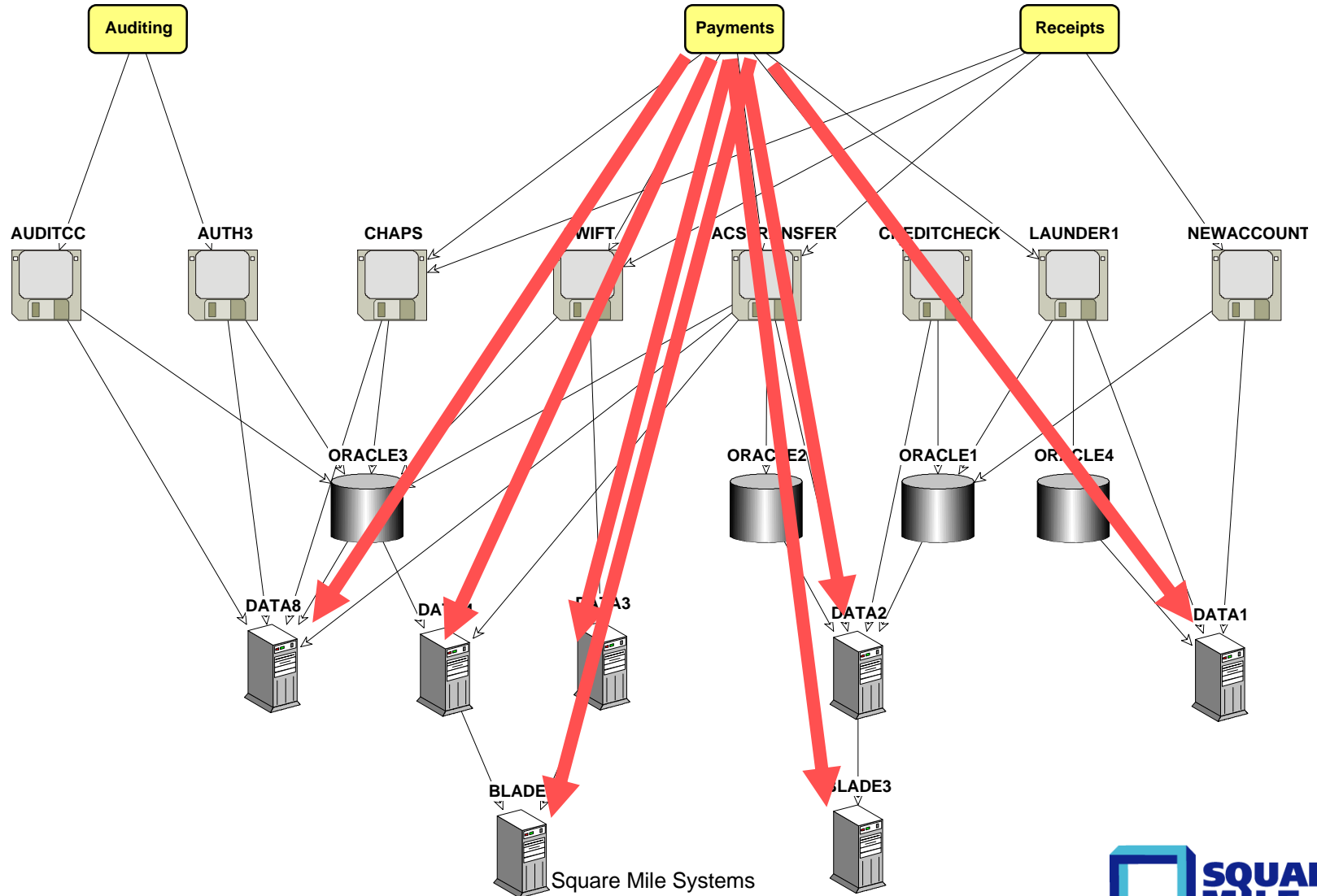
1. Operating System
2. Services supported
3. Application software installed
4. Technical owner
5. Location

Some Interaction

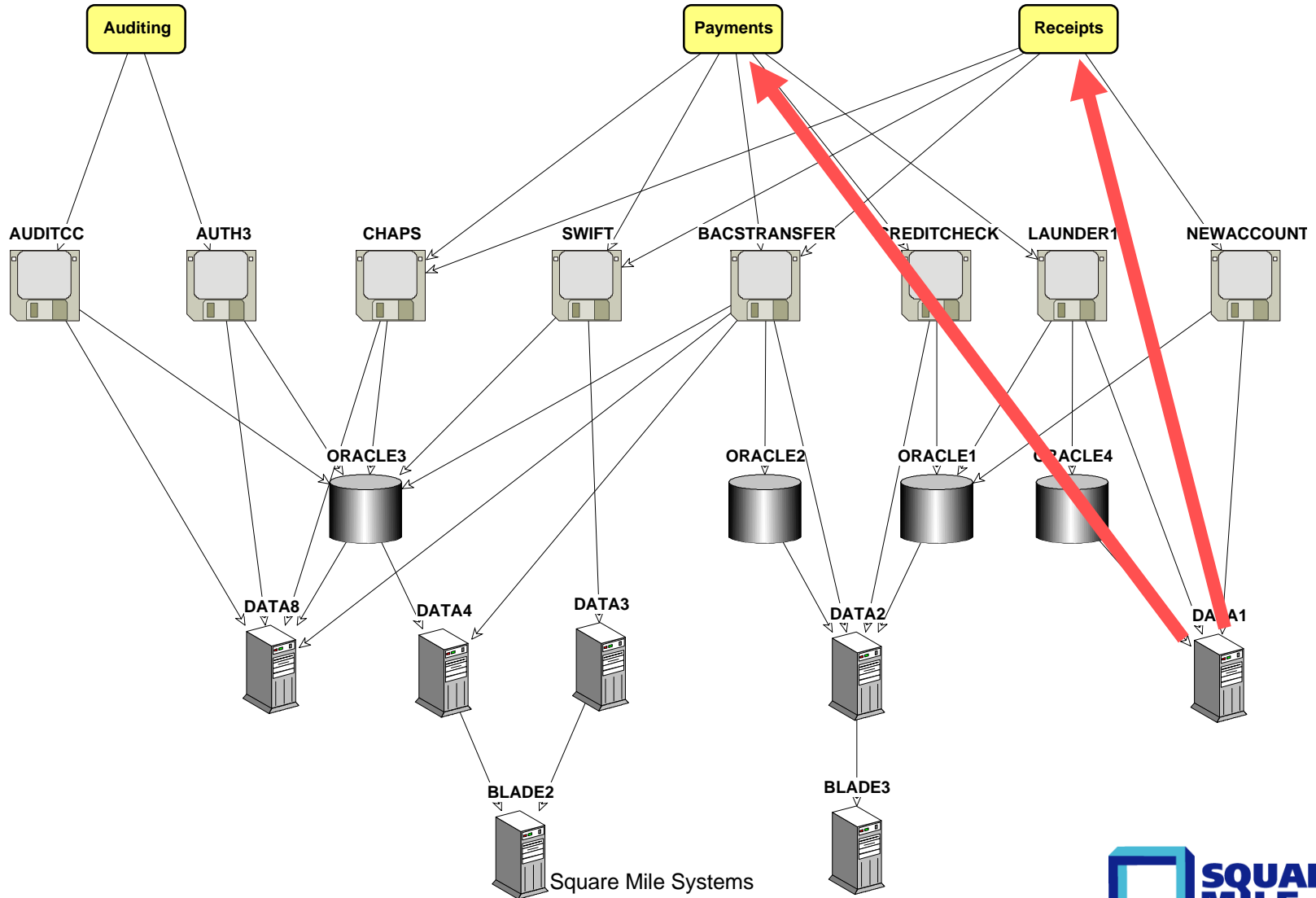
From the information you have provided, determine the following;

1. Which servers does the PAYMENT service depend on?
2. Server DATA1 is to be virtualised, what services could be impacted?
3. Application BACSTRANSFER is to be upgraded and requires OS patches – which servers may need to be changed and which services impacted?

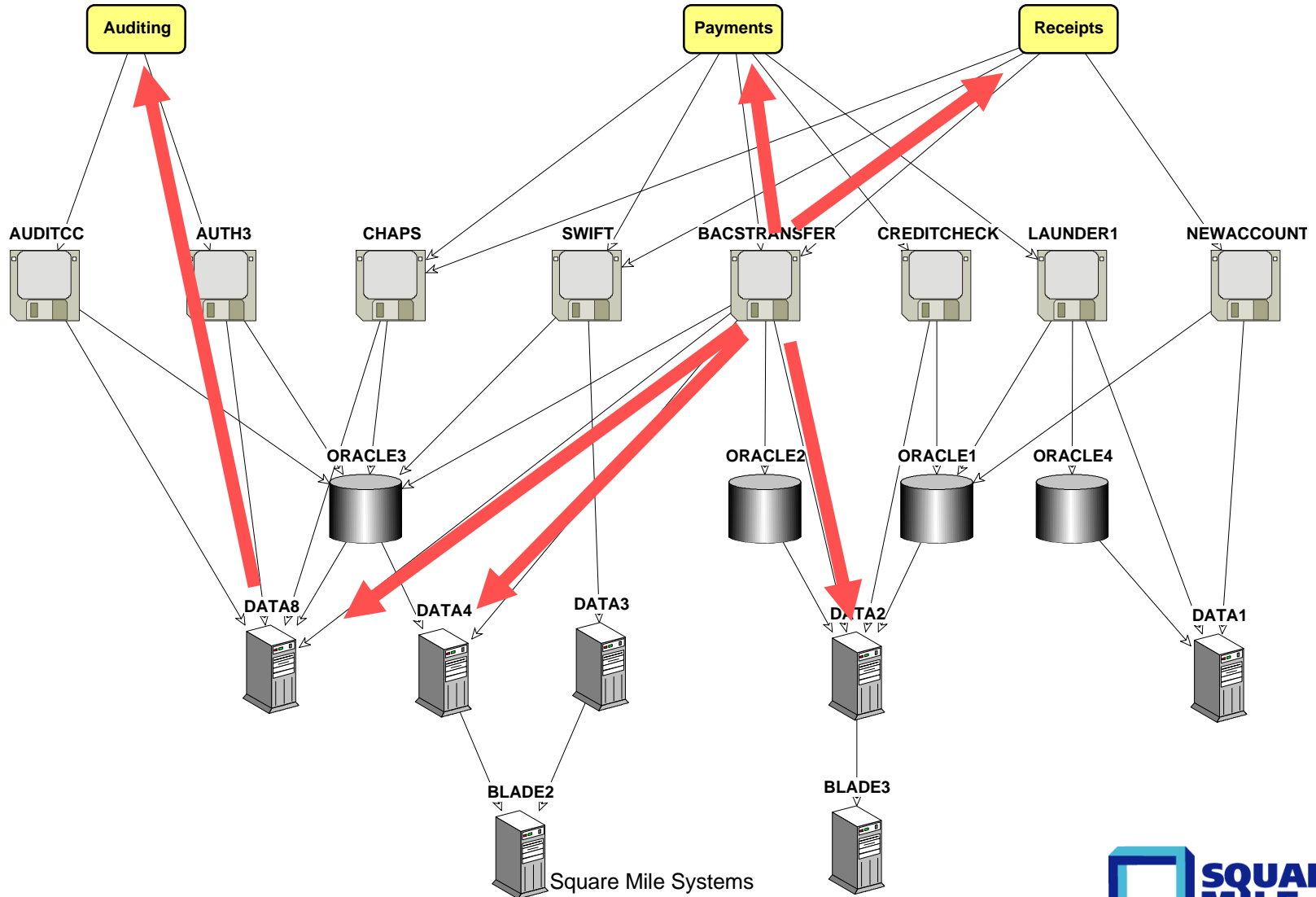
What the CMDB will look like (1)

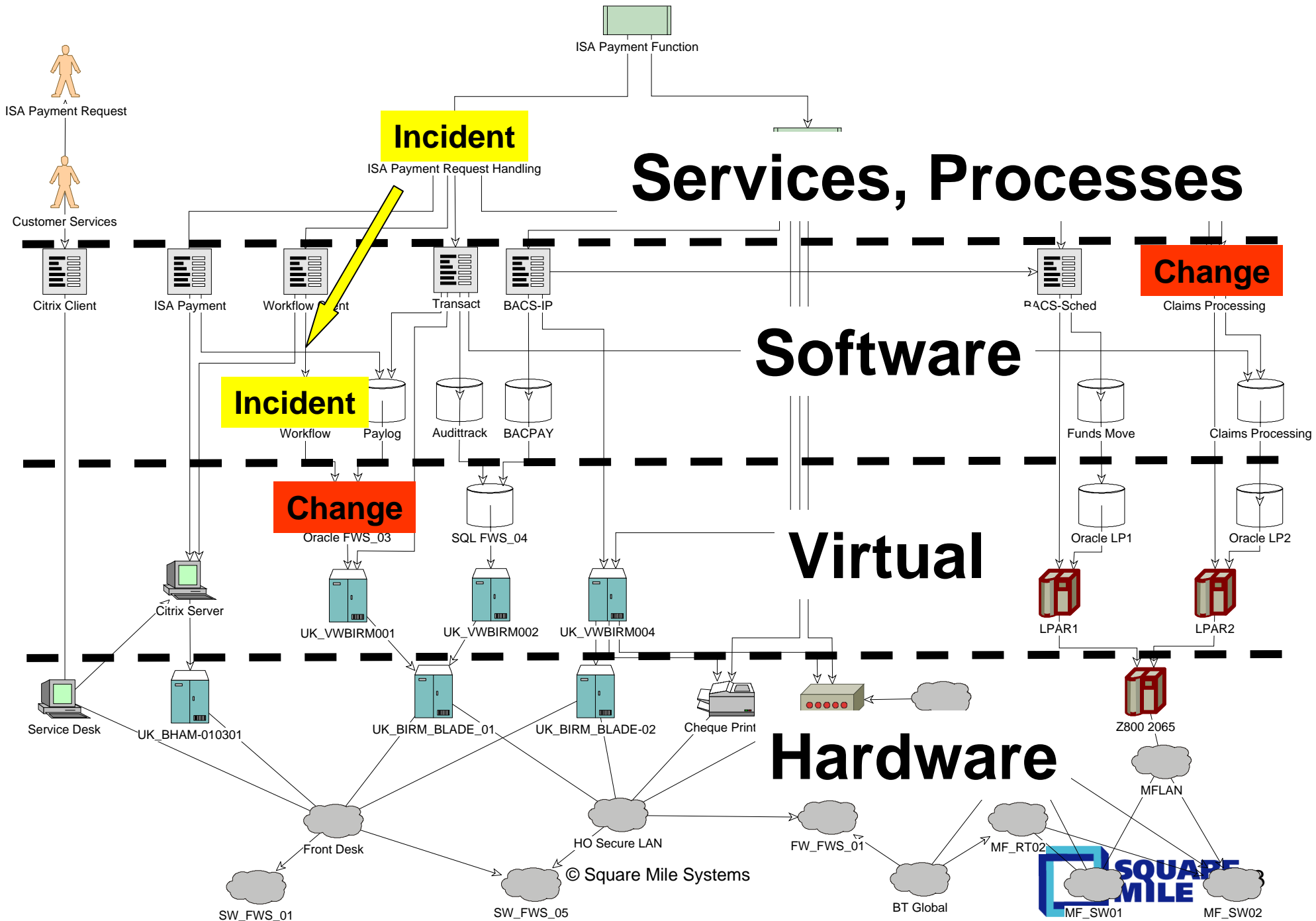


Answer 2

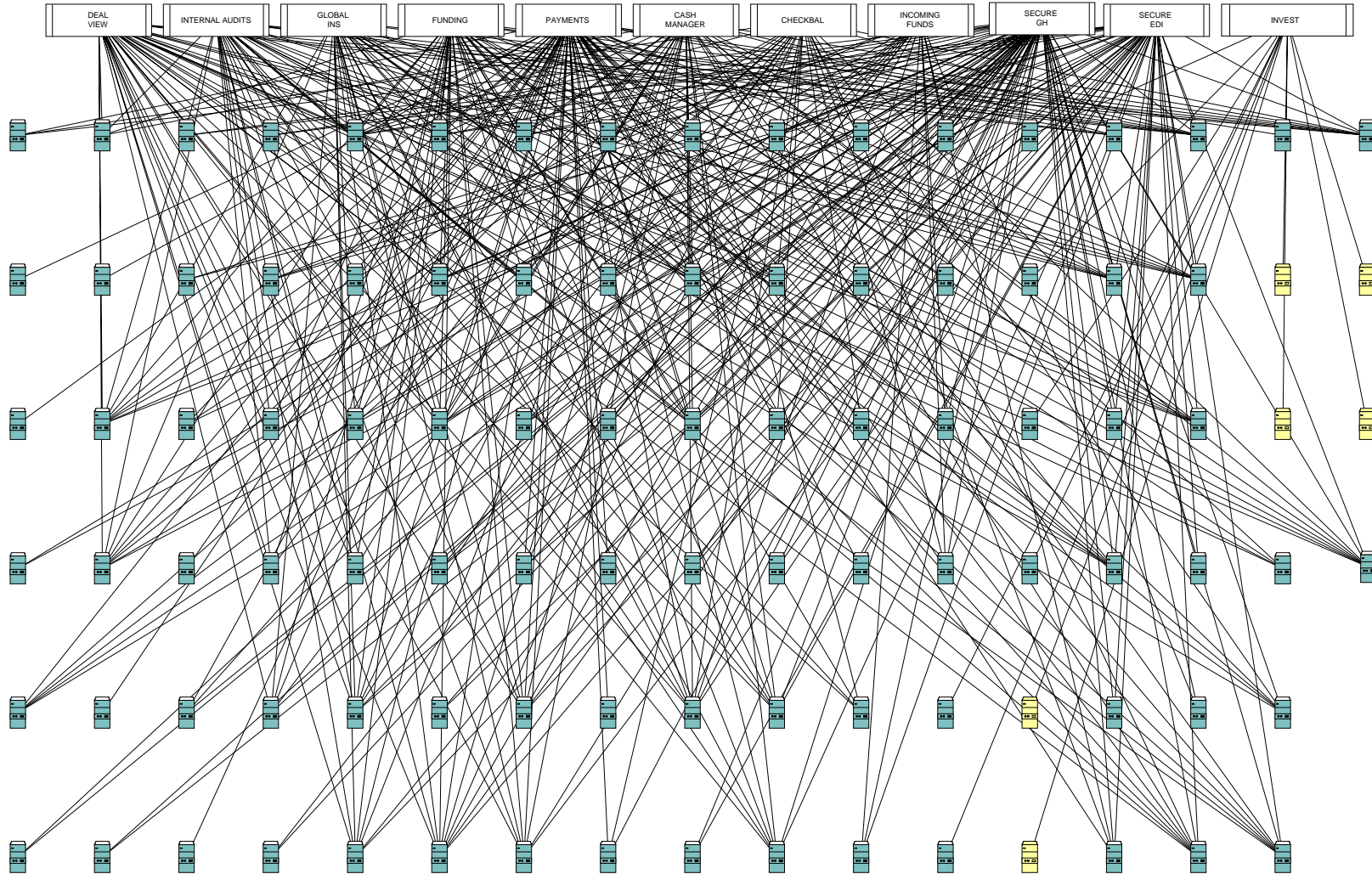


Answer 3

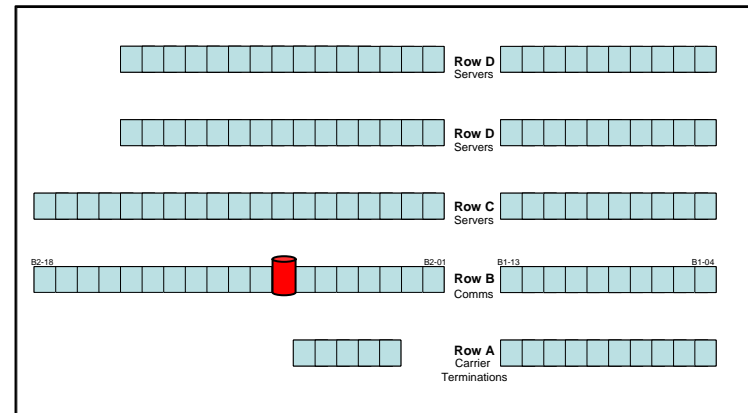
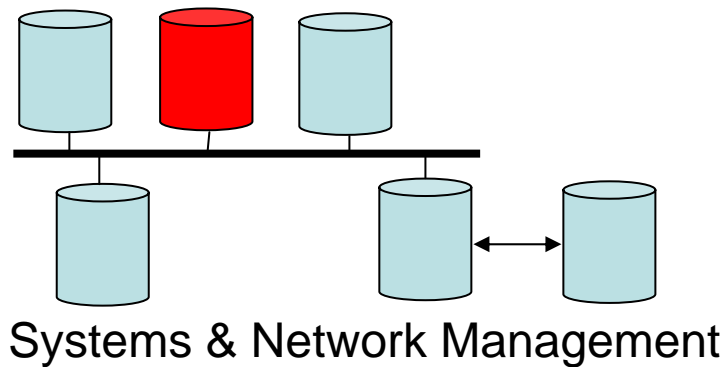
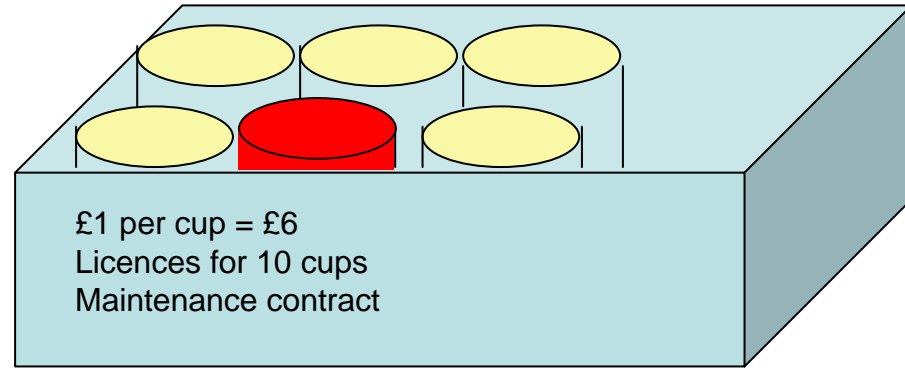
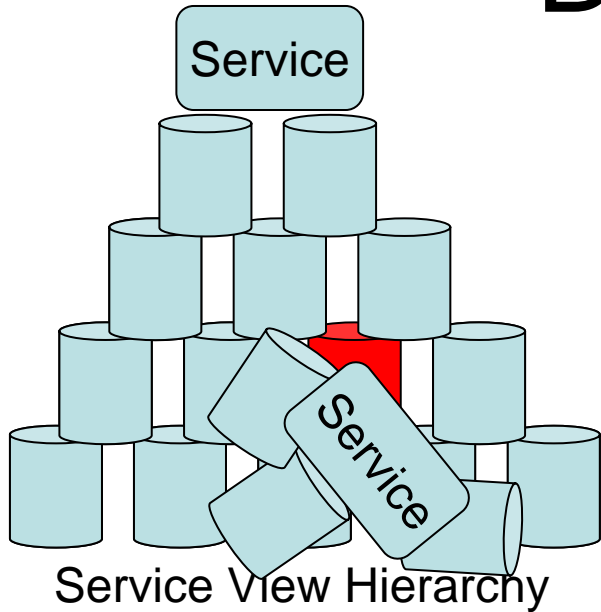




Multiple Applications & Servers



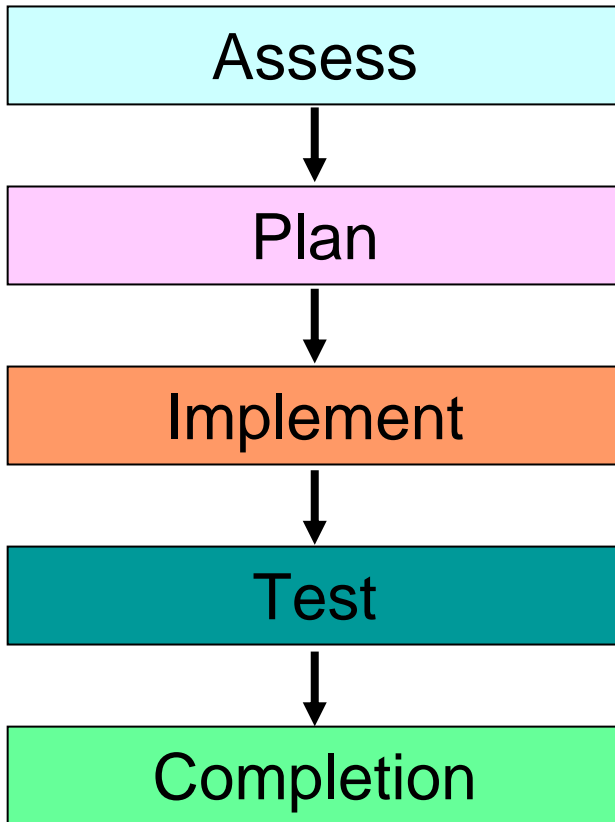
Different Views



Change Impact Analysis

- What is meant by impact analysis?
- When do we undertake an impact analysis?
- How do we know we have identified all the potential impacts?
- How long does it take currently?
- How long should it take?

CMDB Usage for Project Teams



Knowledge bases covering

- Space
- Environment
- Asset
- Connectivity
- Device configurations
- System / service configurations

Implementing the CMDB

- Technology / Service
- Infrastructure / Components / Applications
- Projects / Operations / Strategy / Governance
- Internal / Outsource / Supplier / Customer
- Central / Local

Applying and delivering configuration management and the CMDB requires a strategy – it is not a project

A Typical Plan

- ✓ Book experienced guide
- ✓ Know the current state
- ✓ Strategy & direction
- ✓ Scope
- ✓ Outline plan
- ✓ Prototype

- ✓ Detailed plan
- ✓ Process development
- ✓ Toolset integration
- ✓ Data repository design
- ✓ Data capture
- ✓ Service introduction

- ✓ Verification checking
- ✓ Training
- ✓ Development

Defining the scope,
approach and
deliverables

The “Project”

Ongoing Support

If you don't go the CMDB route..

- Expect 1000s of documents, spreadsheets, diagrams and databases with varying degrees of accuracy, depth and trust which are not coordinated
- End to end understanding is not “owned” by any team and it remains a “management problem”
- More disruption will be caused by change than device failure (80%-98%)
- Cost of providing IT services increases as managing change ends up becoming bureaucratic and slow
- Not delivering the management controls or costs the business/customer wants, so they will find a new way – outsource, restructure, in-source.

In Summary

- Design the CMDB to be used!
 - Know when and what it should deliver
 - Make it simple to interpret
- Set realistic expectations on what can automated
 - Initial discovery will involve manual effort
 - Ongoing updates & maintenance will involve manual effort
 - Automated software gets it wrong occasionally, so manual effort will be needed to correct it
- The benefits are strategic
 - Reduce the cost and risk of change
 - Enables better control (what all senior managers want!)
 - Increased remuneration for successful CMers

Thank you for your time!