

Practical Configuration Management

David Cuthbertson
Square Mile Systems

Enabling Best Practice in IT Infrastructure Management!

david.cuthbertson@squaremilesystems.com

www.squaremilesystems.com

Tel +44 (0)870 950 4651

Mob +44 (0) 7717 883177

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Square Mile Overview

UK based – Cirencester, Glos

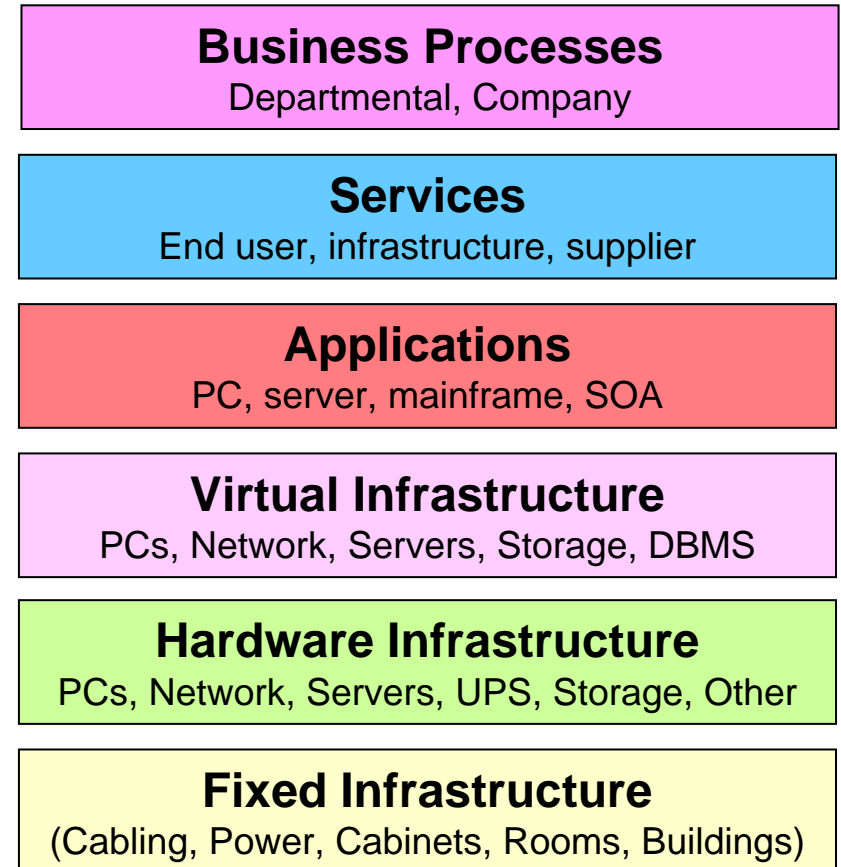
Focus on applying asset & configuration management techniques to large infrastructures & data centres

Develop CMDB toolsets for end to end systems and service mapping

Integrate existing CMDB / knowledge sources with other toolsets

Design, data capture, process development services

All technologies!



Specific Projects

- Map all items in the service desk CMDB
- Document all hardware, connectivity in data centres and equipment rooms
- Create service maps with change, incident, recovery, ownership indicated
- Architecture review for SPOF on critical systems
- Show who and what can get through firewalls
- NOC knowledge base of all LAN/WAN devices and connectivity to port level

Different Perspectives

“The hardest job I have had in IT in the 20 years I have worked for the bank” **It needs a team approach, supported at all levels**

“We are developing our own CMDB because nothing meets our requirements” **How long until a populated, production CMDB?**

“If it doesn’t automatically map hardware / software / system dependencies, we’re not interested as we won’t trust the data” **Configuration management is mainly manual**

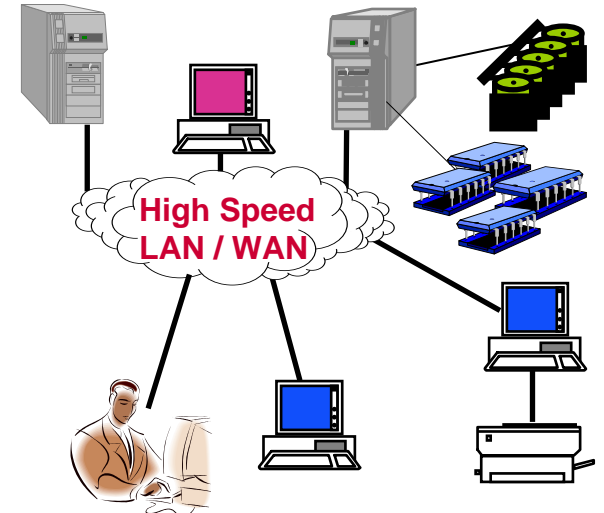
“We developed and implemented a CMDB covering all critical applications and hardware platforms, but nobody uses it” **CM requires culture change by CM users**

Workshop Objectives

- What is configuration management?
- How do we determine what we want configuration management to do for us?
- What is real and what is hype

ITIL Config Mgmt Activities

- Planning
- Identification
 - What is going to be controlled?
- Control
 - Link to change management
 - Are you allowed to change it and how is a change to the configuration controlled?
- Status Accounting
 - What has changed and why?
 - Tracking status changes through the CI's lifecycle
- Verification/Audit
 - Is it what we said we would have?



Exercise 1

Moving 5 existing servers from one building to an existing data centre

What tasks might you have to do?



A Simple Project Lifecycle

Assess



Plan



Implement



Test



Completion

Only complete the first two!

Finish with the last section

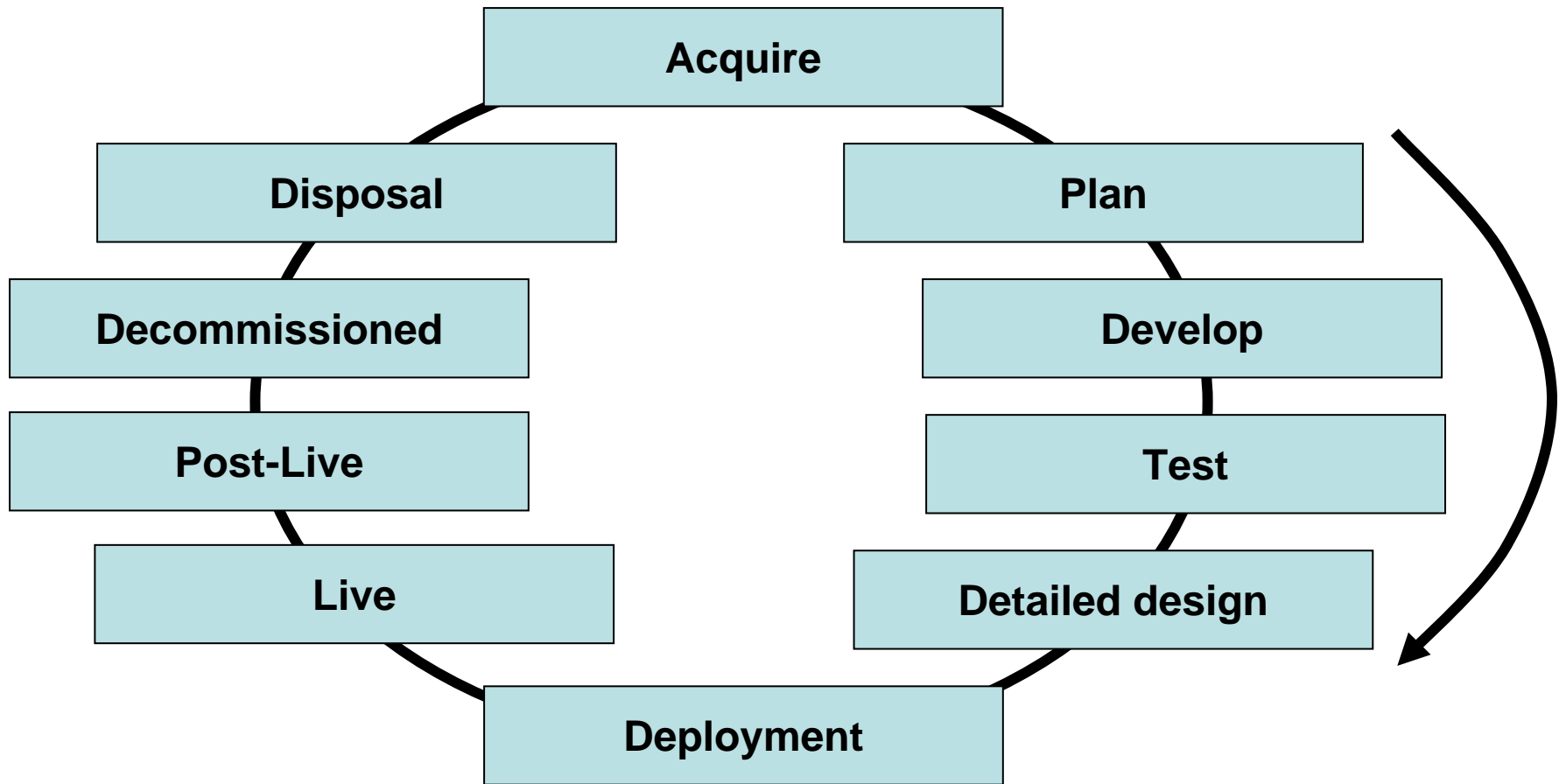
Tasks and Information Needs

- For the assessment
 - Requirements management
 - Capacity management
 - Forward planning
- For detailed planning
 - Device information
 - System information
 - Service information
 - Resource allocation
 - Timescales

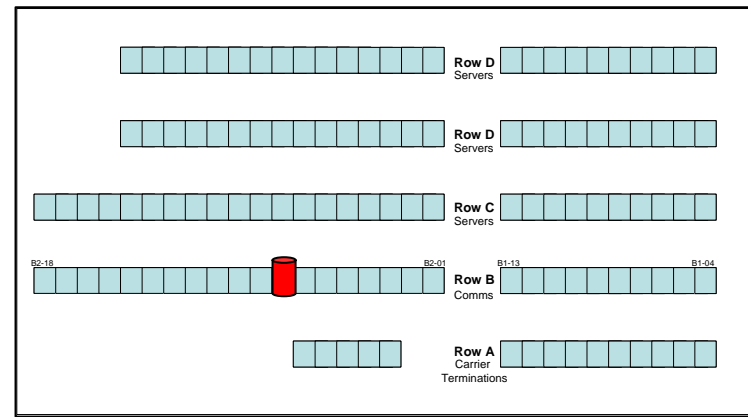
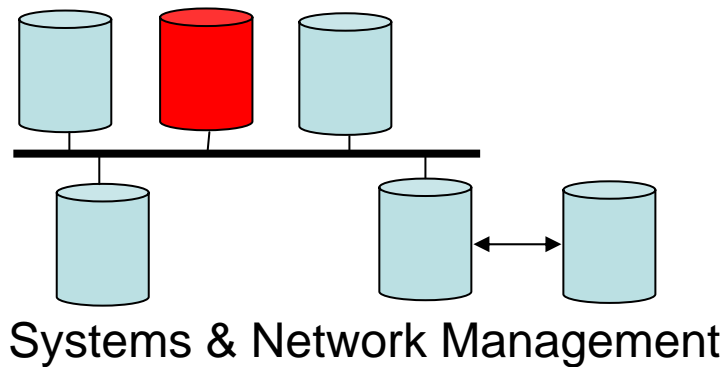
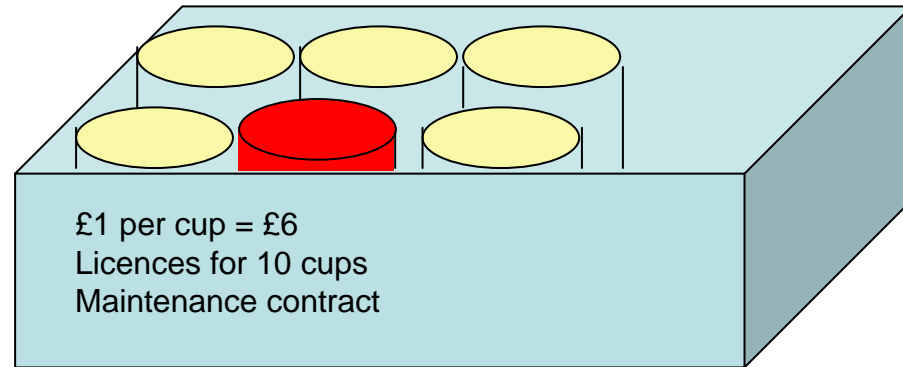
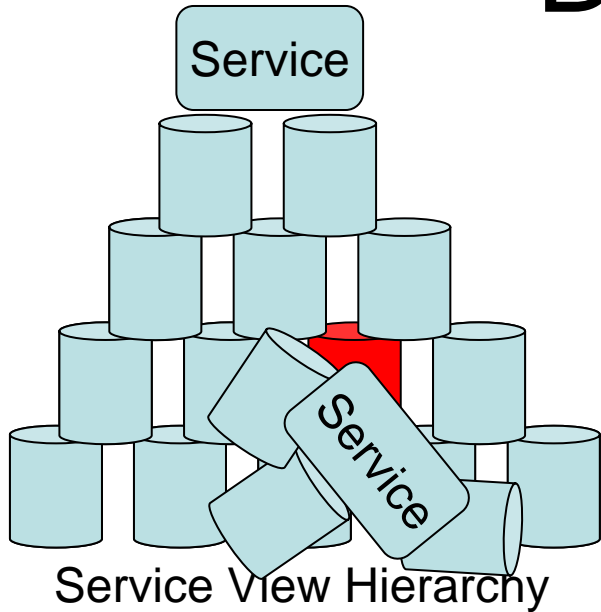
Different Information Sets

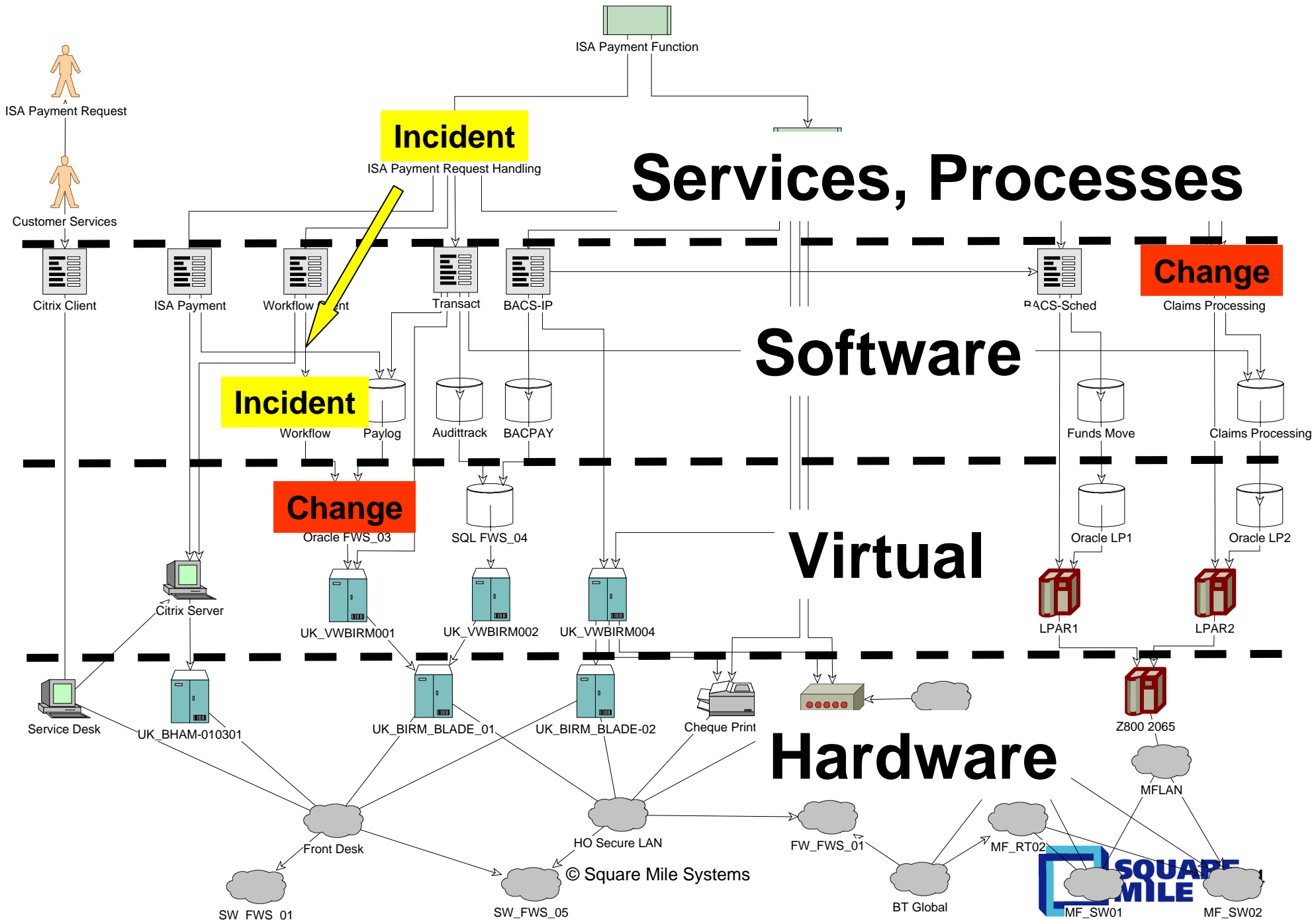
- Space
- Environment (power, cooling)
- Connectivity (power, cabling, LAN/SAN)
- Asset controls
- Device management
- Service management

Asset Lifecycle



Different Views



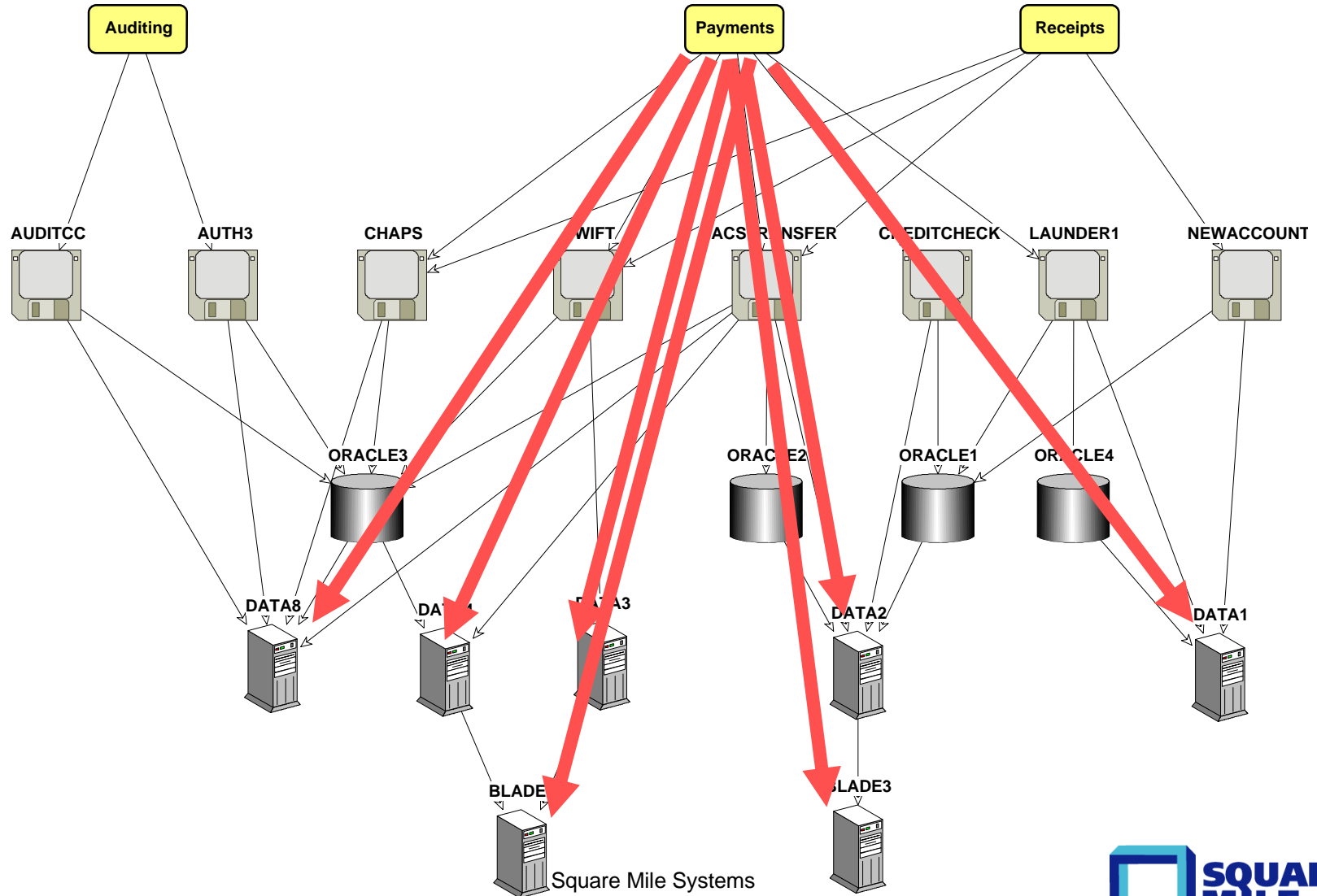


Some Interaction

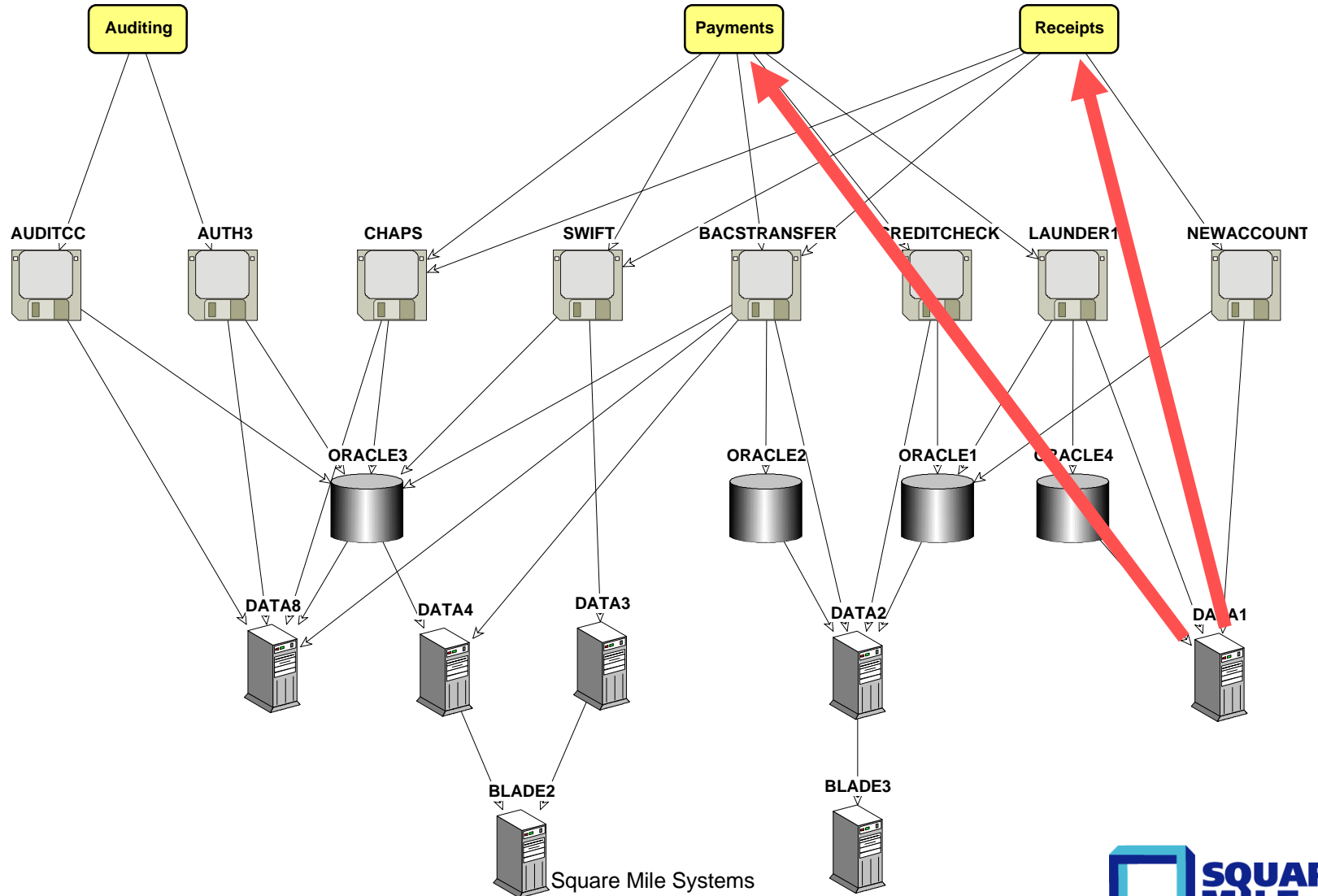
From the information you have provided, determine the following;

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?

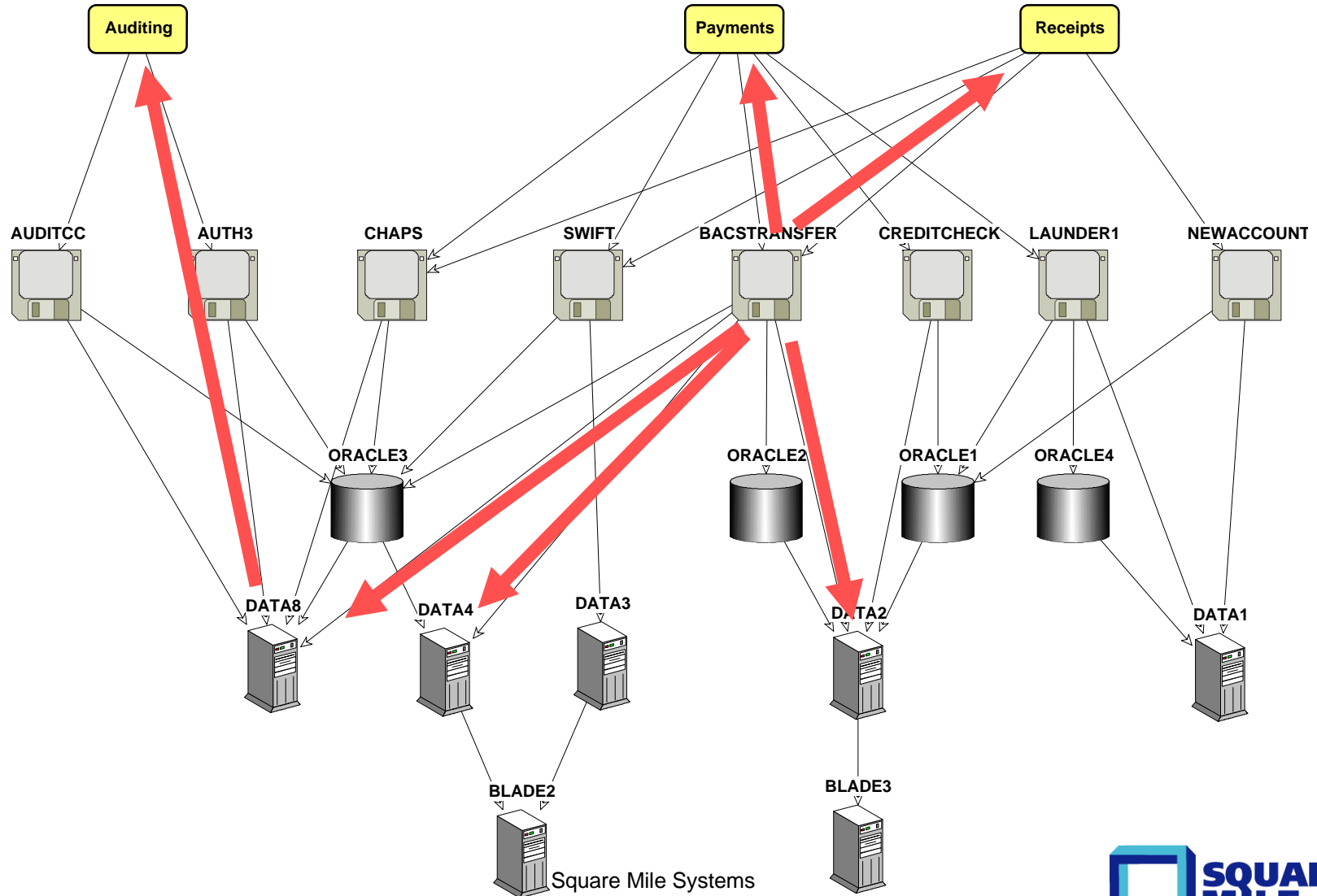
What the CMDB will look like (1)



Answer 2



Answer 3



Lessons Learned

- Lots of duplication!
- Differing levels of detail required
- Differing views of same components
- Status of devices / config items is important
- Manual updates between information sets

Different Needs

“Top Down” – End to End Task

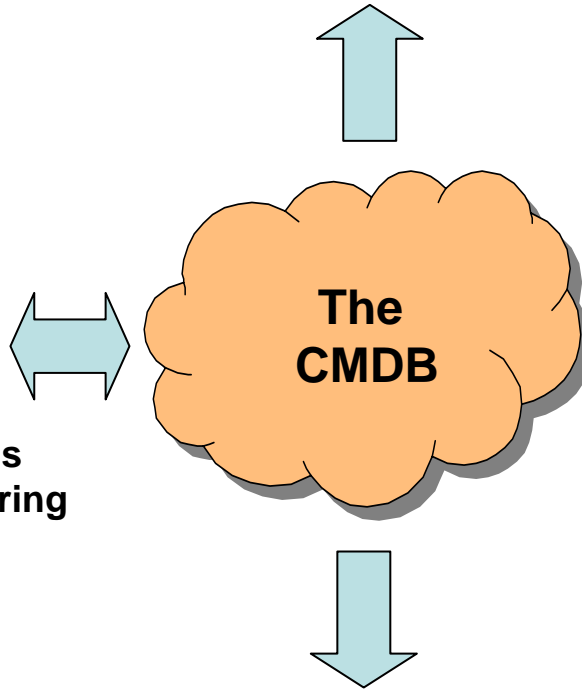
Dependency Mapping

- Education in War Room
- Problem Management
- Problem/Incident/Change Hotspots
- Other operational documentation
- Path dependencies
- Single Points of Failure
- Views by location, business units, services
- Contingency views
- Support matrix across CIs
- Validation of billing/costs/charges

Impact Analysis

- Incident Management
- Prediction of service outage
- Related problems/incidents/changes/errors
- Live/DR status of key devices
- Batch processes affected
- Times – Service, DR Recovery
- Current device status
- Incident Recovery

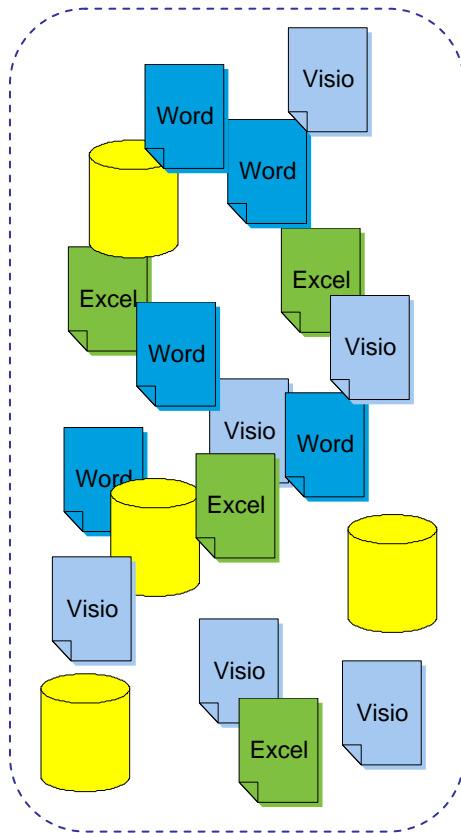
- Maintenance**
- Accurate updating
- Correct classification
- System reporting
- Validating services
- Consistency across teams
- Linkage to systems monitoring



“Bottom Up”- Device led

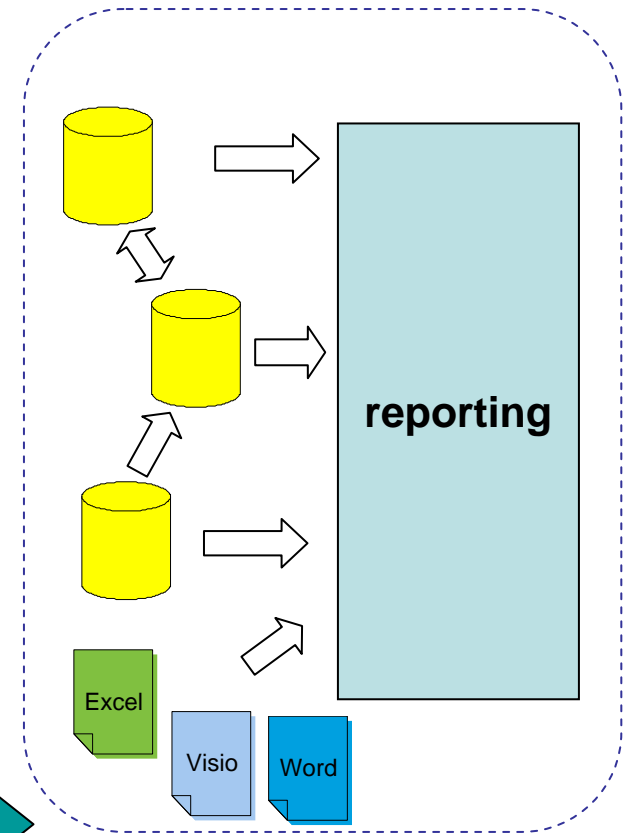
Reducing the Data Problem

Before

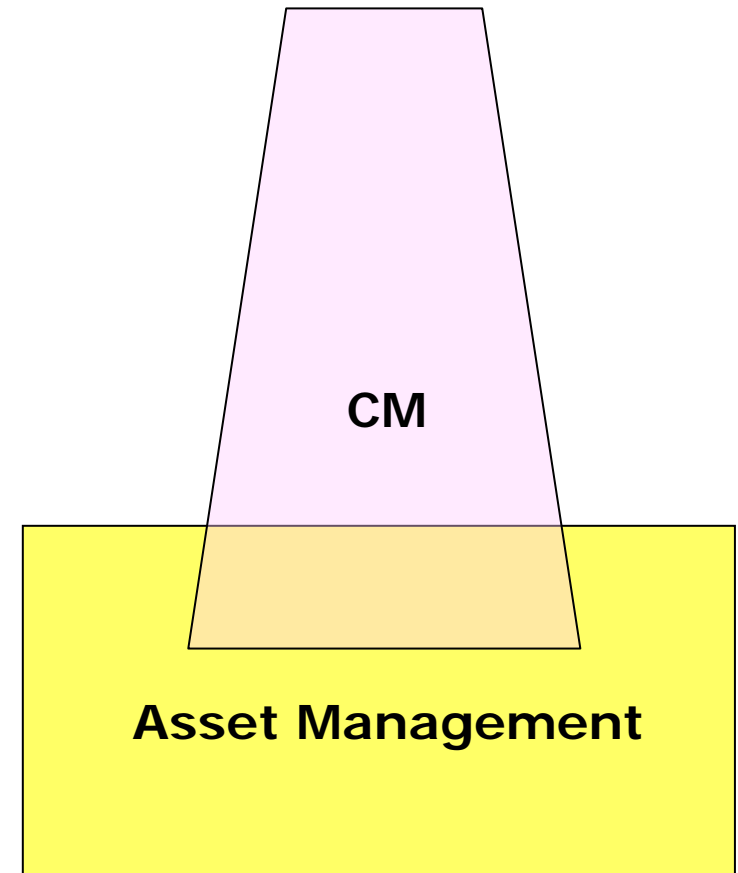
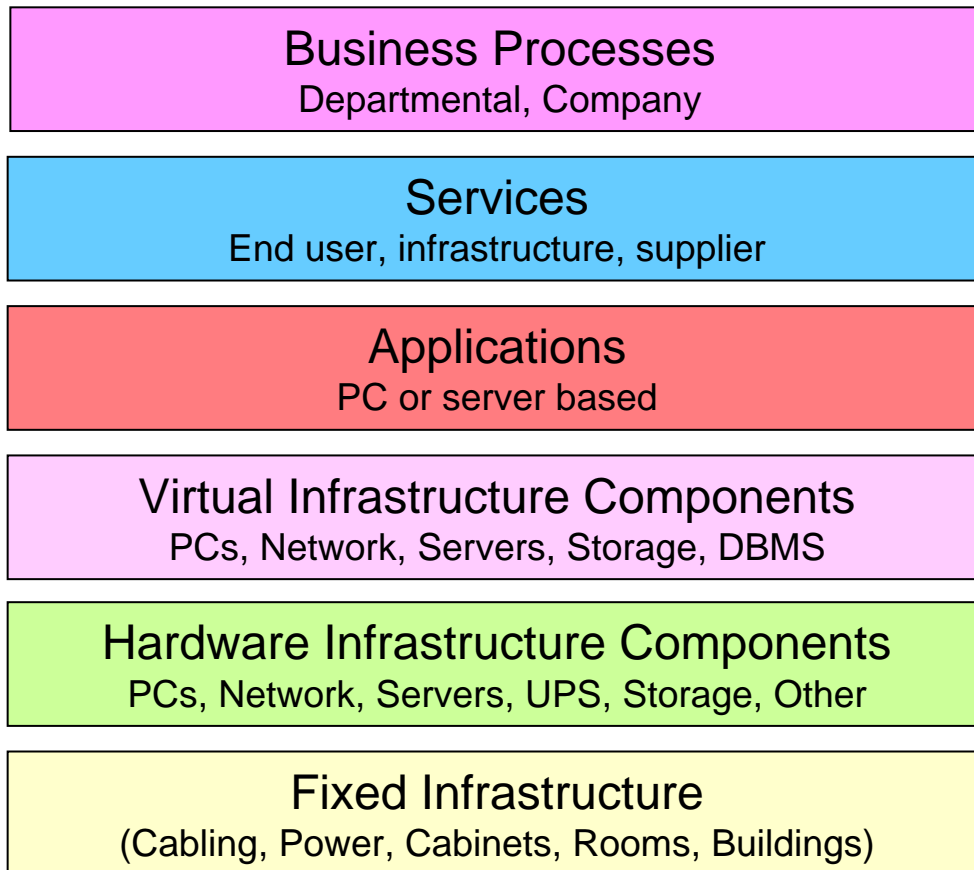


Requirements
Short & long term goals
Lifecycles
Scope
Ownership
Process
Data repositories

After



Setting Scope for CM



First Steps

- Make sure you have the right team!
- Define the process needs through prototyping
- Reduce differences in naming & labelling conventions
 - Services, Applications, Sites, Locations, Cabinets, Devices
- Identifying formal/informal knowledge base(s)
- Lifecycle ownership and gaps

- Objective(s) that are clear and unambiguous
- Visible sponsorship and support

In Summary

- Without configuration management
 - Change management is of limited effectiveness
 - End to end view created with each task
 - Service reporting will always suspect
 - The impact of faults and changes cannot be predicted with confidence

Further Information

ITSMF

www.itsmf.co.uk

Discussion forums and CCRM SIG

BCS-CMSG web site

www.bcs-cmsg.org.uk

11/10 ITIL3 & config mgmt

slides downloadable

5/12 Designing & Implementing the CMDB

slides downloadable

CMCrossroads

www.cmcrossroads.com

Web site dedicated to CM (mainly software)

BCS-SMSG web site

www.smsg.bcs.org

Various downloads following workshops/seminars

Square Mile event

www.squaremilesystems.com

22/11 Improving data centre operational management

slides downloadable