

# Practical Configuration Management

David Cuthbertson  
Square Mile Systems

***Enabling Best Practice in IT Infrastructure Management!***

[david.cuthbertson@squaremilesystems.com](mailto:david.cuthbertson@squaremilesystems.com)

[www.squaremilesystems.com](http://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

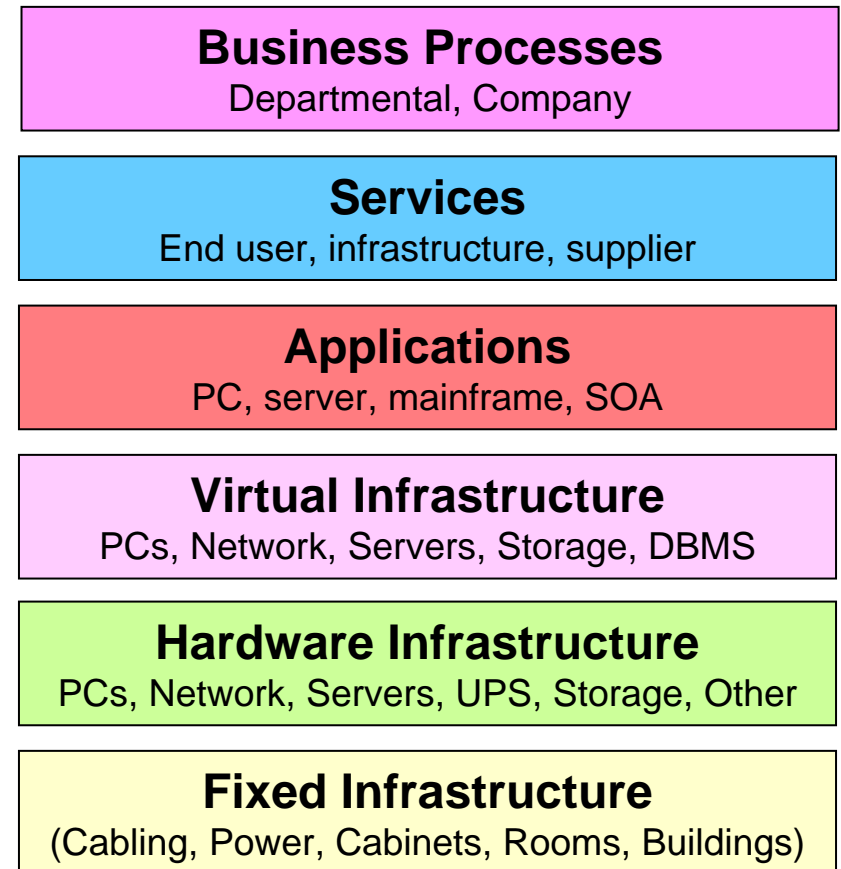
Focus on applying asset & configuration management techniques to large infrastructures & data centres

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**

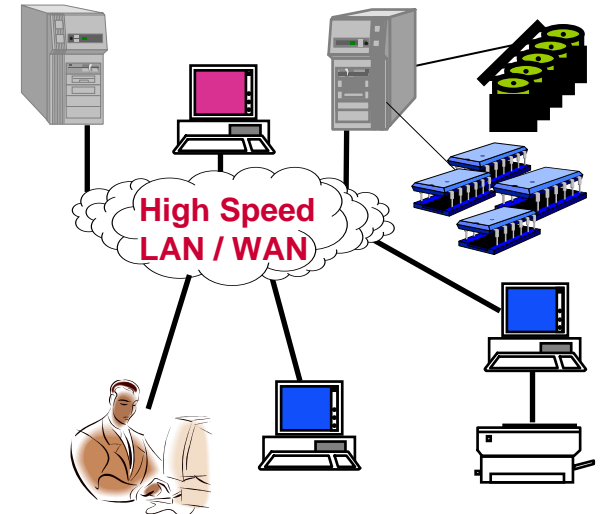
“We developed and implemented a CMDB covering all critical applications and hardware platforms, but nobody uses it” **CM requires culture change by CM users**

# 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?



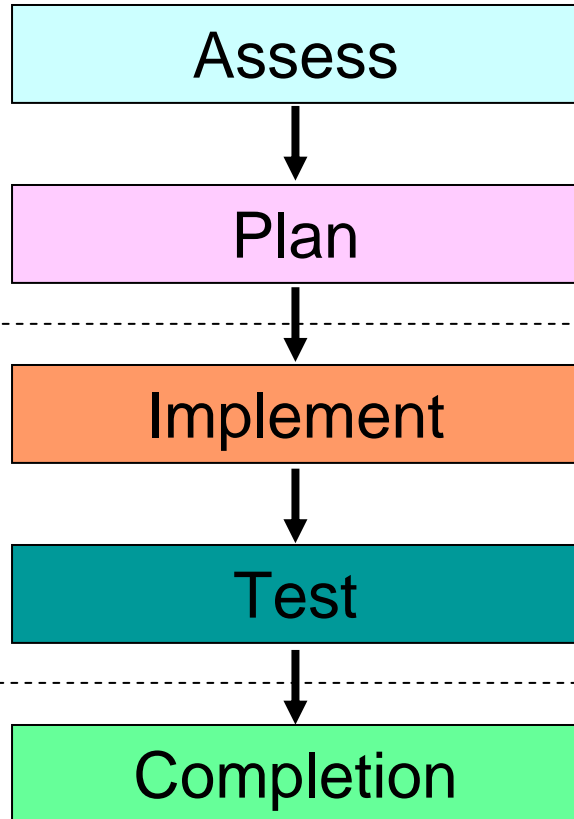
# Exercise 1

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

What tasks might you have to do?



# A Simple Project Lifecycle



Only complete the first two!

Finish with the last section

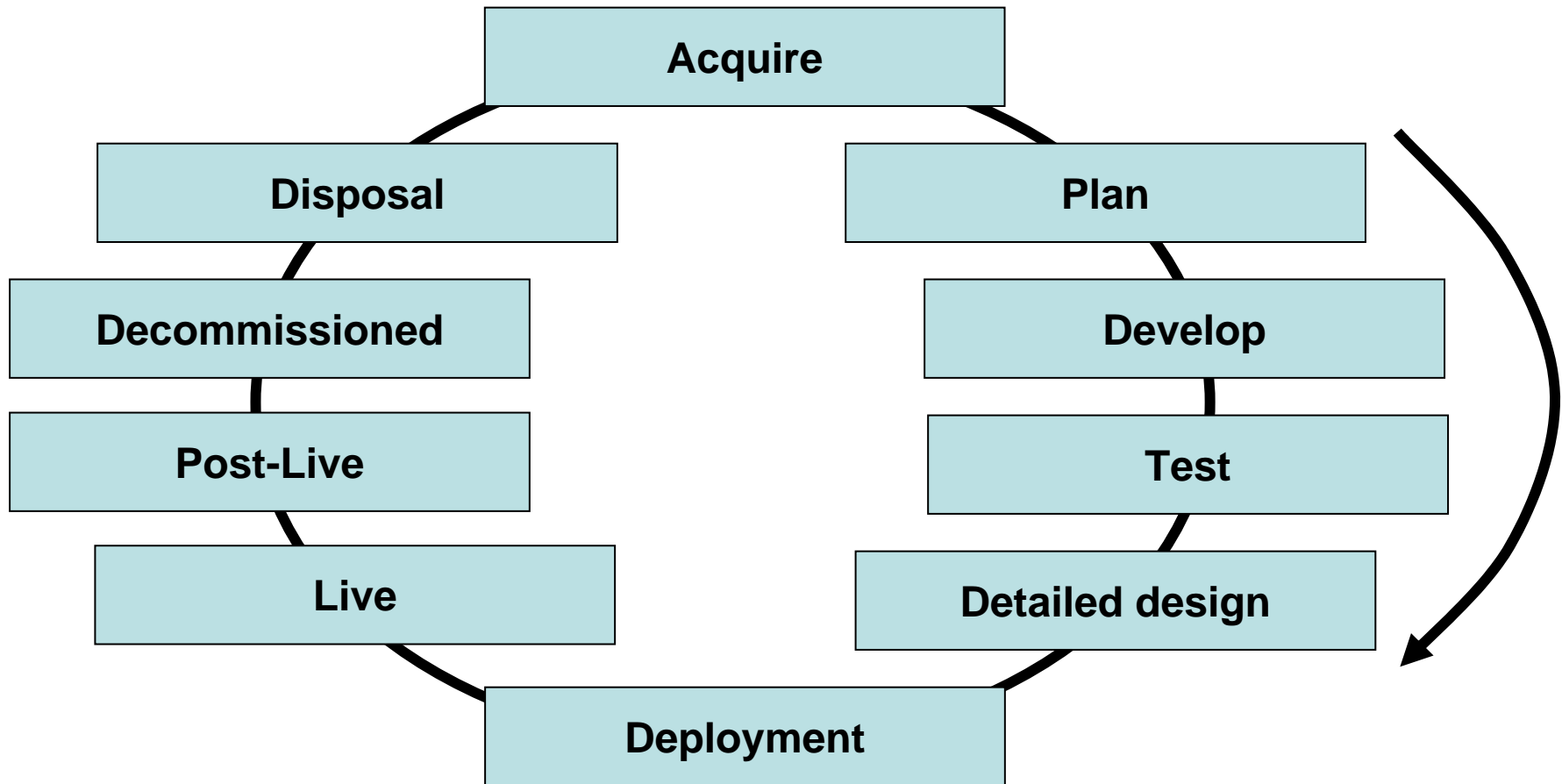
# Tasks and Information Needs

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

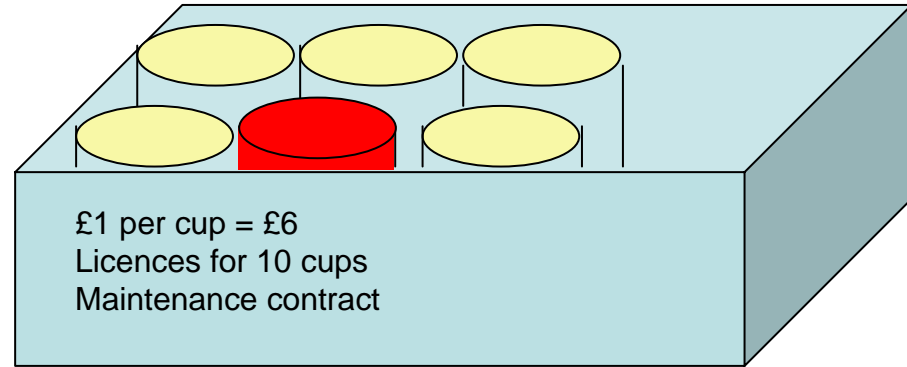
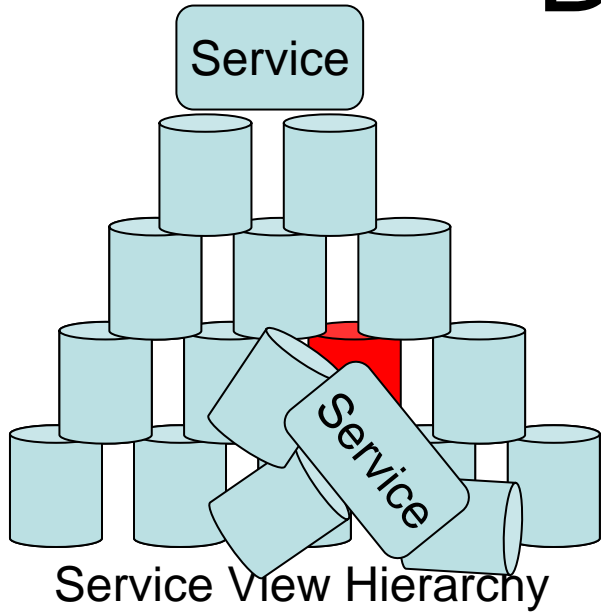
# Different Information Sets

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

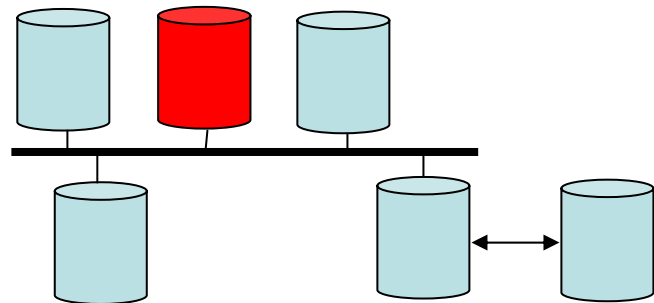
# Asset Lifecycle



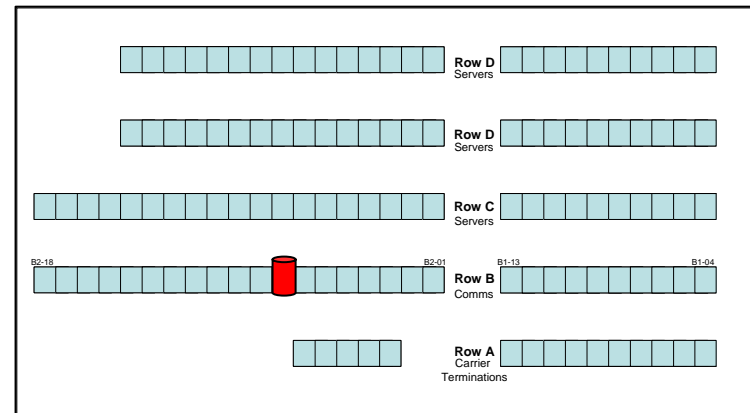
# Different Views



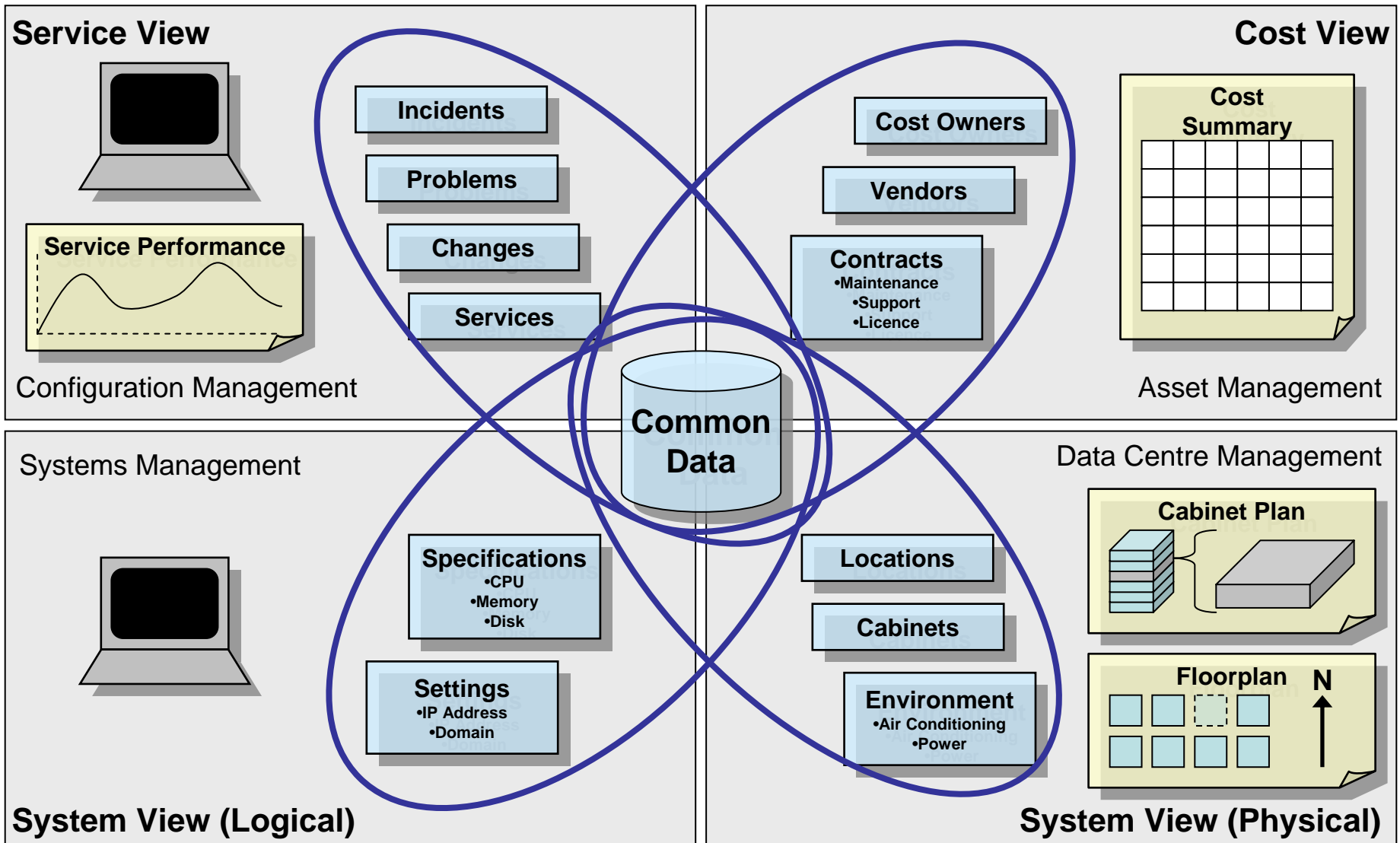
Cost View – Asset Management



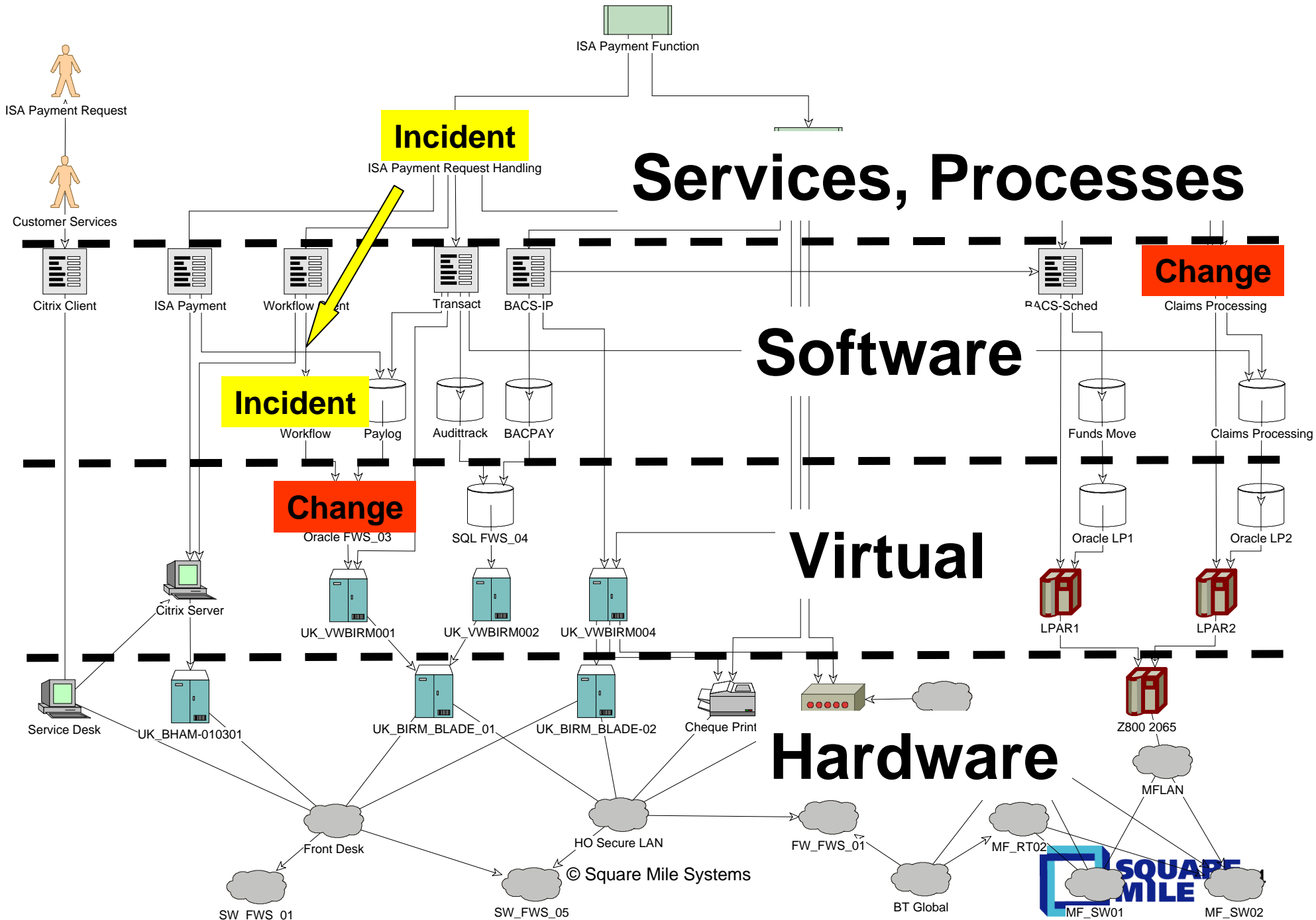
Systems & Network Management



Data Centre Management



Source: Harvey Davison / Paul Dixon  
LloydsTSB Configuration Management



# 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

# Exercise 2

A major building has been burnt down so equivalent IT services have to be provided from a temporary site

What information would help manage the recovery?

to assess

to plan and implement



# Different Information Sets

- Space
- Environment
- Connectivity
- Asset controls
- Device management
- Service management

# Different Needs

**“Top Down” – End to End Task**

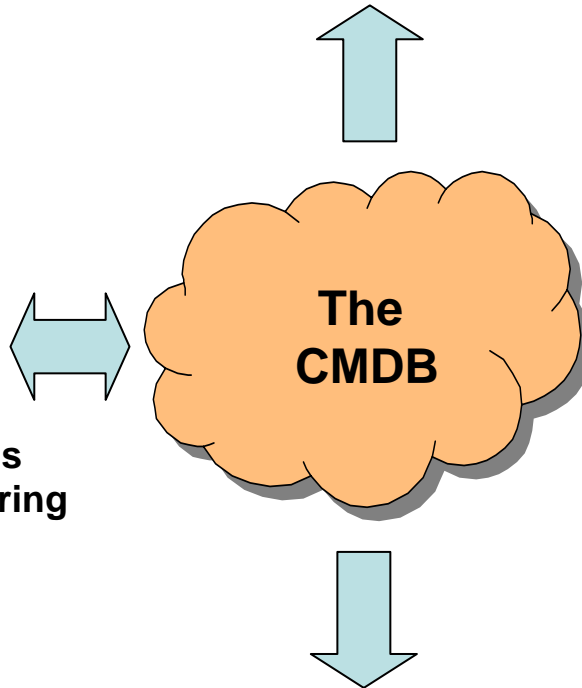
## Dependency Mapping

- 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

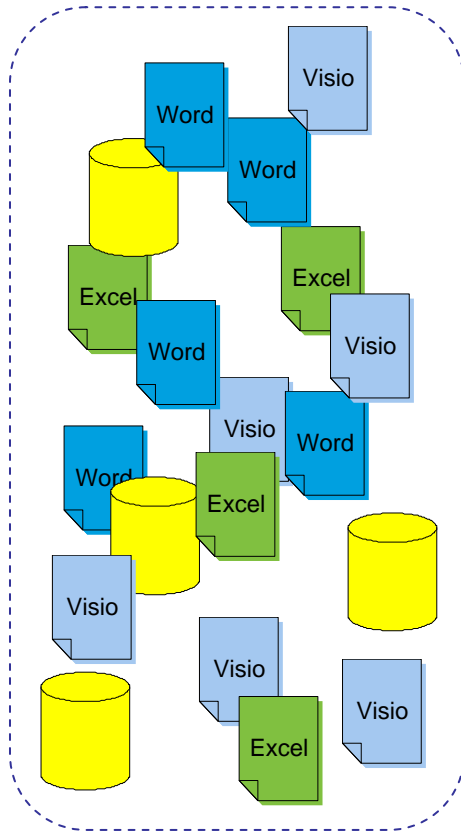
- Maintenance**
- Accurate updating
  - Correct classification
  - System reporting
  - Validating services
  - Consistency across teams
  - Linkage to systems monitoring



**“Bottom Up”- Device led**

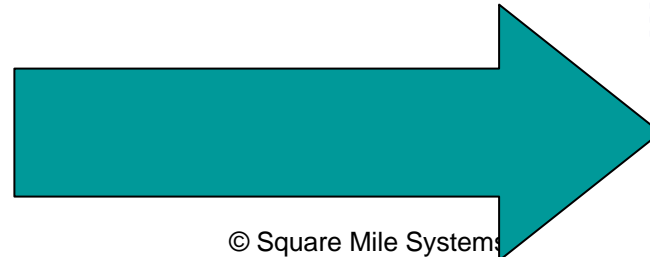
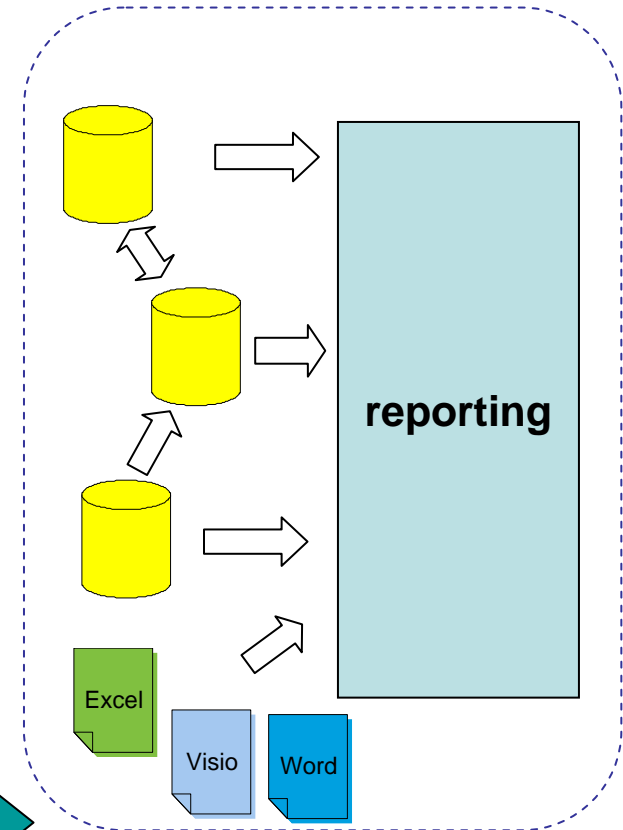
# Reducing the Data Problem

**Before**

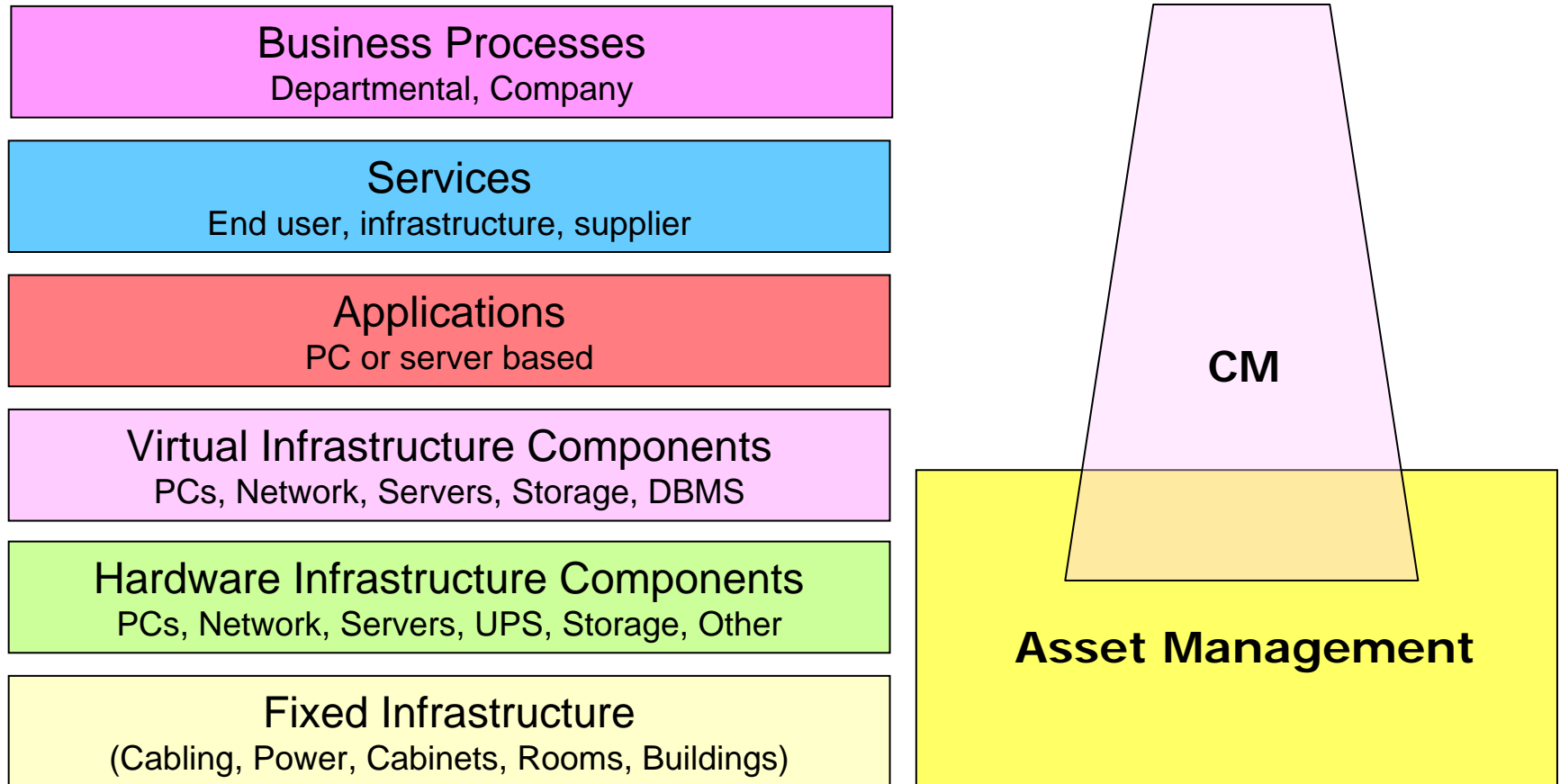


Requirements  
Short & long term goals  
Lifecycles  
Scope  
Ownership  
Process  
Data repositories

**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

# Further Information

ITSMF [www.itsmf.co.uk](http://www.itsmf.co.uk)

Discussion forums and CCRM SIG

BCS-CMSG web site [www.bcs-cmsg.org.uk](http://www.bcs-cmsg.org.uk)

11/10 ITIL3 & config mgmt

5/12 Designing & Implementing the CMDB

slides downloadable

CMCrossroads [www.cmcrossroads.com](http://www.cmcrossroads.com)

Web site dedicated to CM (mainly software)

BCS-SMSG web site [www.smsg.bcs.org](http://www.smsg.bcs.org)

Various downloads following workshops/seminars

Square Mile event [www.squaremilesystems.com](http://www.squaremilesystems.com)

22/11 Improving data centre operational management