

Square Mile Systems

David Cuthbertson

Justifying the Cost of Configuration Management

Enabling Best Practice in IT Infrastructure Management!

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SMS Background

- Develop software for infrastructure CM
- Integrate toolsets with existing service desk, monitoring tools etc.
- Cover project & operational needs
- Train, educate on data centre best practices

Focus areas

Data Centre management

Multi-technology, multi-site CM – servers, networks, cabling, power, storage, software, services

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What does/can CM cover?

Technical assets/components

Servers, desktops, software, networks

Business assets/components

Departments, roles, functions, data, suppliers

Dependencies and relationships

Technical and service (service catalogue)

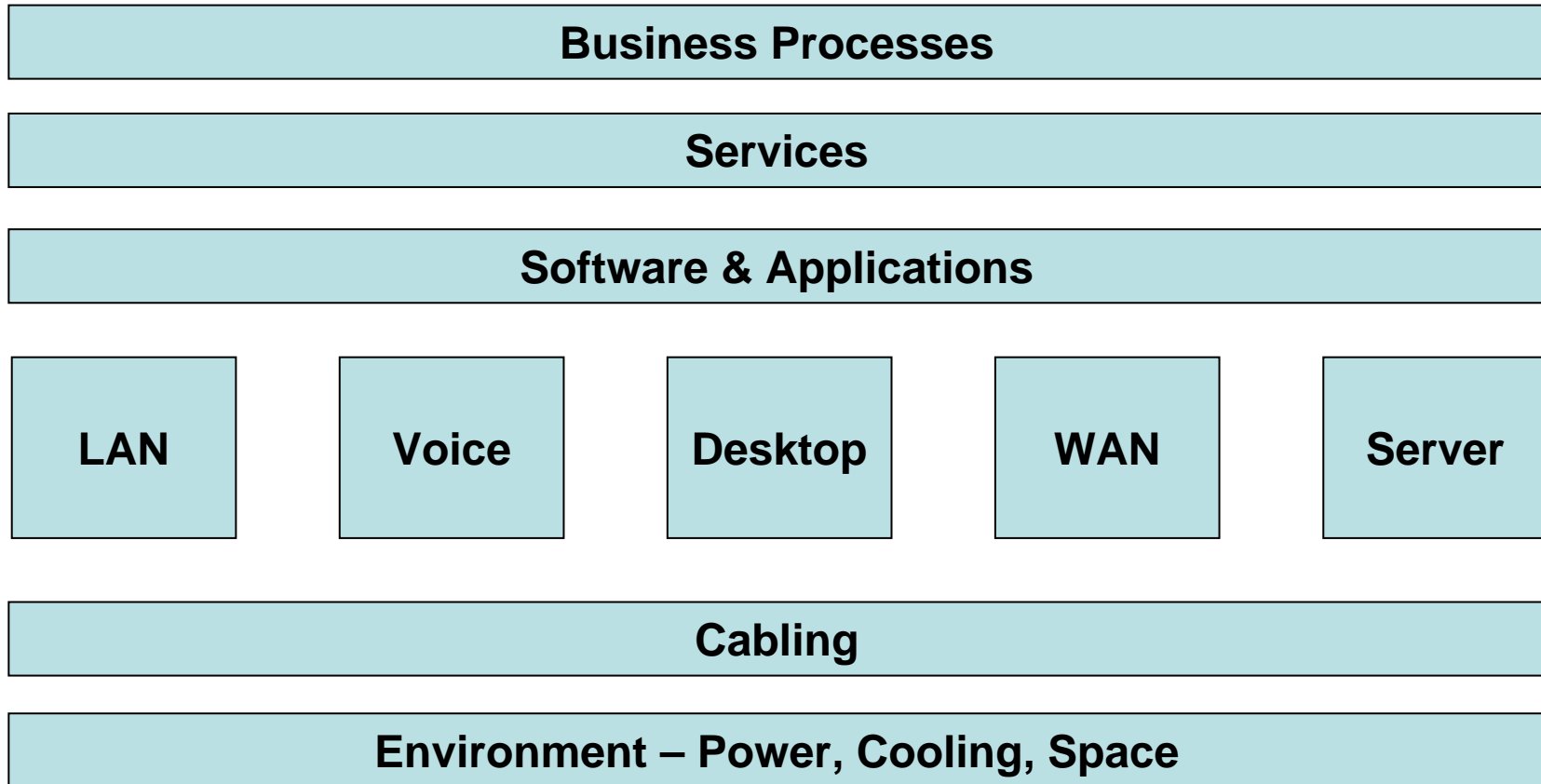
Policies & process

Contracts, documents, versions

Is Config Mgmt Valuable?

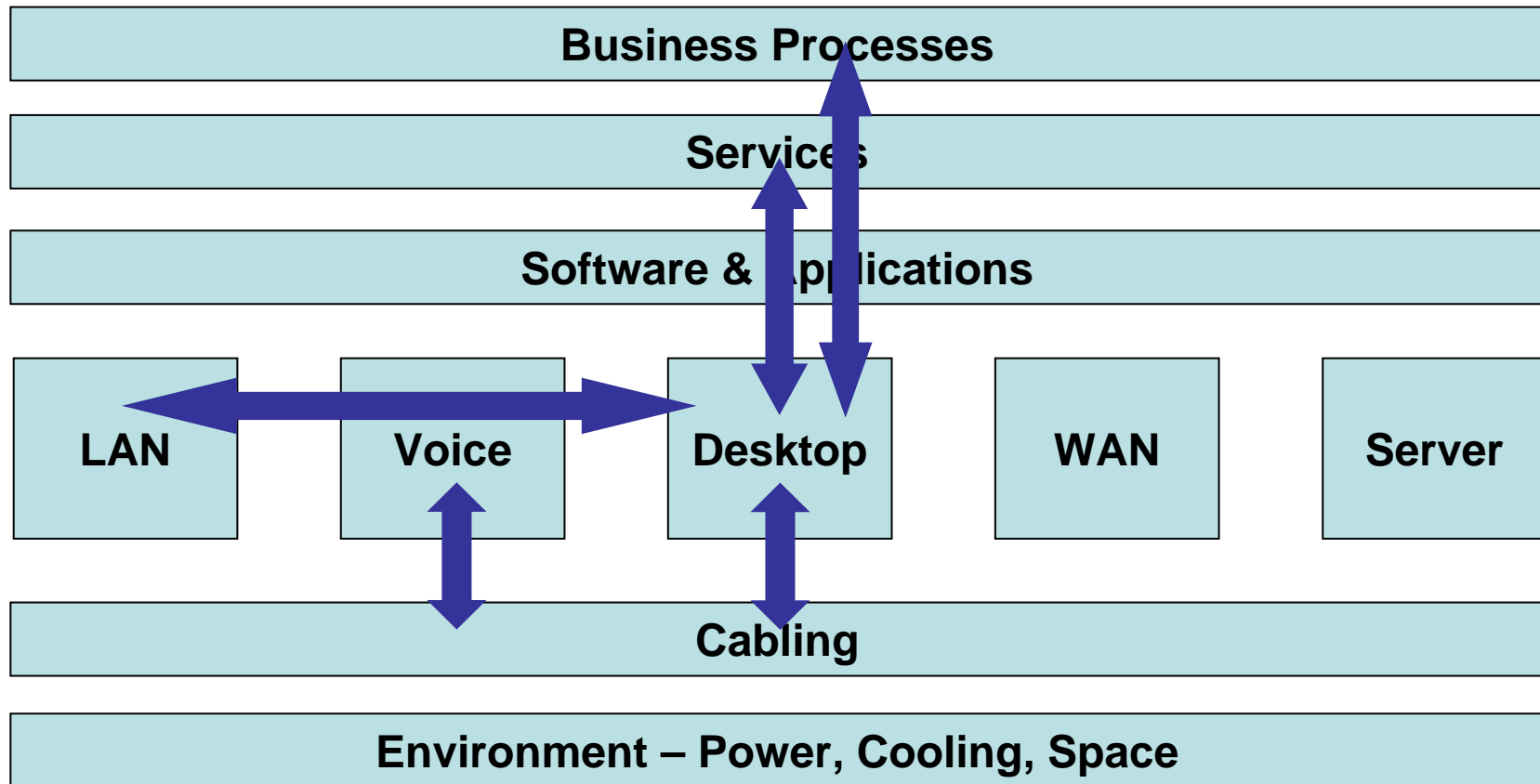
- Yes
- But that is only your opinion
- No point if only we do it – what about them
- It's not worth it for the effort involved
- Don't have the time, need more resource
- How do you know we can do it
- We don't believe your figures

What is the Scope of CM?



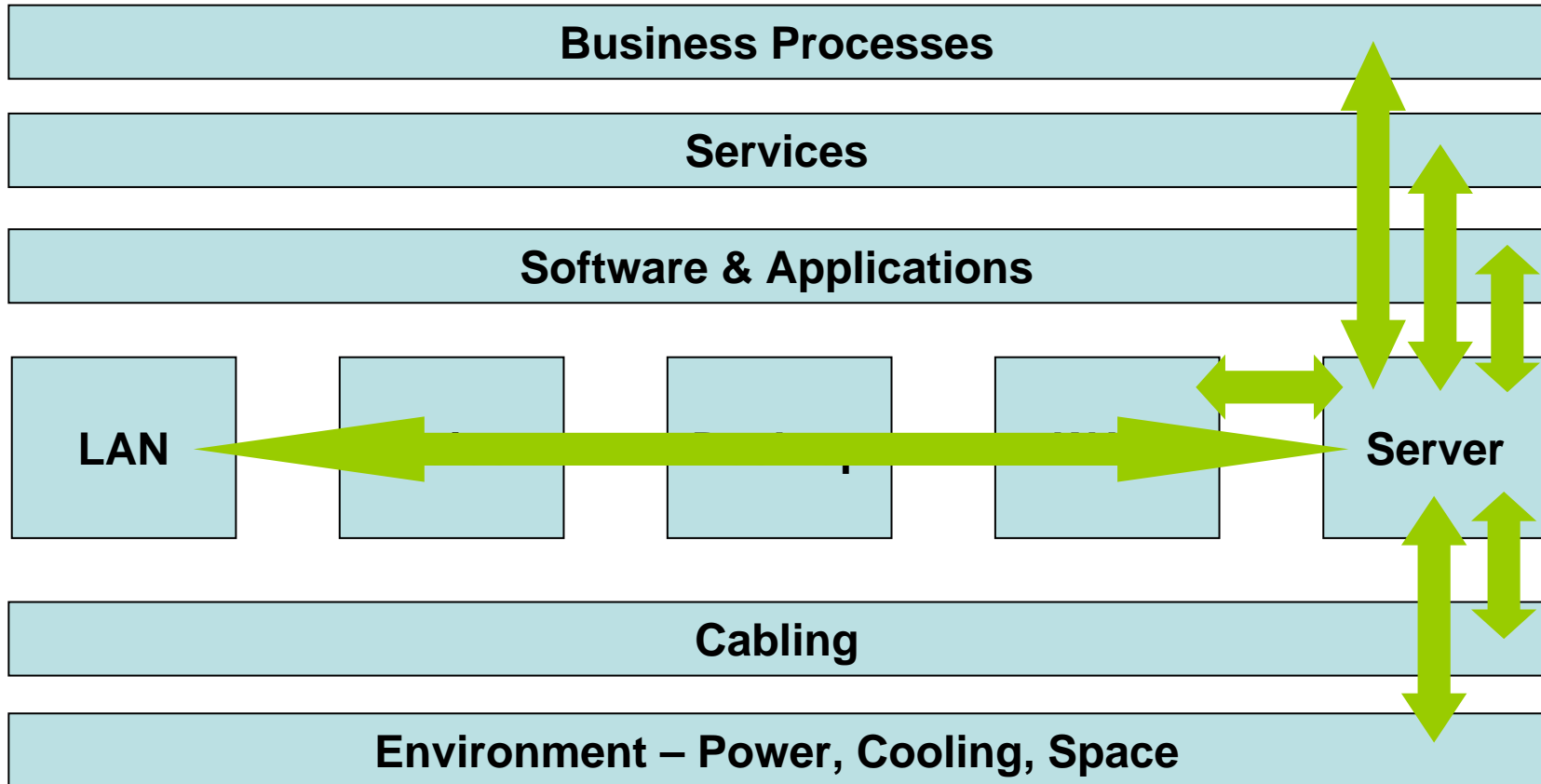
Team(s) should know their own technology configurations

What Data do you Need?



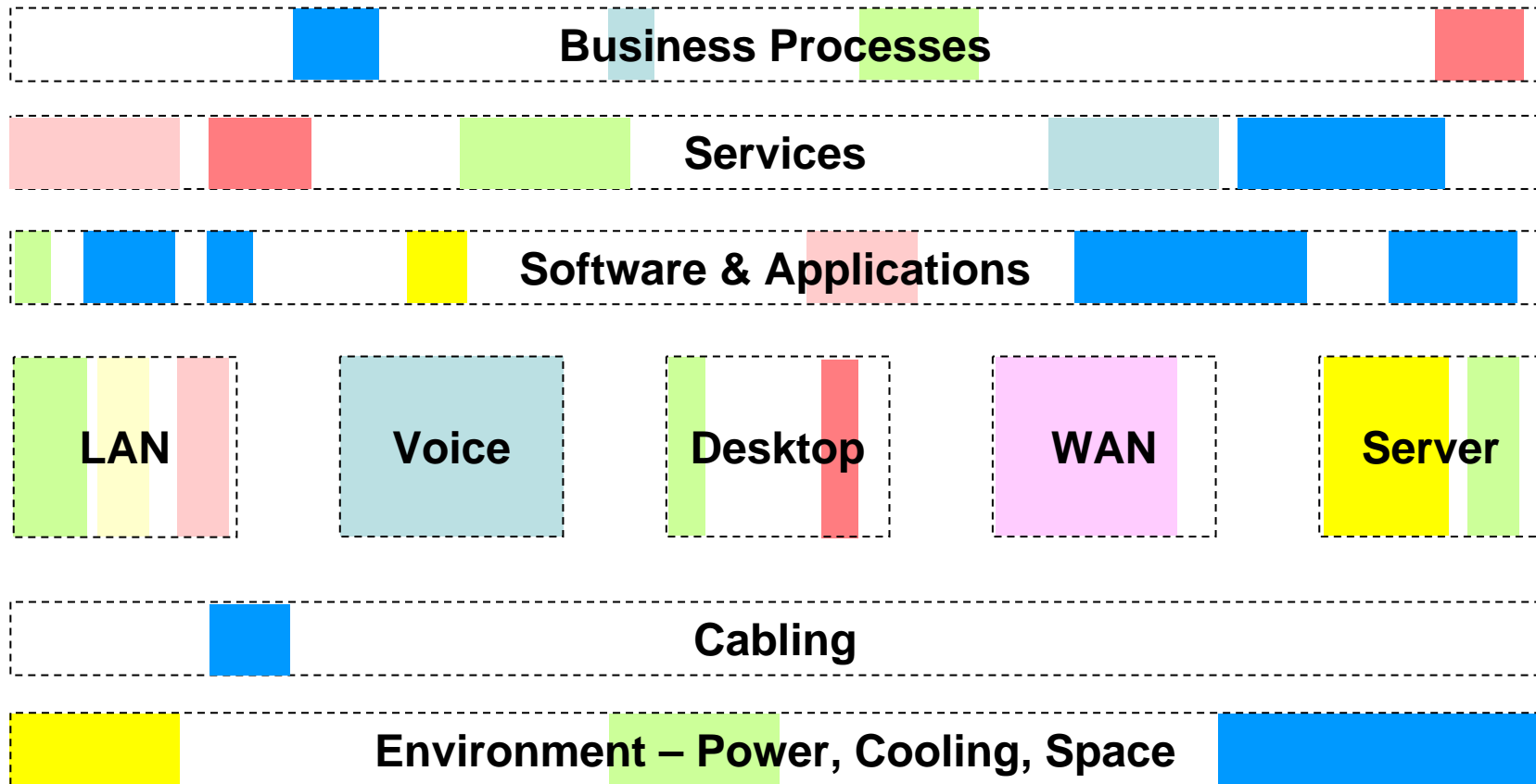
Moving a set of desktop users means you need to know interfaces

What Data Do You Need?



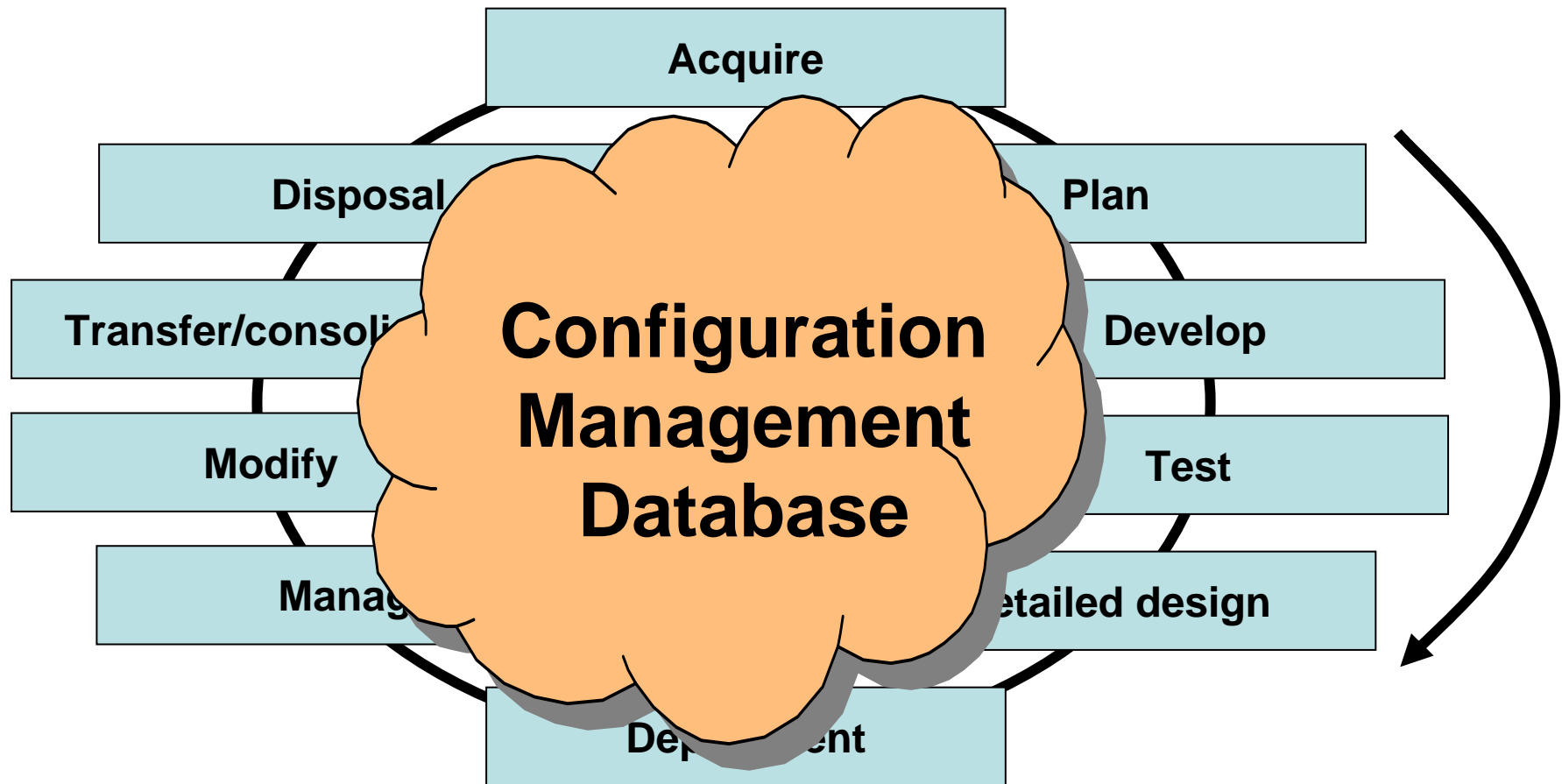
Upgrading a server means you need to know all these interfaces as well

Is this your starting point?

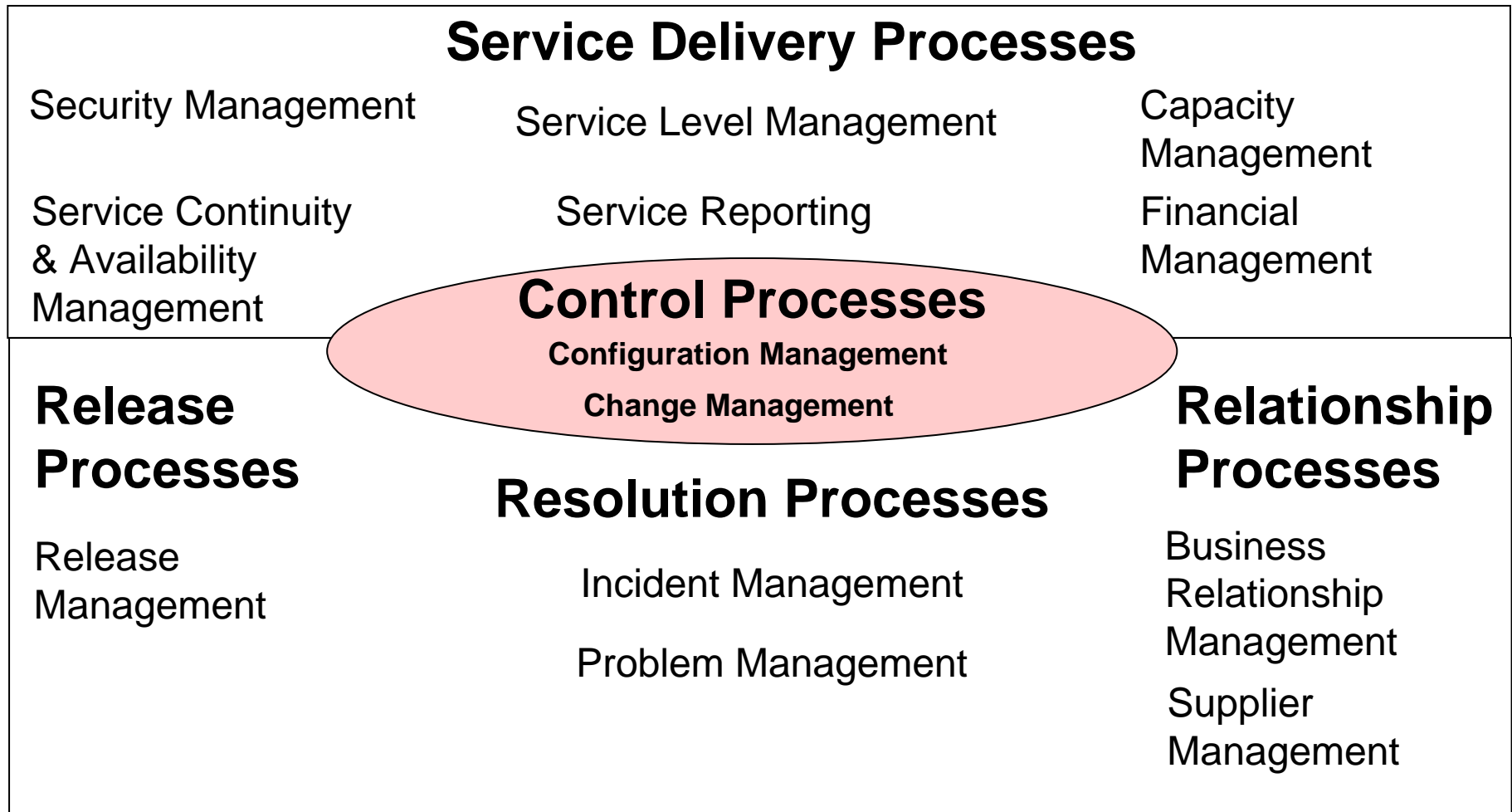


Typically, the data is inconsistent, has gaps across locations, teams and interfaces!

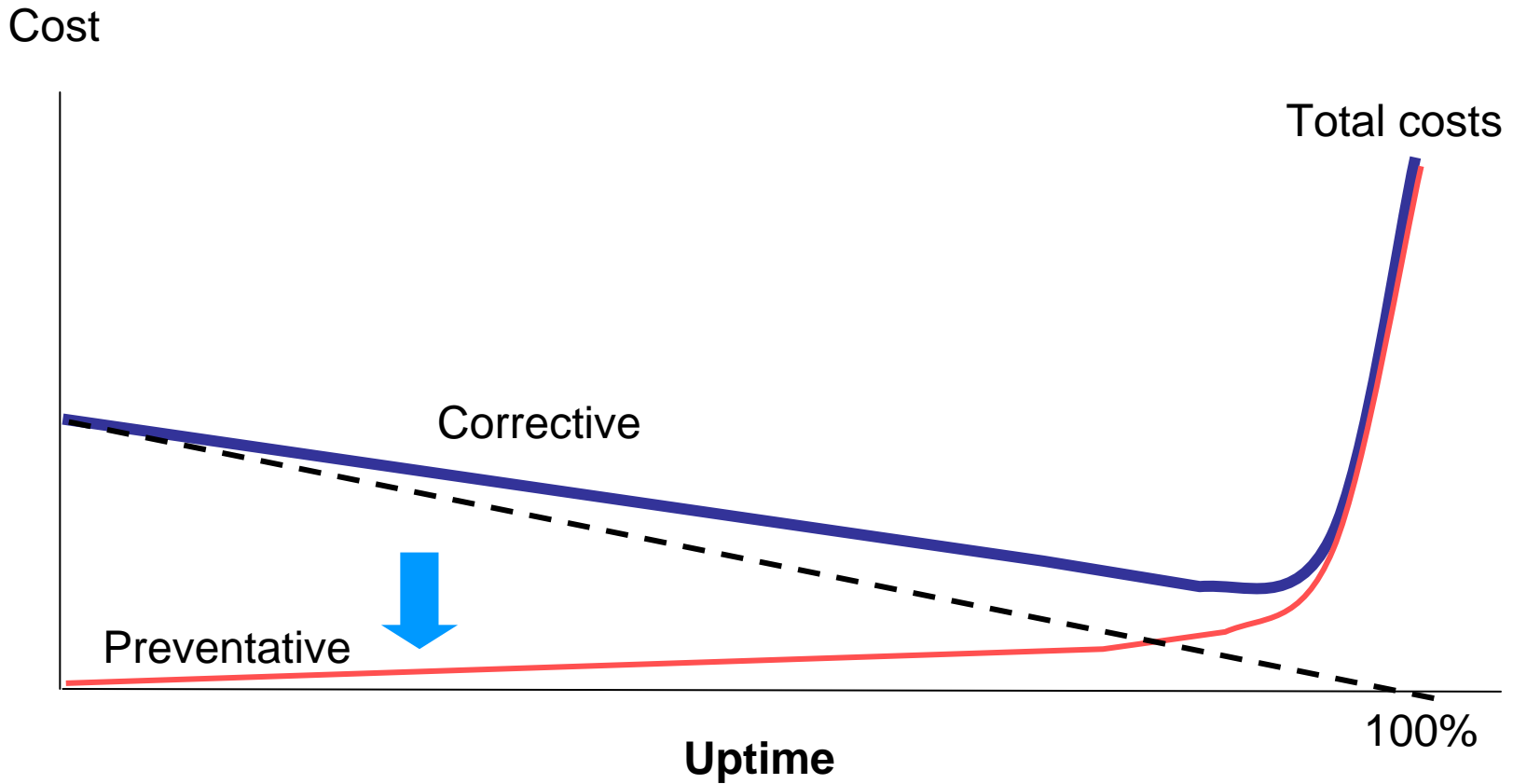
IT Asset/System Lifecycle



ISO20000 / BS15000 / ITIL



Identifying recovery/availability costs



Example - Incident Process

1. Start
2. Detection
3. Diagnosis
4. Repair
5. Recovery
6. Restoration & verification

How long does it take?

Who is involved?

What are the direct and indirect costs?

The Cost(s) of Knowledge Gaps

- Tangible
 - Staff productivity User/IT staff
 - Lost revenue
 - Overtime
 - Wasted good/materials
 - Fines/penalties
- Intangible
 - Customer dissatisfaction
 - Loss of business opportunity
 - Loss of customers
 - Damage to reputation, staff morale
 - Loss of confidence in manager, IT supplier

Tangible Costs

- Paying unnecessary bills
- Bad change implementation
- Inadequate use of resource(s)
- Cost of staff
- Fines/penalties
- Contractual regulatory/liabilities

Justifying Costs In Summary

Is money the real issue?

- Be prepared with evidence
- Know your costs

Configuration Management only happens when you have the following understanding

Direction – objective, timescale, budget

Ownership – roles, reporting, sponsorship

Increasing the Value and Use of the ITIL CMDB

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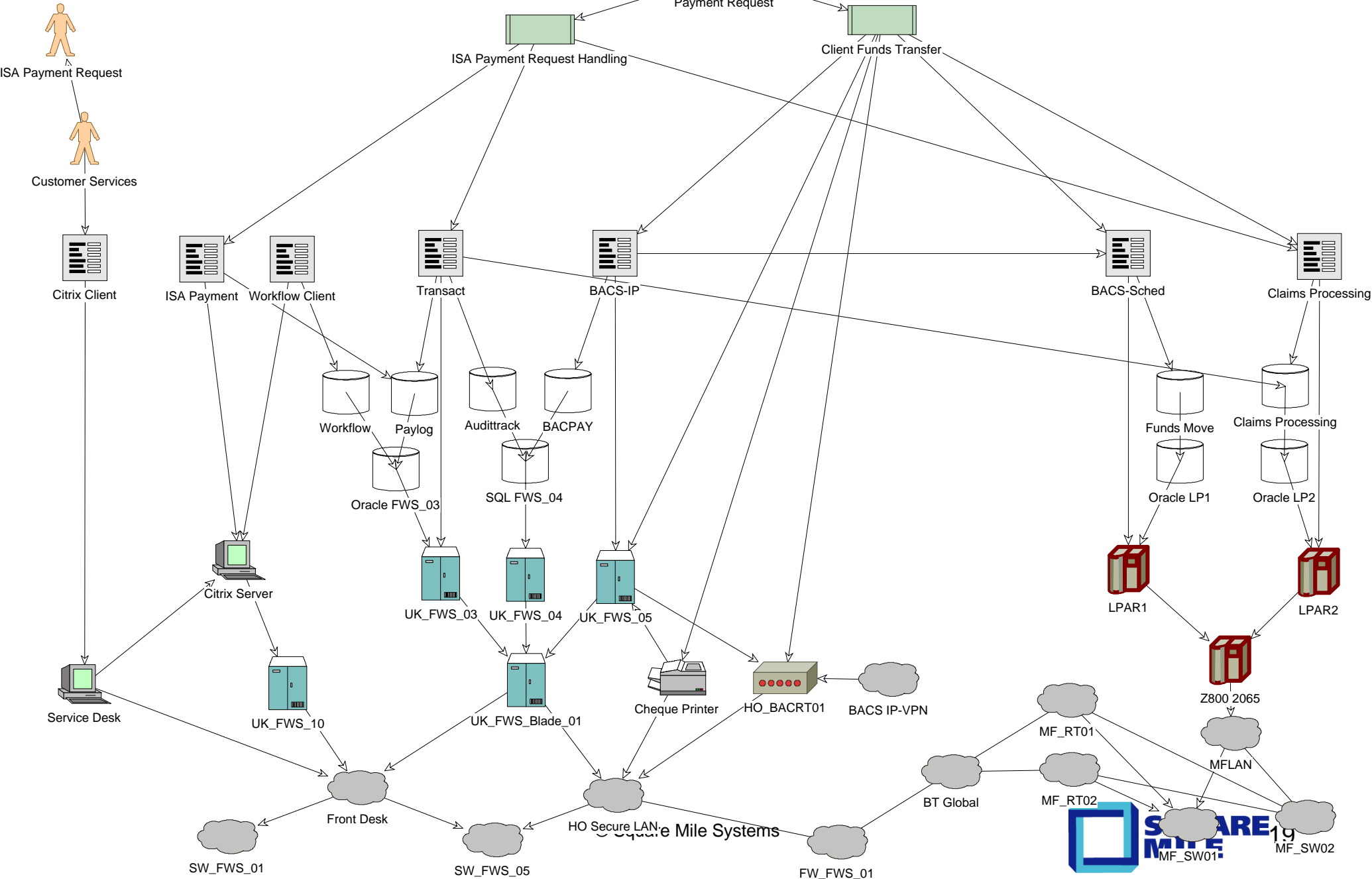
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Assume we have a CMDB?

- Set of data sources which support configuration management and other management processes
- Configuration items, relationships and status all defined along with roles and processes
- Typically consists of
 - Database(s) internal and external to service desk
 - Spreadsheets
 - Documents
 - Diagrams

ISA Payment Process



A Successful CMDB?

- Success
 - Used actively in managing service delivery
 - Scope is clear and delivered against
 - Common reference for linking processes, tasks and teams
- It is not
 - Block or architecture diagrams of concepts
 - Automated collection of data which is not trusted or used
 - A future deliverable that can be easily added
 - A set of data without ownership or verification processes
 - Something used only by a few



Without Configuration Management

- Changes can be incorrectly categorised
- Incidents are not put against causes
- Service reporting has to be “interpreted”
- Change is less predictable and more costly
- The end to end service is not understood
- Maintaining risk management is too costly
 - Security, continuity, availability

Common CMDB Issues

We have a CMDB but.....

- Validating devices / relationships is time consuming
- Incidents, changes etc. are not always categorised
- Doesn't help in quite the way we thought
- Lots of data, but too difficult to comprehend
- External service maps/ diagrams needed in addition to the CMDB “database” but not linked
- Scope is limited, so it doesn't cover everything

The White Board Approach to Service Diagrams

“Our CMDB can’t produce service maps”

“We don’t have all the data in the CMDB”

“Our systems are so complex, only a white board is suitable”

Managing Change

We have installed 10 servers and associated applications in the data centre

How many records or management systems would you expect to have been updated or modified as a result of the additional servers?

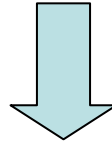
Probably 15-20 minimum

Updated Information Sets

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

Define the Need

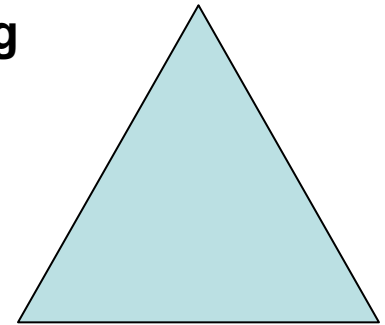
“Top Down”



Dependency Mapping

- Security & Risk Planning
- Consolidation Risk
- Systems Architecture
- Availability Planning
- Business Continuity
- Single Points of Failure

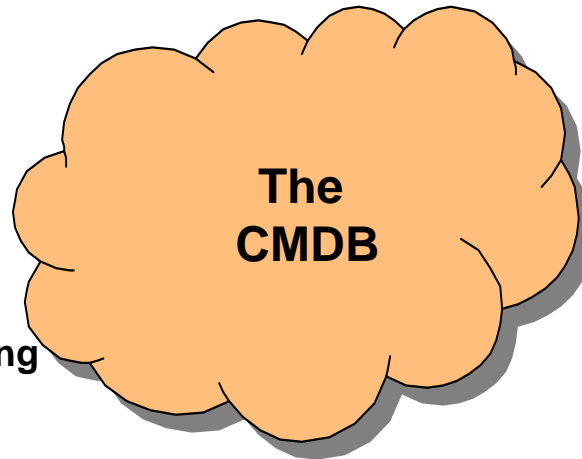
Service



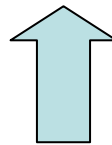
Servers

Maintenance

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



The CMDB

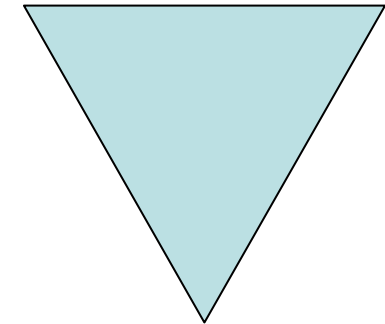


“Bottom Up”

Impact Analysis

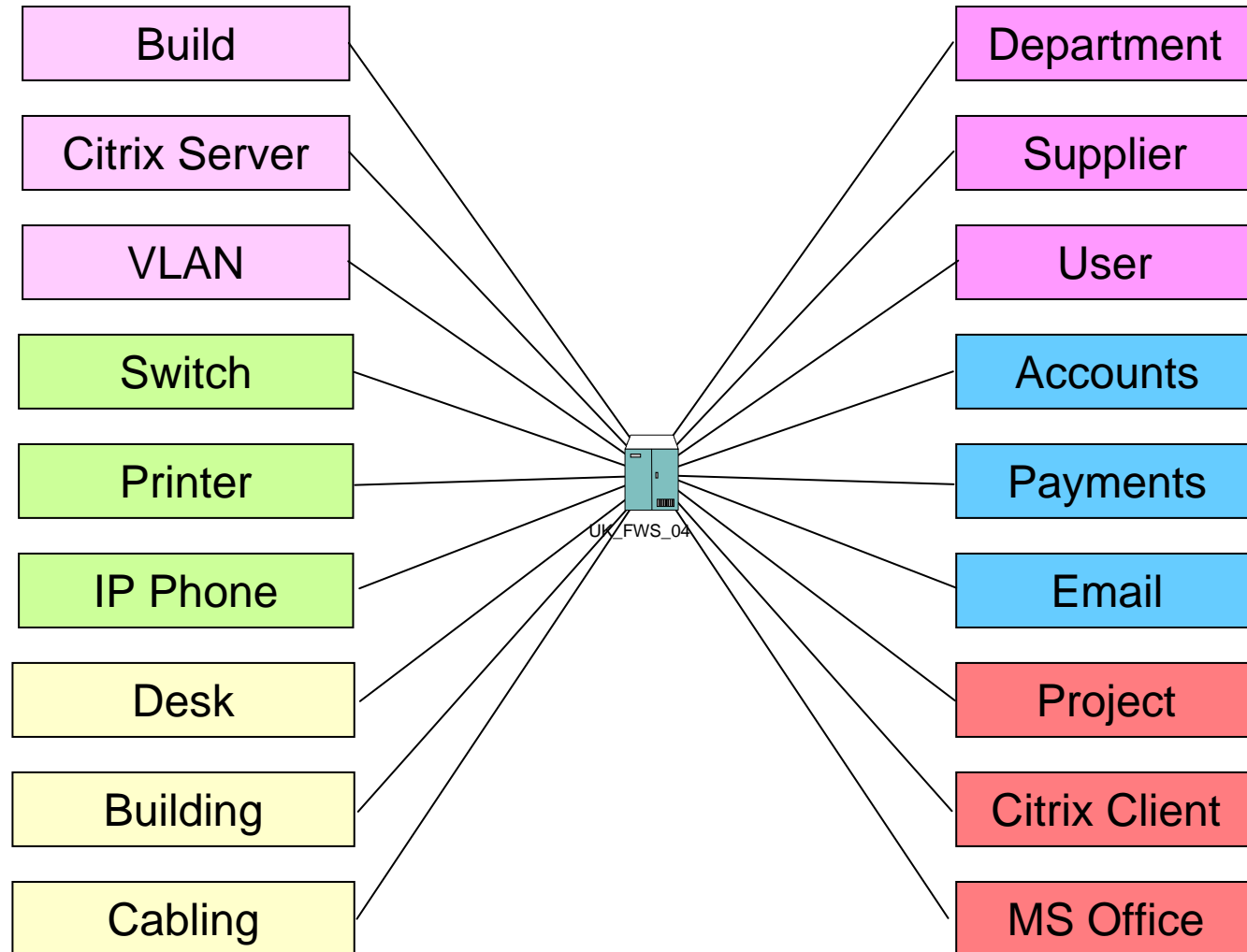
- Incident Management
- Crisis Management
- Change Control
- Project Planning
- Incident Recovery

Services



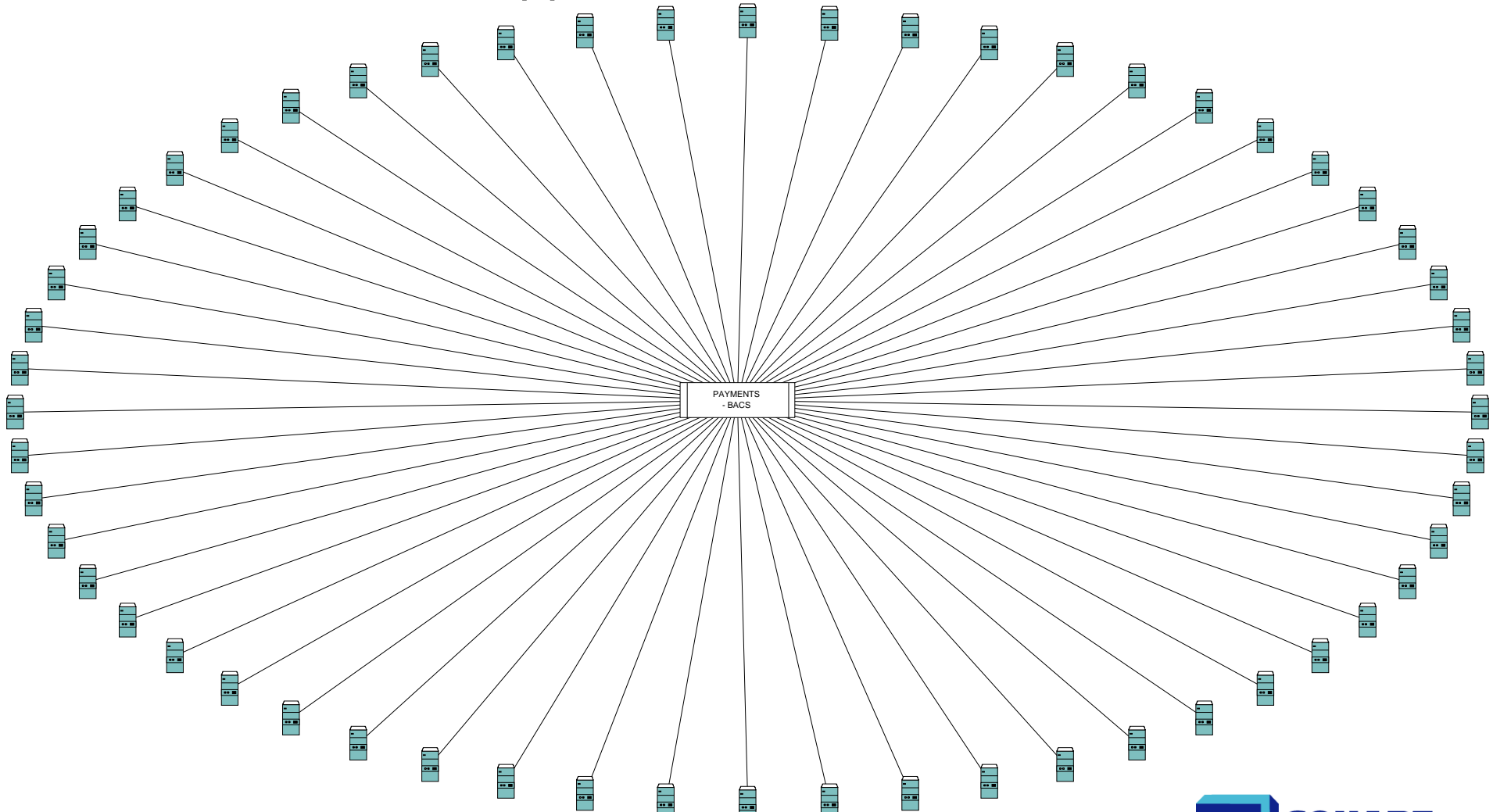
Server

Hub & Spoke Mapping

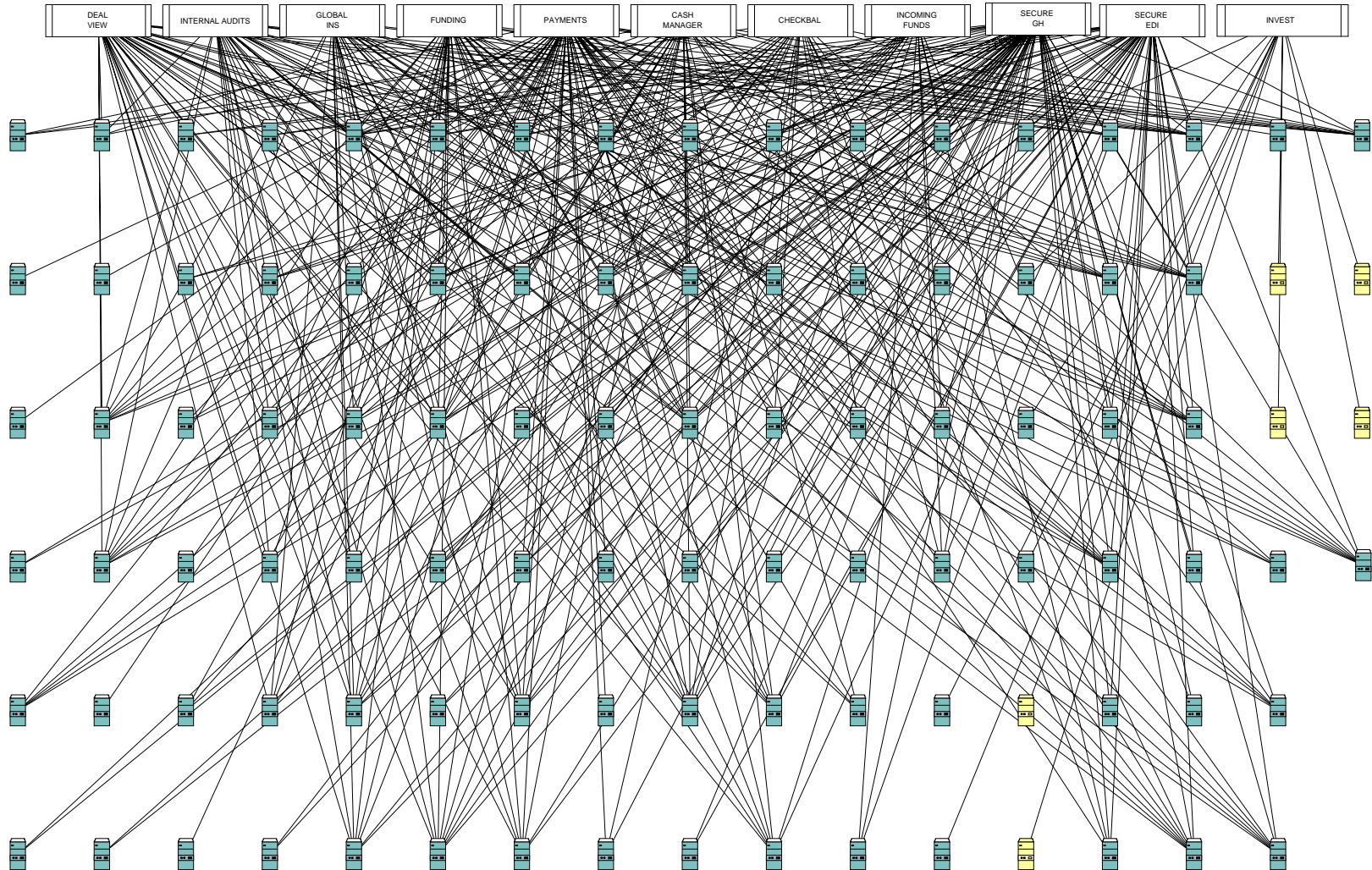


A Little Bit More Complex

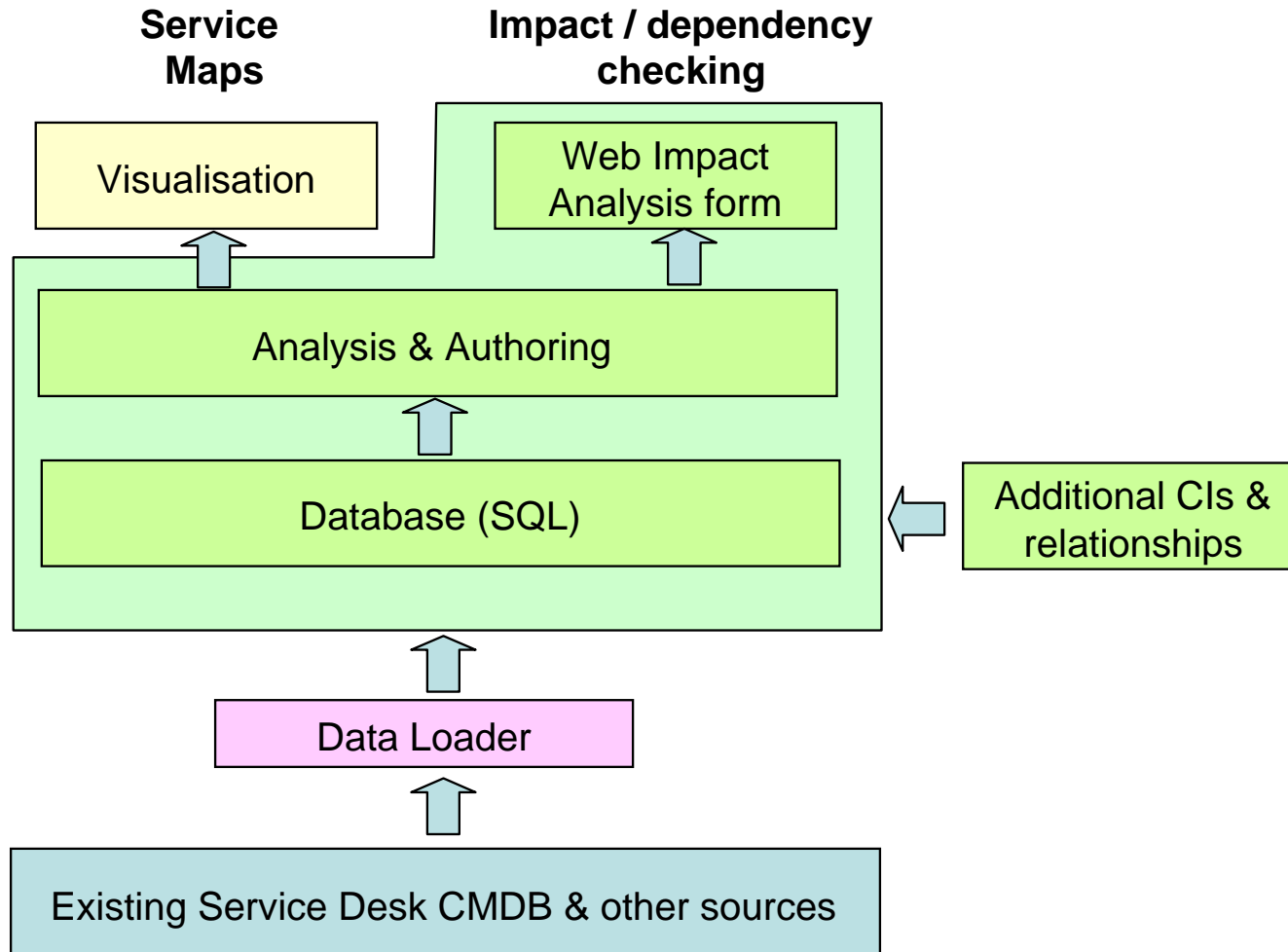
1 Application – 50+ servers



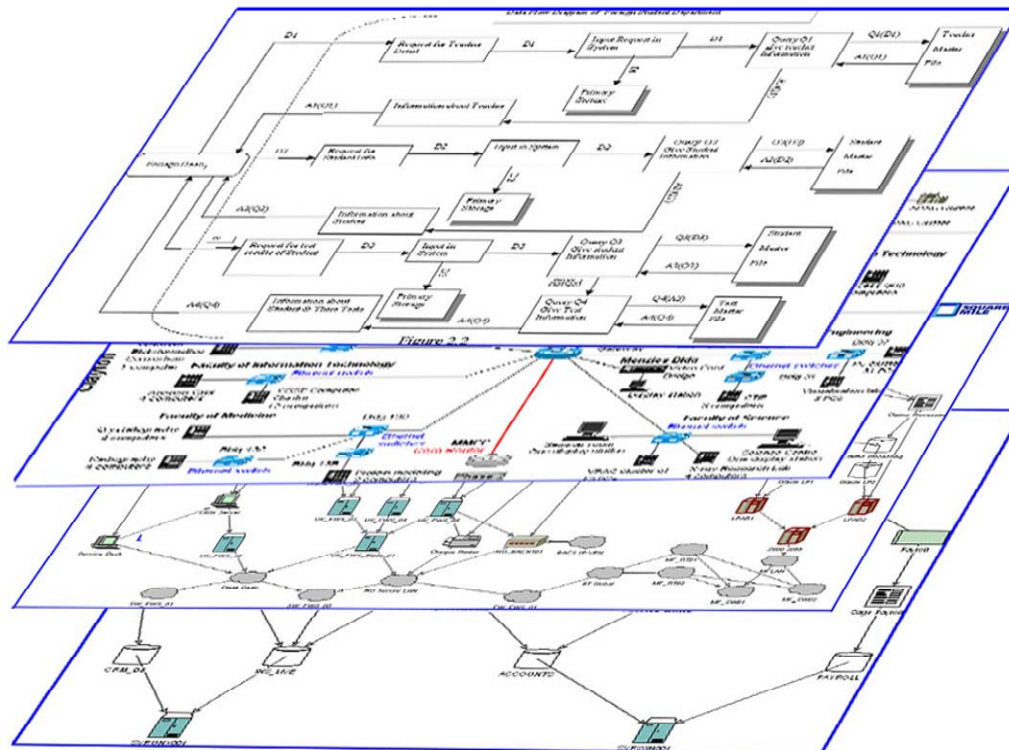
For Example



Automated Mapping



More Value from the CMDB



Data Flows

Network Diagram

System Architecture

Service Map

In Summary

- What is a CMDB and what does it look like
- How do you use it
- How do you create one - manual/automation
- Who should own and update it
- When should you deliver, capture data etc.