

Configuration Management

A Foundation for Grid Computing

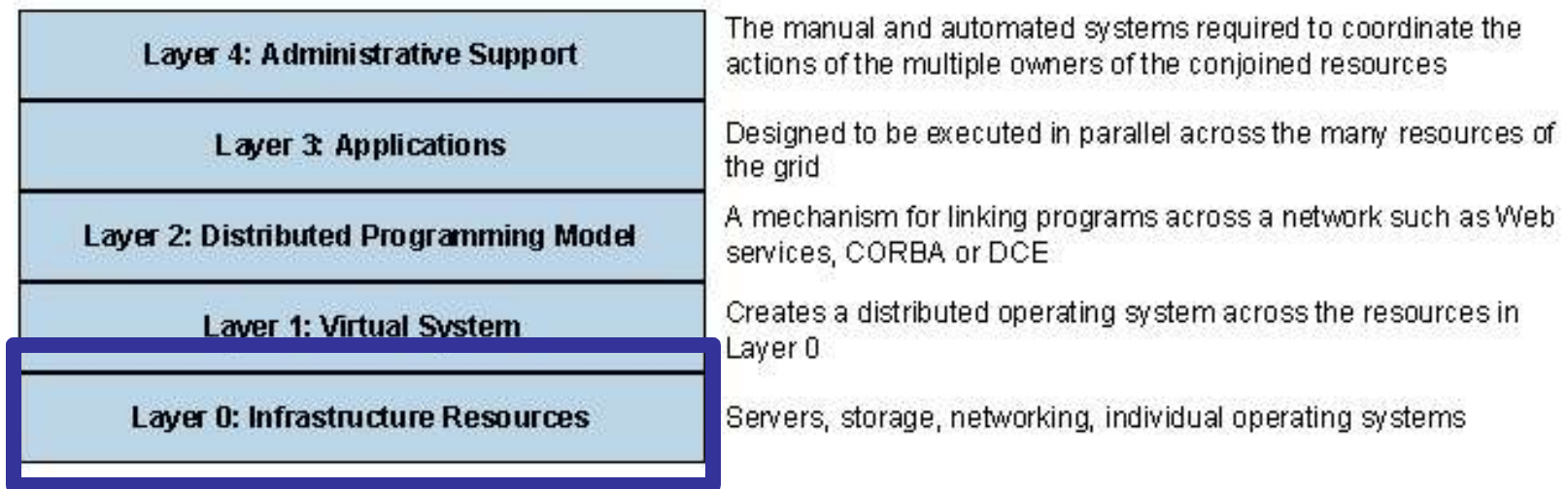


client management solutions
for license compliance and end-user support

Peeling back the layers Grid Computing

Figure 1

A Grid Requires Five Layers of Functionality to Operate



CORBA = Common Object Request Broker Architecture
DCE = Distributed Computing Environment

From Gartner research Note : A Five-Layer Model for Grid Implementations (March 21, 2003), Carl Claunch

Infrastructure trends

■ **Extended enterprise**

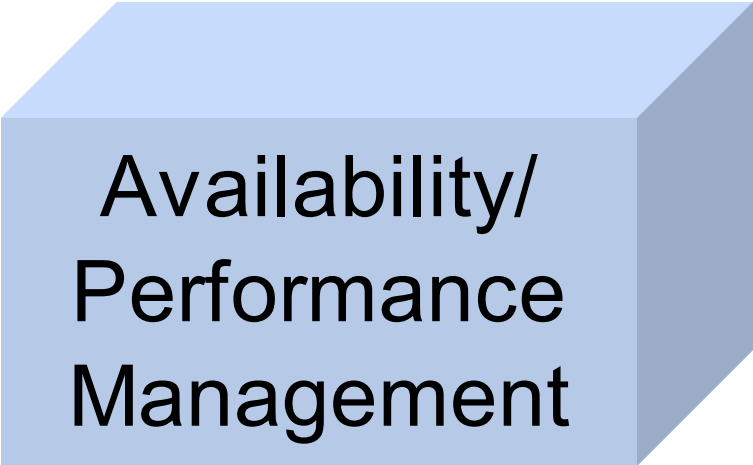
- extranets
- contractors
- web services
- outsourcing

■ **Occasionally Connected Computers**

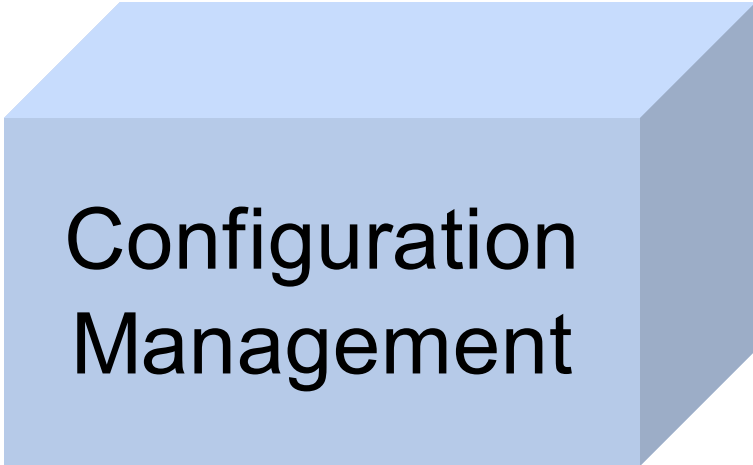
- mobile workforce
- wireless
- handheld devices

Network and Systems Management

Two primary sets of activities:



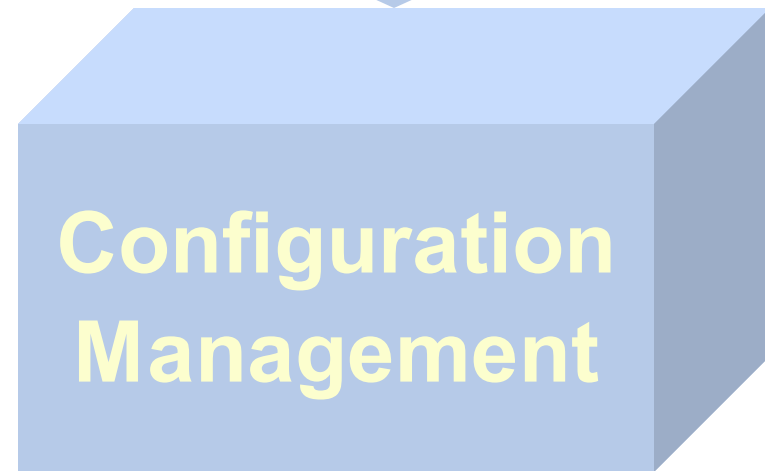
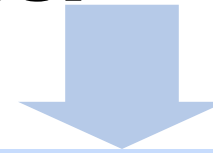
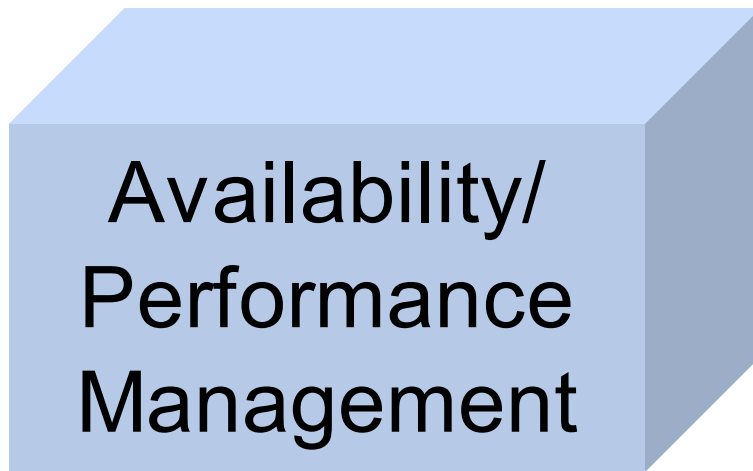
Availability/
Performance
Management



Configuration
Management

Network and Systems Management

Two primary sets of activities:



Availability/Performance Management

Definition: Continuous monitoring of the network infrastructure and applications through real-time and predictive views.

- databases
- applications
- messaging and collaboration
- web infrastructure
- content
- security services
- transaction performance
- network performance

Configuration Management

Definition: Installation, upgrade, support, discovery and tracking of hardware and software.

- auto discovery (software, network gear, servers, PCs, PDAs)
- software distribution
- self-healing and state management
- remote control
- application usage and metering
- software license management

Configuration Management goals/principles

■ **Keep:**

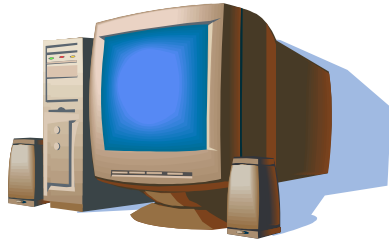
- users productive
- software operating
- hardware running

■ **By:**

- preventing problems whenever possible
- correcting issues quickly
- deploying upgrades and fixes timely
- refreshing systems with minimal disruption

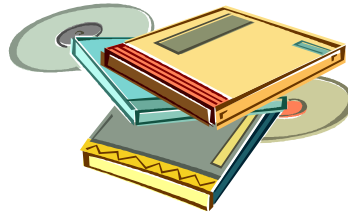


Configuration Management dimensions



Hardware

- > IP address
- > location
- > OS
- > CPU
- > memory
- > storage
- > capacity
- > status
- > users
- > software



Software

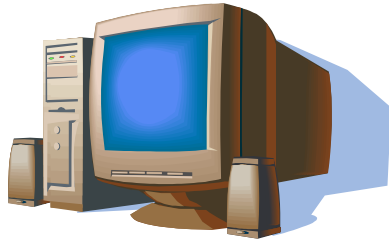
- > installations
- > usage patterns
- > # of users
- > concurrent use
- > licensing
- > hardware
- > users



Users

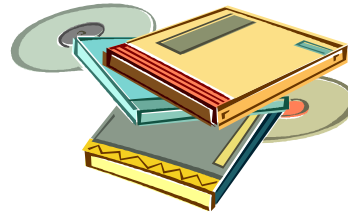
- > contact info
- > organization
- > location
- > permissions
- > privacy controls
- > hardware
- > software usage

Configuration Management dimensions



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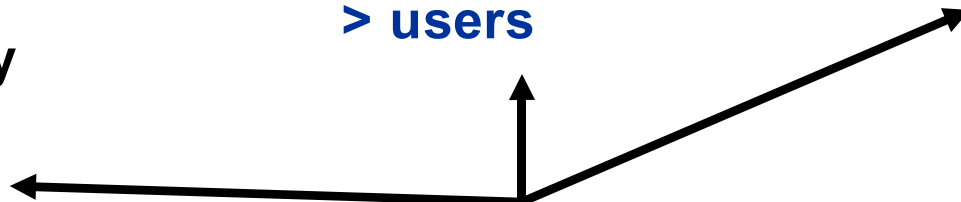
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Users

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Key component of CM: auto discovery

■ **Complete view of infrastructure**

- hardware (network, servers, and clients)
- software
- users (directory integration)

■ **Take action on discovery data**

- deploy software and updates
- remotely diagnose and fix
- refresh, re-allocate, retire

Key component of CM: software distribution

■ **Distribute:**

- applications
- upgrades
- patches
- registry change
- new virus definitions

■ **Uninstall software that is:**

- unlicensed
- unused
- non-standard

Key component of CM: self-healing/state mgmt

■ Ensure desired state of:

- applications
- targeted versions
- security settings (e.g. web browser)
- user profiles
- privacy settings
- utility settings (e.g. VPN IP address)

Key component of CM: remote control

■ Take control of any device to:

- perform triage:
 - » diagnose
 - » fix
 - » escalate
- take a configuration snapshot
- open up live support chat

Key component of CM: application usage

■ **Software usage analysis should tell you:**

- Which applications are underutilized—
or not used at all.
- Which **employees** are not using the latest technology.
- Which employees are using non-standard/**rogue software.**
- How much **training** will be required to migrate users.
- How to **justify** software expenditures to the CIO.
- How to make the **delete vs. buy** decision.

Key component of CM: license management

■ **Track license entitlements:**

- volume licensing
- upgrades
- OEM
- retail
- maintenance and support plans

■ **Track entitlement consumption:**

- installations
- client access licenses (CALs) / server access
- users/ concurrent use
- devices

Summary:

Configuration Management and standards are a precursor for successful Grid Computing applications.



client management solutions
for license compliance and end-user support

Q and A

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1-800-262-3877**



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