EMC²
where information lives®

Practical CMDB Automation, Implementation, and Use Cases

EMC Forum 2007

Glenn O'Donnell
EMC Corporation
odonnell_glenn@emc.com

André Lavigne
N(i)², Inc.
andre.lavigne@ni2.com

Infraestructura de información EMC APOyA

leverage –y Aprovecha

enterprise content management: **Documentum**
adquisición de información: **Captiva, Acartus**
BPM, colaboración: **ProActivity, eRoom**
búsqueda empresarial: **AskOnce**

optimize -Optimiza

virtualización: **VMware, Rainfinity, Invista**
administración de la información: **Legato, Documentum**, **EMC Infoscape**
administración de recursos: **ControlCenter, Smarts, nLayers**

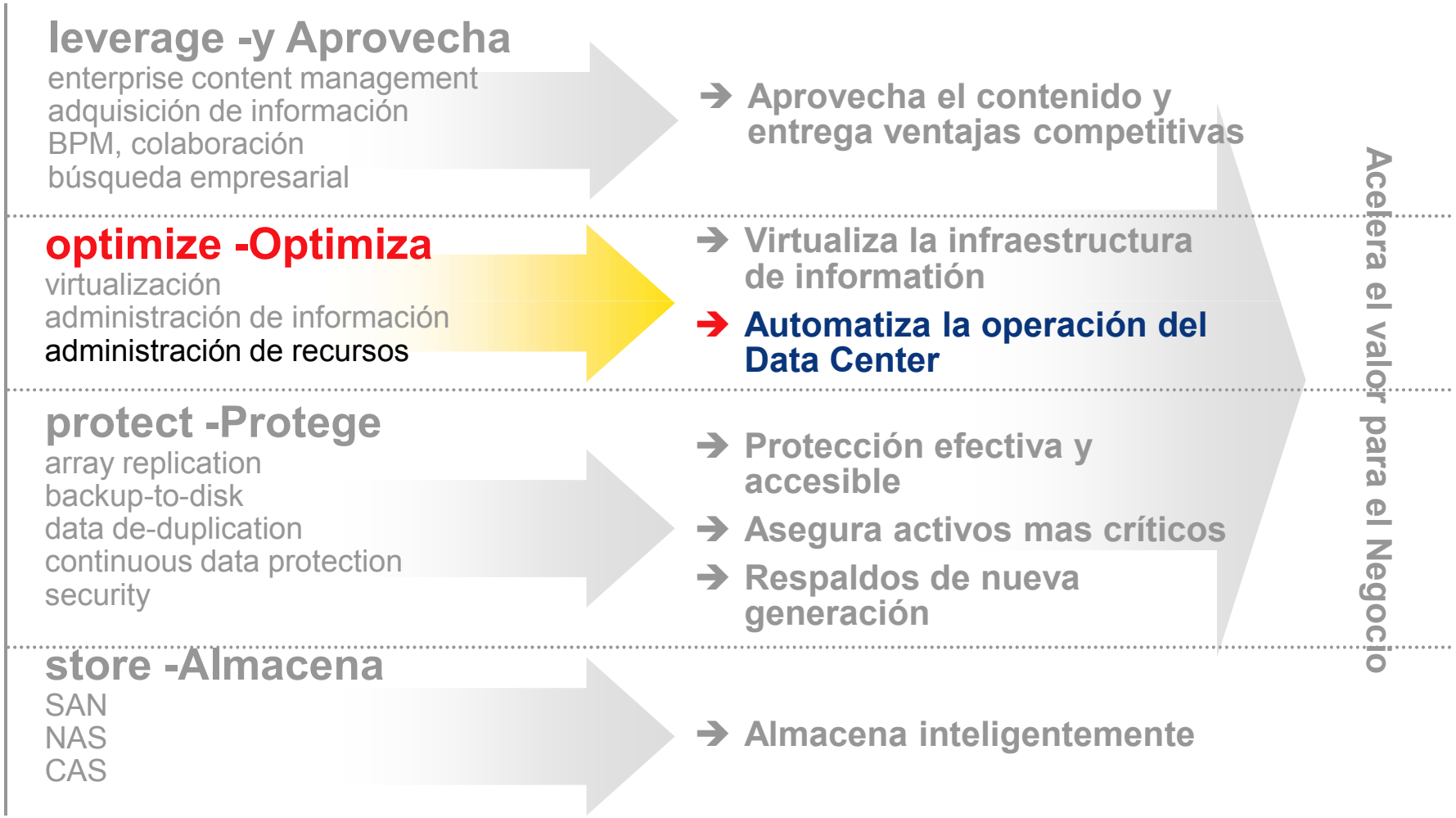
protect -Protege

replicación entre arreglos: **SRDF, MirrorView, etc.**
backup a disco: **Legato**
de-duplicación de datos: **Avamar**
protección continua de datos: **Recover Point**
seguridad: **RSA, Authentica, Network Intelligence**

store -Almacena

SAN: **Symmetrix, CLARiiON, Connectrix**
NAS: **Celerra**
CAS: **EMC Centera**

Infraestructura de información EMC APOyA



EMC Application Discovery Manager (ADM)

Technology from nLayers acquisition

Illuminates the “darkness” within applications

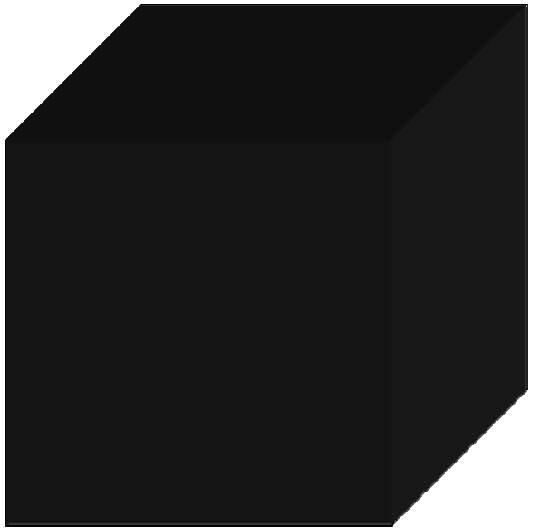
Discovers and maps application relationships

Powerful CMDB features

- The cornerstone of EMC’s CMDB
- Identify changes immediately

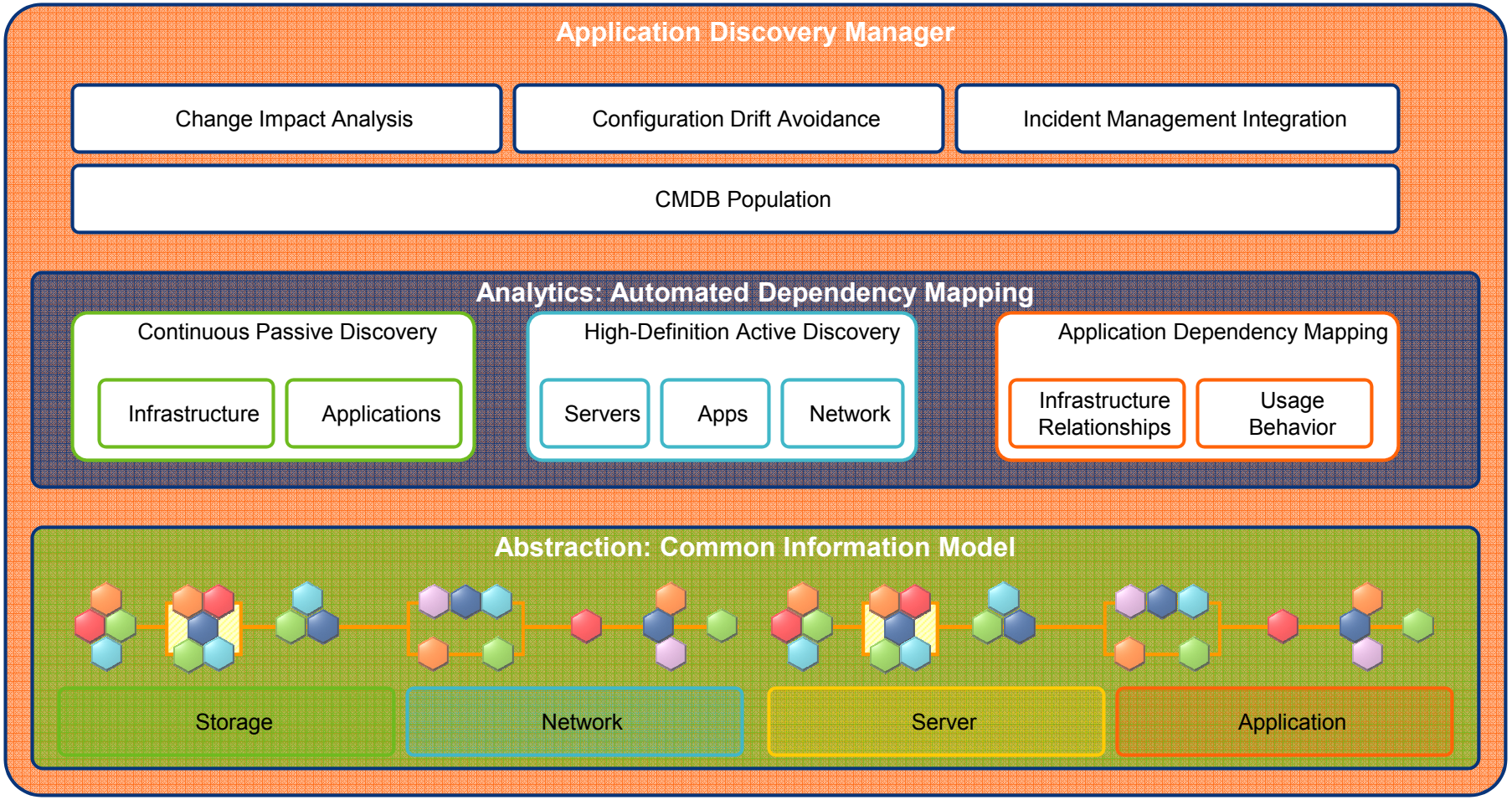
Rapid time to value via appliance

- Quick installation
- Minimal configuration

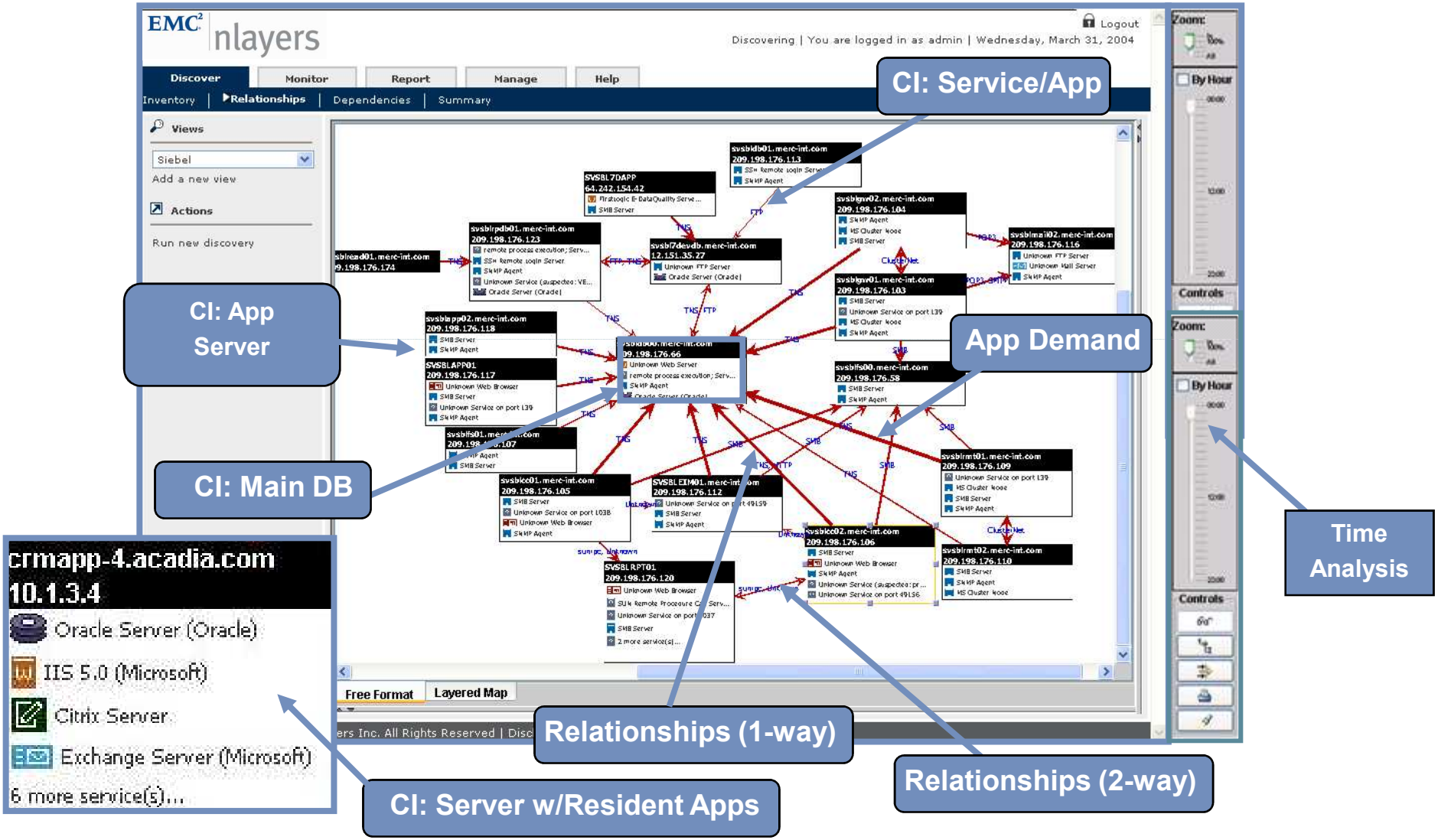


A significant step toward automated service management

EMC Smarts Application Discovery Manager



Application Discovery Manager: Dependency Mapping



Why is the CMDB so important?

Configuration is now the hottest topic in IT Operations

ITIL references CMDB extensively

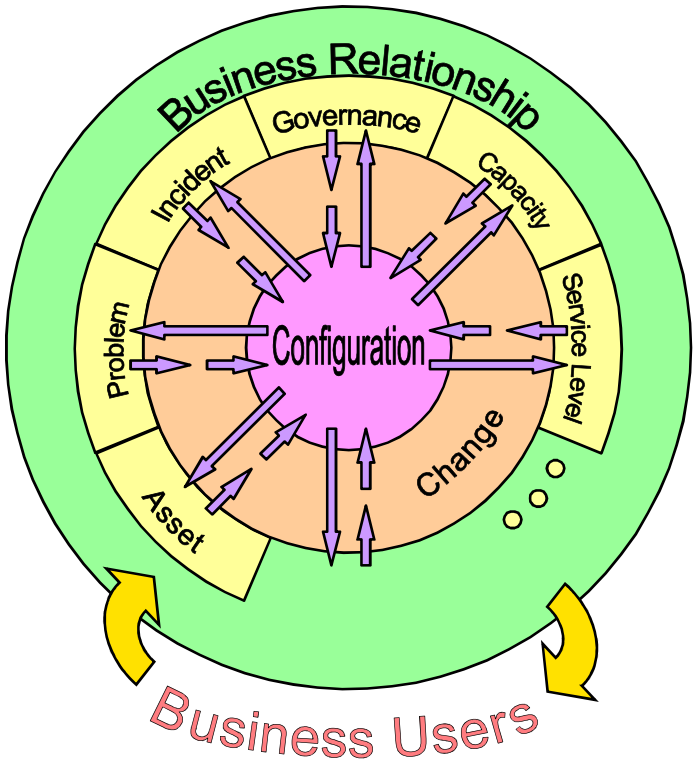
- But its definition must be clarified

"CMDB" is a misleading term

- New term in ITIL v3:
  - "Configuration Management System"

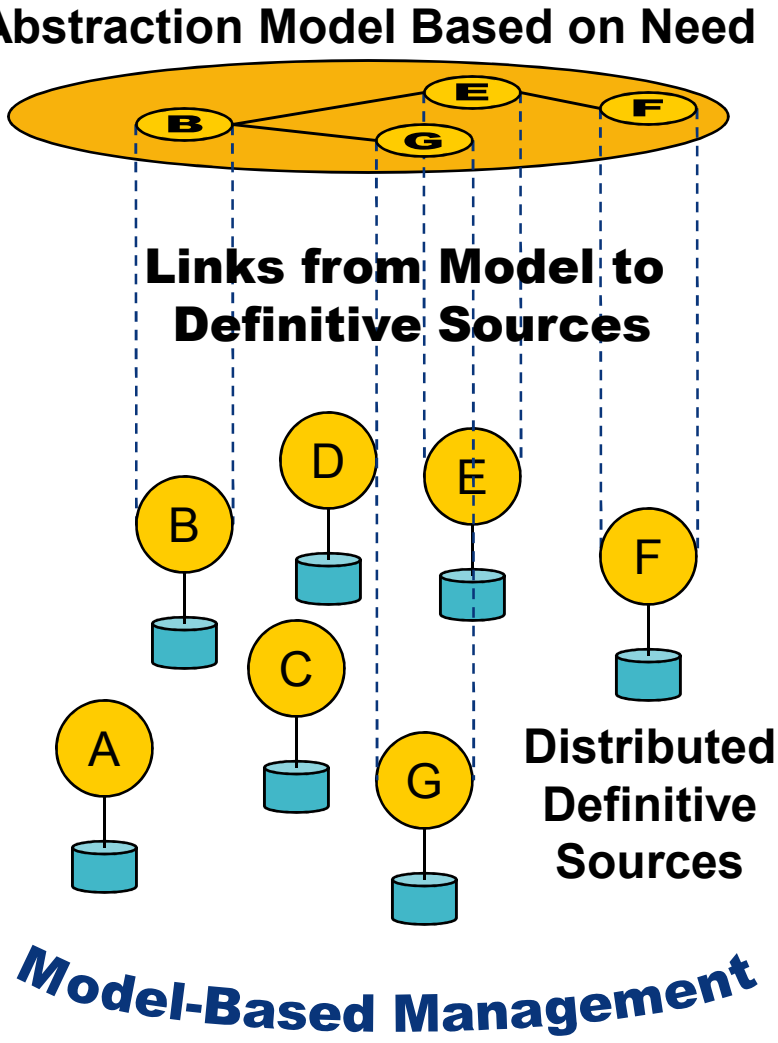
The CMDB will evolve

- A federated object model must link all trusted sources
- Reconciliation policies are needed to resolve conflicts (e.g., which source is THE trusted source?)



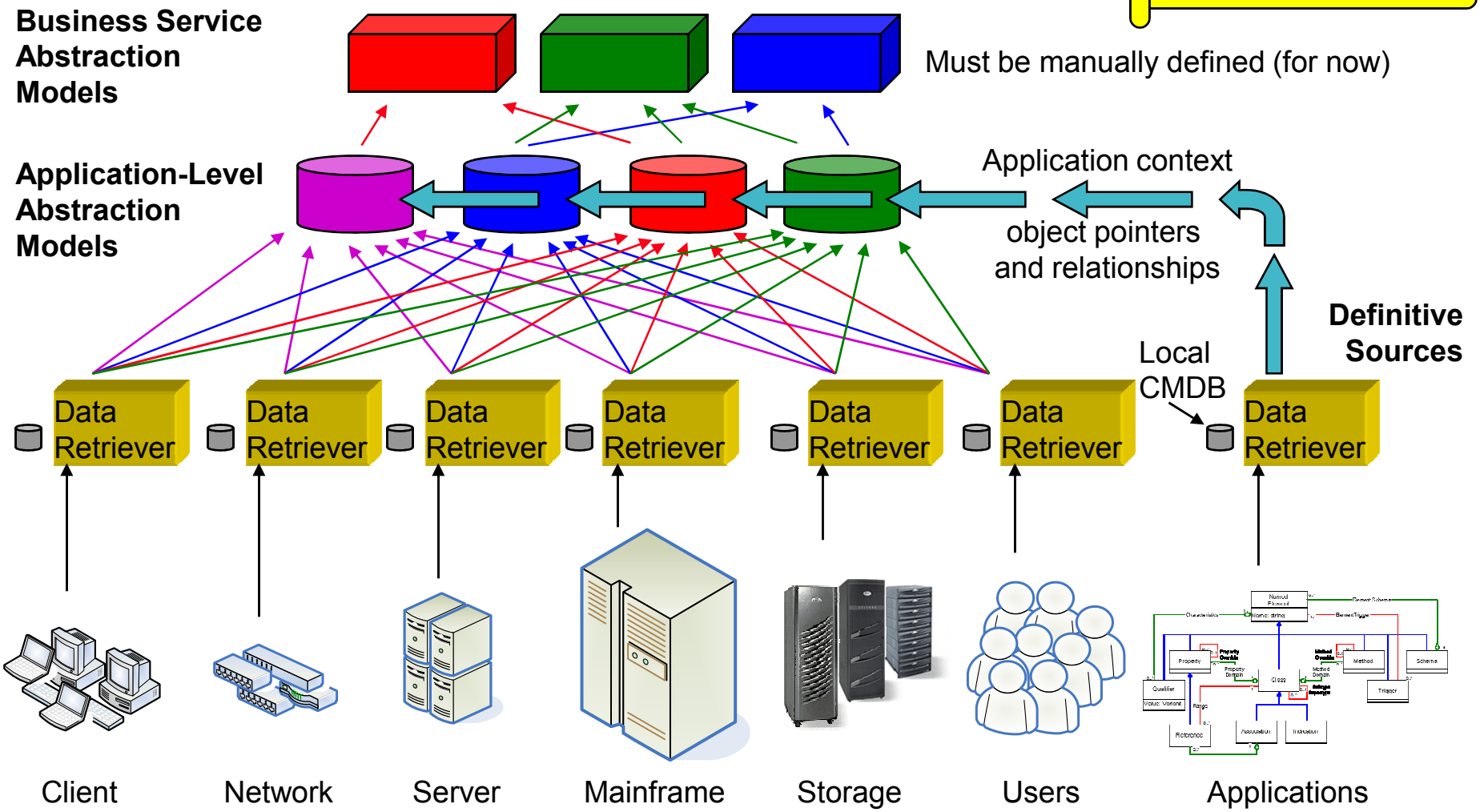
Federating Data Repositories

- Data is everywhere
- Consolidation into a monolithic data warehouse will not work
- Use distributed object models
- Models define high-level structure
  - Link to definitive sources
- Reconcile to realworld snapshot
- Historical data is useful, but little detail is needed



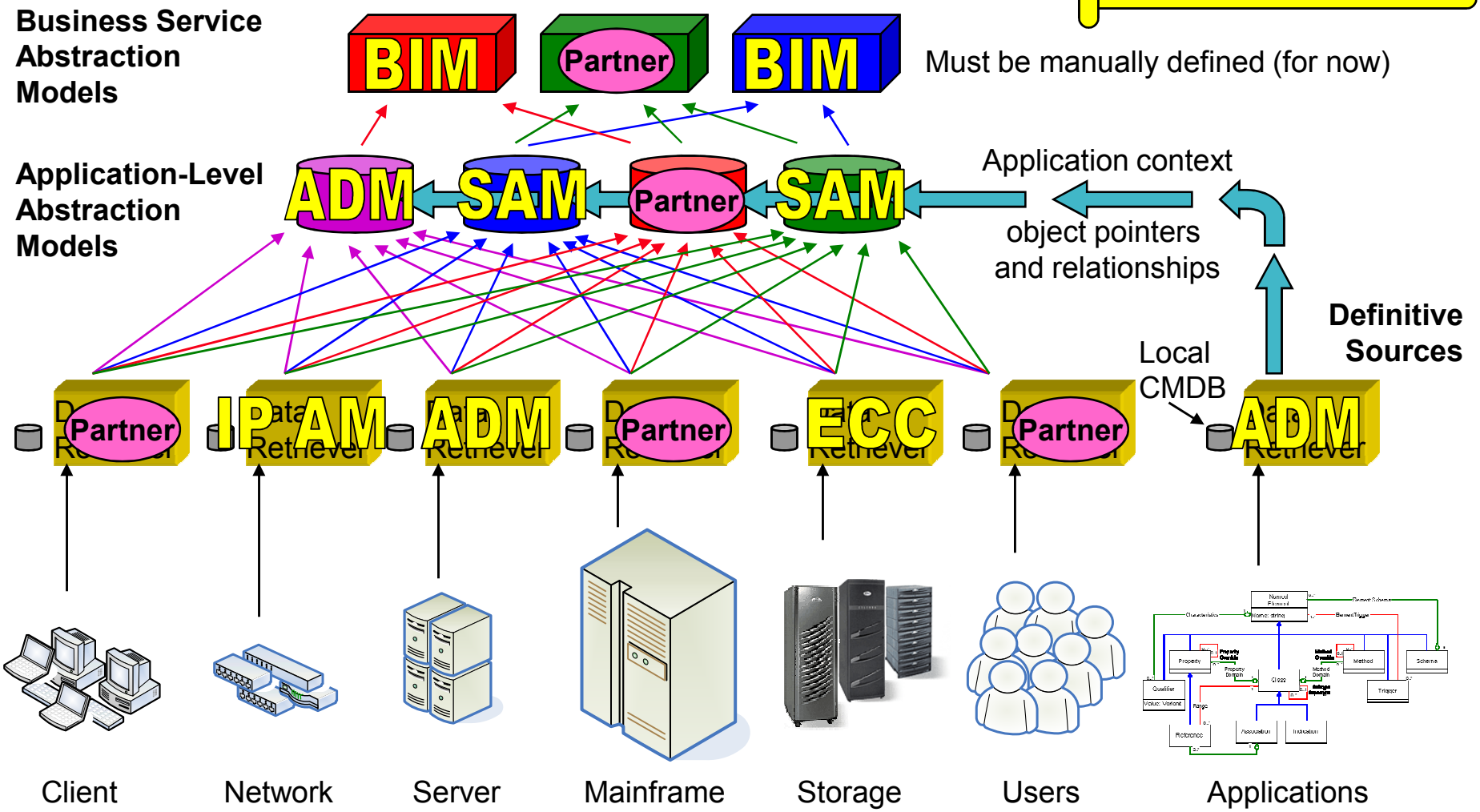
Technology Solutions for a Unified "CMDB"

Note: No single central repository!



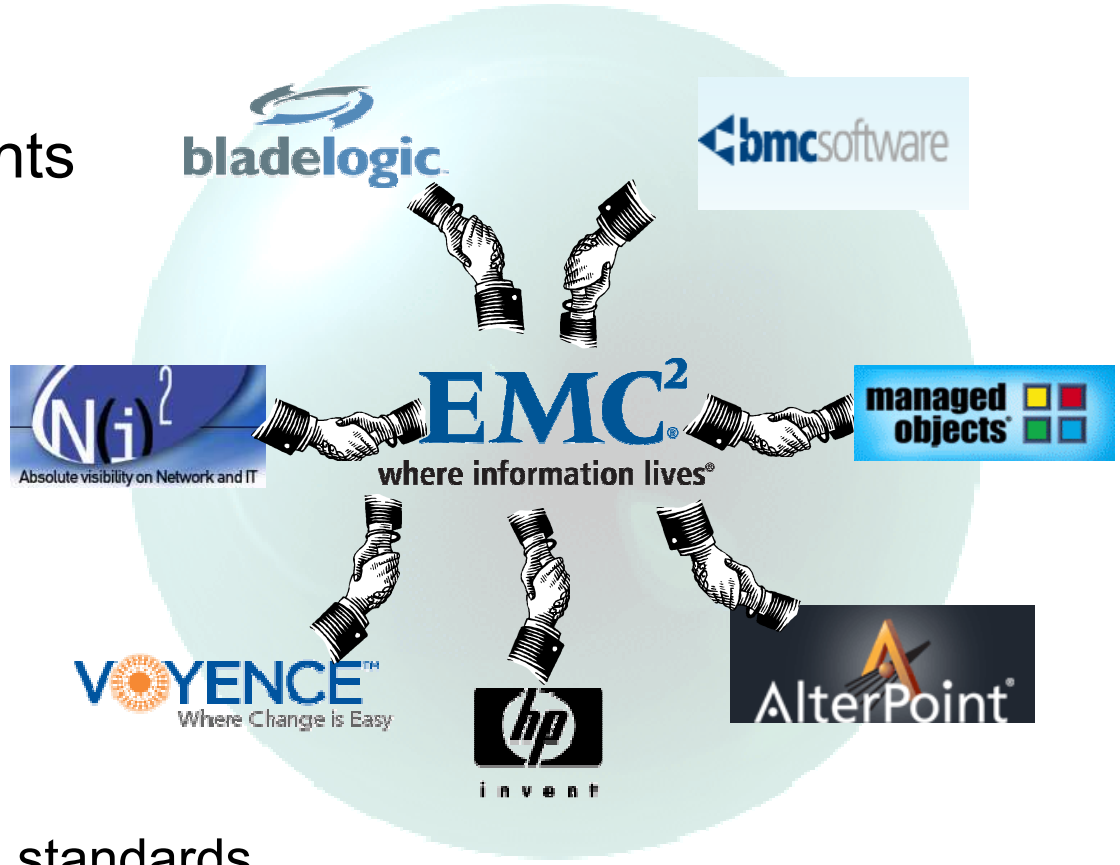
Using EMC to Build an Effective "CMDB"

EMC Products
(more than shown here)



An Ecosystem for CMDB

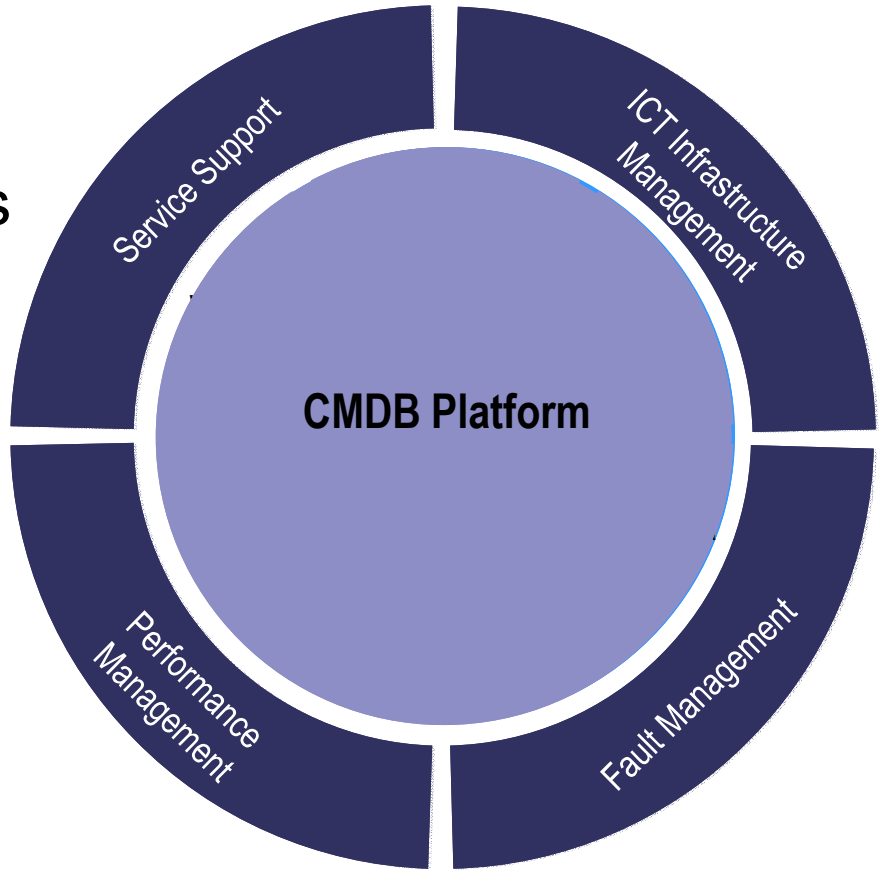
- No single vendor can offer all CMDB elements
- Federation is key
- EMC's partner ecosystem is expanding rapidly
- Standards must be developed and adopted
  - EMC is committed to driving and supporting standards



N(i)2 Solutions and CMDB Platform

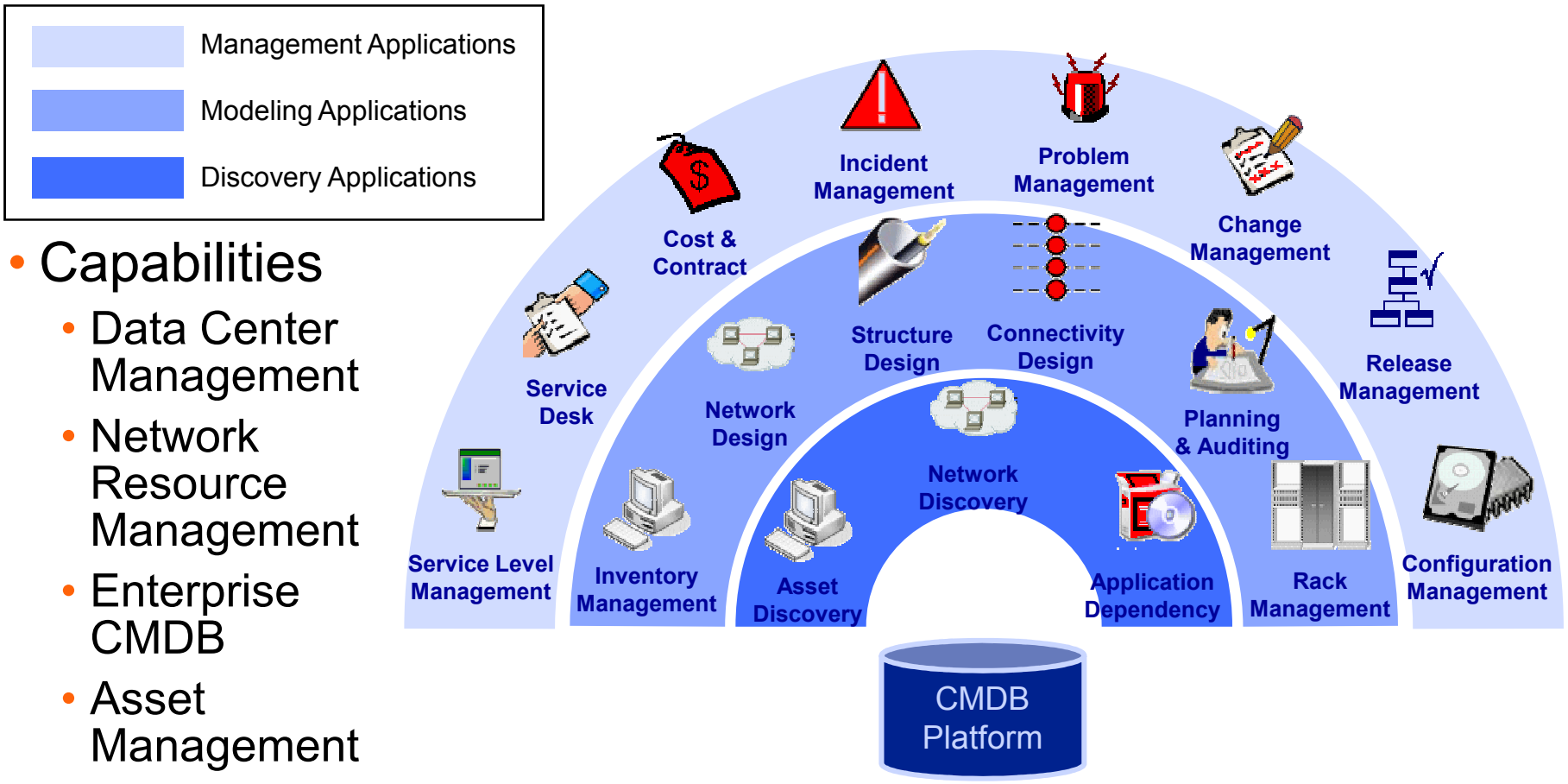
The CMDB Platform is designed for end-to-end visibility on all configurations and their relations

- Open architecture, uses standard markup languages (XML,SOAP…)
- Federated model for optimal information access
- Rule based reconciliation engine for mapping of any type of CI
- Standalone dashboard for cross layer query
- Support for any source of change



Its dashboard interface enables to work as standalone

The N(i)^2 Suite Applications



- Capabilities
  - Data Center Management
  - Network Resource Management
  - Enterprise CMDB
  - Asset Management

Extended Scope of CIs

Services

- Services
- Incidents
- Problems
- Tasks
- …

Applications

- Software Package
- Applications
- Databases
- Architecture
- …

Business

- Consumer
- SLA
- Contracts
- Cost
- …

Infrastructures

Network

- Routers
- Subnets
- Circuits
- IP Address
- …

Facilities

- Buildings
- Rooms
- Workspace
- Racks
- …

Employee Support

- PCs
- Laptops
- PDAs
- Badges
- …

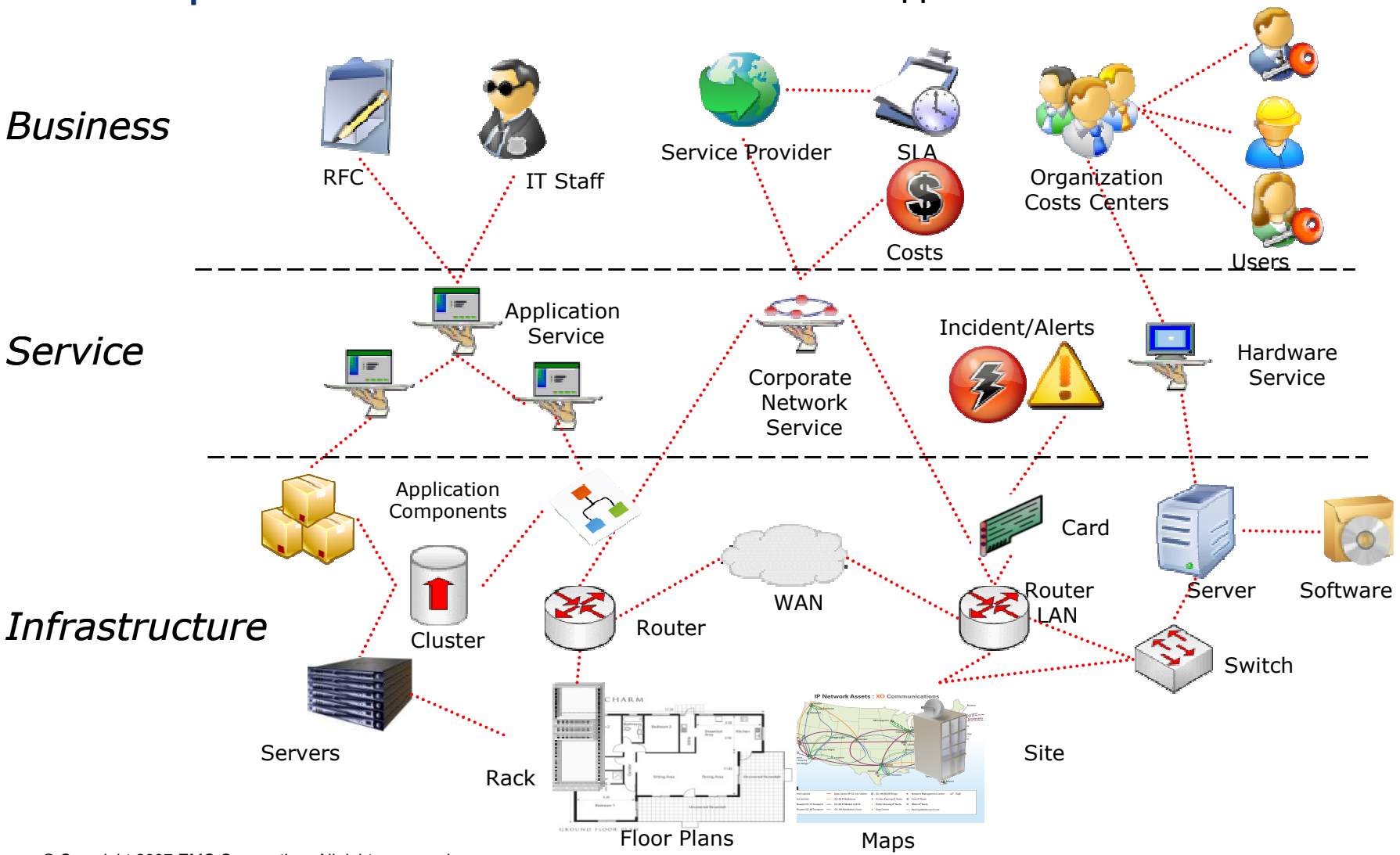
Structure

- Cables
- Serving Areas
- Antennas
- Conduits
- …

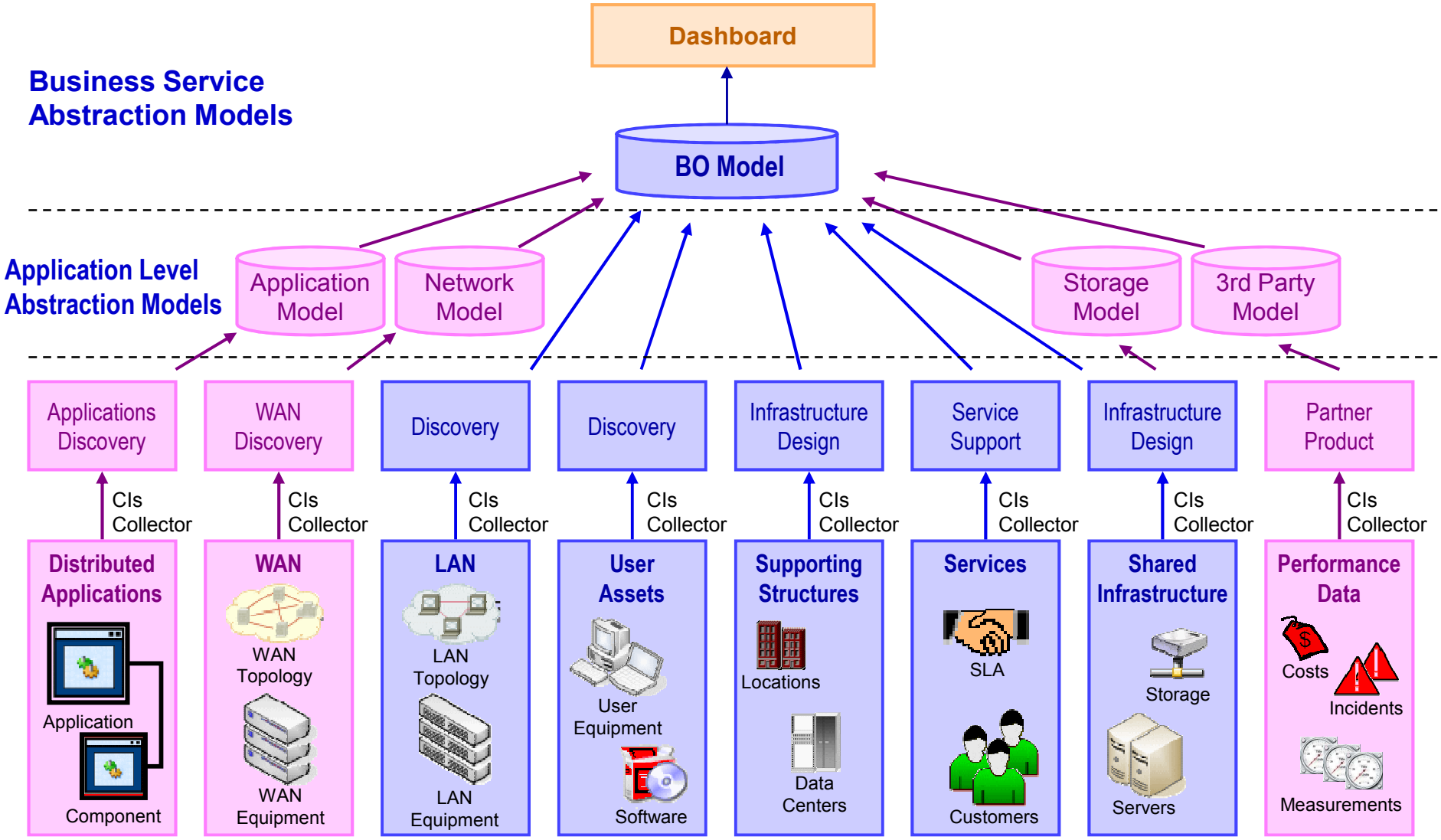
Extends CMDB scope with service management and business CIs

Enterprise CMDB

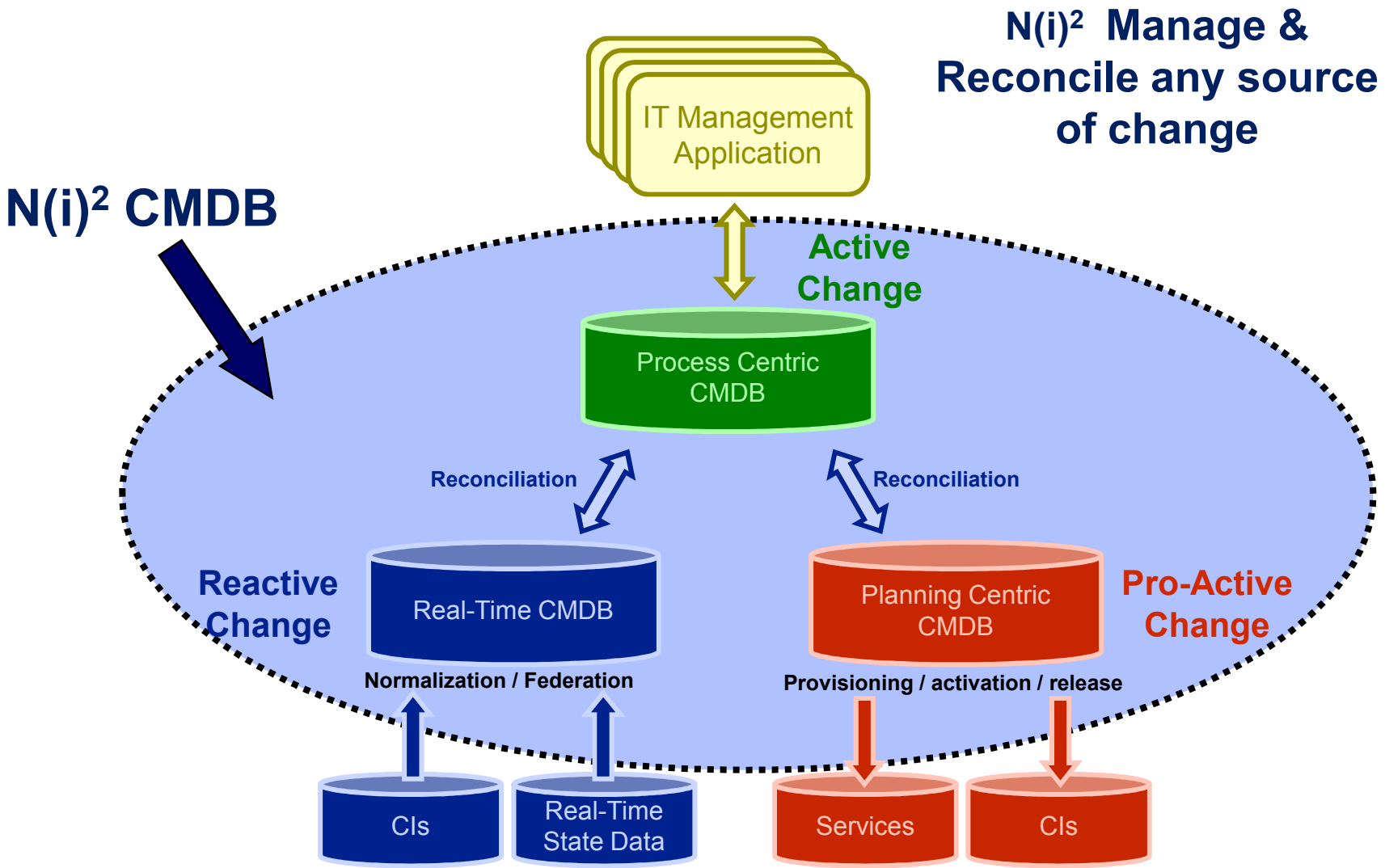
An **Enterprise Configuration Management Database (CMDB)** provides an accurate, real time model of how data center infrastructure support services and the business



Federated CMDB Architecture



CMDB for any Source of Change



Maintaining the single source of truth

EMC² where information lives® — Ni² Absolute visibility on Network and IT

Active Changes

- ☑ Business processes to register locations, floor plans, racks, servers specifications, services, SLA's and contracts, consumers,…

Reactive Changes

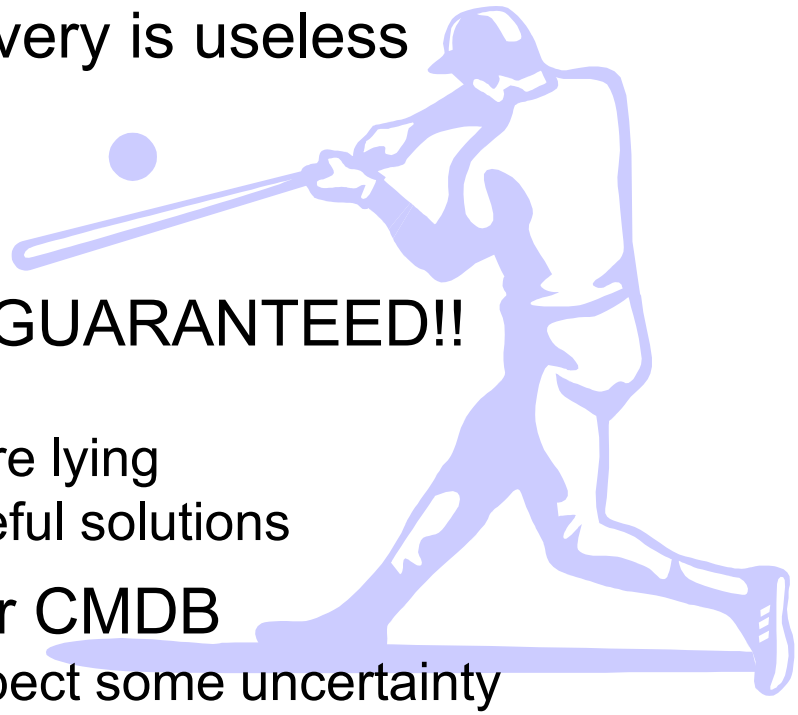
- ☑ Reconciled discovered hardware configurations, software dependencies, SAN, VLAN, LAN

Pro-active Changes

- ☑ Plan new designs through alternate scenarios

Building on CMDB for IT Service Management

- CMDB is only the beginning of **true** IT Service Management
  - Focus on use cases with linkage to other processes
- A CMDB without automated discovery is useless
- Learn the new changes in ITIL v3
- Start small and build carefully
- The CMDB will be multi-vendor – GUARANTEED!!
  - Integration is extremely important
  - Vendors who promise all elements are lying
  - Vendors MUST partner to deliver useful solutions
- Much more evolution is needed for CMDB
  - We are all innovating quickly, but expect some uncertainty



Preguntas y Respuestas

Glenn O'Donnell

odonnell_glenn@emc.com

André Lavigne

andre.lavigne@ni2.com

Jorge Sainz

sainz_jorge@emc.com


EMC²
where information lives®