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Experience the Service Revolution



CMDB – Trust Is Good, but Control Is Better!

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Bristol-Myers Squibb

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Agenda

Introduction

CMDB Implementation Approach

CMDB Governance (People, Process, Data & Technology)

CMDB Adoption & Evolution

Top Takeaways

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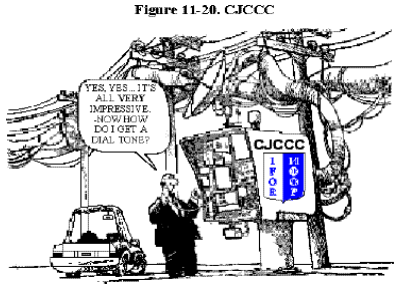
Introduction

- Bristol Myers Squibb: A global biopharma company which discovers, develops and delivers innovative medicines that help patients prevail over serious diseases
- Enterprise Services: A catalyst to success/making it easier to get things done
- Service Asset & Configuration Management (SACM) Process Ownership: Accountable for process design, development, implementation and governance
- SACM Scope: Business services, services offerings, applications, mobile applications, URLs, software packages, servers, databases, mass storage devices, network devices, clusters, printers, ups devices, end user devices and workstations

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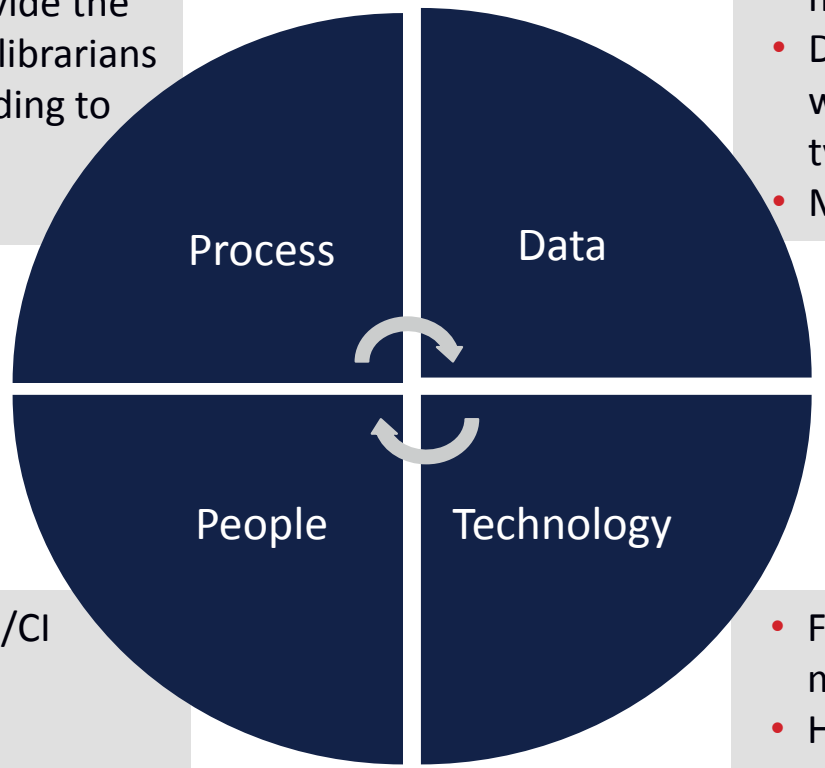
Configuration Management Background (2012)

- CMDB was managed behind the scenes by a select few configuration librarians
- CI Owners had to fill templates to provide the updated information to configuration librarians
- Manual process by non CI Owners leading to errors & operational delays
- No annual CMDB verification process

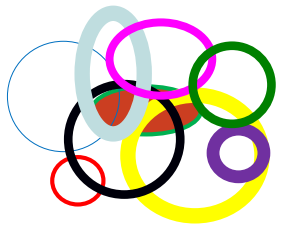


Complex

- Heavily outsourced support members/CI Owners
- Globally dispersed
- Inconsistent usage of CMDB taxonomy
- No data governance boards



- Perception of bad CMDB data quality
- Unwillingness to use the system for decision making
- Data could not be analyzed due to disparate ways of populating same fields on various CI types
- Maintenance of external spreadsheets

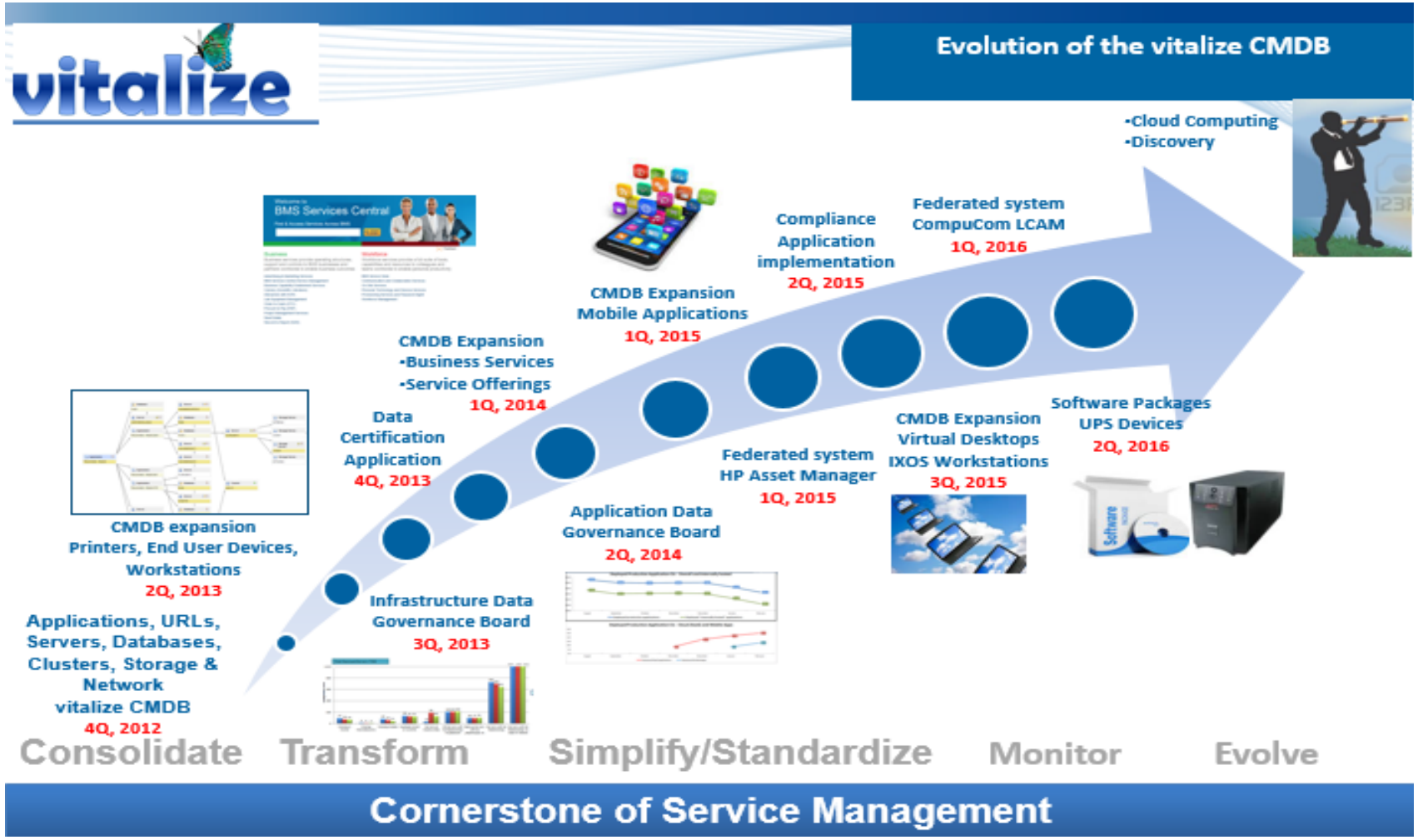


Chaos

- Fragmented systems for asset & configuration management
- Highly customized, off-support version of service management platform

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Configuration Management (CMDB) Implementation (2016)



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CMDB Governance

People

Process

Data

Technology



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CMDB Governance – People



- CI Ownership
  - Every CI has an Owner
  - Accountable & empowered CI Owners
  - Distributed CMDB maintenance and ownership model – BMS & Service Providers
- Governance Structure
  - Multi Tiered Governance Model
    - CI Owners, Domain Owners, Configuration Managers, SACM Process Owner
  - CMDB Data Governance Boards
  - SACM Process User Group
- Executive Support
  - Executive Support & Buy In
  - Identification of Key Domain Owners by Business Units, Technical Domains & Service Providers

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Multi-Tiered Data Governance Model

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Multi-Tiered Data Governance Model

CI Owners	• Own individual configuration items • Accountable for maintaining CI attributes & relationships • Complete the CMDB data verification & certification

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Multi-Tiered Data Governance Model

SACM Process Owner	• Process design & implementation • Manage SACM strategy, roadmap & scope • Monitor SACM Process health
CI Owners	• Own individual configuration items • Accountable for maintaining CI attributes & relationships • Complete the CMDB data verification & certification

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Multi-Tiered Data Governance Model

SACM Process Owner	• Process design & implementation • Manage SACM strategy, roadmap & scope • Monitor SACM Process health
Configuration Managers	• Chair Data Governance Board • Monitor & measure CMDB data • Distribute monthly CMDB data quality reports
CI Owners	• Own individual configuration items • Accountable for maintaining CI attributes & relationships • Complete the CMDB data verification & certification

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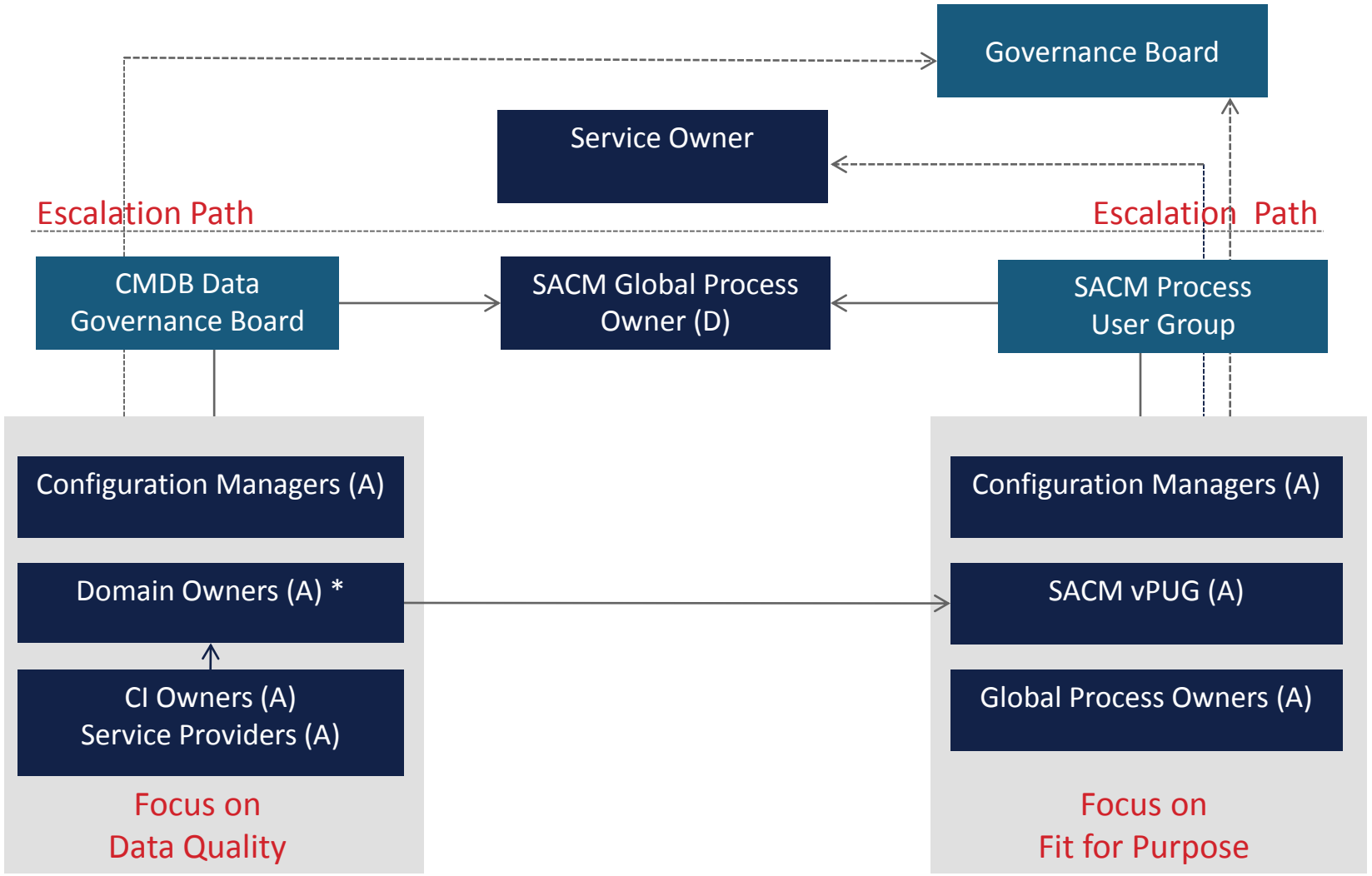
Multi-Tiered Data Governance Model

SACM Process Owner	• Process design & implementation • Manage SACM strategy, roadmap & scope • Monitor SACM Process health
Configuration Managers	• Chair Data Governance Board • Monitor & measure CMDB data • Distribute monthly CMDB data quality reports
Domain Owners	• Attend CMDB Data Governance Board • Liaise between CI Owners & Configuration Managers • Ensure that CI Owners complete the certification & data remediation steps
CI Owners	• Own individual configuration items • Accountable for maintaining CI attributes & relationships • Complete the CMDB data verification & certification



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SACM Governance Structure



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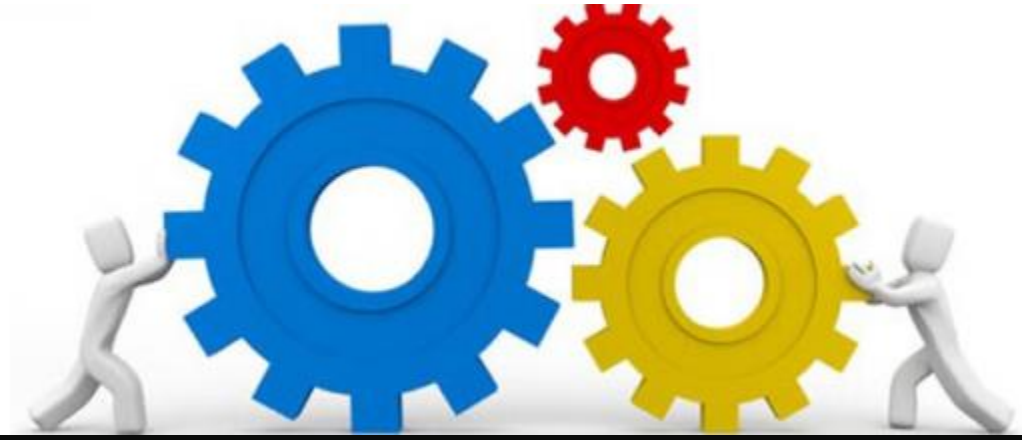
CMDB Governance

People

Process

Data

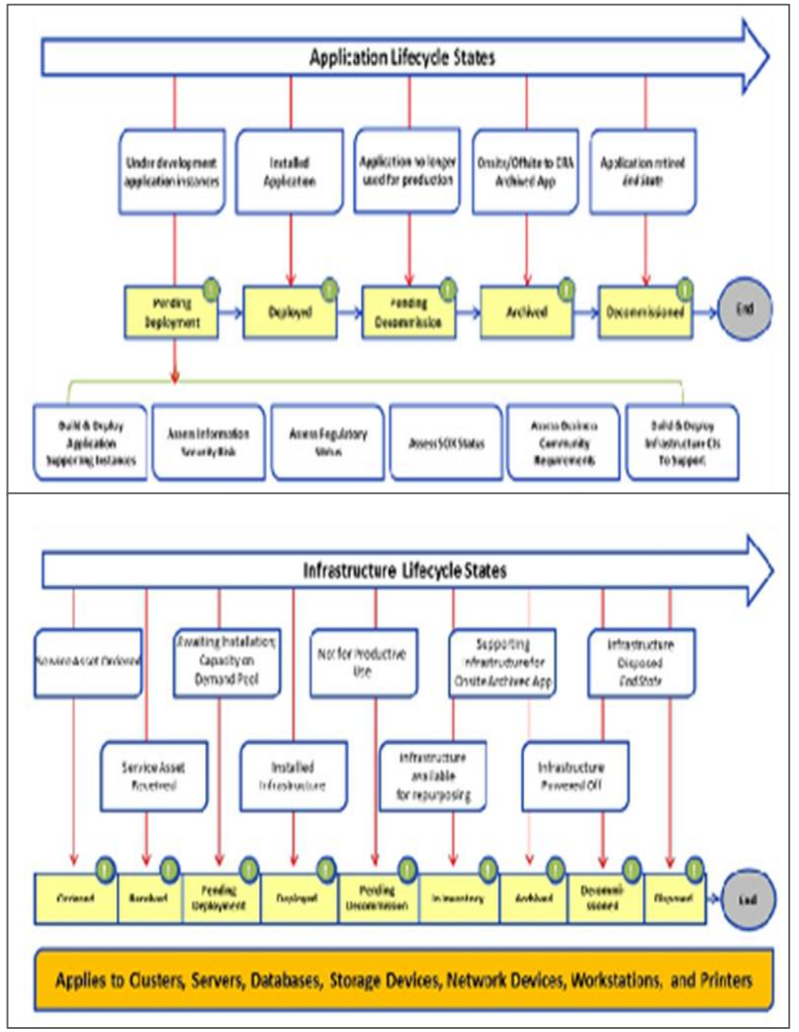
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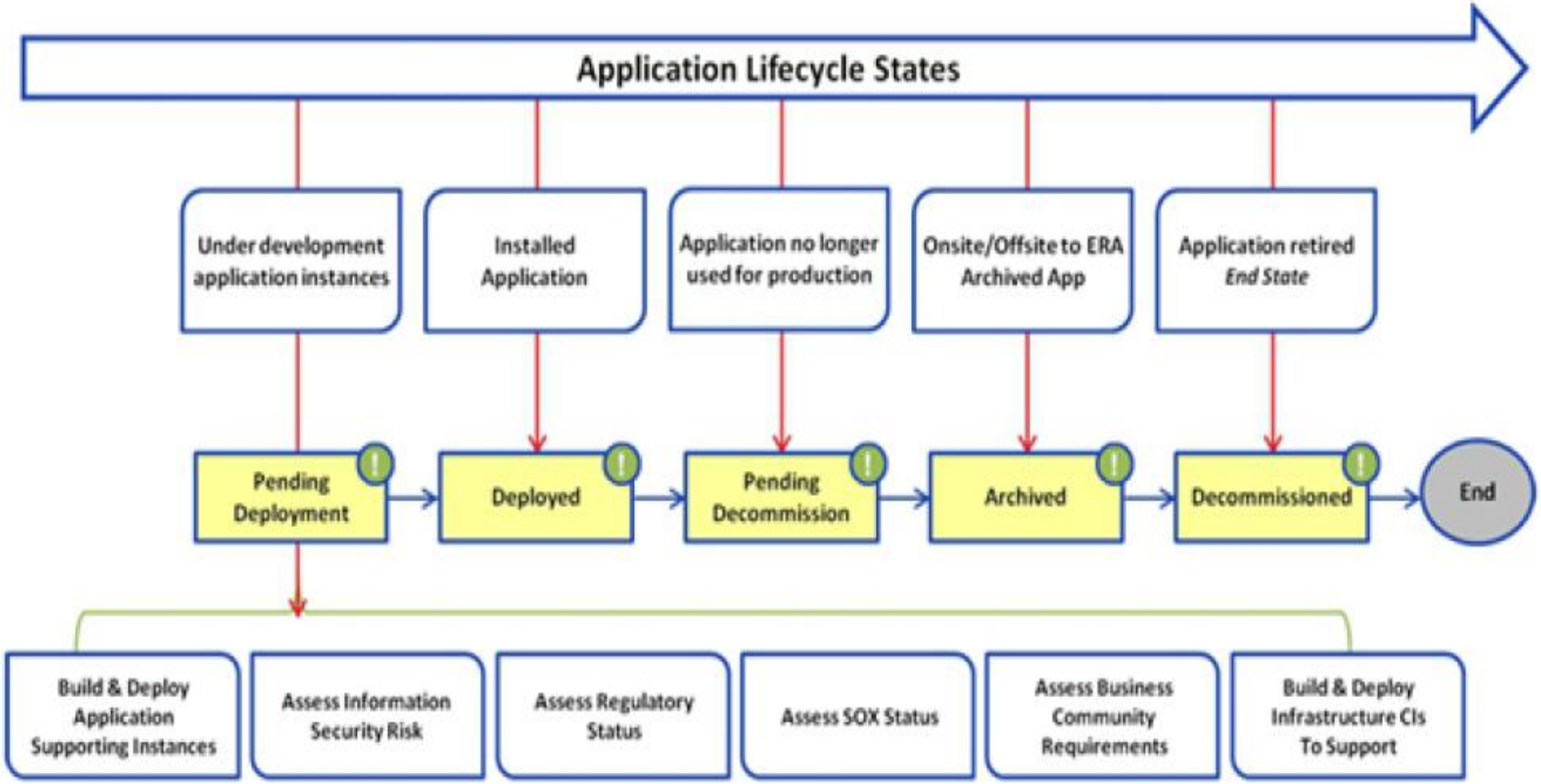
CMDB Governance – Process

- Process Design & Implementation
  - Define the process first & solution later
  - CI Lifecycle Management
  - Define the CMDB roles & responsibilities
  - CMDB Access Controls
- Process Adherence
  - CMDB managed near real-time via change
  - Annual CMDB data certification
  - Employee financial incentives & service provider SLAs tied to CMDB success
  - CI Owner engagement & training sessions
  - CMDB gamification



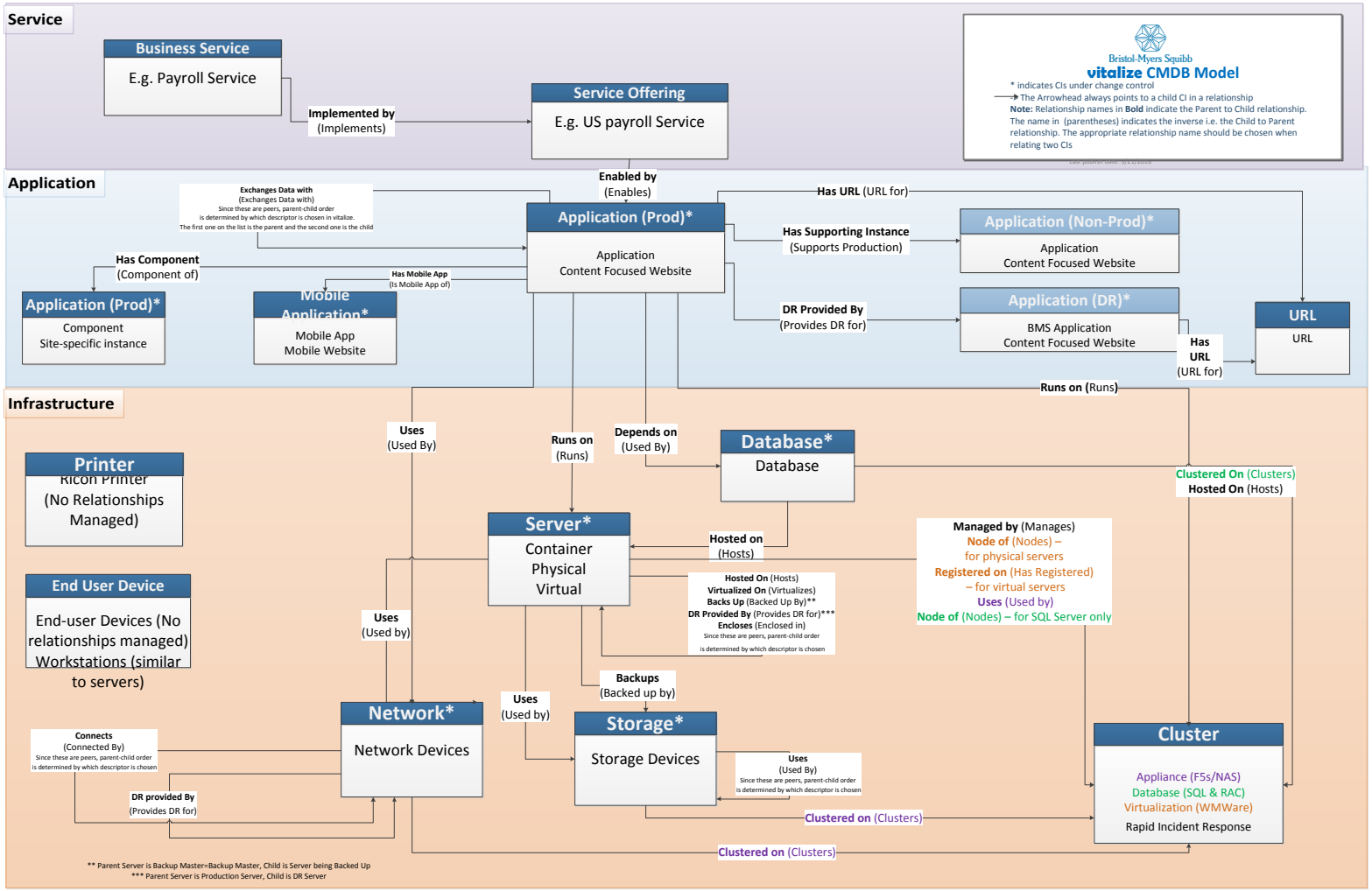
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Application Lifecycle Management



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CMDB Relationship Model



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CMDB Governance

People

Process

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CMDB Governance – Data Model & Governance

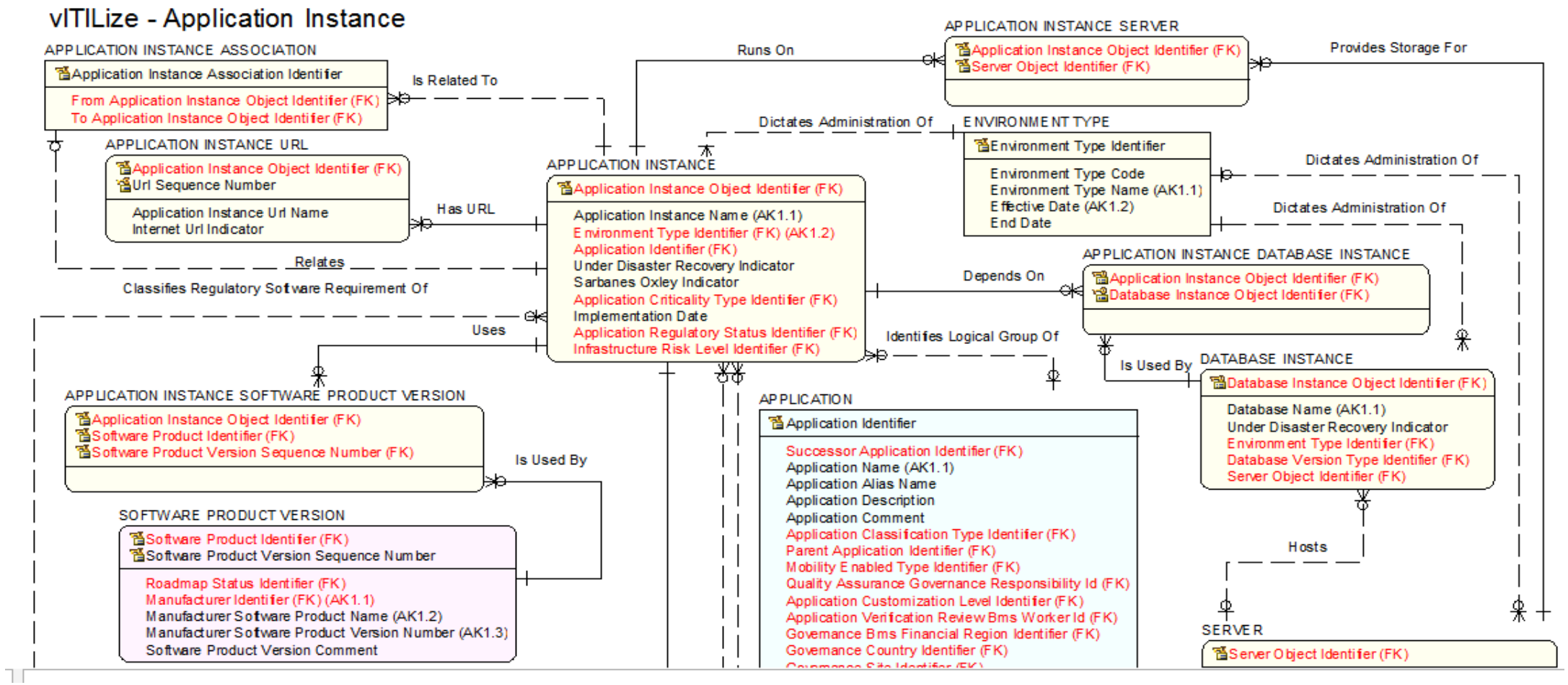


- Define and maintain the CMDB data model
- Publish and adhere to the CMDB data model guidelines
- Maintain CMDB model attribute owner accountability
- Maintain CMDB CI relationship matrix accountability
- Clear data attribute ownership with agreed upon data maintenance processes
- CMDB data model expansion governance (SACM Process Owner, Configuration Managers, Process User Groups, Data Governance Boards, Operational SMEs)
- Proactively identify attributes for improvement or rationalization
- Monitor & measure the health of the CMDB data quality

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Data Architecture – CMDB Model

3.4.7 Application Instance Subject Area Diagram



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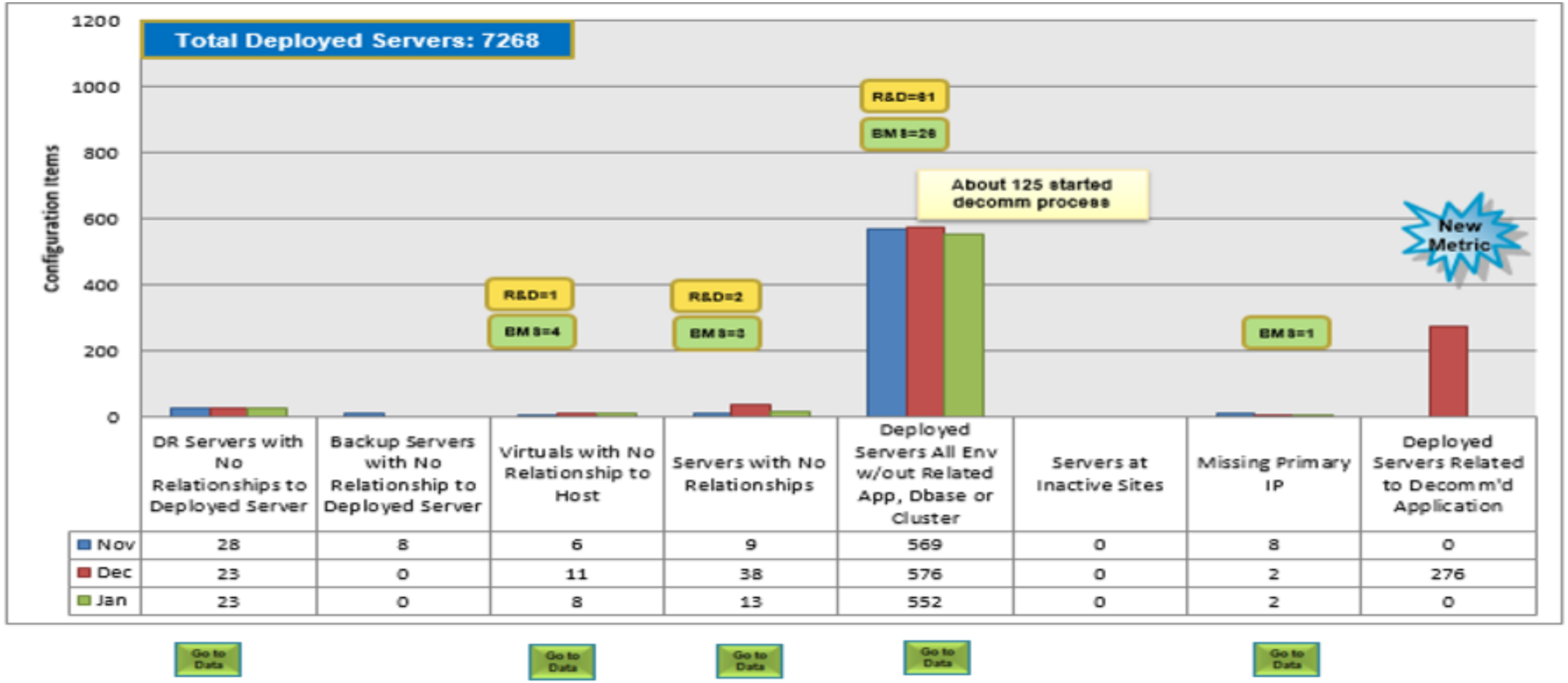
CMDB Governance – Data Quality Leaderboard

Domain Area	New apps in Domain	Open Issues	Apps	Issues Per App	Rank	Change in Rank	Issues Resolved This month
Infrastructure Services	0	0	210	0.00	1	0	4
Global Commercial IT	-10	11	359	0.03	2	0	3
Corporate IT - Intranet	-2	2	37	0.05	3	0	0
Corporate IT - SAP	1	9	72	0.13	4	0	-2
Research Informatics & Automation	-1	40	288	0.14	5	▲2	38
Global Development & Regulatory IT	-1	20	118	0.17	6	▲3	42
Corporate IT - Mobile Applications	0	1	5	0.20	7	▼-2	0
Corporate IT - Services	0	9	37	0.24	8	▼-2	0
GMS IT	-6	87	240	0.36	9	▲2	94
Corporate IT - Finance & Procurement	0	44	107	0.41	10	▼-2	-1
Workplace Services	1	18	26	0.69	11	▼-1	-1
Pharmaceutical Development IT	0	52	70	0.74	12	▲1	1
Corporate IT - Corporate	3	47	59	0.80	13	▼-1	-5
Human Resources IT	0	8	7	1.14	14	0	0
Enterprise Information Management	0	20	17	1.18	15		1
Corporate IT - MDM and Data Architec	0	26	21	1.24	16	0	0
Unknown	-6	78	36	2.17	17	0	21

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CMDB Governance – Data Quality Metrics

Server CI Metrics



	DR Servers with No Relationships to Deployed Server	Backup Servers with No Relationship to Deployed Server	Virtuals with No Relationship to Host	Servers with No Relationships	Deployed Servers All Env w/out Related App, Dbase or Cluster	Servers at Inactive Sites	Missing Primary IP	Deployed Servers Related to Decomm'd Application
Nov	28	8	6	9	569	0	8	0
Dec	23	0	11	38	576	0	2	276
Jan	23	0	8	13	552	0	2	0

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CMDB Governance

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Process

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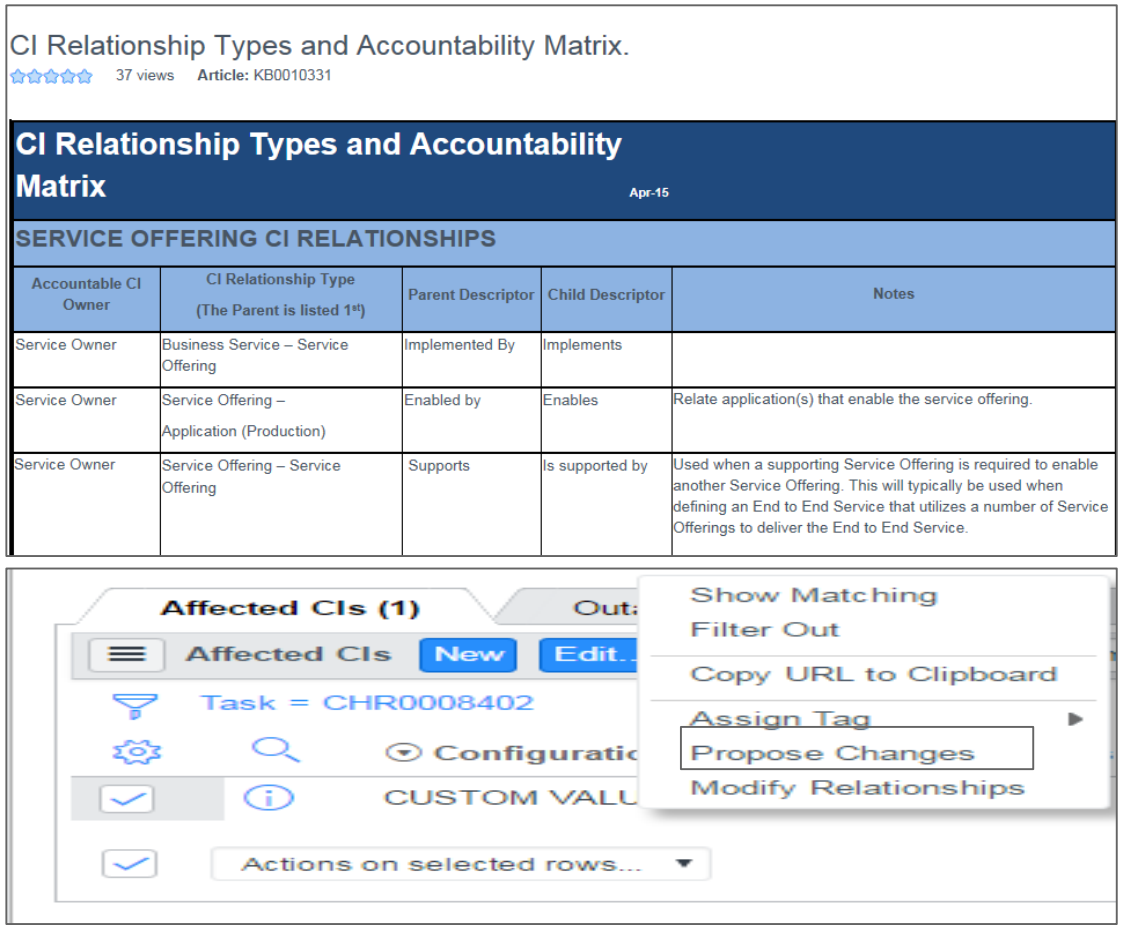
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CMDB Governance – Technology

- Configuration Management System Controls
  - Enforced systematic business controls to protect the CMDB data quality
  - Mandatory attributes/access controls/ business rules
  - Unique business name identifiers
  - Control relationships by CI Type
  - Automated one-up CI ownership
  - Embedded job aids & knowledge articles
- Change Management System Controls
  - Change tasking to update CMDB
  - Propose & apply changes to CI via Change



CI Relationship Types and Accountability Matrix.

37 views **Article:** KB0010331

CI Relationship Types and Accountability Matrix Apr-15

SERVICE OFFERING CI RELATIONSHIPS

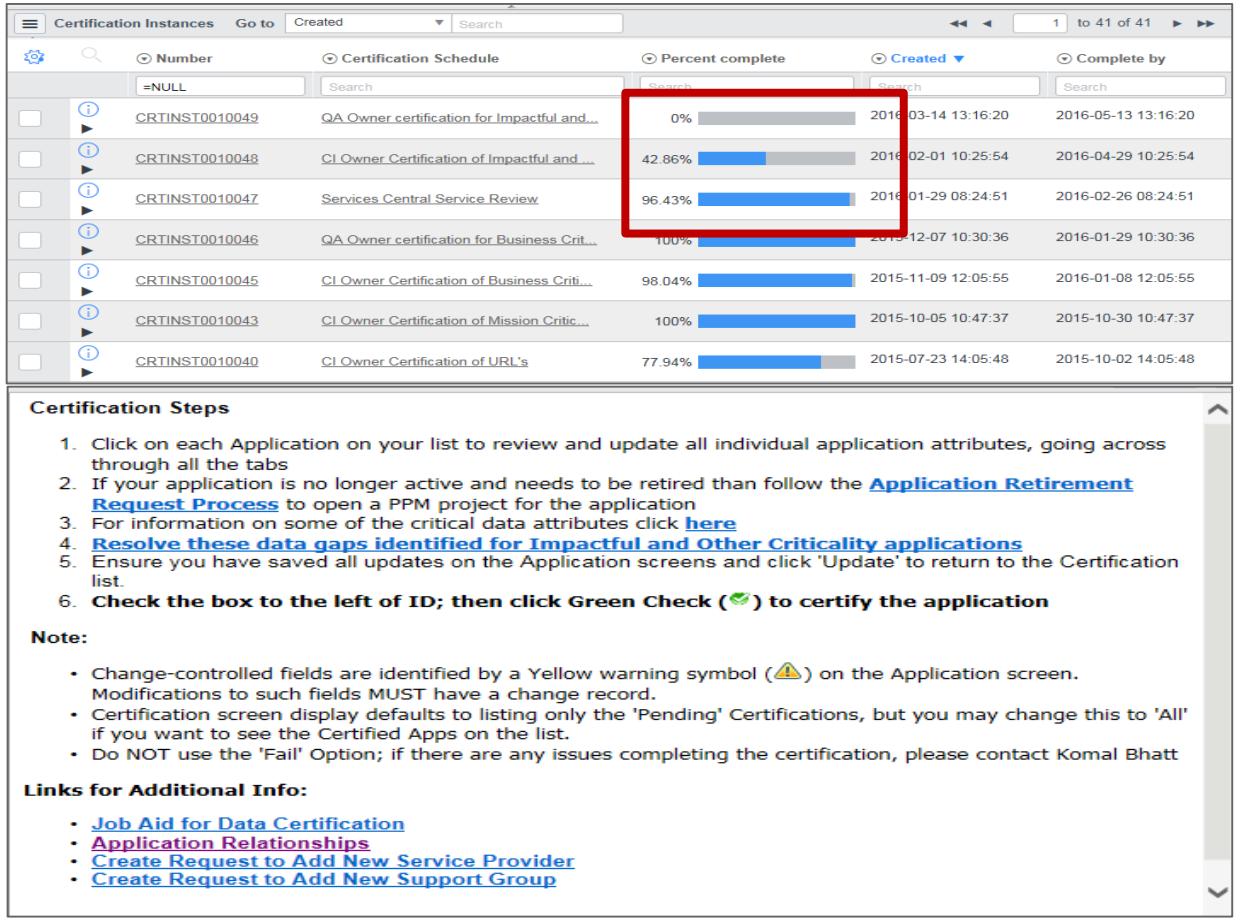
Accountable CI Owner	CI Relationship Type (The Parent is listed 1st)	Parent Descriptor	Child Descriptor	Notes
Service Owner	Business Service – Service Offering	Implemented By	Implements	
Service Owner	Service Offering – Application (Production)	Enabled by	Enables	Relate application(s) that enable the service offering.
Service Owner	Service Offering – Service Offering	Supports	Is supported by	Used when a supporting Service Offering is required to enable another Service Offering. This will typically be used when defining an End to End Service that utilizes a number of Service Offerings to deliver the End to End Service.

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CMDB Governance – Technology

Data Certification

- Annual CMDB verification cycles by CI type
- Based on application criticality
- Certification task assigned to individuals
- Certification task assigned to assignment groups
- Certification elements/attributes can be defined for verification
- OOTB Certification monitoring & reporting

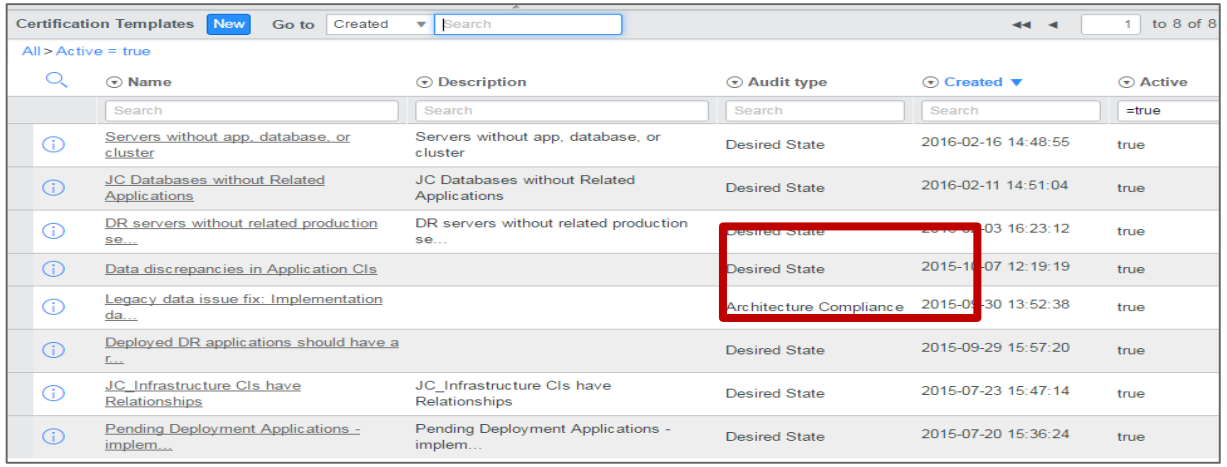


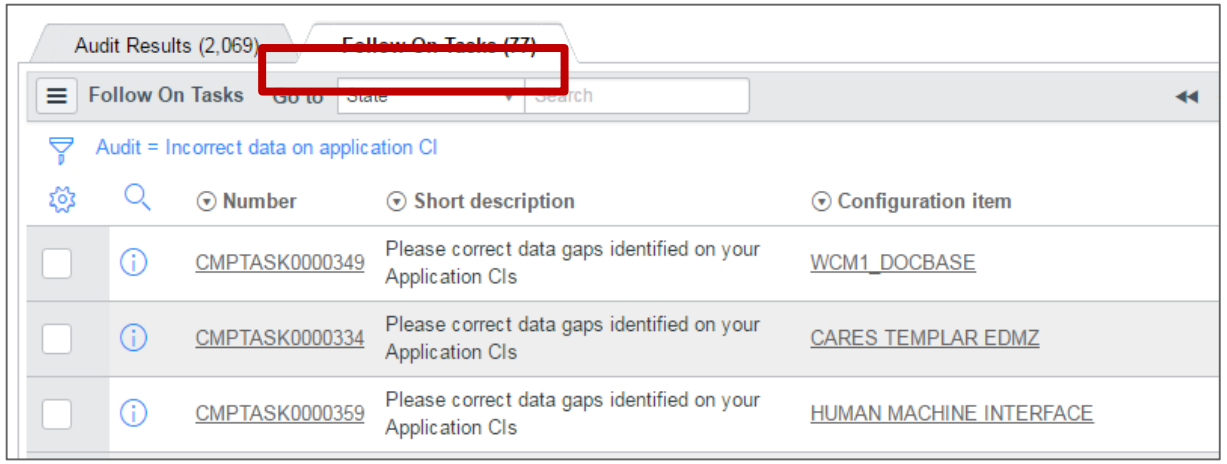
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CMDB Governance – Technology

Compliance

- Application that enables proactive verification of CMDB data for correctness & fix discrepancies
- Options:
  - Desired State
  - Architecture Compliance
- Criteria:
  - Attribute conditions
  - CI Relationship conditions
  - Related List conditions
  - User or Group conditions
- Publish discrepancies
- Automatically assigns follow-on remediation tasks to individuals or assignment groups





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CMDB Governance – Technology

CMDB Gamification

- Wall of fame
- Rewards & recognition
- Badges
- Awards
- Yammer & newsletter announcements
- Congratulatory notes from the CIO



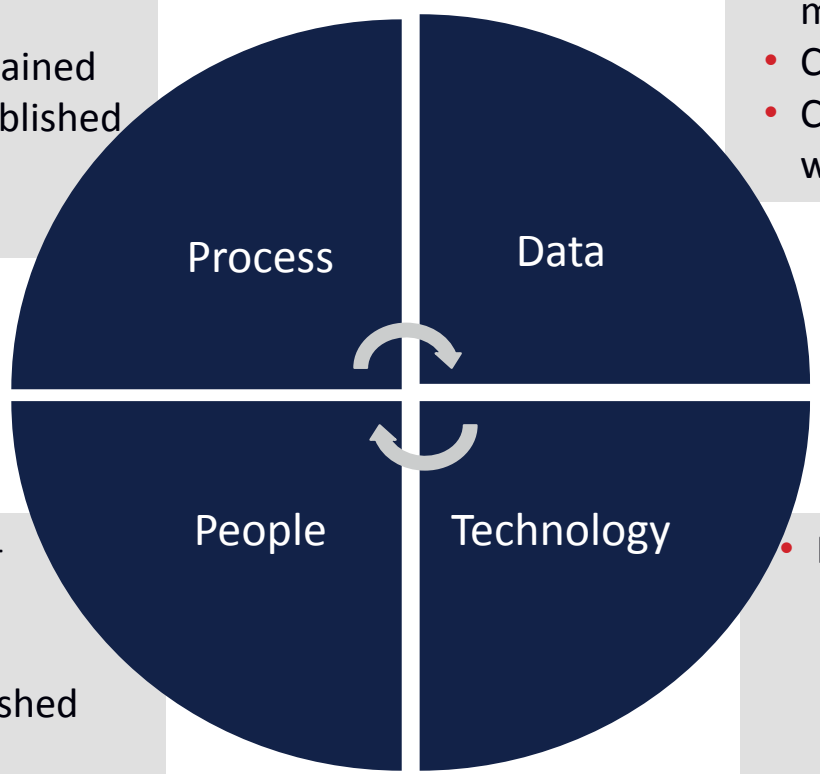


Badge	Criteria
	Recognizing our CI Owners for certifying Applications and/or Infrastructure – first CI Owner to complete the certification task accurately, CI Owner with most number of certified configuration items and CI Owner who remediates the most data quality gaps within the certification timelines.
	Recognize our Domain Owners who play a proactive role in the CMDB governance – highest % of certification completion within the certification timelines, highest % of monthly data quality improvement and zero data quality gaps within their domain.
	Recognize our Hosting Service Assurance Managers (SAMs) within IS/WS/SCS who proactively verify the criticality on 100% of all Mission Critical & Business Critical applications that they provide hosting support for.

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Configuration Management Today (2016)

- CMDB is managed interactively and in near real time by CI Owners
- Roles & responsibilities defined
- CMDB data architecture & model maintained
- Annual CMDB certification process established
- CMDB Success incentives established
- Process health scorecard



- CMDB data model guidelines published
- Monitor & measure monthly data quality metrics
- CMDB embedded in the operational fabric
- CMDB is considered as an enterprise asset which brings value to the enterprise

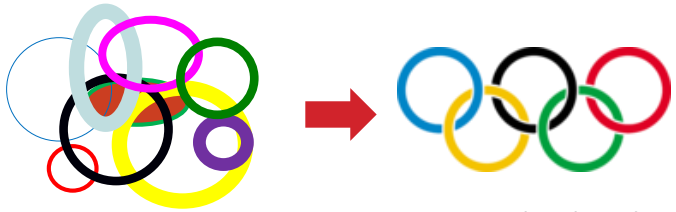
- Empowered globally distributed 1000+ CI Owners and 30 Domain Owners
- Multi-tiered Governance Model
- CMDB Data Governance Boards established
- SACM Process User Group established
- Increased CI Owner engagement/adoption
- Culture change

- Fully integrated suite of applications
  - Configuration Management
  - Change Management
  - Certification
  - Compliance
- Leveraging OOTB functionality

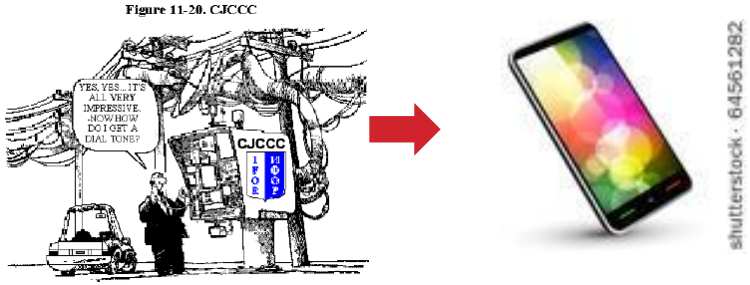
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Lessons Learned

- Define the process first and solution later
- Listen to the voice of the CI Owner
- Engage and empower the process participants
- Build a governance model
- Build a SACM strategic roadmap
- Set a plan of system releases and deliver value to the enterprise
- Organizational change management is very important
- Embed the process/CMDB in the day-to-day operational fabric
- A good CMDB is a catalyst for enterprise success



Chaos → Standardized



Complex → Optimized



Insufficient controls & monitoring → Controlled & Monitored

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Top Takeaways

1. Engage, enrich & empower the process participants
2. Build and right-size your governance model
3. Adapt, Adopt, Evolve…and celebrate every success

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