

# Optimizing your CMDB Investments in an Increasingly Real-Time Universe



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# Agenda



- CMDB's 2 parents: CMDB to CMS to SKMS
- Maturity, Organization and Ownership
- Platforms and CIs: Scope, Issues and Modeling
- Updates and Discovery – the move to run-time and real-time
- Federation – From CMDB to CMS to SKMS for more real-time control
- Benefits and looking ahead to Cloud and beyond
- Company X and Lessons Learned

# Are You Worried?



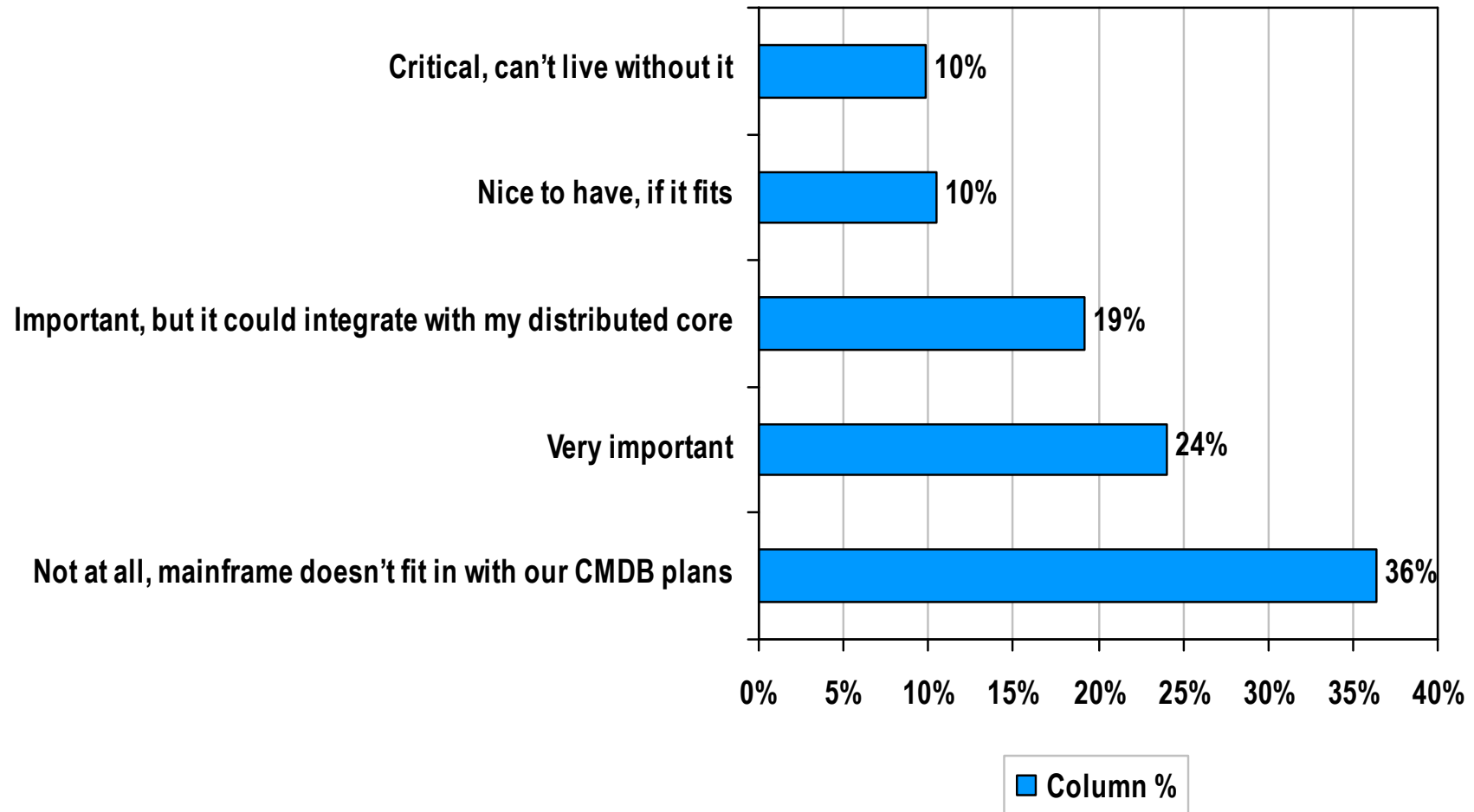
- *More than 75% of IT projects fail, either by providing too little functionality or overrunning cost and time estimates.”*
- *Major IT initiatives are risky and often put an executive’s reputation on the line.”*
- *You can’t sit still, and you’re afraid of moving forward.”*



# 34% of Respondents Felt Mainframe Support was Critical or Very Important



Q45\_1 How important is mainframe support for your company's core CMDB System?

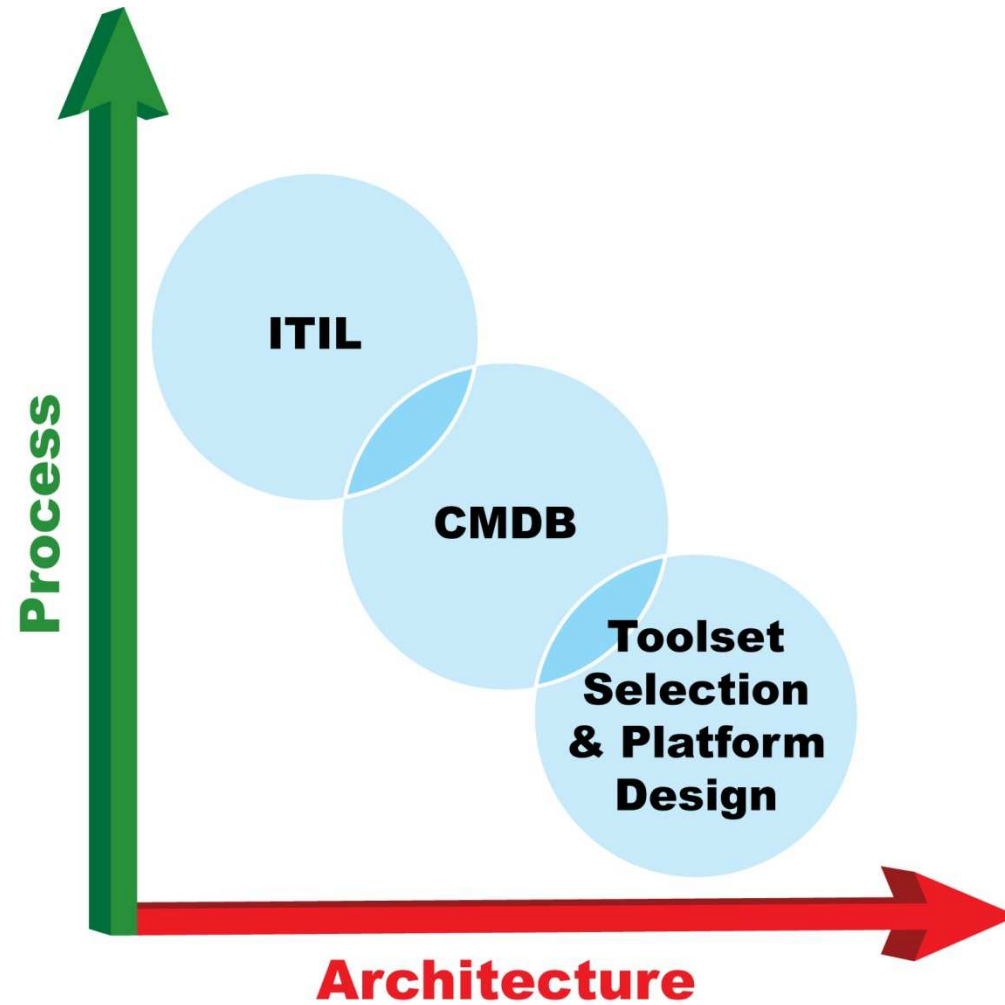


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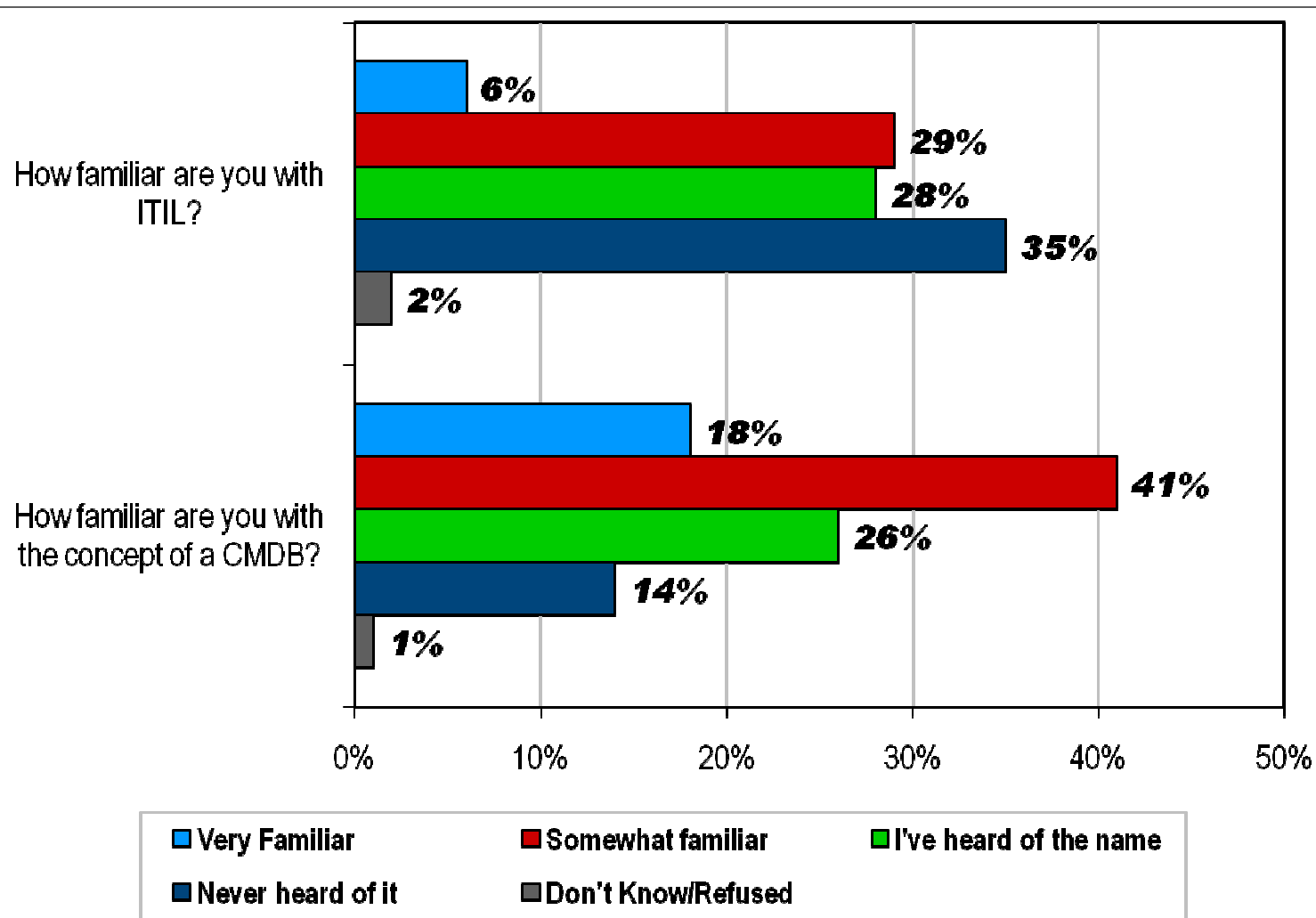
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# The CMDB's Two Parents



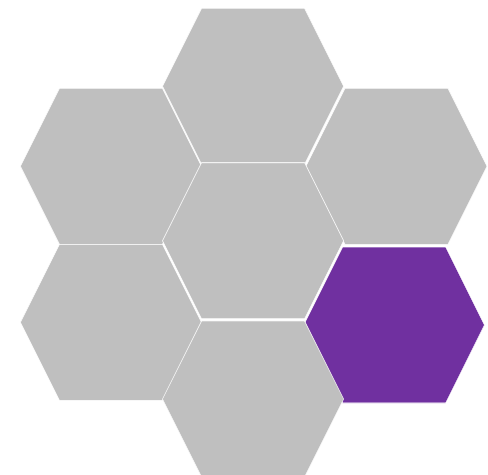
# Two Parents: CMDB Awareness Versus ITIL Awareness



# Service Lifecycle Management and the Configuration Management System – a prelude to federation



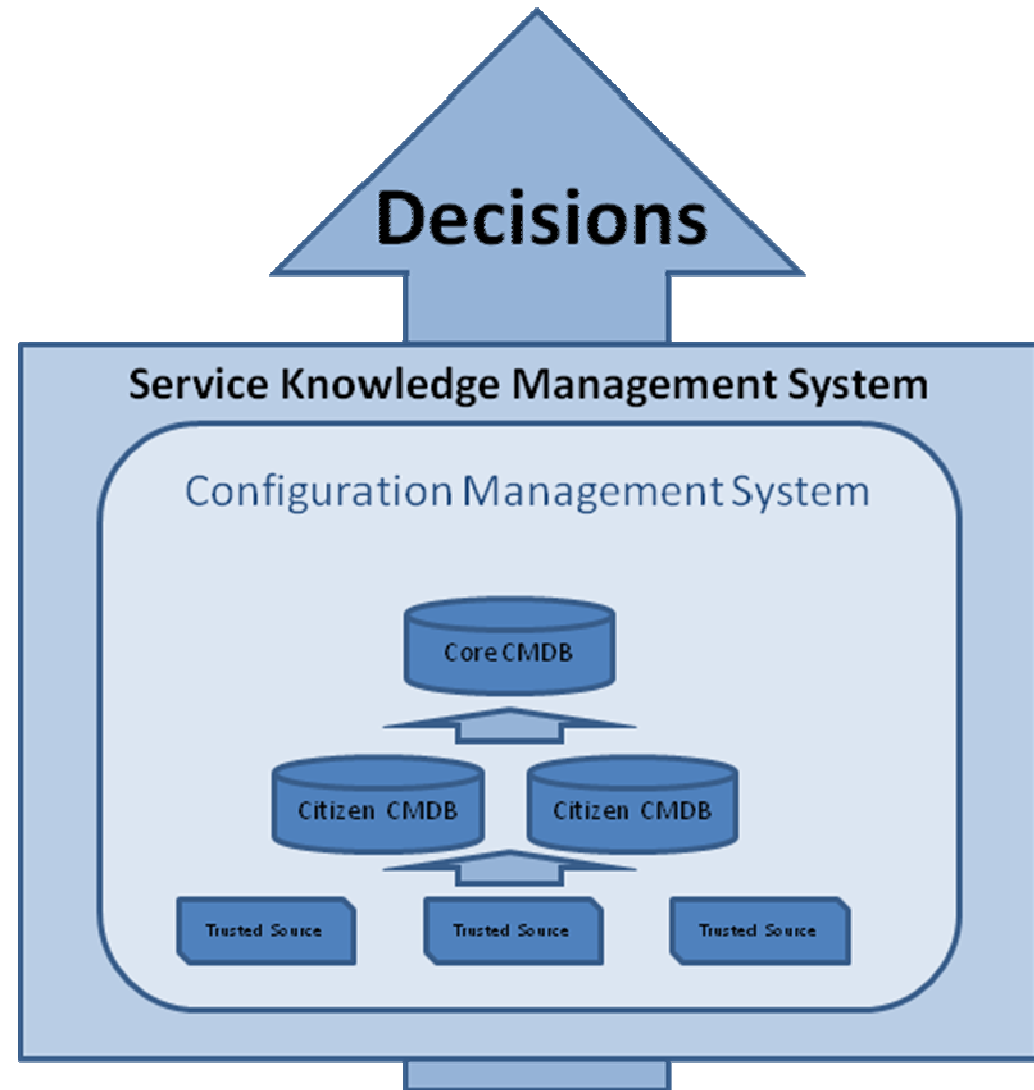
- Service Strategy
- Service Design
- **Service Transition**
- Service Operation
- Continual Service Improvement
- Configuration Management System (CMS)
  - “Container” for CIs, management data repositories, CMDBs, affecting the activities and processes for managing IT Services
- Service Knowledge Management System (SKMS)
  - Tools, processes, and databases used to manage knowledge and information
  - Includes the CMS
  - Represents perhaps the most exciting advancement in ITIL V3



# SKMS Architecture



- The primary purpose of the SKMS is to improve efficiency by reducing the need to rediscover knowledge
- SKMS is responsible for gathering, analyzing, storing, and sharing all types of knowledge and information within an organization



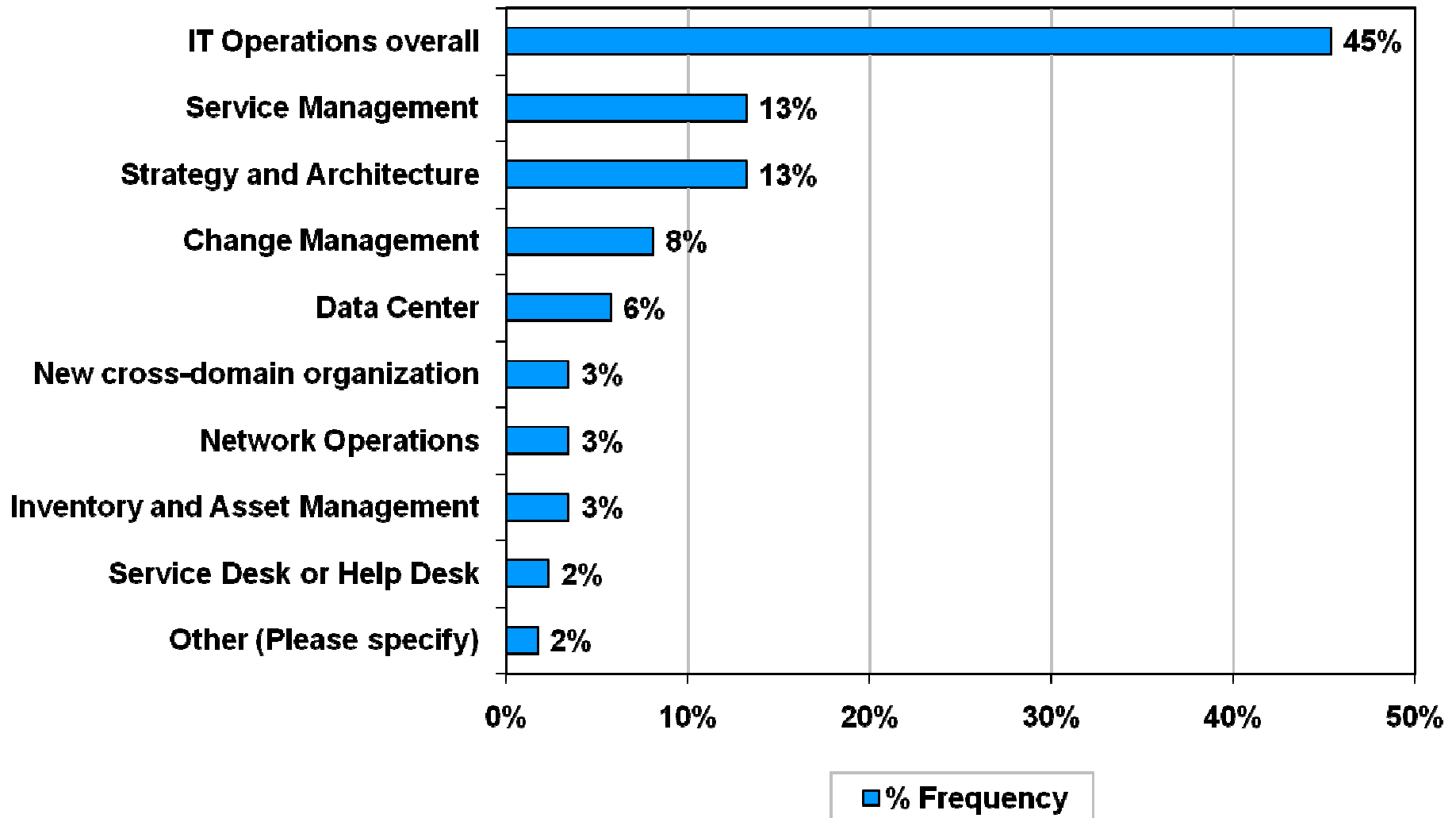


# Maturity, Organization and Ownership

# 2008 numbers showed Operations far more dominant, with Service Management and Strategy/Architecture tied



Q18\_1 What organization owns the CMDB mission and strategy?

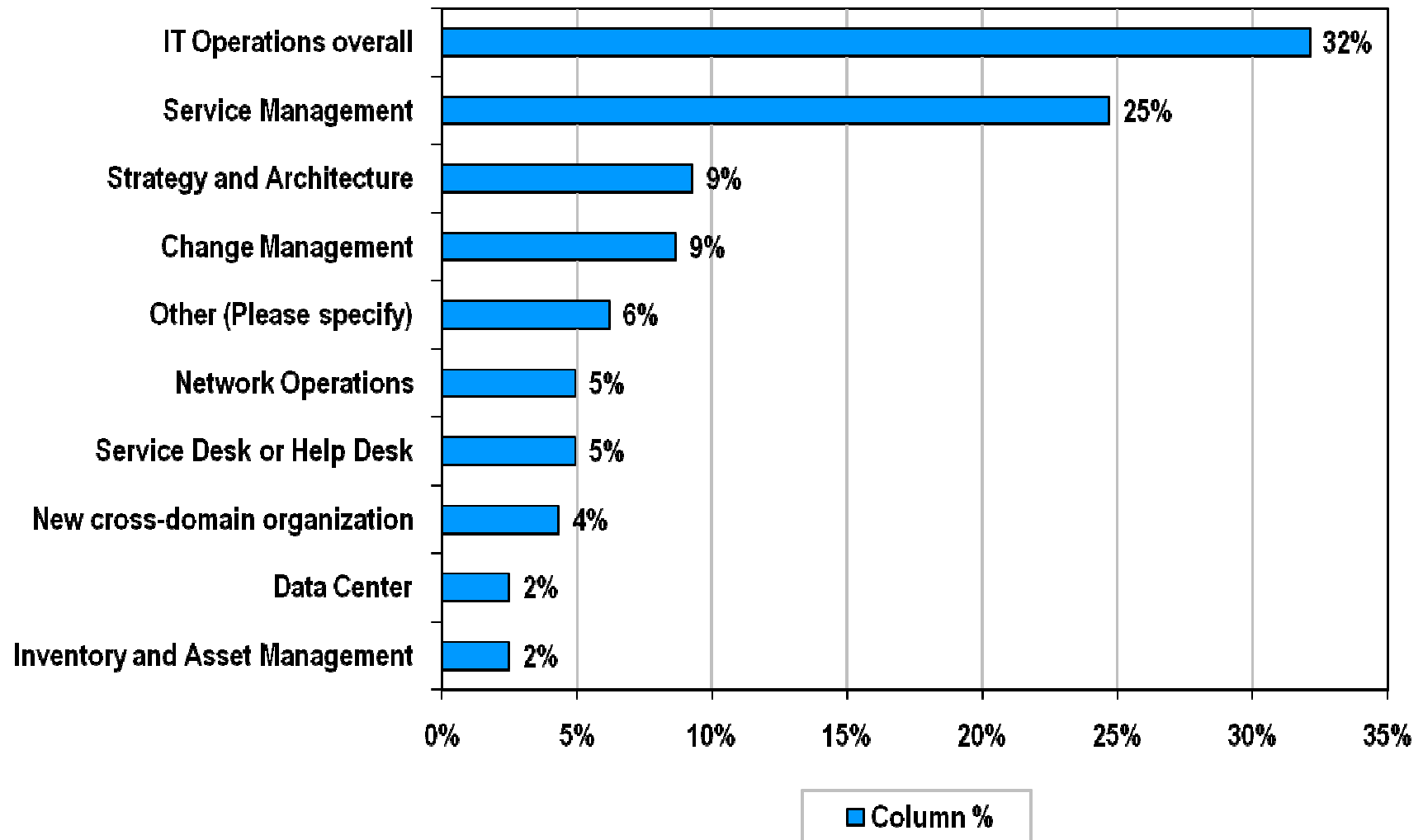


Sample Size = 174

# While IT Operations once dominated “Ownership,” Service Management and others are on the rise



Q18\_1 What organization owns the CMDB mission and strategy?



Sample Size = 162

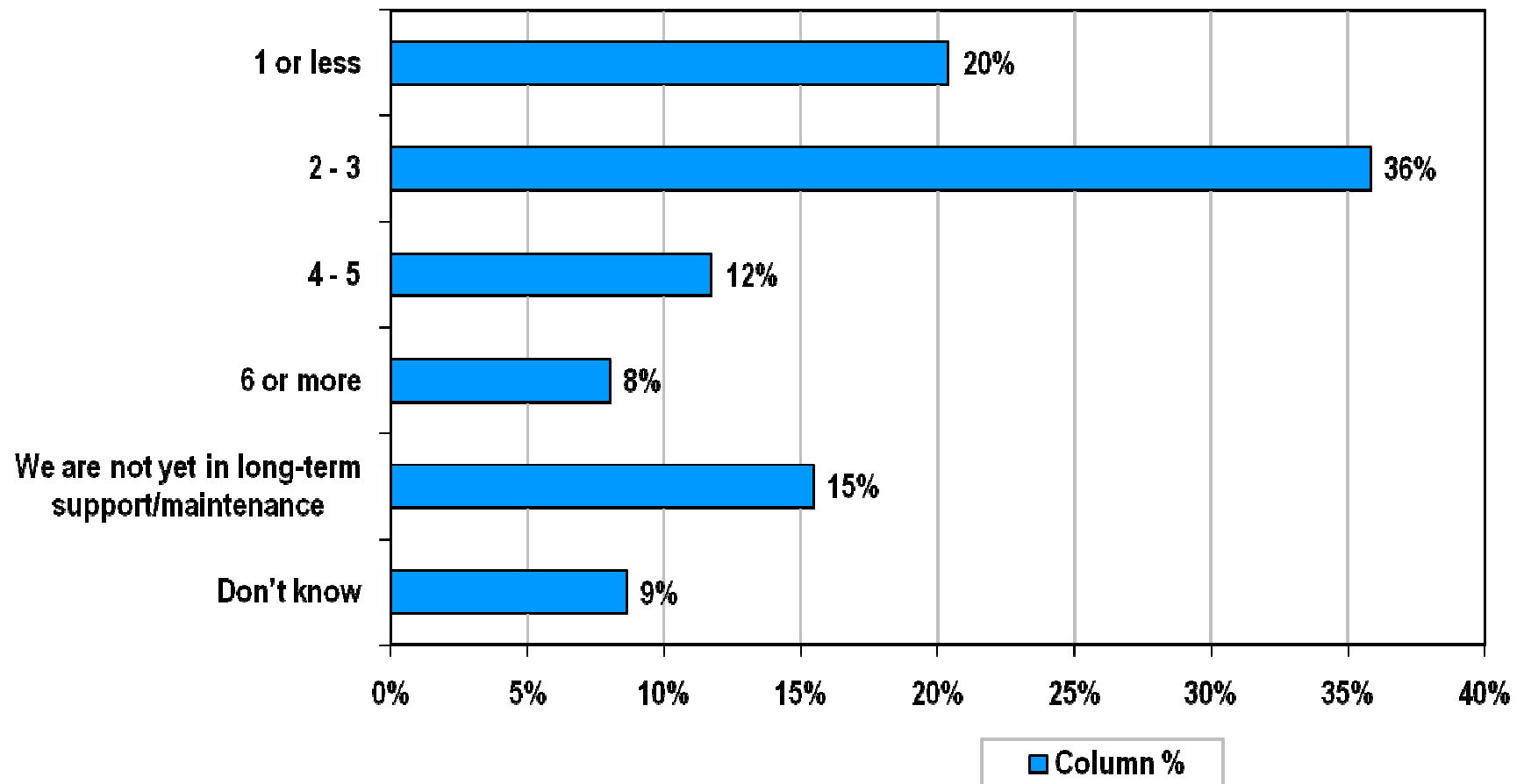
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# The most typical FTE allotment is 2-3



Q28\_1 How many full time equivalents FTEs are allocated to the long-term support and maintenance of the CMDB system (not including data stewardship by domain experts)?

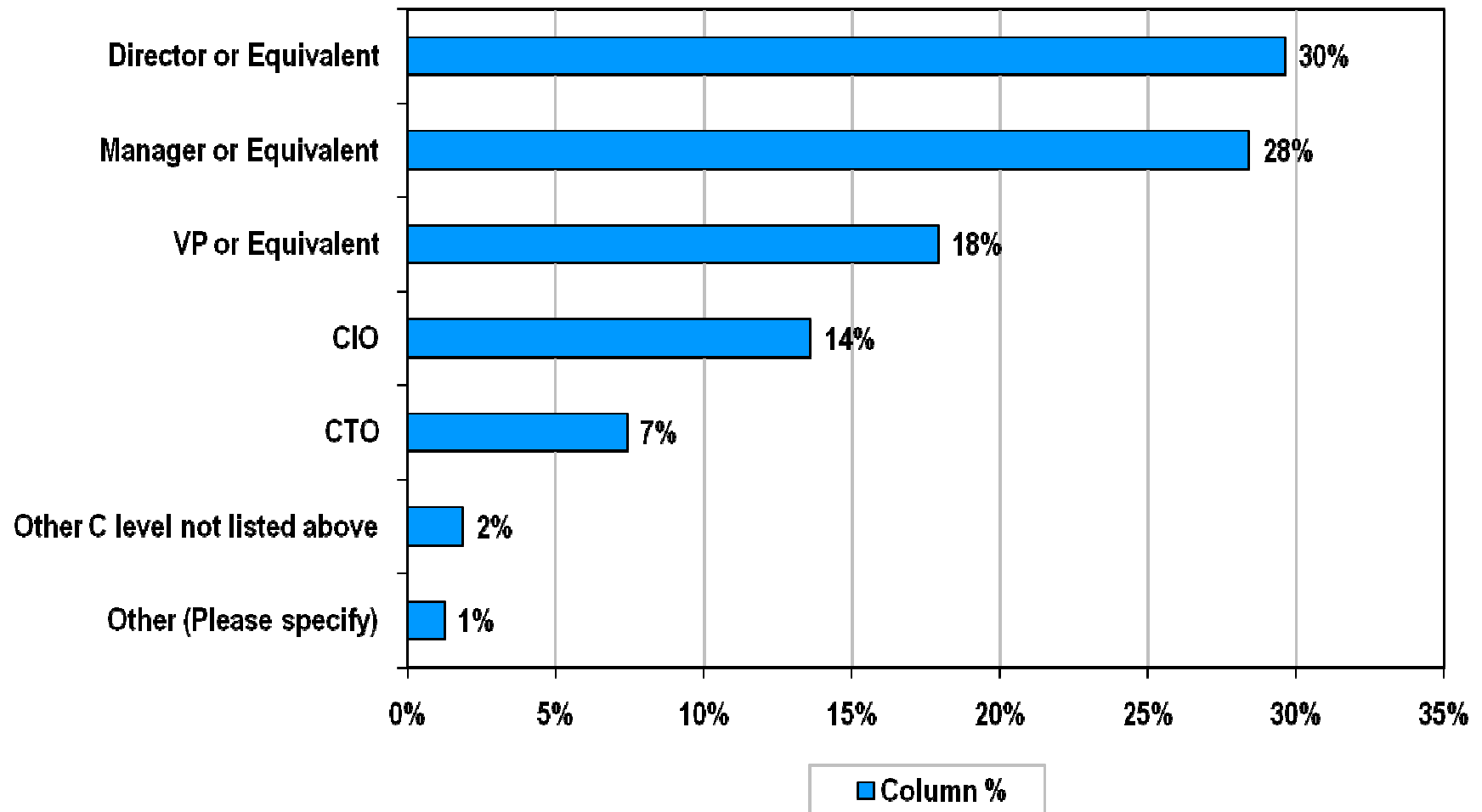


Sample Size = 162

# Executives play a much needed role in day-to-day leadership (23% C level)



Q19\_1 What is the highest level executive/management directly responsible for overseeing the day-to-day progress of your CMDB System?



Sample Size = 162

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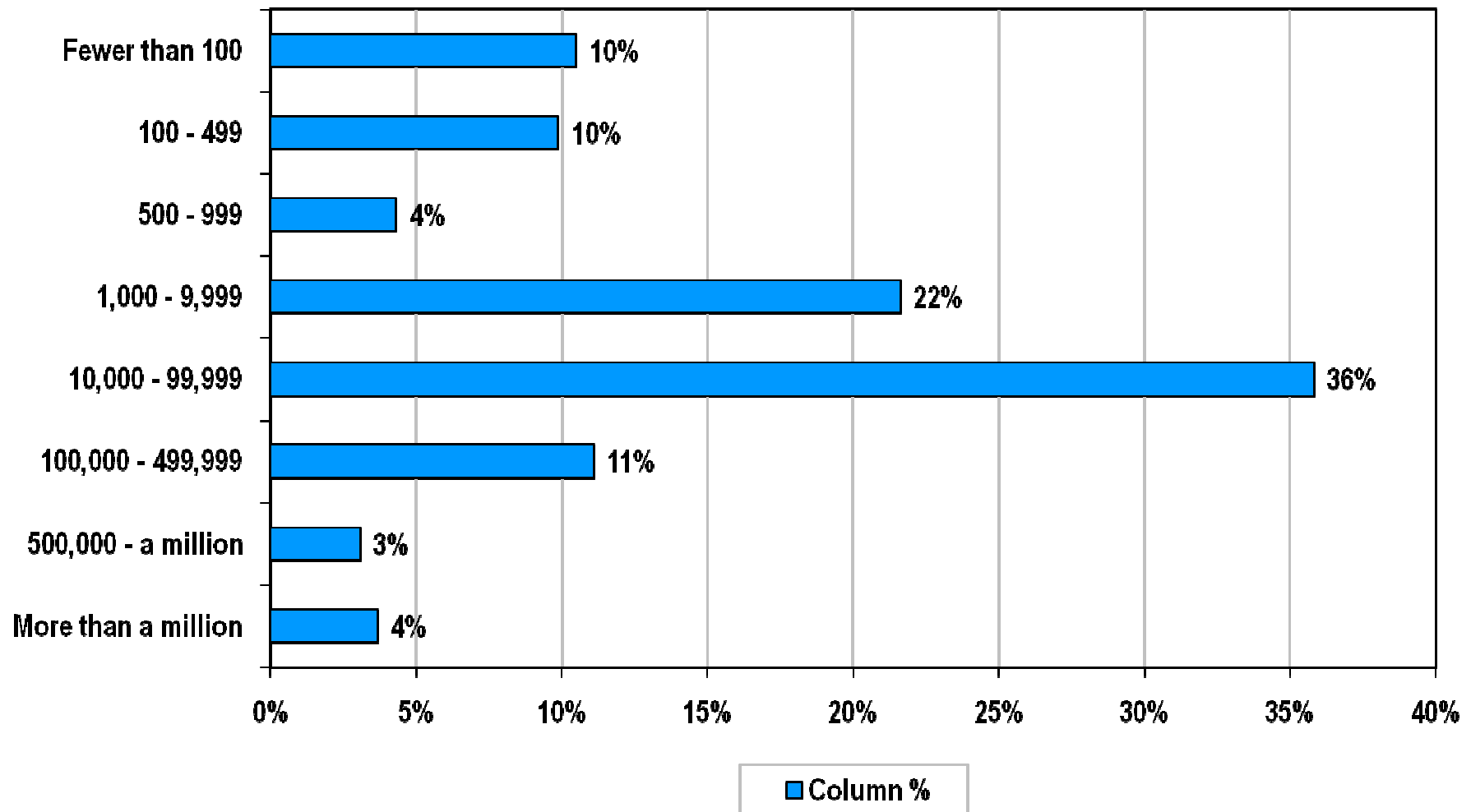
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# Platforms and Cls: Scope, Issues and Modeling

# 18% of deployments have more than 100,000 CIs, and 36% are between 10,000 and 99,999



Q22\_1 How many CIs are you currently supporting across your CMDB System?



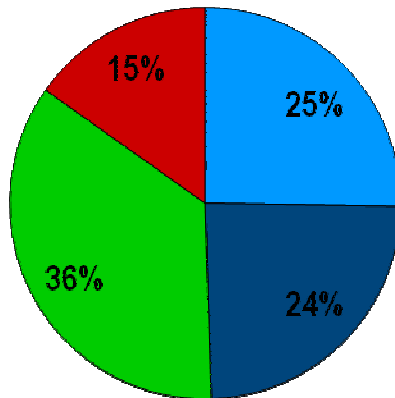
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# Administrative overhead is only modestly impacted by CI scope in most deployments

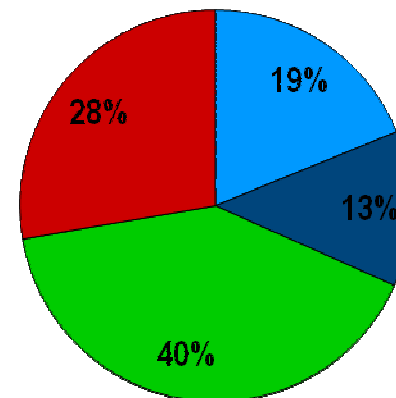


Q22\_1 How many CIs are you currently supporting across your CMDB System? Grouped by Q28\_1 How many full time equivalents FTEs are allocated to the long-term support and maintenance of the CMDB system?  
Grouped

3 or less



4 or more



■ 999 or less ■ 1,000 - 9,999 ■ 10,000 - 99,999 ■ 100,000 or more

Sample Size = 123

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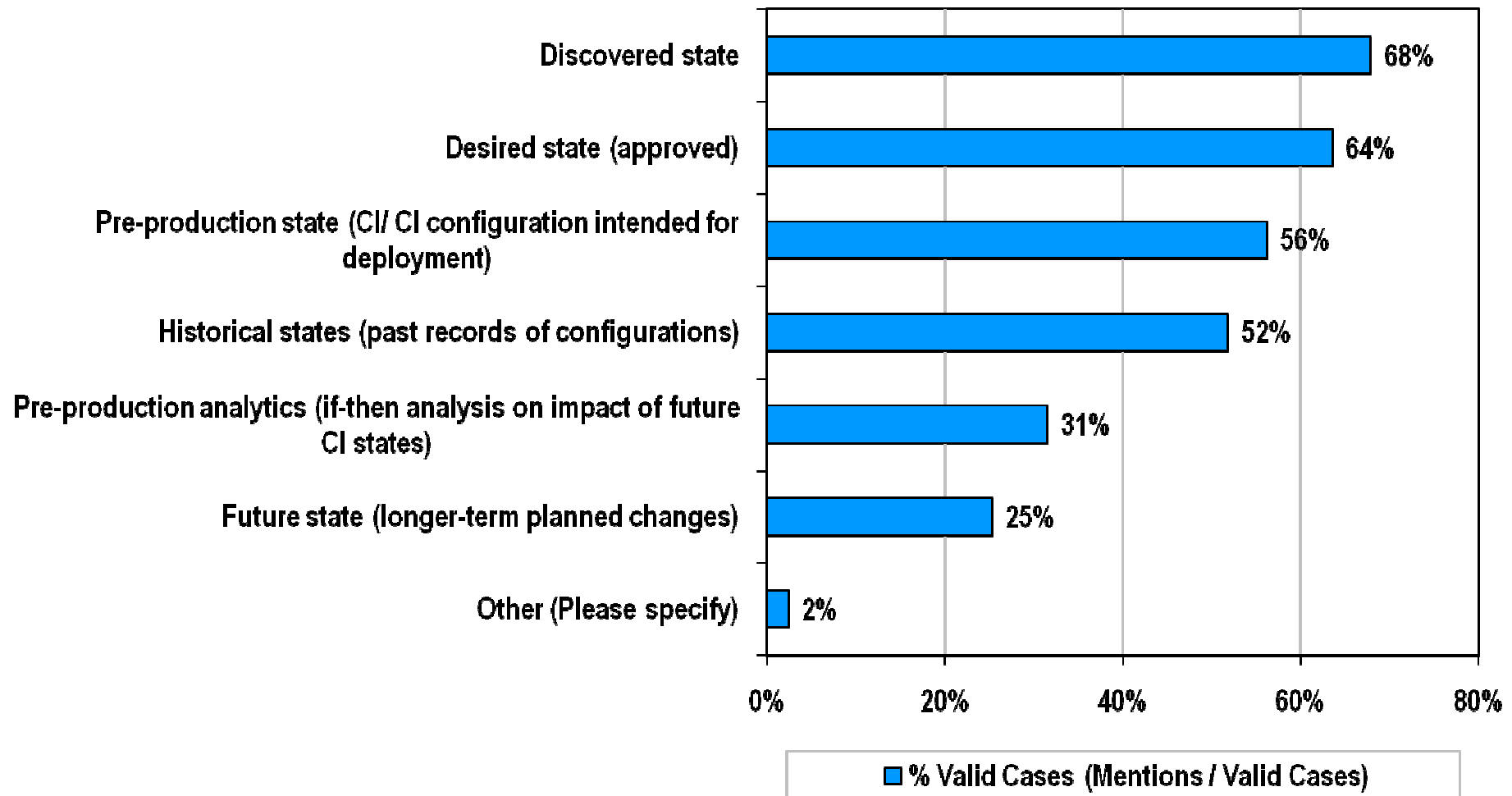
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# The average C MDB deployment tracks three (2.98) different CI states



Q29\_1 What lifecycle CI states does your company currently track or plan to track within the next twelve months? Select all.



Sample Size = 162, Valid Cases = 162

# CMDB Systems often scope to many domains and resources



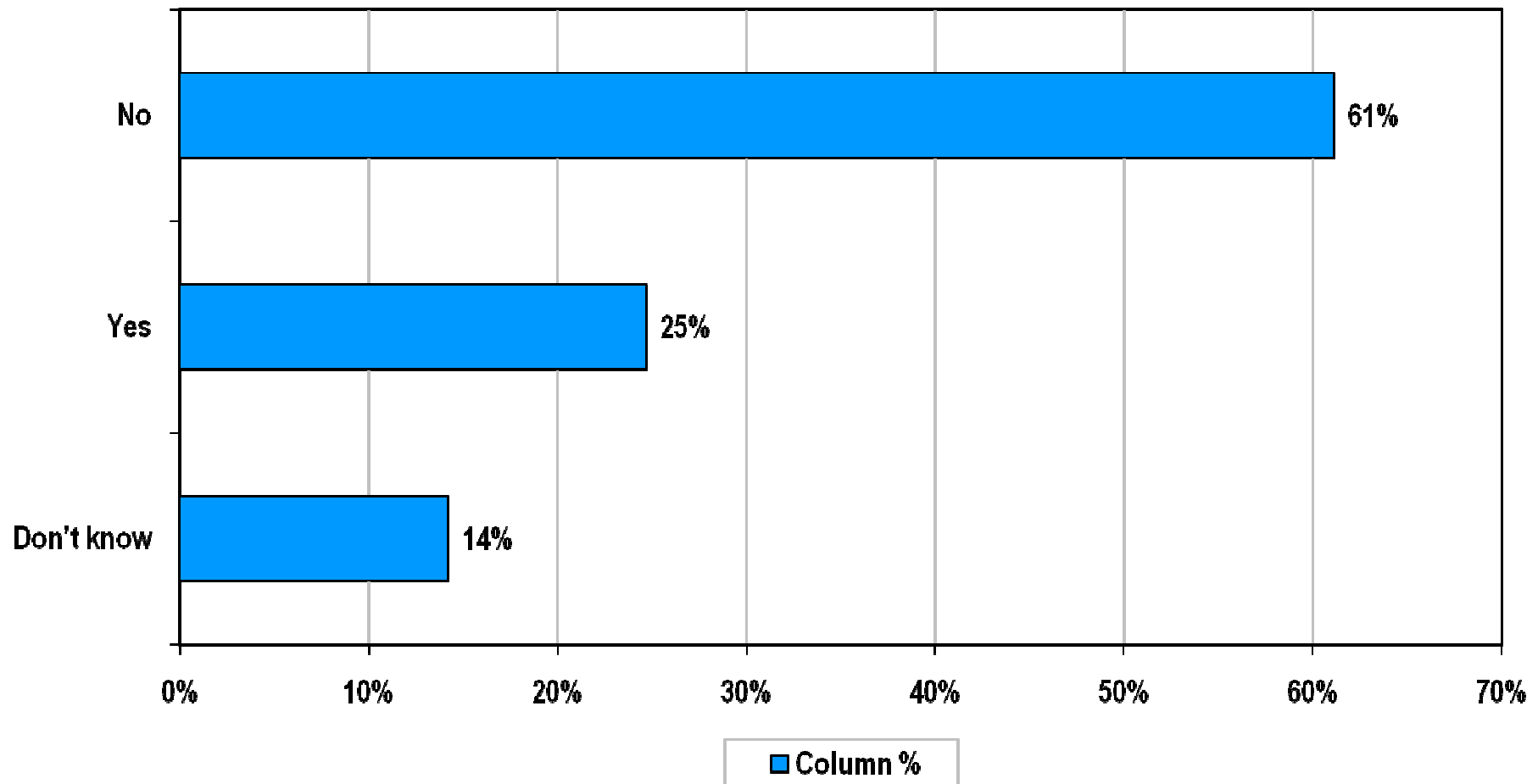
- “I would estimate on the order of **15,000 CIs** associated with infrastructure components – We have **400 applications** on our list but not all of them are critical.”
- “If you were to ask me about CIs in terms of what’s discovered, I would say that there are more than **30 million**. But of course we don’t populate all this into the core CMDB... There are about **6,000 business applications**, but we’re probably prioritizing about **sixty**.”
- “We are including the broader applications infrastructure – **software, servers, network devices, circuits, SAN storage, database engines, and databases**.
- “We have to support about **80,000 workstations, 29,000 servers and about a hundred mainframes**.”

# Updates and Discovery: the Move to Run-time and Real-time

# For most respondents, CI update intervals should be differentiated



Q23\_1 Do you update all the CIs in your CMDB System at the same time interval?



Sample Size = 162

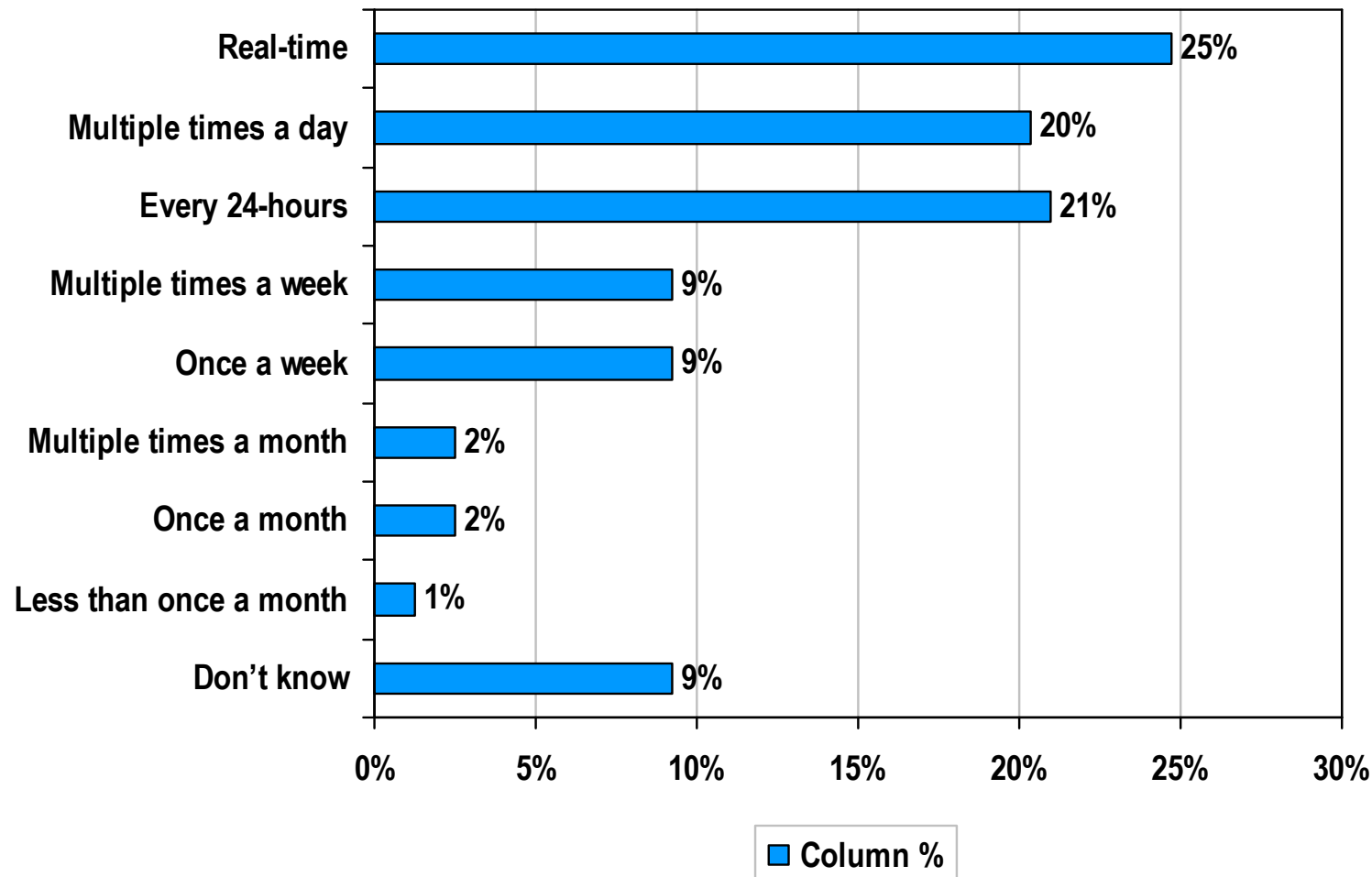
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# 25% were targeting real-time CI updates by the end of 2009



Q25\_1 By the end of 2009, what is the most frequent interval that you expect to or hope to regularly update some of the CIs in your CMDB System?

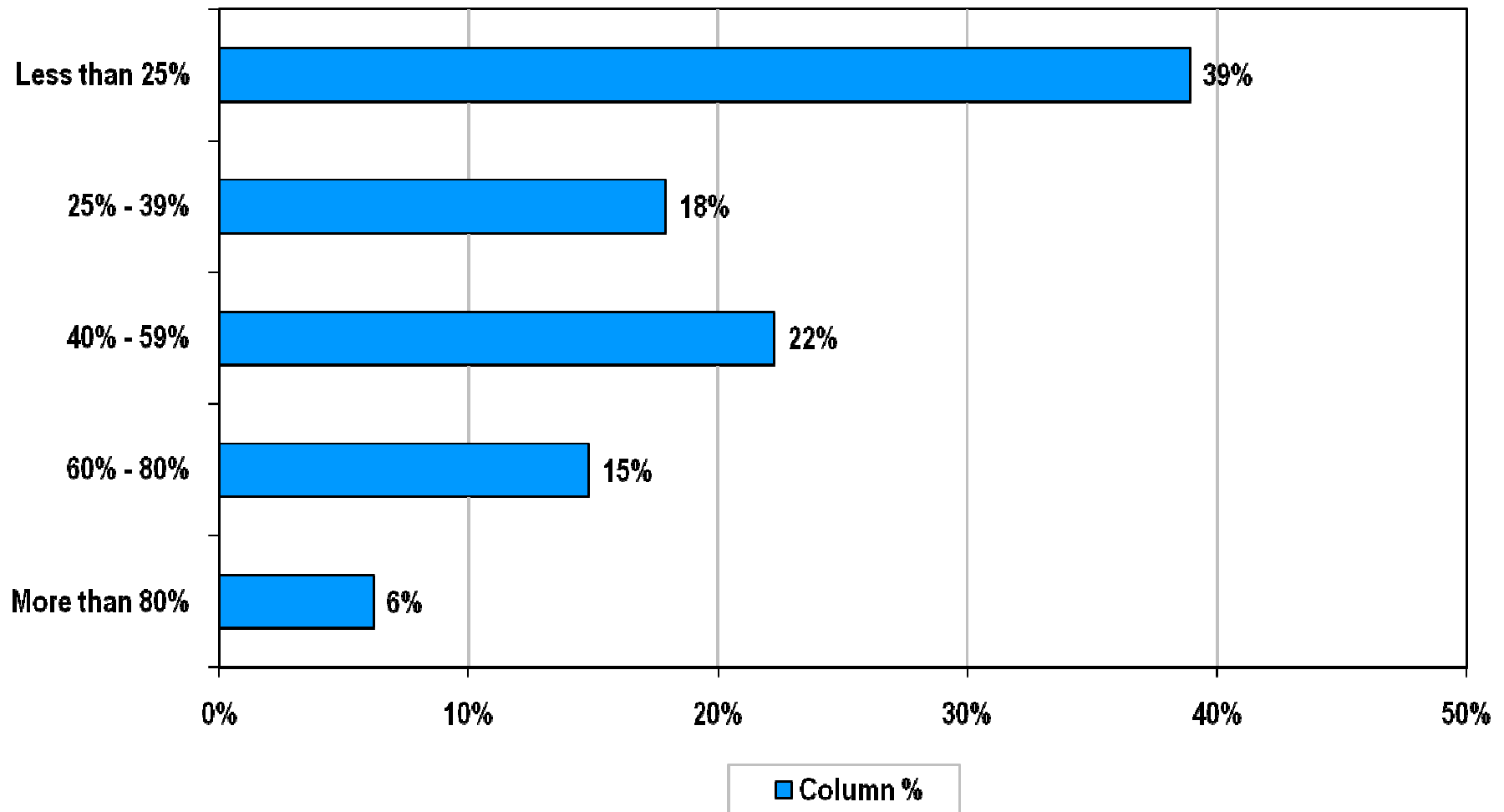


Sample Size = 162

# 43% of CMDB deployments claim automatic updates for 40% or better of their CIs – average is about a third



Q26\_1 What percentage of CIs in your CMDB system are automatically updated?



Sample Size = 162

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# Why is Automation Important?



- Manual IT processes → errors, delays, costs, risks, downtime, etc.
- Automating complex IT processes provides the solution
  - reduced errors
  - faster response
  - lower costs
  - less downtime
  - improved security
  - reduced risk
  - Improved compliance
- Operational Efficiencies
- Service resiliency
- Infrastructure optimization



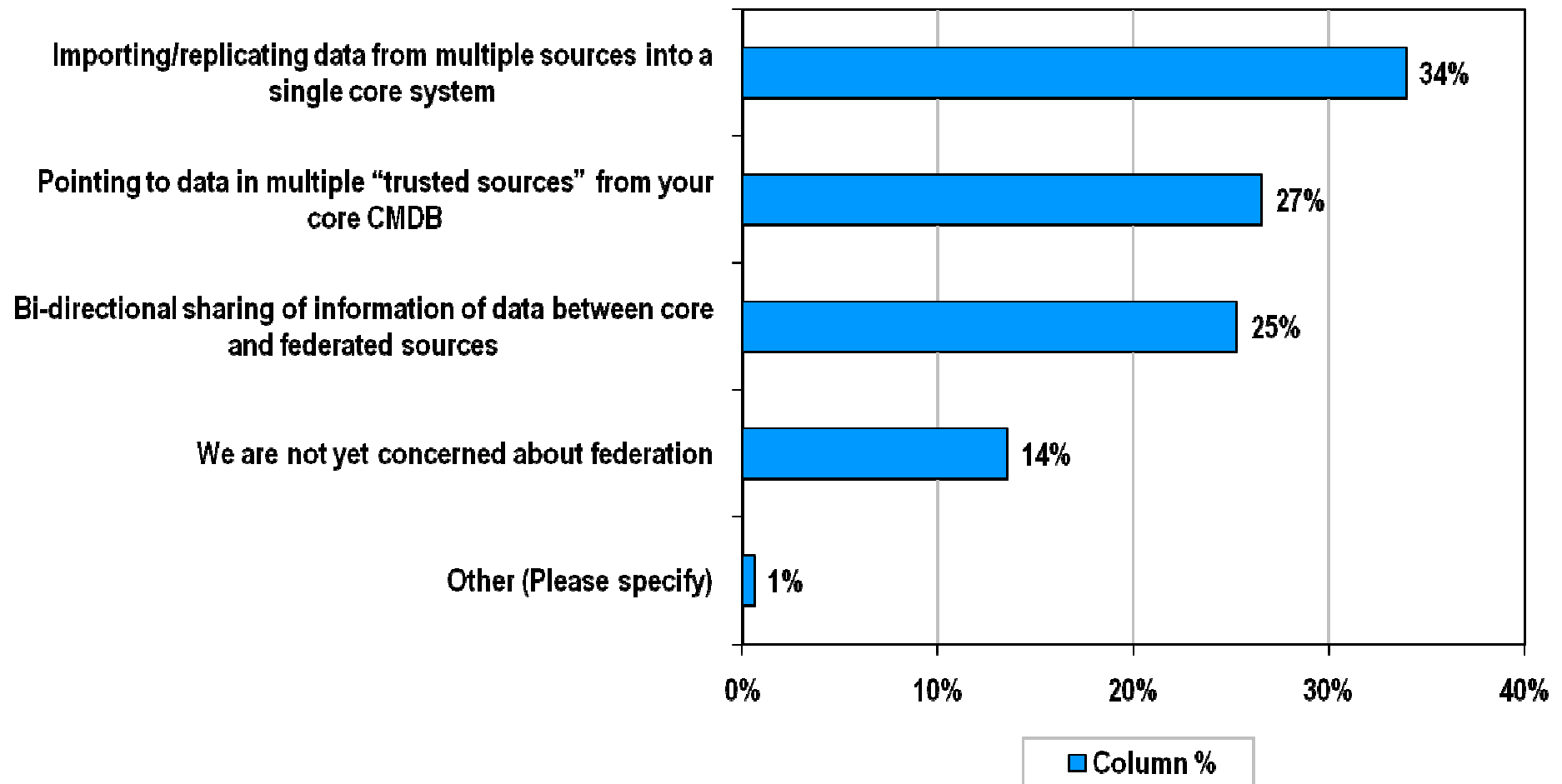
# Federation – from CMDB to CMS to SKMS for more Real-time Control



# Only 14% are “not yet concerned about federation”



Q35\_1 What is the top concern and/or focus for 2009 in terms of sharing information across the CMDB System?

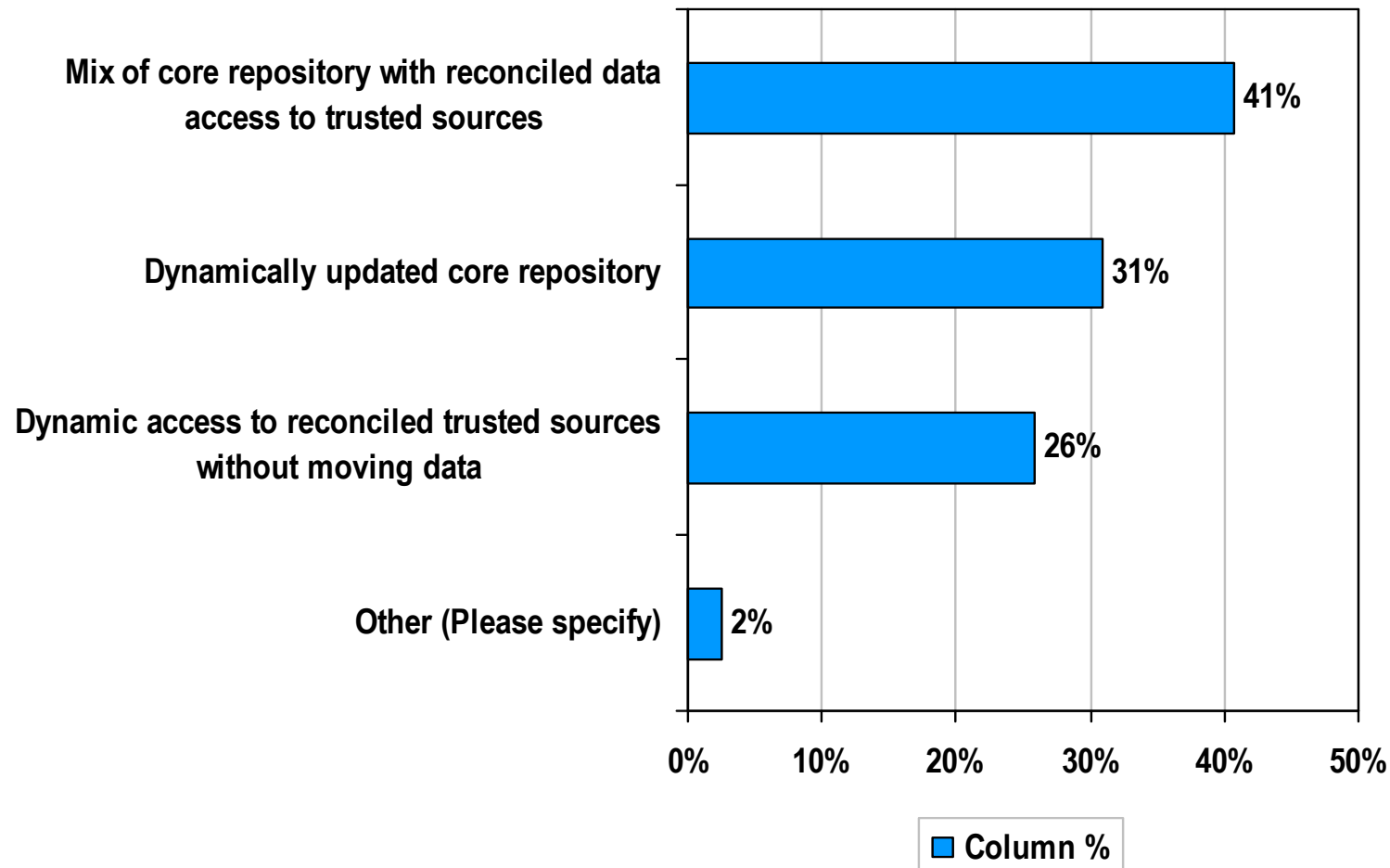


Sample Size = 162

# 41% Prefer a Mix of Repository and Reconciled Access to Trusted Sources



Q31\_1 What would you view as the most optimal capability for a CMDB System in terms of data reconciliation and access?



Sample Size = 162

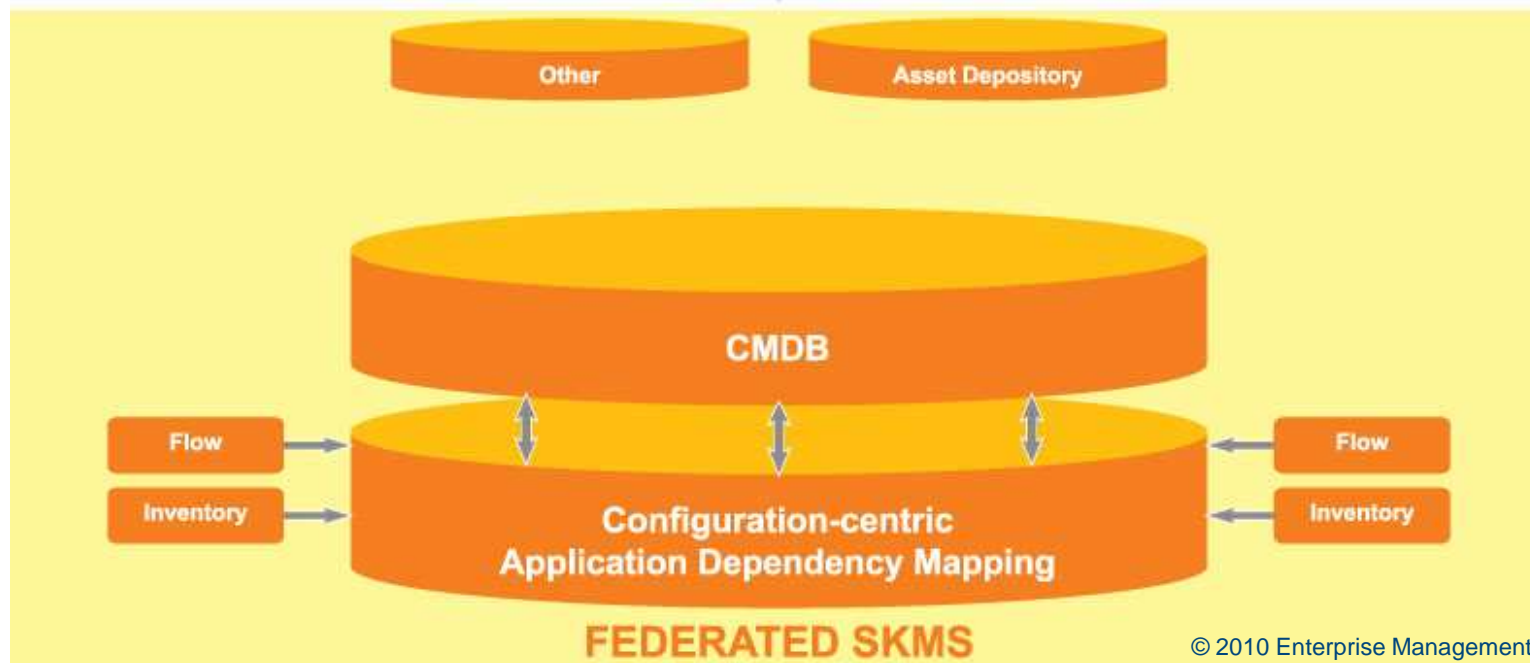
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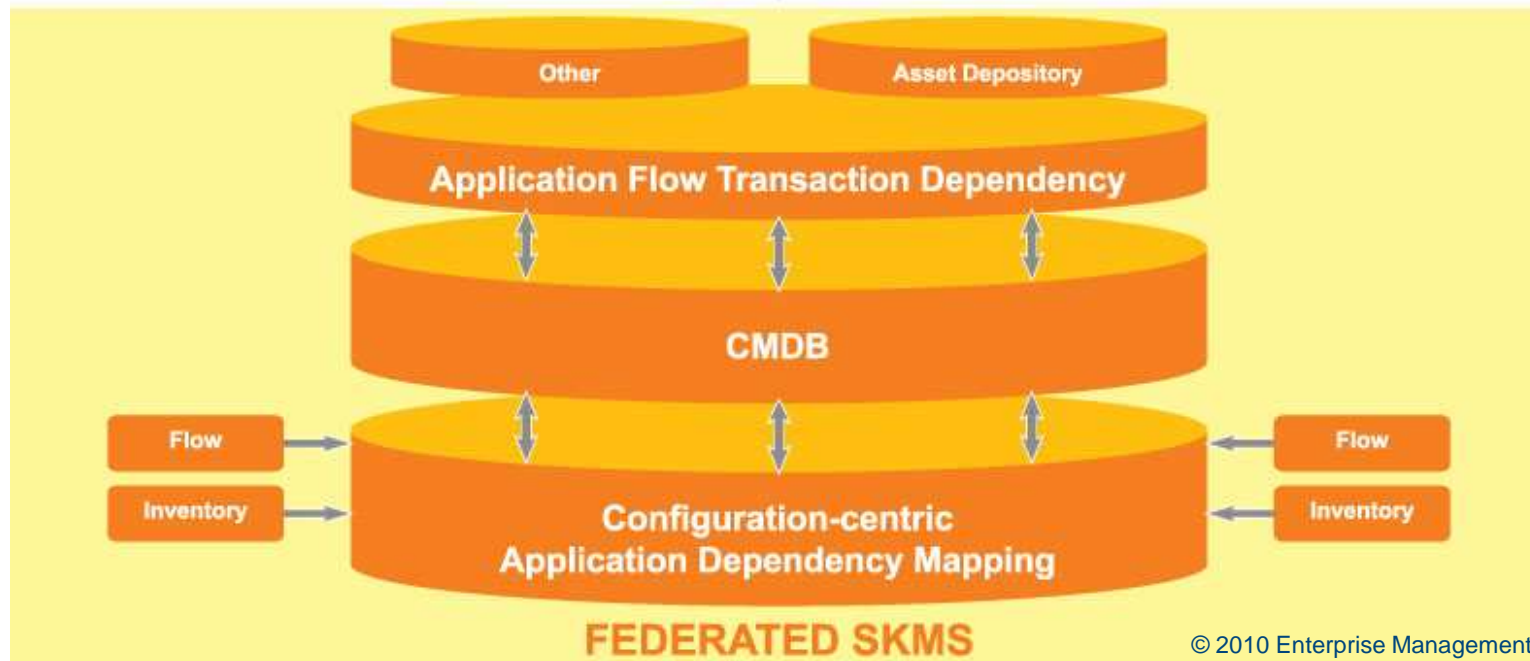
# The Ideal Deployment Graphically Speaking



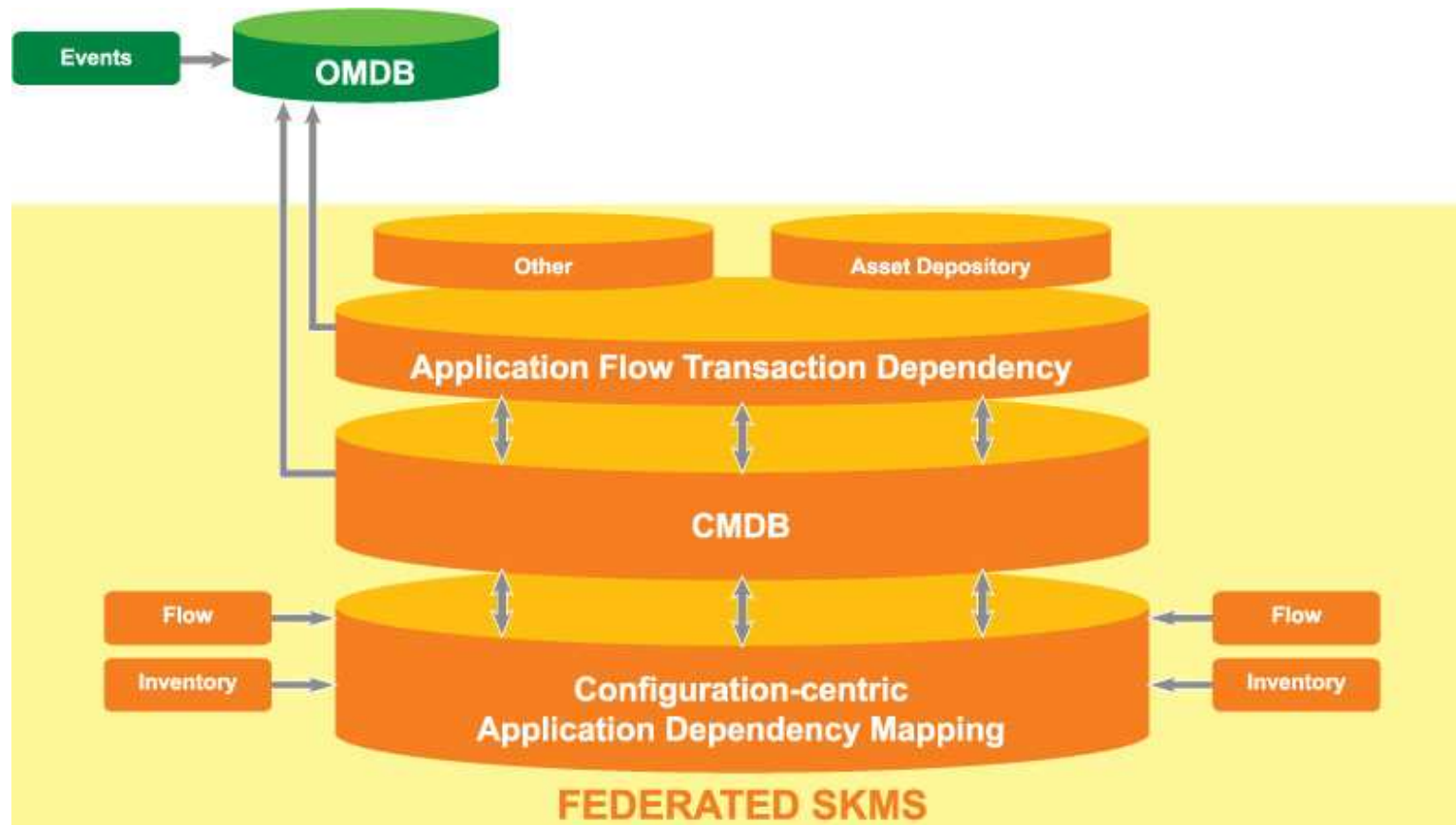
# The Ideal Deployment Graphically Speaking



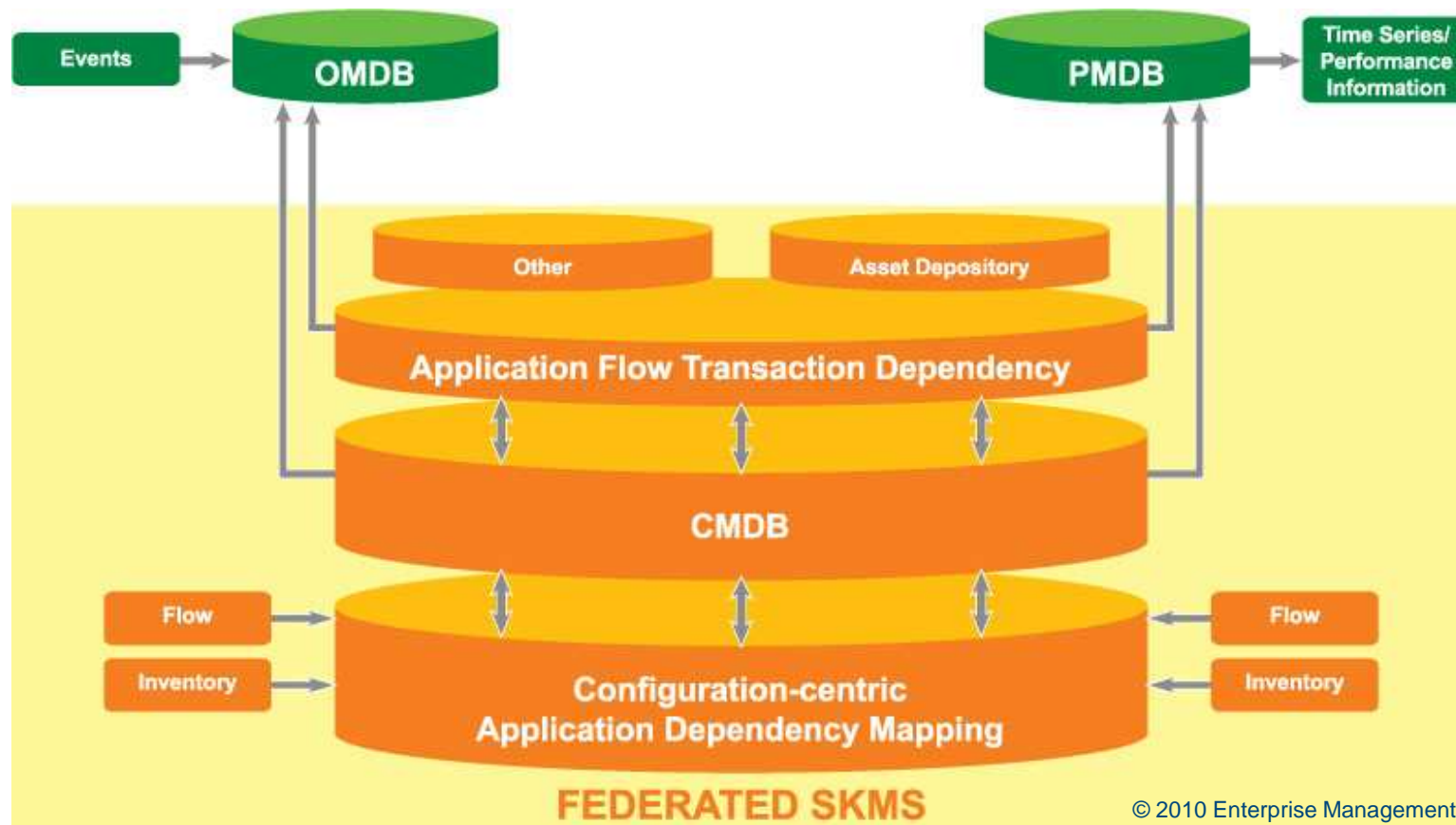
# The Ideal Deployment Graphically Speaking



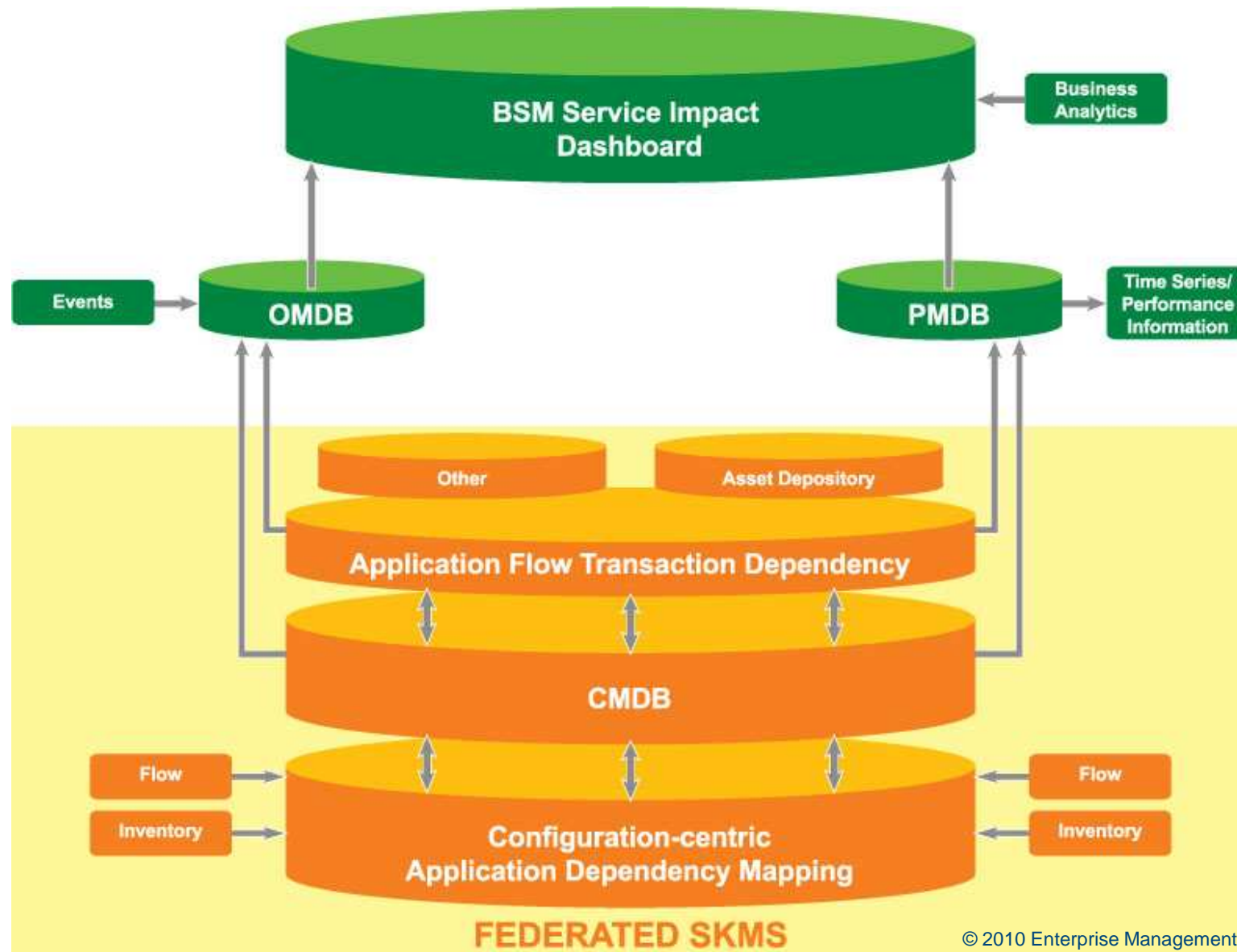
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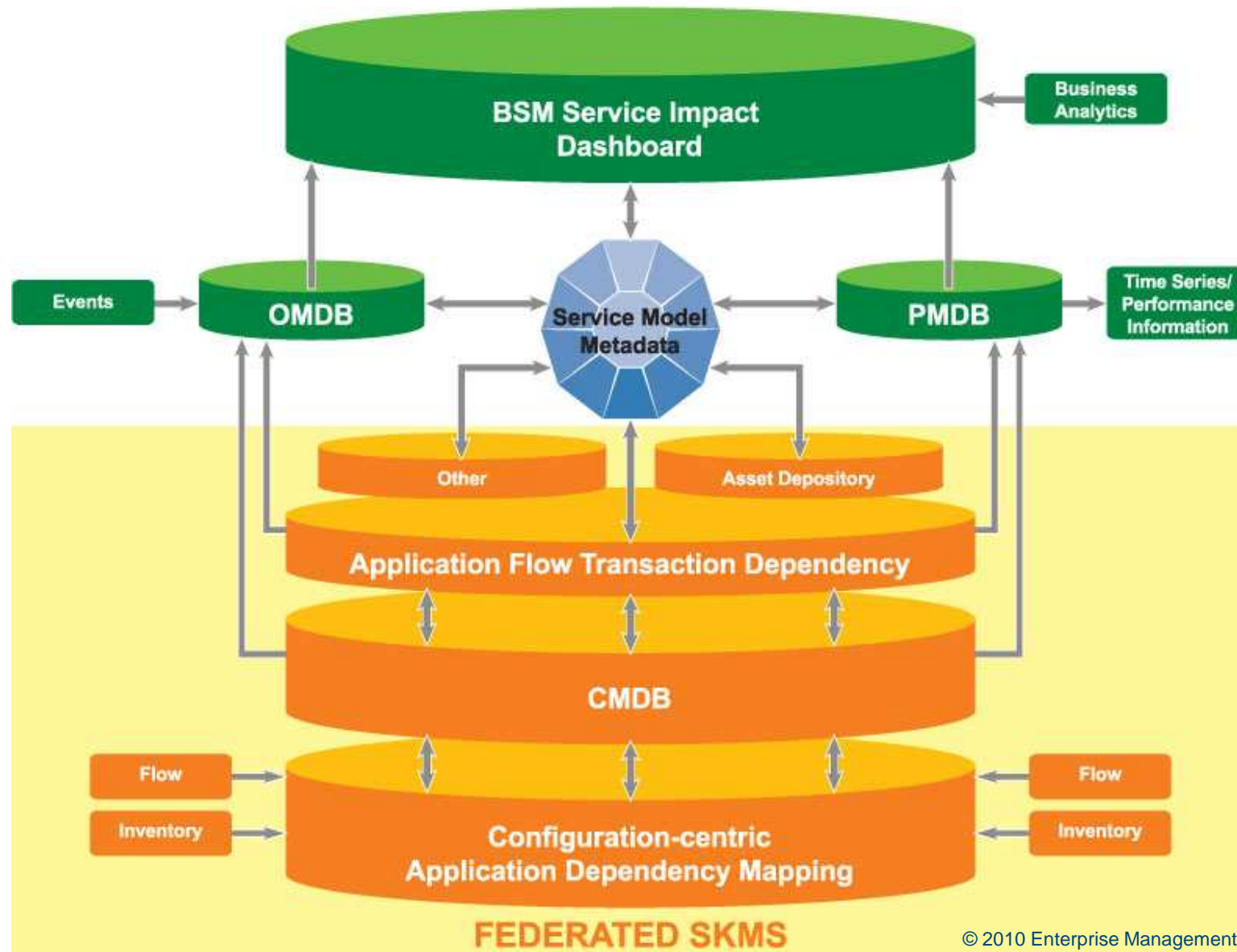


# The Ideal Deployment Graphically Speaking

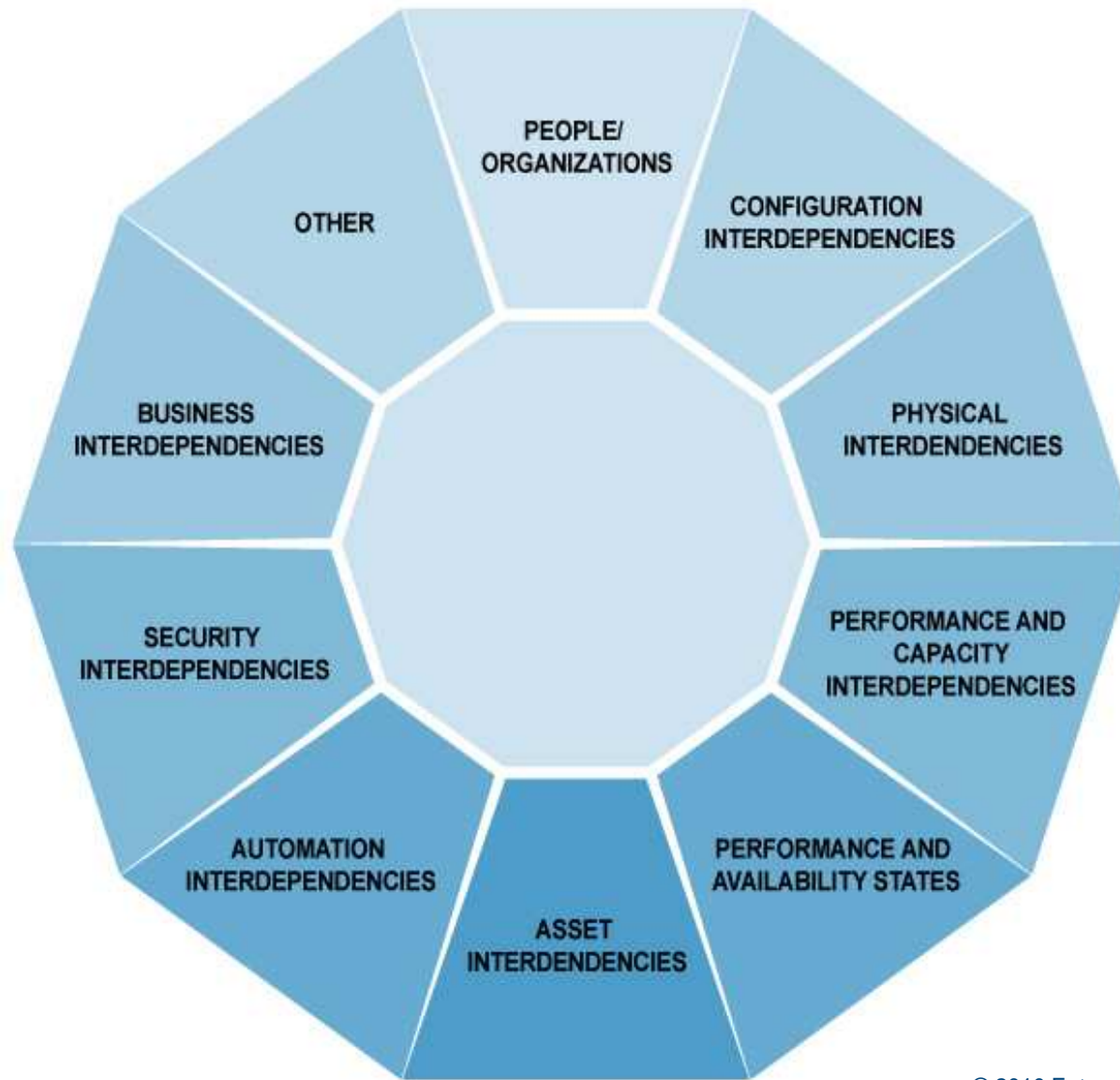




# The Ideal Deployment Graphically Speaking



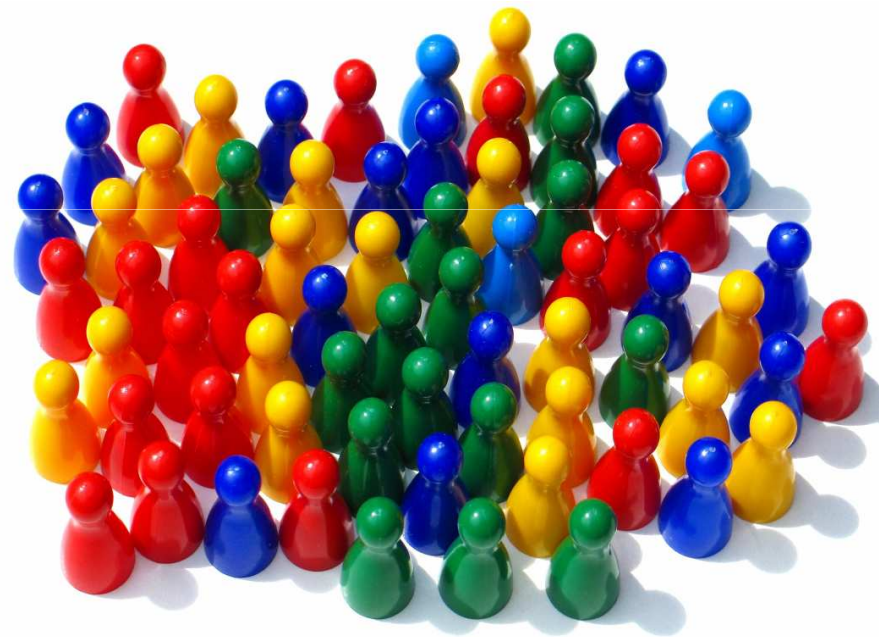
# Modeling (Metadata) is Becoming the True Heart of the Configuration Management System



# So, What's Really in a CMDB/CMS/(SKMS)?



- **Technology data.** Includes asset data, such as costs, locations, hardware and software configurations, related **contracts**, software licenses, and maintenance and support histories; physical and logical topology data; and operational data, such as **availability, performance, and capacity data.**
- **Process data.** Includes service models that map assets to services, business process models that map services to business processes, and IT service management **process workflows.**



Source: *Enterprise Management Associates*

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## ... AND MORE



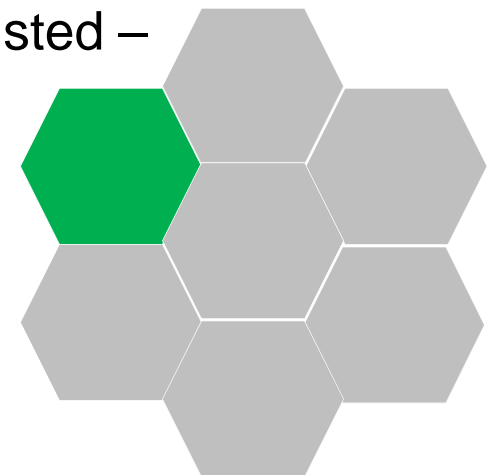
- **People data.** Includes asset-to-user mapping; user information, such as roles and responsibilities. It also includes IT staff member data, such as asset to support mapping (indicates which IT staff people support which assets), which is useful for incident escalation
- **Provider data.** Includes which service providers engage, when, and under what conditions.



# Three perspectives on federation

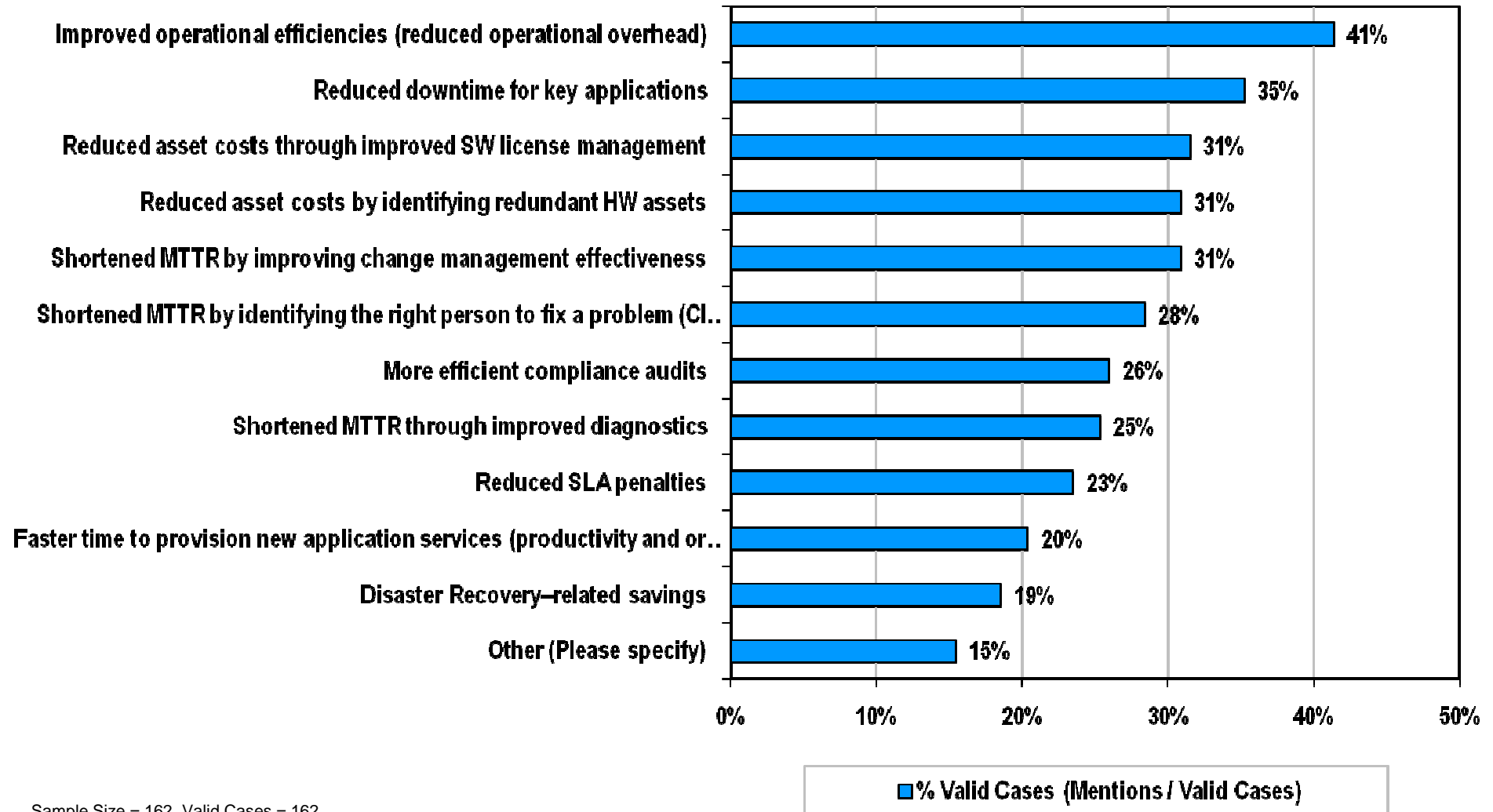


1. Aside from the *Asset Registry* and the *CMDB*, there are two other components to our CMS. The others are a *Rules and Relationships Repository* – how we define linkages and relationships between assets and CIs, and a *Business intelligence Repository*.
2. Federation is something that has inherently appealed to many of our stakeholders. I think that just about everyone in the trenches had come to believe that this was a system they would like to have access to. We had built some repositories over time on the way to having a CMDB. But these weren't always trusted – in part because they didn't often have the support of senior management.
3. One thing that makes this work well is getting stakeholders in the game so that they're involved not just as consumers, but also involved with feeding the system.



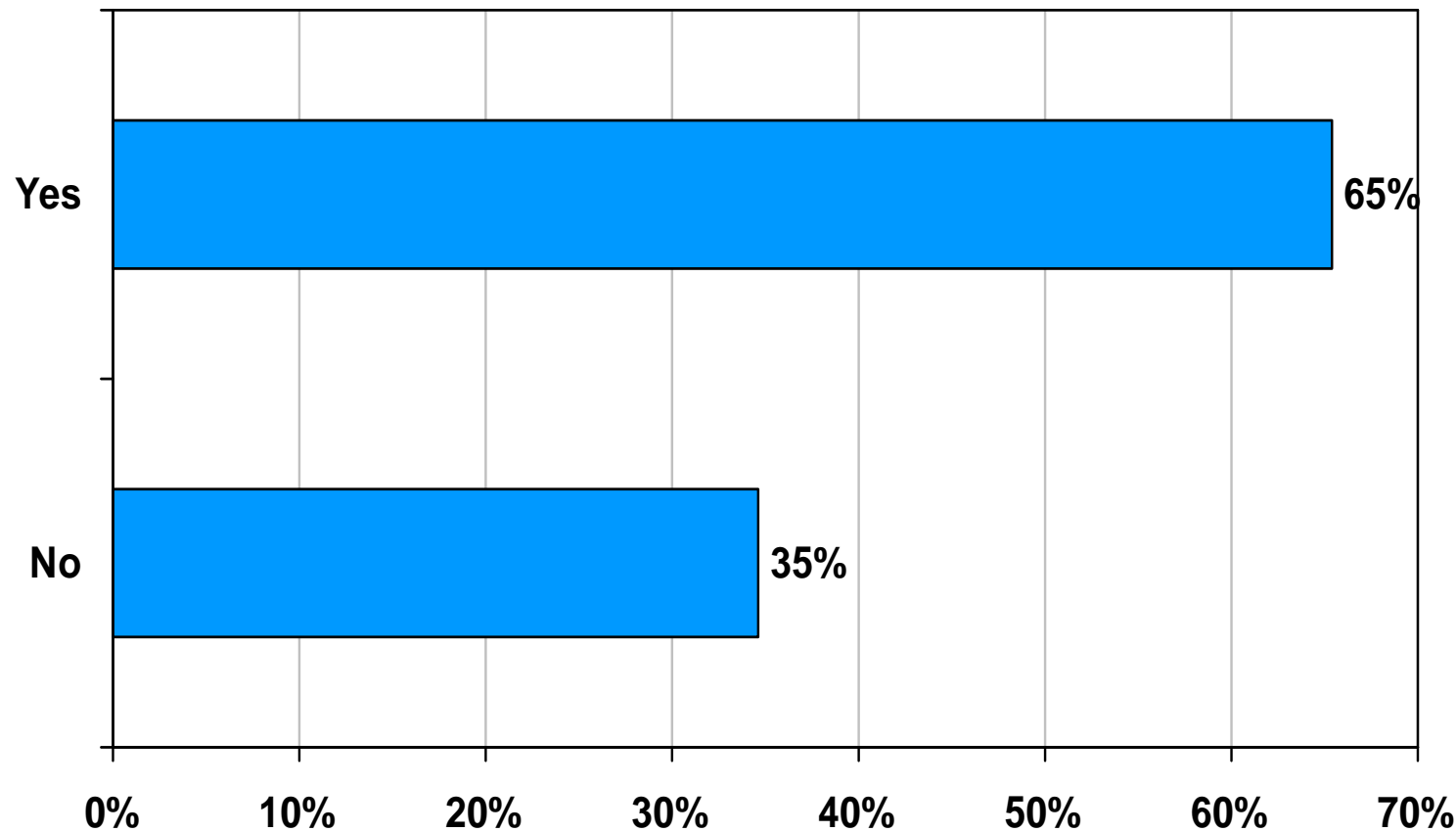
# Benefits – Looking Ahead to Cloud and Beyond

# Operational efficiencies, reduced downtime and reduced asset costs lead cloud benefits



Sample Size = 162, Valid Cases = 162

# Two thirds see a shared CMDB or CMS as bringing greater confidence into investing in a cloud provider



■ Column %

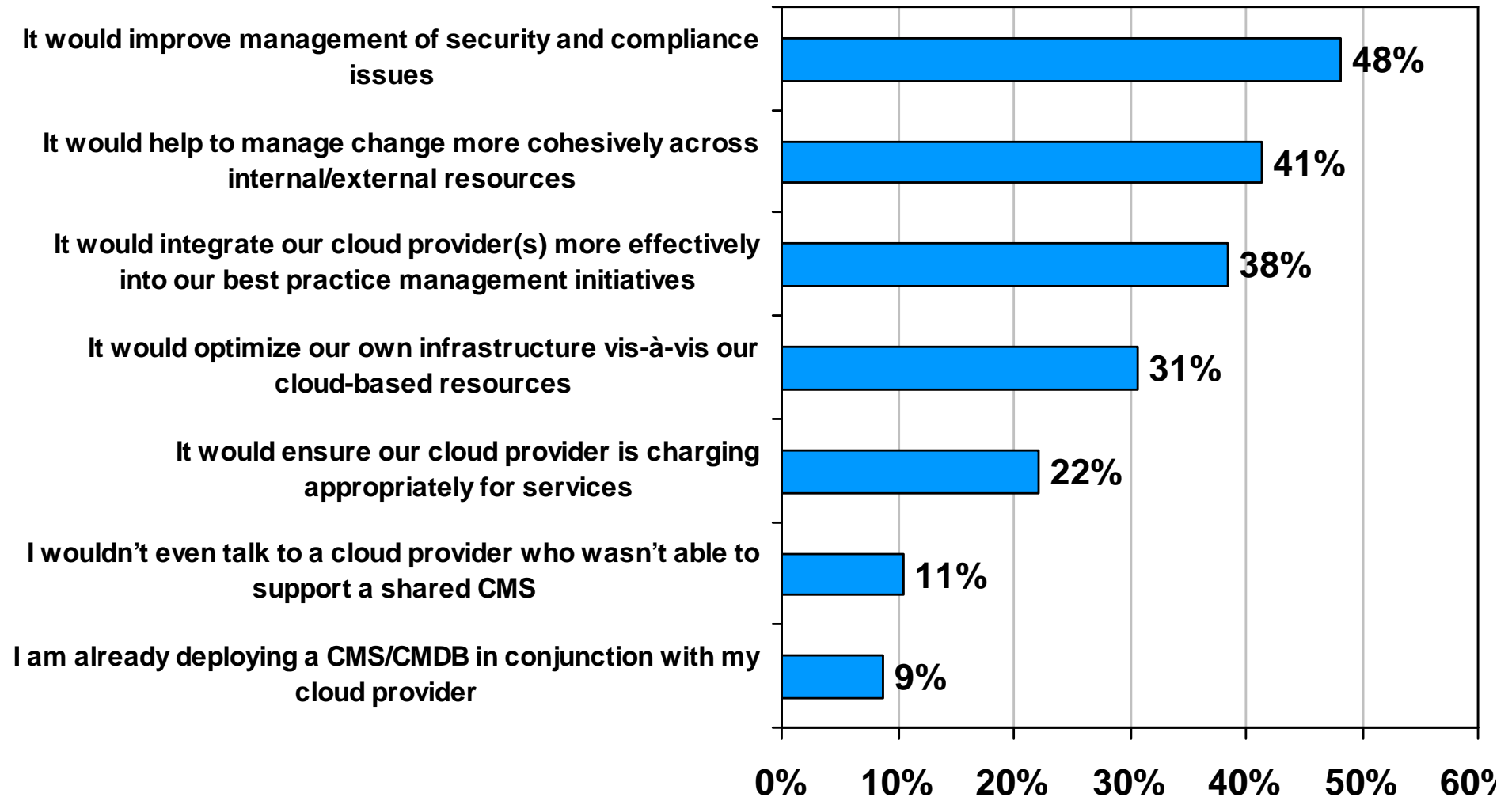
Sample Size = 159

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# A shared CMDB/CMS would provide the following advantages for cloud adoptions



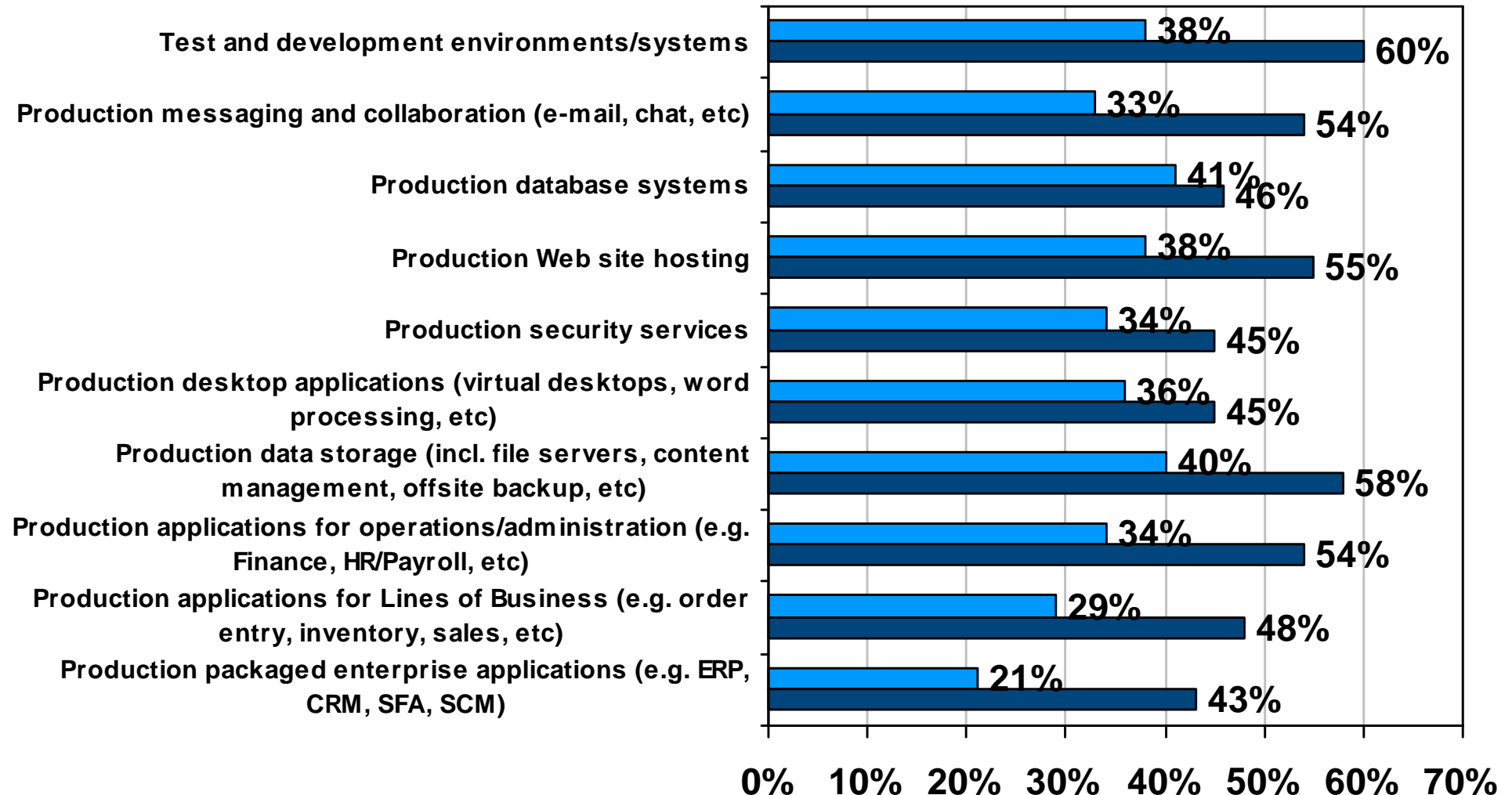
Sample Size = 159, Valid Cases = 104

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■ % Valid Cases (Mentions / Valid Cases)

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# Committed CMDDB integrations correlate with more advanced Cloud adoption plans, overall

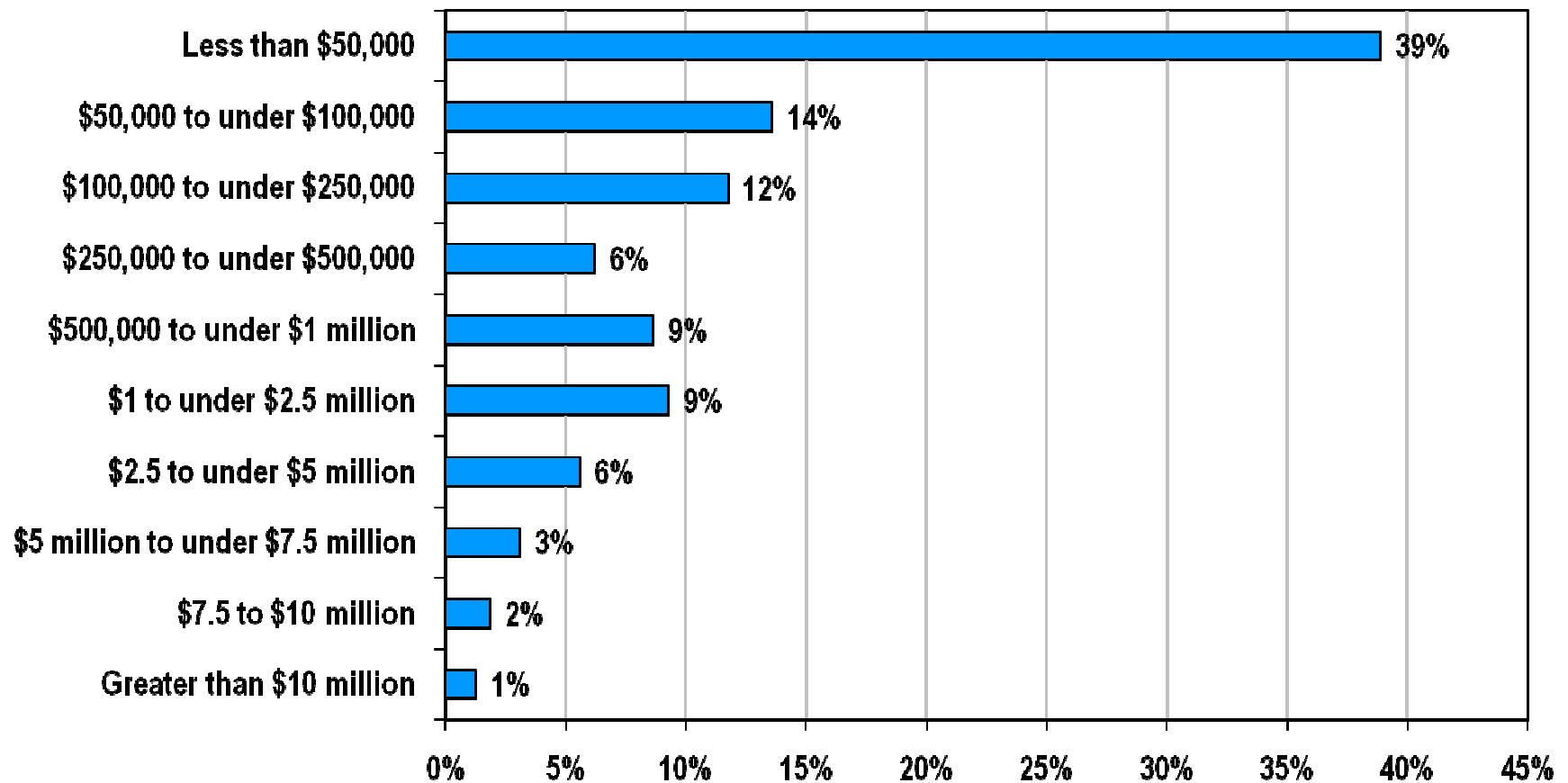


Sample Size = 159, Valid Cases = 159; Responses not shown received 1% or less

## While 39% have seen < \$50K, 36% realized >\$250K in one year benefits



Q57\_1 How much would you estimate that your company has saved in proactive cost efficiencies (without subtracting CMDB costs) over the last twelve months?



Sample Size = 162

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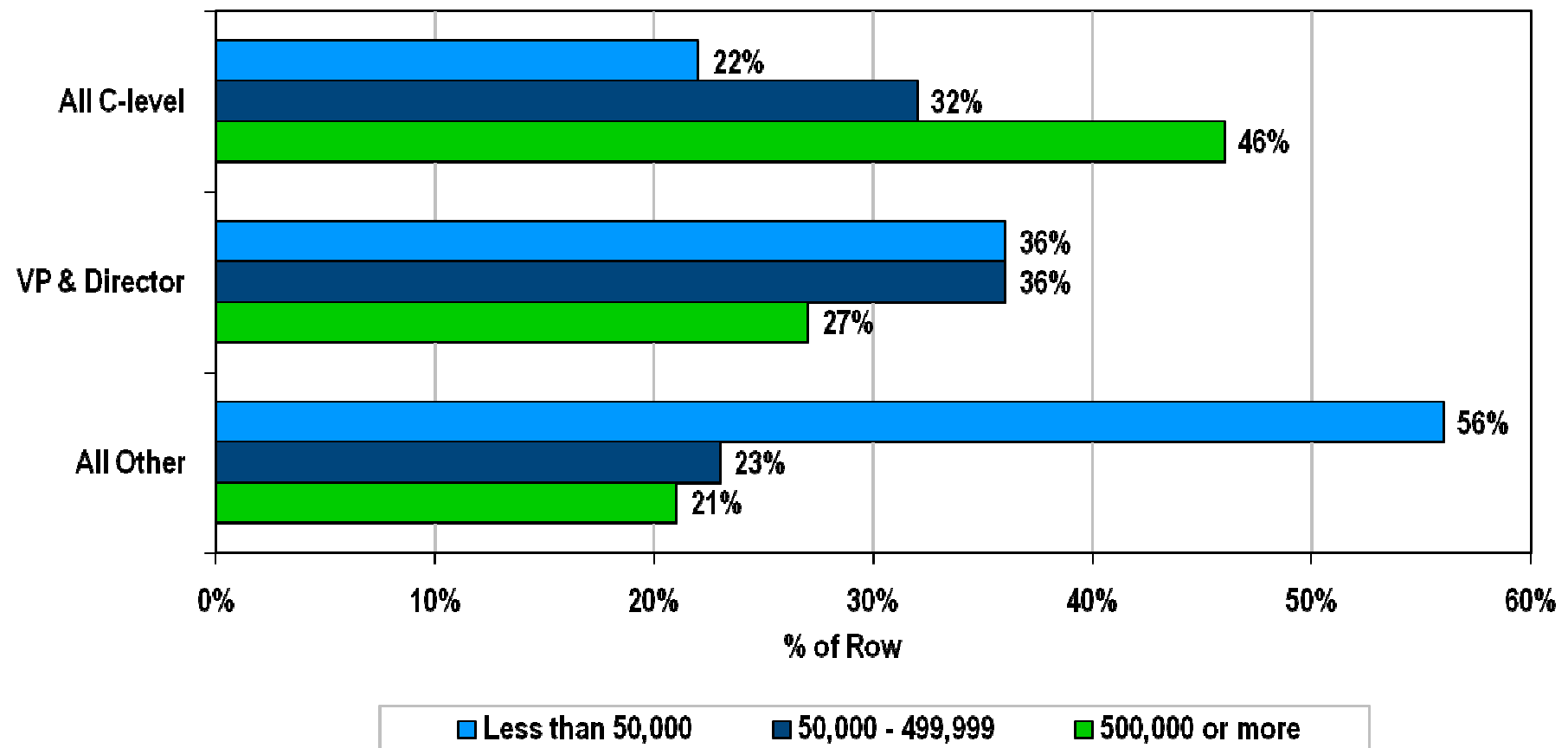
Column %

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# Level of executive involvement is most strongly correlated with dollar impact



How much saved in proactive cost efficiencies over the last twelve months?



Sample Size = 162

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# Quotable Quotes on Benefits



“We were throwing money willy nilly at our service assurance effort without rhyme or reason. We have reduced outages by 40% through our CMDB system, which has brought us 300% ROI in three years.”

-US Healthcare Services Provider

“Over the past three years, we’ve tied the CMDB into the change process, and then made sure that it would be supportive of the financial processes and financial systems; and over the course of three years we successfully disputed \$2.5M out of a \$9.0M spend.

-US Managed Service Provider and Systems Integrator

“Our CMDB was an attempt to achieve world class availability and at the same time control costs. With \$1M a minute in downtime for our whole ecosystem – and supporting 6,000 transactions a second – MTTR and downtime reduction is critical. We reduced MTTR by 70% through the CMDB.”

-US Financial Services Provider

# Company X and Recommendations

## COMPANY X is in the Early Active Stage

- Focus is on daily issues
- Change is a challenge – despite tracked metrics
- Little consideration for integration when getting new tools
- Scattered automation
- SLM generally not implemented
- Higher level analytics not easily available and manually populated



# CMDB Strategy: Gating Factors for Company X



1. Sustained executive management support (11)
2. Setting initial expectations (8)
3. Implementation of solid process (8)
4. Getting funding (7)
5. Getting buy-in (6)
6. Getting the right level of requirements to understand the value (5)
7. Resistance to change (5)
8. Identifying and maintaining application information (3)
9. Dedication of key SME's (3)
10. Collecting too much data (1).



# Top 10 Reasons Projects Fail



- |     |                                 |
|-----|---------------------------------|
| 22% | 1. Staff Buy-In                 |
| 16% | 2. Staffing and Budget          |
| 14% | 3. Detailed Requirements        |
| 12% | 4. Executive Management Support |
| 10% | 5. Follow Through               |
| 7%  | 6. Process                      |
| 7%  | 7. Managing Expectations        |
| 6%  | 8. Resistance to Change         |
| 3%  | 9. Integration                  |
| 3%  | 10. Auto Discovery              |

# How Many Detailed Requirements?



- Less than 50
  - Probably too high level
  - Have you included lines of business?
  - Are all technology silos represented?
  - What about application development?
- More than 1000
  - Probably too detailed
  - Combine requirements that share common traits
  - Just because you can gather data doesn't mean you should
- 200 – 750
  - Typical for EMA's enterprise customers
  - Living document – these will change
  - Remember to focus on business value – not product features

# A Detailed Requirement – Acme Company



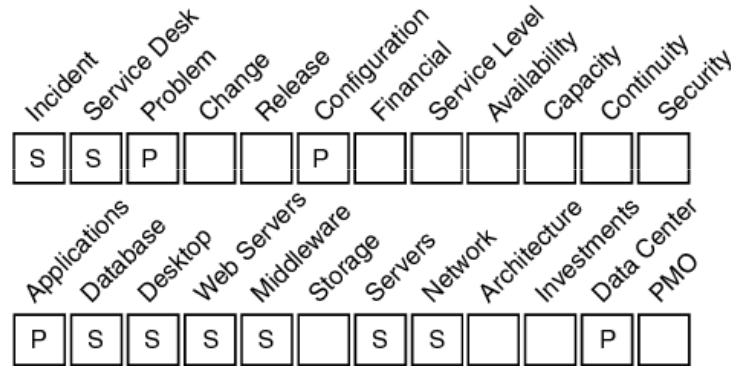
EMA Detailed Requirement  
Customer: Acme Company

Created: 2/7/2008  
Modified: -

Requirement: Provide dependency mapping data for the Investment Banking application to Level 2 support staff via the Command Center Console. Currently, this is done by looking up the contact information for the application manager and calling the domain experts to determine the relationship mapping. This takes an average of 15 minutes per call to determine the needed information.

Req Number: 5.12  
Req Source: Level 2 Support Manager  
Priority: Moderate  
More Details: Yes

ITSM Impact:



Domain Silo Impact:

Success Metric : Reduce avg resolution/routing time for IB Sev 1,2,3 calls to Level 2 Support  
Current Baseline: 48 minutes/call  
Assumptions: 3,120 calls in 2007, \$600/IT staff average daily rate  
Projected Value: 33 minutes/call  
Difference: 15 minutes/call. This will save 32.5 days per year.  
Annual Savings: \$58,500

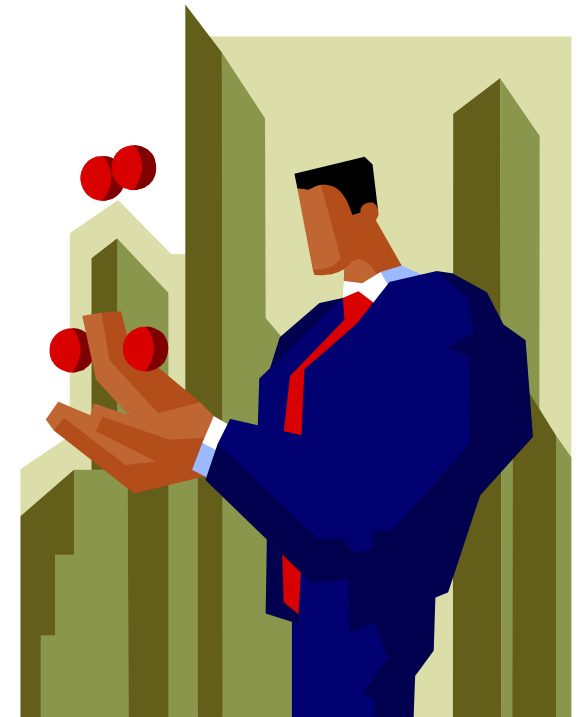
Known CI	SOR	DB	Promote	Integration
IB Application Manager	Employee Records DB	Oracle	Federate	Peoplesoft
Application ID	Discovered Apps	Oracle	Federate	Tideway
Server ID	Servers DB	DB2	Federate	DB2 Connect

- Clearly defines the business need
- Provides success metrics:
  - Baseline values
  - Projected values
  - Annual Savings
- Typical enterprises will have several hundred detailed requirements
  - Some will have little or an unknown savings
  - PITFALL: Don't prioritize solely by cost savings
  - When taken in whole, savings are substantial

# Eight Steps – for Successful Planning



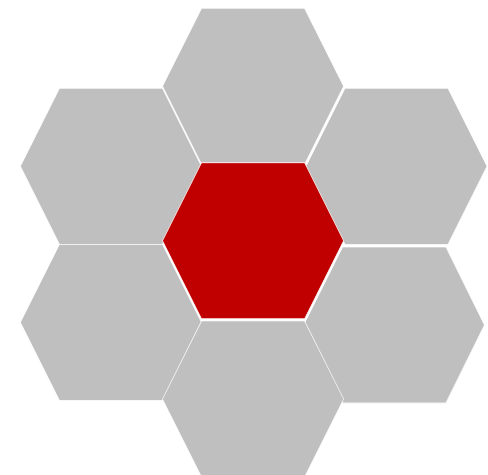
1. Sketch – (Executive Support/ Team)
2. Socialize with/discover stakeholders
3. Refine Sketch- Phase I. Metrics
4. Socialize - finalize gaps
5. Document Gaps
  1. Organizational
  2. Process-related
  3. Technology-related
6. Address gaps, refine metrics/ROI
  1. P.O.C. for technology
7. Deploy –Phase 1 in production
8. Evaluate, redefine Phase 2/ Metrics
  1. Go back to step 4 for Phase 2



# Beginning the CMDB to CMS journey – reaching across environments



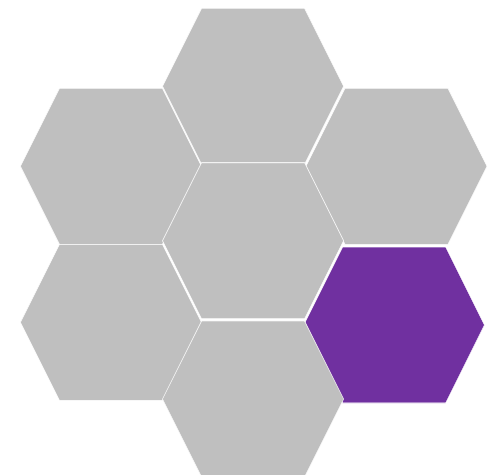
- I would stress the need for **high-level senior management support** across the board. We were blessed there. If I were to go somewhere else and do this again, I would see lack of executive support as a showstopper.
- If I had it all to do over, I would probably have started with a more stringent definition of CIs and CI attributes, and focused more on the processes to control data as well as the data themselves. **We already have a couple of thousand regular users** – and now many are not clear on the initial use case and are expecting data that isn't yet in the CMS.
- Set realistic expectations to everyone who could be involved in your CMDBS project. **It is more complex than most people realize because you need to effectively assimilate multiple data sources.**



# The CMDB/CMS can Become an Inclusive Way to Achieve IT Transformation



- I would say that as a fundamental, achieved benefit to day, we have finally gotten the entirety of IT to work together instead of being stuck in a siloed mentality. We've only begun this journey, but we've gotten all of IT to pay attention to it.



**Thank you for attending  
today's presentation.**

