

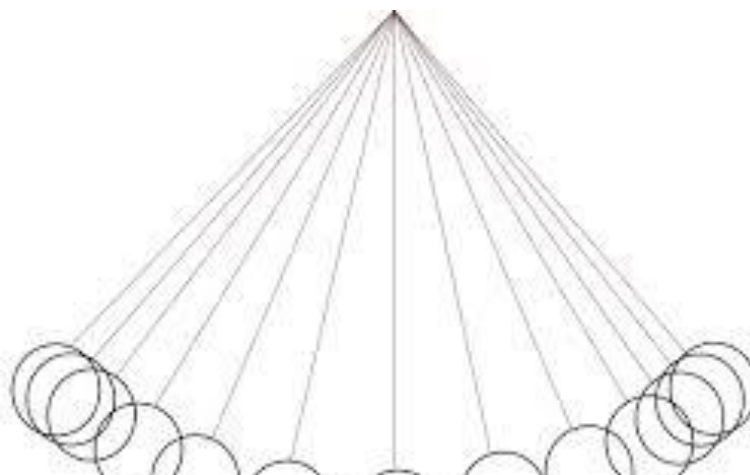
“Konvergent infrastruktur” – er det sant at lukket denger åpent?



Peter Hidas

Holder pendelen på å svinge tilbake?

**Lukket
modell –
én sentral vilje**



**Åpen BoB
modell**

The computer industry has continually shifted between two extremes: independent best-of-breed and highly integrated systems.

"Best of breed" refers to a market model in which many vendors are competing with one another in many segregated markets.

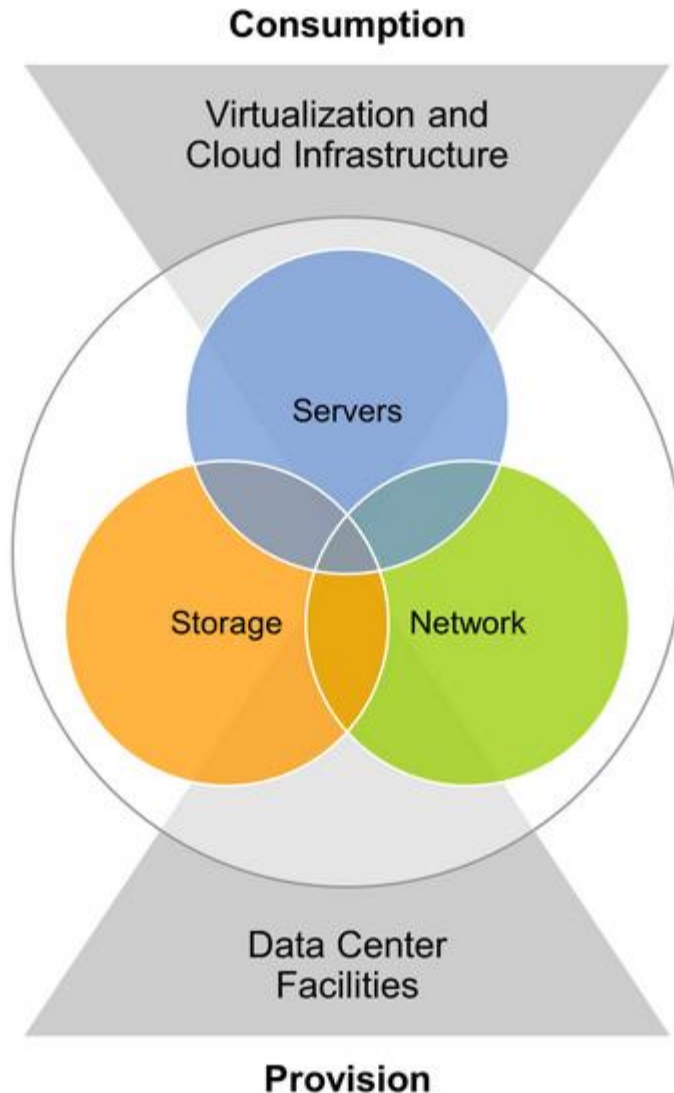
Integrated systems refer to a market model in which fewer vendors compete with one another in larger combined markets

The Real Choice

Ultimately, the choice is not solely between integrated and best-of-breed, and most organizations will inevitably have a heterogeneous environment

The key is to selectively leverage integrated systems to drive simplicity while employing strategies to ensure a degree of extensibility and interoperability across providers

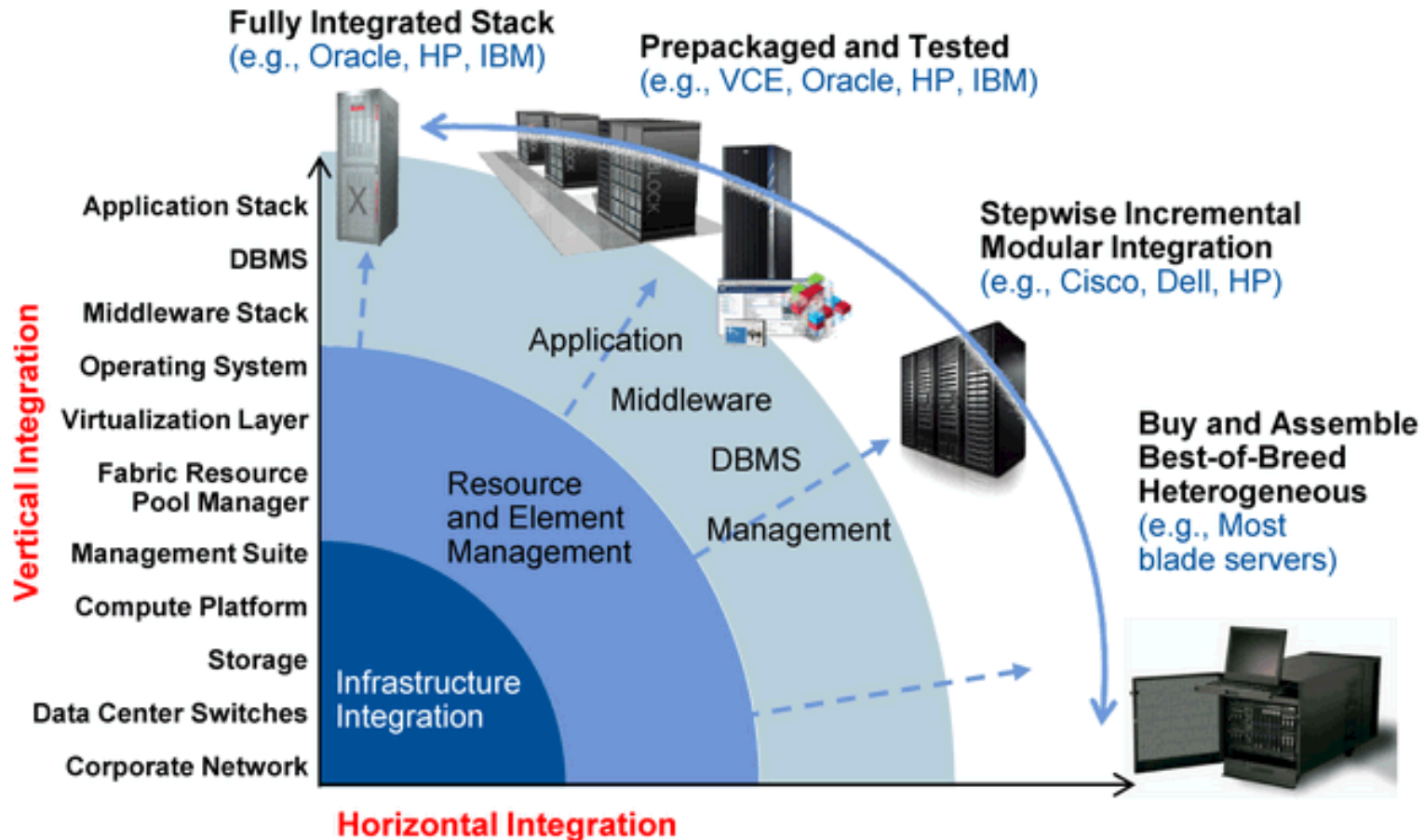
Data Center Modernization



In dynamic and virtualized infrastructures, the operating system is becoming less important than the virtualization or cloud infrastructure

Oracle, Cisco, IBM and Microsoft among others are packaging components around appliances and software on top of the platform

Different Approaches to Packaging Integrated Systems Offerings



On one end are highly vertical solutions that are delivered with most of the components integrated and packaged. They are designed for out-of-the-box implementation

On the other end is a best-of-breed approach: buy and integrate the components that are most compatible and synergistic to the existing infrastructure and plans for evolution

Market Snapshot

- Integrated system procurements are ramping up as all major vendors now deliver these systems as an attempt to increase the average selling price (ASP), drive up their margins and differentiate themselves while providing an alternative to build-your-own systems from best-of-breed components. In an attempt to further differentiate their offerings, vendors are branding these solutions by various designations, including:
 - Converged infrastructure systems
 - Engineered systems
 - "V" blocks, FlexPods
 - Active systems
 - Expert integrated systems
 - Unified computing

What Are Integrated (or Converged) Systems?

"Integrated systems are a class of data center systems that deliver a combination of server, shared-storage and network devices, and also some software, in a pre-integrated stack"

- **Integrated infrastructure systems** — Server, storage and network hardware integrated with *management* software to provide shared compute infrastructure. Examples: HP CloudSystem, Dell Active Systems, VCE Vblock.
- **Integrated workload systems** — Server, storage and network hardware integrated with *application* software to provide appliance or appliance-like functionality. Examples: Oracle Exadata, IBM PureData, Teradata.
- **Integrated reference architectures** — Products in which a predefined, presized set of components is designated as *options* for an integrated system whereby the user and/or marketing channel can make configuration choices between the predefined options. Example: FlexPod.

By year-end 2015, Gartner projects that integrated systems will account for 35% of the total servers shipped

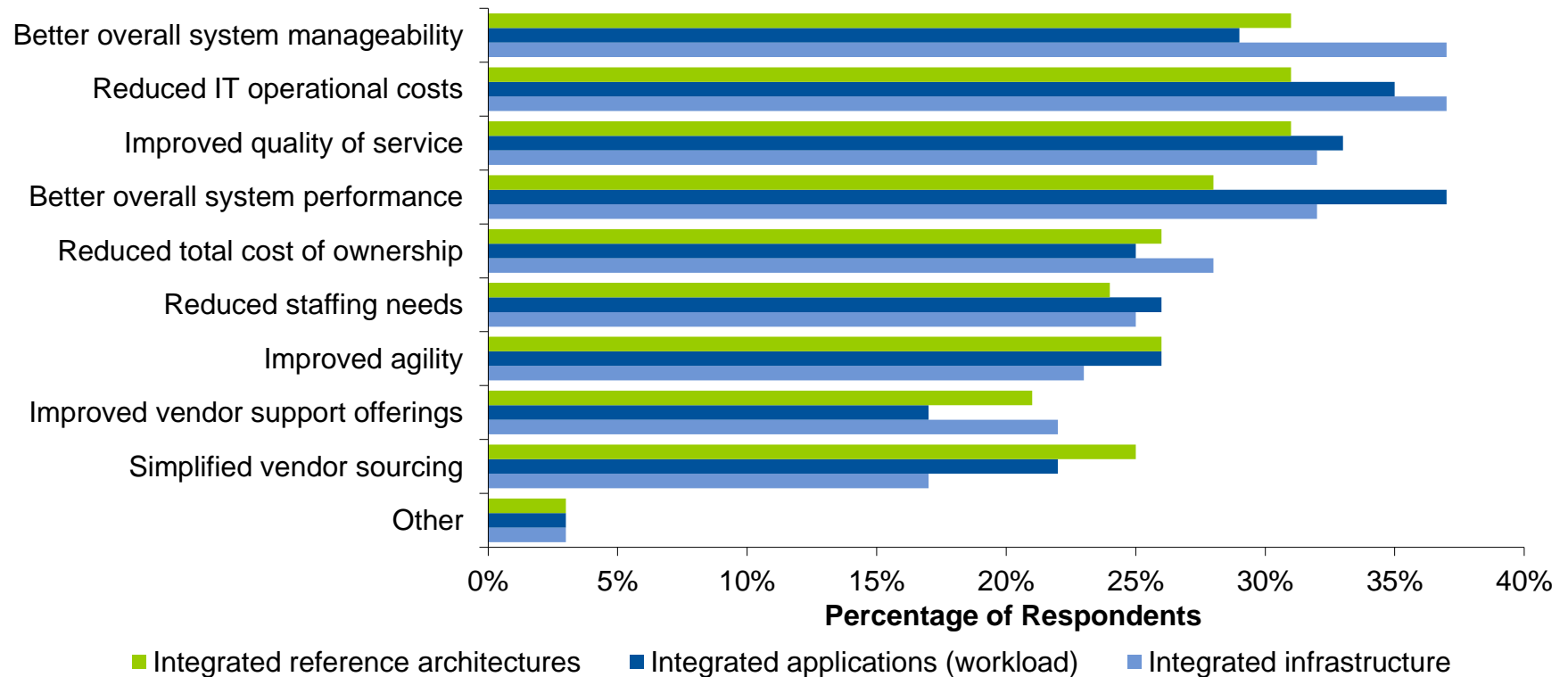
When Do Integrated Systems Make the Most Sense?



	Limited	Deep
IT Skills		
Vendor relationships, preferences and prejudices	Favors strong vendor alignments	Favors vendor neutrality
Cost containment	Opex-oriented	Capex-oriented
Culture	Fabric-friendly culture	Domain expertise silos
Speed to production	Modernization top priority	Minimum disruption
Vendor support strategy	Favor "one throat to choke"	Fearful of "too many eggs in one basket"
Infrastructure standardization	Vendor lock-in not feared	Favor interchangeability
Legacy silos	Modernization takes priority over legacy ROI	Favor reuse and high interoperability
Pooled resources	Prioritizing cloud readiness	Cloud on back burner
Software portfolio	Concentrated/focused	Diverse/variable

Integrated Systems: User Benefits Should Influence Positioning

Question: What are the top three benefits your organization associates with each of the following technologies?



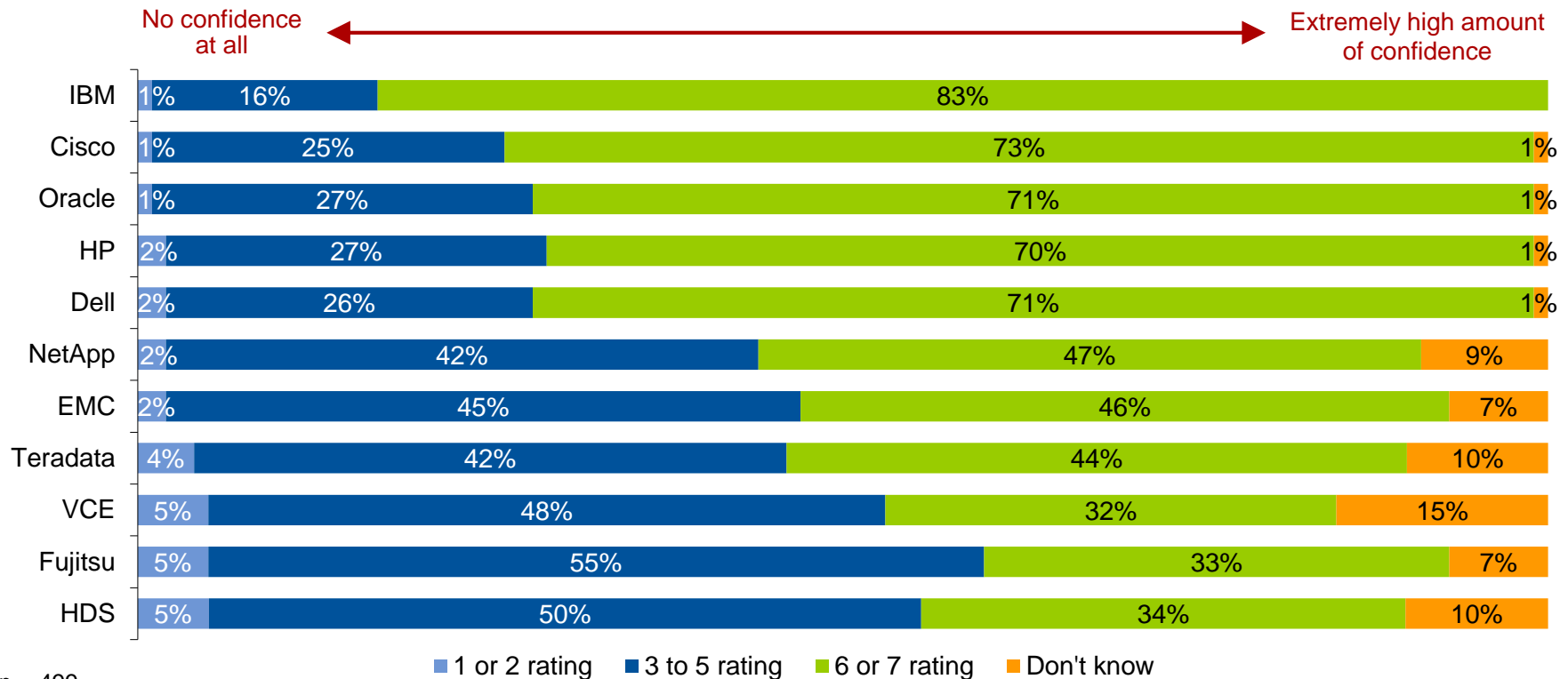
n = 487, 489, 466

Drivers and Inhibitors

- Better performance
- More optimization
- Increased automation
- Lower cost of IT operations (TCO, opex)
- Simplified sourcing and support
- Support in moving from IT maintenance to IT innovation
- Promised but unproven value proposition
- Higher investment costs (capex)
- Concerns about provider lock-in, all the eggs in one basket
- Not wanting to overinvest in one particular vendor
- Limited flexibility
- Preference for specialist/best-of-breed offerings

Integrated Systems: Vendor Confidence Outlines Opportunities and Challenges

Question: What is your organization's level of confidence for each of the following technology vendors with respect to their capabilities (product and support) around integrated systems, in general?

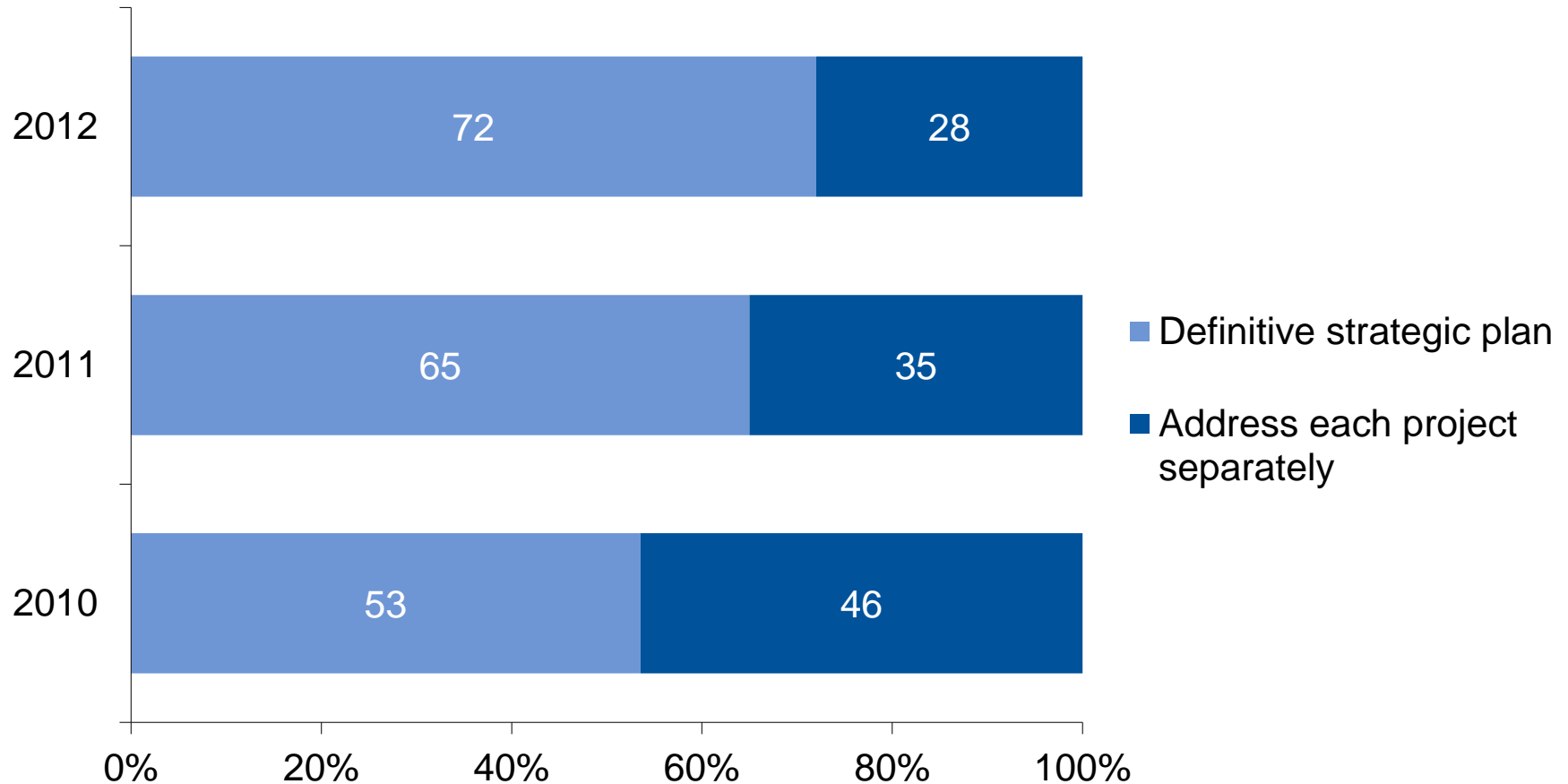


To Strategize or Not to Strategize

- When it comes to making changes within your organization's data centers over the next five years, which of the following statements best describes your organization's approach?
 - We have a strategic plan that includes an integrated project road map.
 - We address each project separately in an effort to meet current needs, rather than as part of an integrated plan.

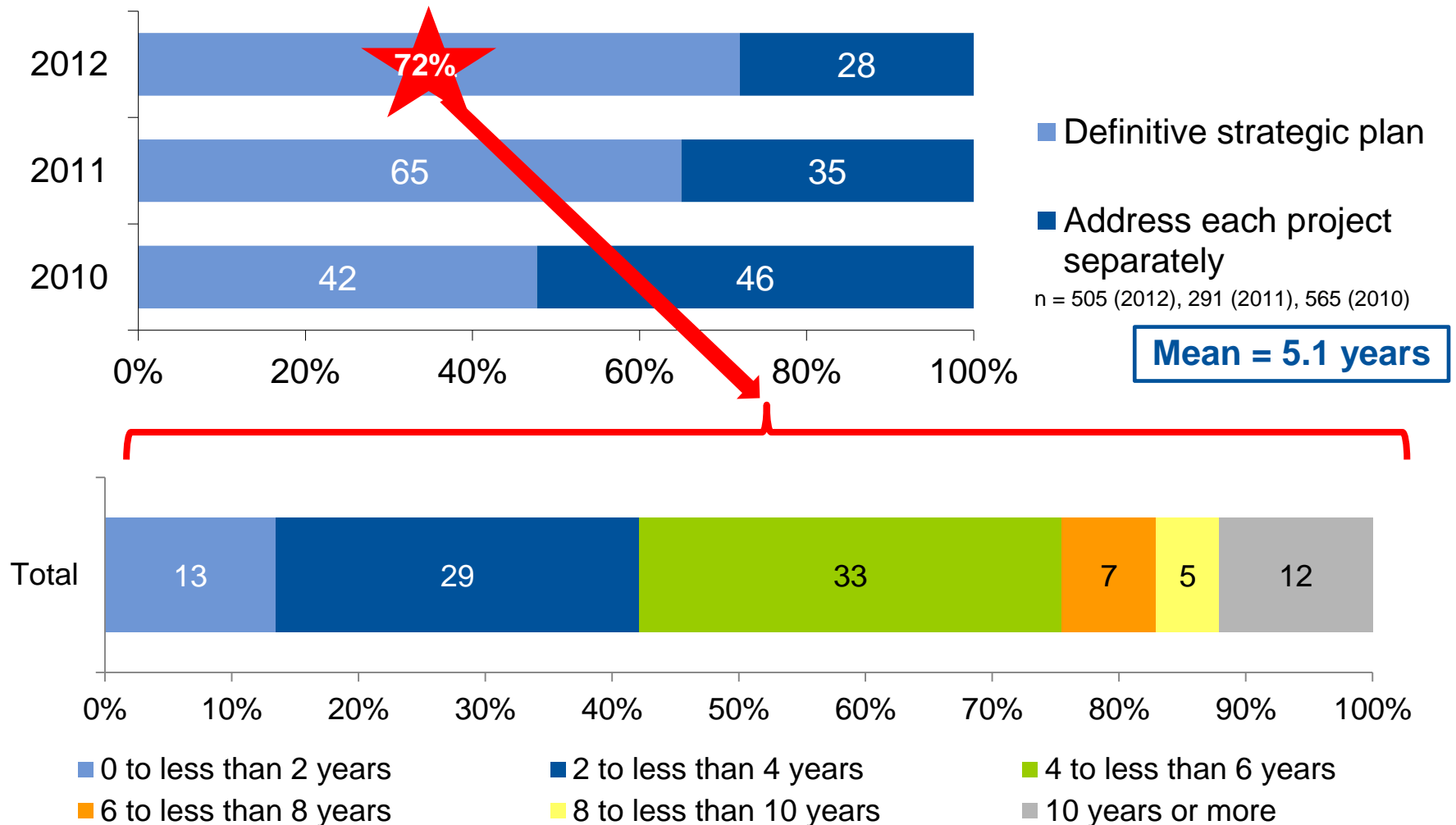


The Trend Is Toward Strategic Planning



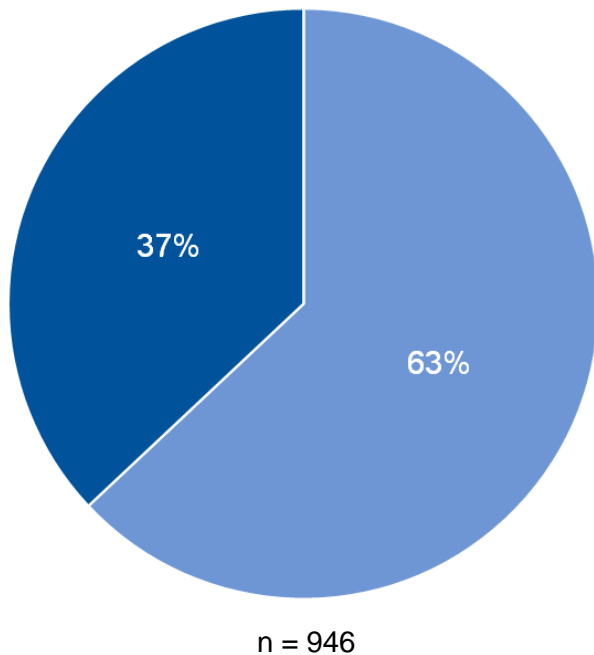
n = 505 (2012), 291 (2011), 565 (2010)

The Trend Is Toward Strategic Planning

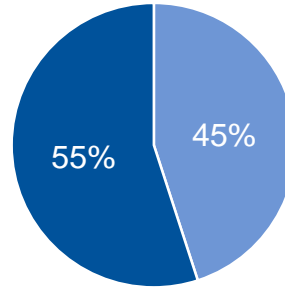


Let's Break That Down a Bit More ...

All Respondents

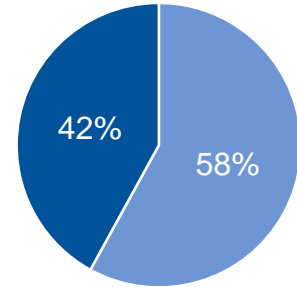


Small Organizations



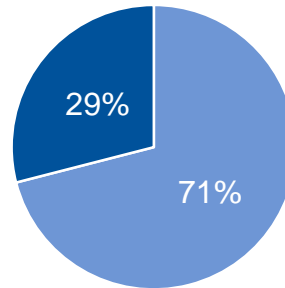
(1 to 99 employees) n = 196

Midsize Organizations



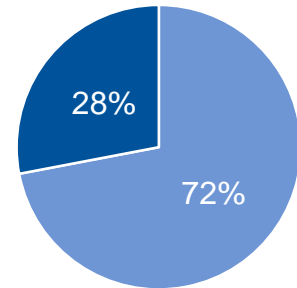
(100 to 999 employees) n = 245

Low-End Large Organizations



(1,000 to 9,999 employees)
n = 297

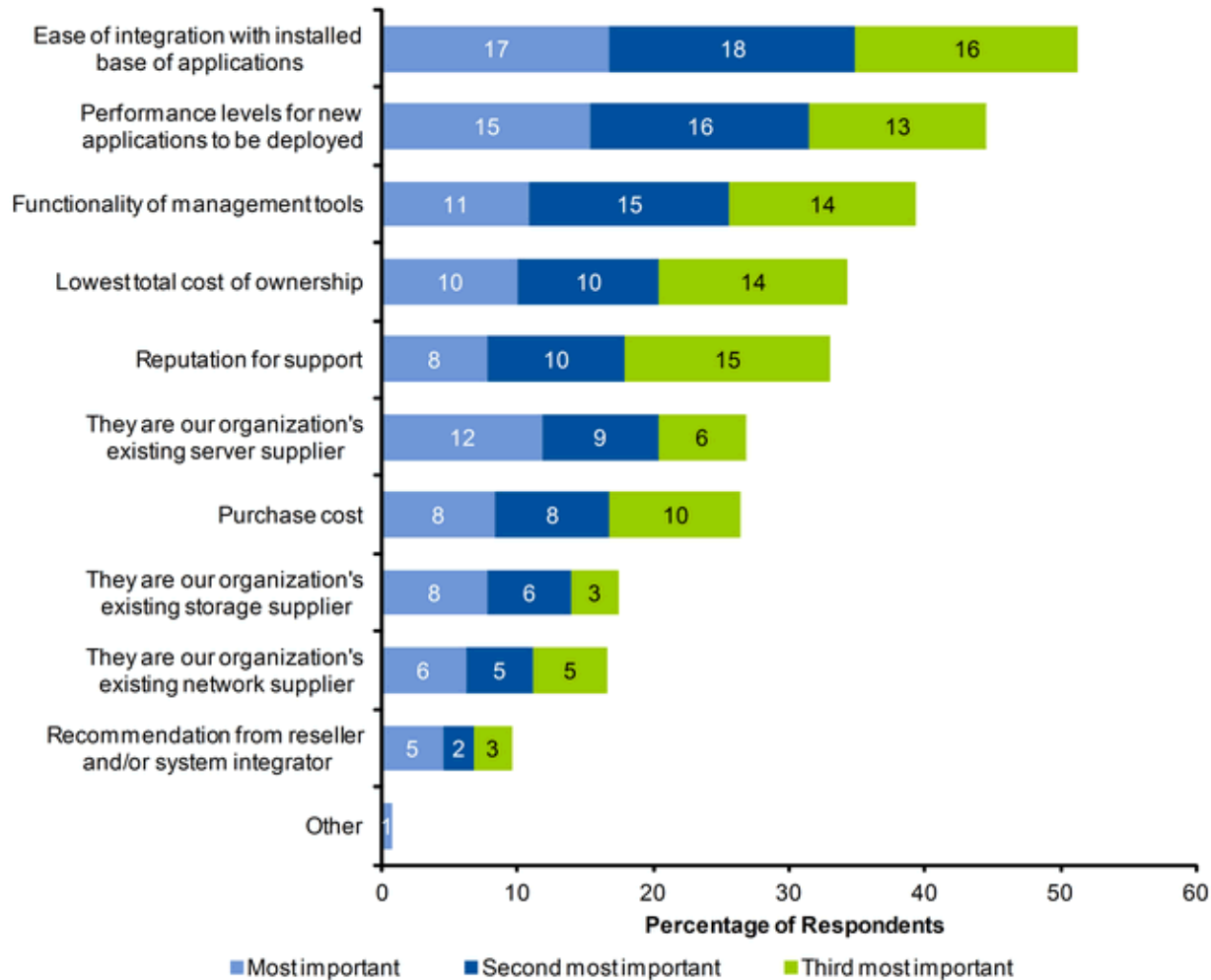
High-End Large Organizations



(10,000 or more employees) n = 208

- We have a definitive strategic plan that includes an integrated project road map
- We address each project separately in an effort to meet current needs, rather than as part of an integrated plan

Integrated Systems: Vendor Selection Factors



n = 499

”Er det sant at vi tok feil, at lukket faktisk tukter åpent? Professor Tim Wu, en av de kyndigste kommentatorene av it-industrien, sier det slik: ”Ja, lukket denger åpent, men bare hvis det er et geni som står ved roret”. Et geni som forstår det hele og nesten aldri tar feil. Har du ikke et geni til å lede, er åpent fortsatt best fordi beslutningene treffes av mange, ikke av en eneveltig hersker.” *Peters Plass*