

For to år siden

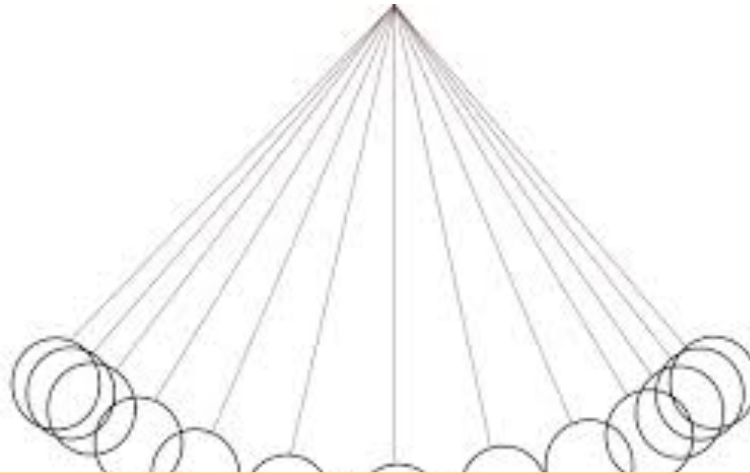
# “Konvergent infrastruktur” – er det sant at lukket denger åpent?



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

# To ulike infrastruktur-situasjoner

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**Store  
virksomheter  
kompletterer**

**Mindre  
virksomheter  
skifter**

# What is a converged infrastructure?

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**Converged infrastructure (CI) is combinations of server, storage and network infrastructure, sold with management software that facilitates the provisioning and management of the combined unit**

- Dense form factors (e.g., Dell PowerEdge FX2 and HP Moonshot)
- Smaller-configuration models of existing systems (e.g., Cisco UCS Mini, Dell VRTX)
- Modular, high-performance computing systems (e.g., HP's Apollo and SGI's ICE)
- Hyperconverged infrastructure (e.g., Nutanix, SimpliVity, Pivot3, Scale Computing and other appliance offerings of hyperconvergence)

Unfortunately, CI product proliferation will complicate IT procurement and technology selection strategies that favor standardization, corporate standards and simplicity in portfolios

# Market Snapshot

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- 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

# Magic Quadrant for Integrated Systems, August 2015



# To sterke drivere som påvirker markedet

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Dusinvis av aktører  
og tilbud  
i en mengde beslektede  
kategorier,  
dvs et typisk  
umodent marked  
i kraftig utvikling

Fra et hardware- til  
stadig mer  
et software-bestemt  
(definert) grunnkonsept

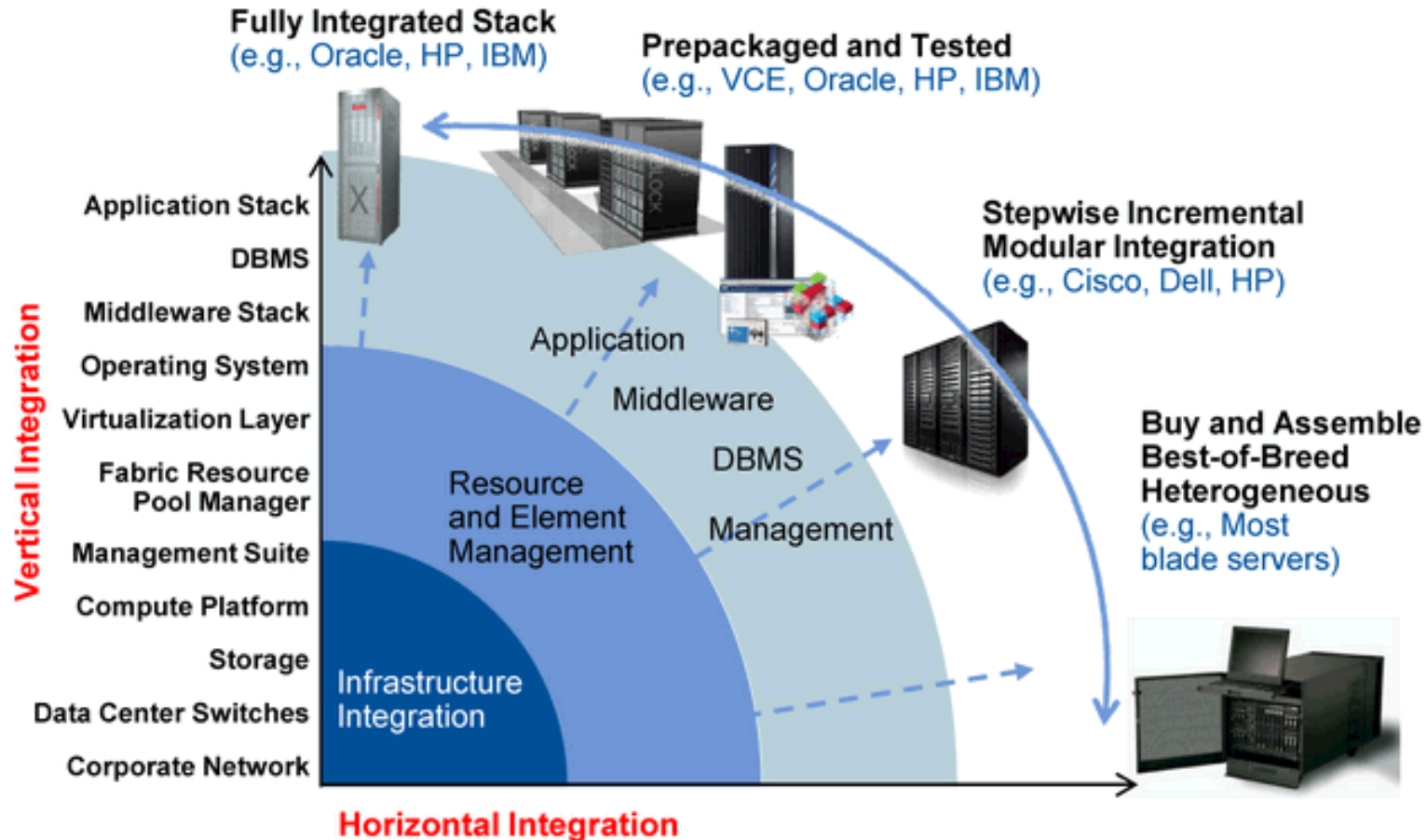
# Why converged infrastructure?

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- I&O leaders were initially attracted to CI because it enabled them to buy a "solution-in-a-box," speeding integration and deployment times, and reducing operating expenditure (opex) costs
- In the future, I&O leaders will turn to CI for two more reasons:
  - The ability to automatically adjust to unpredictable patterns of behavior from workloads
  - The ability to address the entire management life cycle in near-continuous fashion: implementation, provisioning and re-provisioning, re-apportioning compute, memory, network, I/O and capacity — both on-premises and in the cloud; recovery, replacement and upgrades



# Different Approaches to Packaging Integrated Systems Offerings

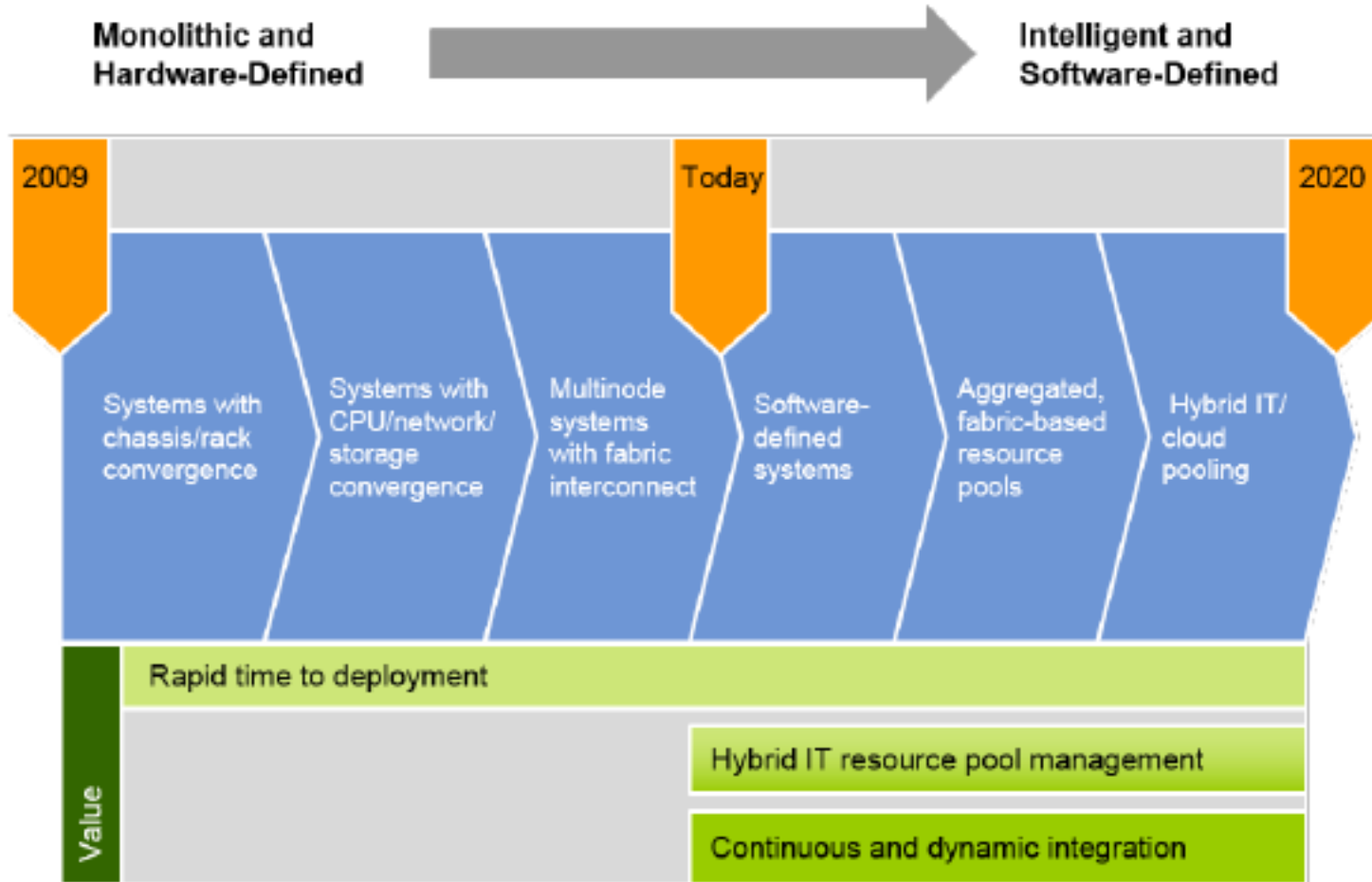


On one end are highly vertical solutions that are delivered with most of the components integrated and packaged. They are designed for out-of-the-box implementation

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 plan for evolution

# The evolutionary journey of converged infrastructure

Midt i en kraftig endrings-prosess



Source: Gartner (February 2015)

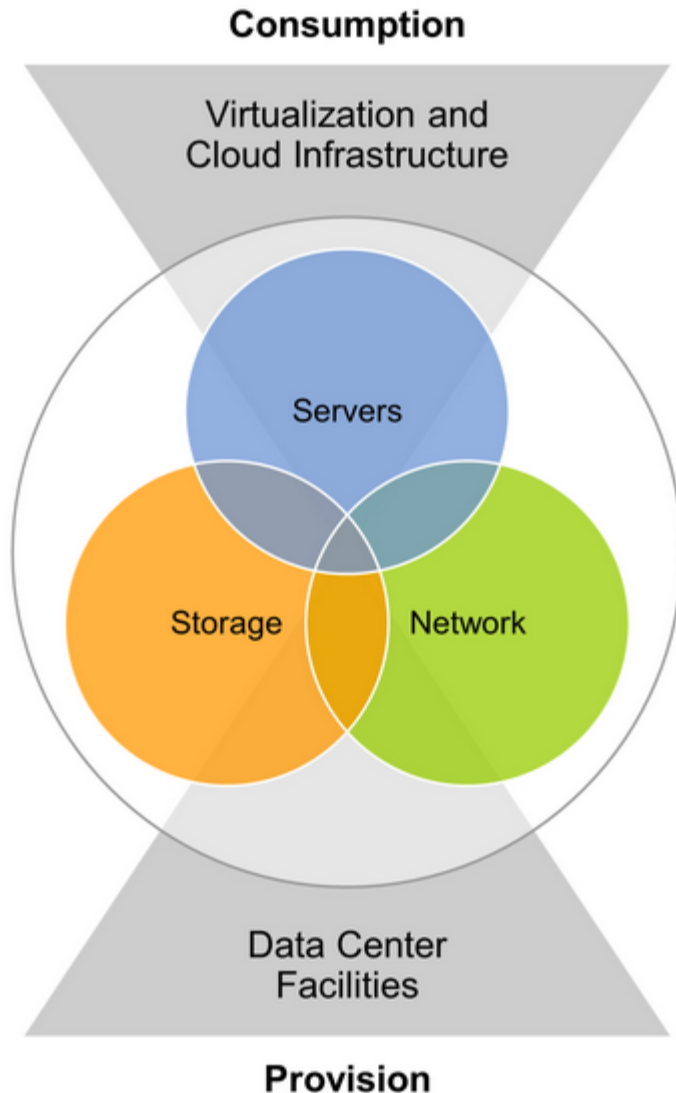
# The Real Choice

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Ultimately, the choice is not solely between integrated and best-of-breed, and most larger 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

# 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

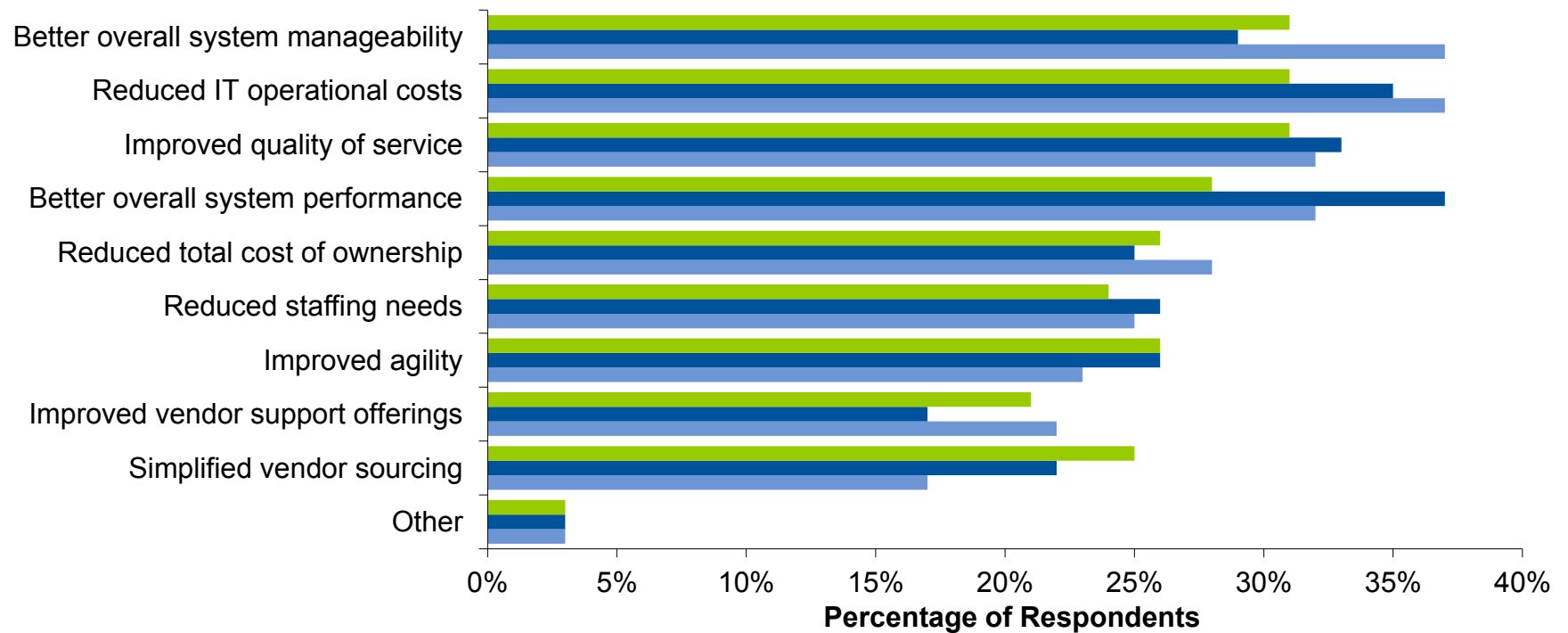
# Drivers and Inhibitors

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- 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: User Benefits Should Influence Positioning

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



■ Integrated reference architectures

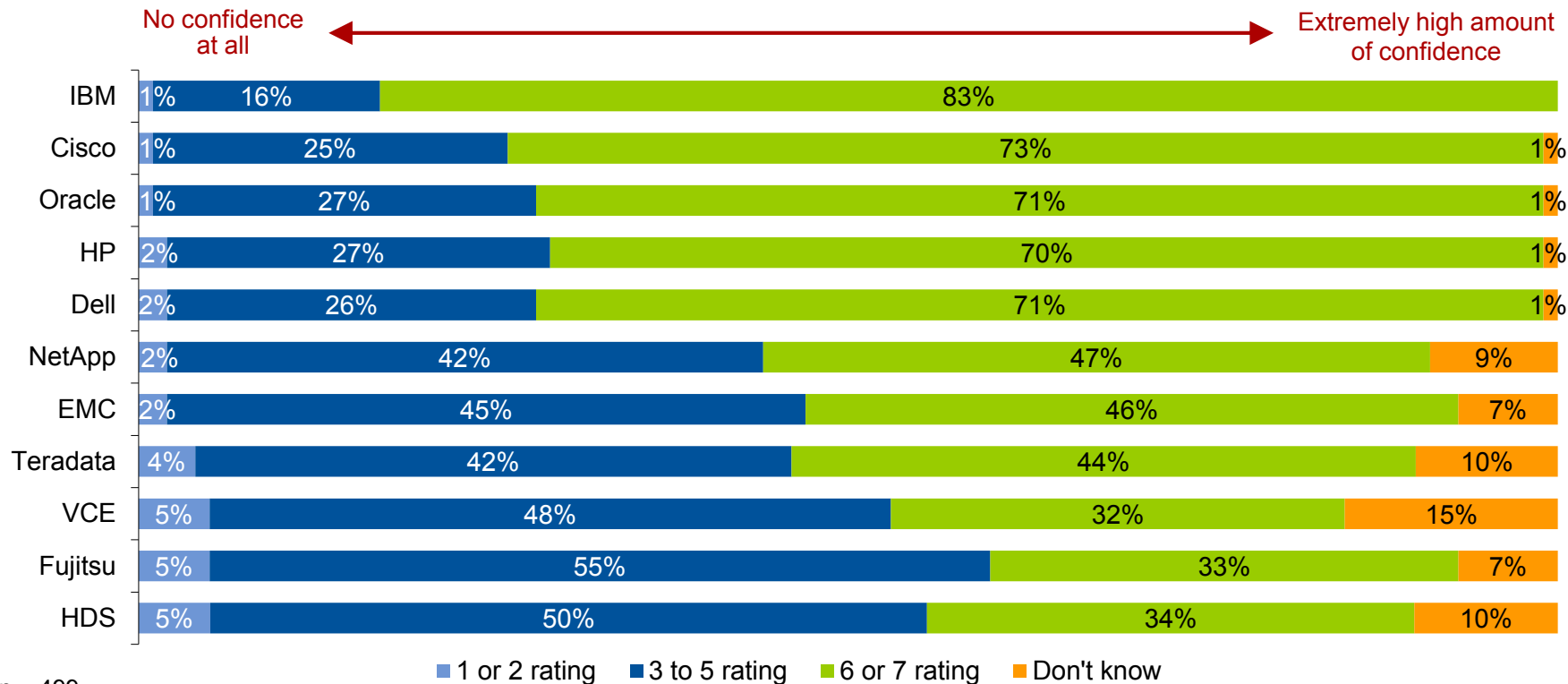
■ Integrated applications (workload)

■ Integrated infrastructure

n = 487, 489, 466

# 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?



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 én eneveltig hersker.” *Peters Plass*