

# SOFTWARE-DEFINED, IPERCONVERGENZA E HYBRID CLOUD

MILANO 4 ottobre 2017

Hotel Michelangelo - Piazza Luigi di Savoia, 6

Con il contributo di:



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Si parlerà di:

SOFTWARE-DEFINED IT  
E (HYBRID) CLOUD:  
COME CAMBIA L'ENTERPRISE IT

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# The CIO paradigm



## Business priorities

- ✓ Deliver business results to shareholders
- ✓ Improve customer satisfaction & innovate
- ✓ Cut/maintain costs
- ✓ Keep us competitive
- ✓ Improve employee productivity



## Technology priorities

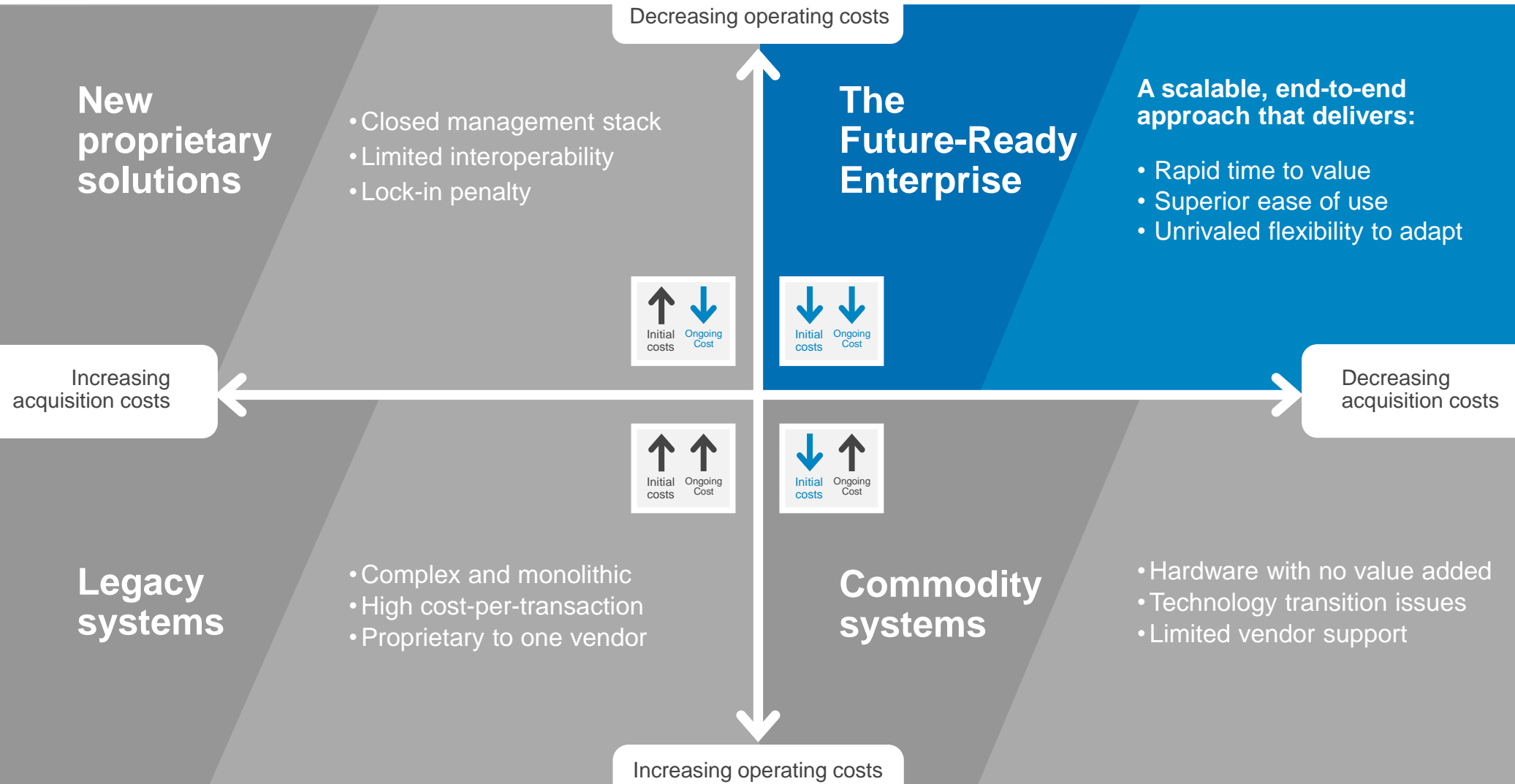
### “Keeping the lights on”

- ✓ Manage current workloads
- ✓ Application rationalization
- ✓ HW updates & migrations
- ✓ Reduce costs
- ✓ Protect our data

### Accelerating the business”

- ✓ Optimize workloads
- ✓ Software-defined X
- ✓ Utilize new IT benchmarks
- ✓ Deliver ubiquitous mobility
- ✓ Implement cloud computing

# Which approach gives you **better results**?



# Now you can **synthesize** traditional and new IT

Traditional  
IT

Support traditional IT applications and architectures with efficient and scalable virtualization-based cloud solutions

New IT

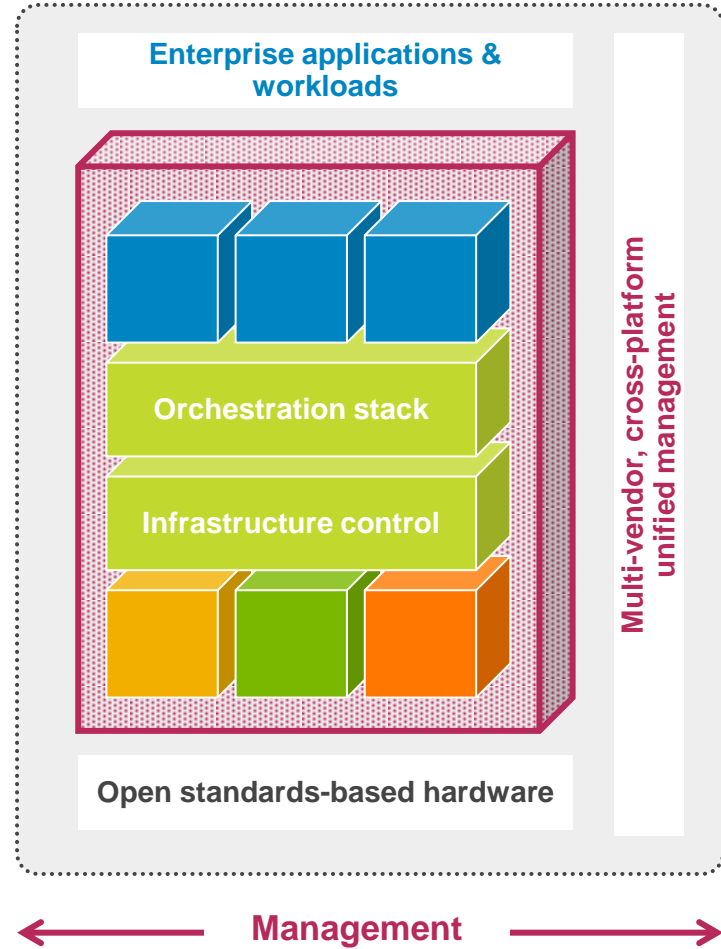
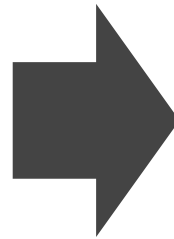
Support new IT applications and architectures with efficient, scale-out, hyperscale- inspired cloud solutions



Future-  
Ready  
IT

A common compute-  
centric, software-driven  
platform for traditional and  
new

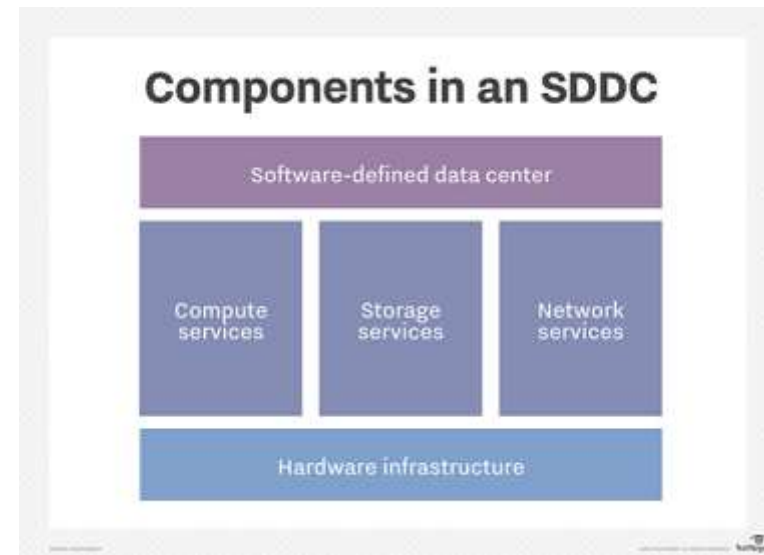
# Shift your focus from infrastructure to service



# Definition: What is a Software-defined Data Center (SDDC)?

“ SDDC is an IT infrastructure that extends **virtualization concepts** such as **abstraction, pooling, and automation** to **all of the data center’s resources** and services in order to achieve **IT as a service (ITaaS)**.

*In a software-defined data center, **all elements of the infrastructure** — compute, storage and networking – **are virtualized, automated and maintained by software** allowing IT to be delivered as a service. A software-defined data center is the foundation of an organization that is **Future Ready**.*



”

# SDDC delivers needed **agility and efficiency**



Benefit	Hardware-defined (HDDC)	Software-defined (SDDC)
<b>Innovation</b>	<b>Slow</b> Long hardware/ASIC cycles	<b>Fast</b> Rapid software innovation
<b>Flexibility</b>	<b>No</b> Lock-in	<b>Yes</b> Choice of infrastructure
<b>Ease of insertion/ deployment</b>	<b>Low</b> Requires forklift upgrade	<b>High</b> Non-disruptive

# What is a hyperconverged infrastructure?

Hyperconverged solutions solve the challenges of traditional IT infrastructures, by putting all of the separate pieces together. They combine compute, storage and networking into a single server, which dramatically simplifies the infrastructure stack.

Physical servers

Server

Application 1

Storage (DAS)

Server

Application 2

Storage (DAS)

Traditional infrastructure

Servers (Hypervisor)

Network

Storage (SAN)

Hyperconverged infrastructure

Servers + Storage + Network

Hypervisor





# The tangible benefits of (Hyperconverged) SDDC

- 1 Gain business agility with faster service delivery
- 2 Minimize and contain cost
- 3 Ease maintenance, changes and updates
- 4 Improve user experience through standardization
- 5 Application optimized infrastructure
- 6 Automate IT processes, saving time and resources

58%  
reduced TCO  
over five years



510%  
average  
ROI over  
five years

7.5  
month  
payback  
period



71%  
less  
management  
time

If the software manages everything, why is hardware still important?



# Enabling SDDC in **your** data center

1

## **Prioritize SDDC plans**

Watch for business needs that require flexibility, “carving out” of resources, and rapid, dynamic response

2

## **Maintain agility**

Stay open so you can leverage the technology you want, when you want

3

## **Choose the right partner**

Ensure your solution provider is committed to your needs, so when challenges arise, your outcome is assured

# Top recommendations to ensure SDDC success

“New skills and a cultural shift in the IT organization are needed to ensure this (SDDC) approach delivers results for the business.”

*Dave Russell, Gartner\**

- 1 New processes and culture in place
- 2 The right skills and training
- 3 Start now; plan ahead! Implement in phases
- 4 Ensure compatible technologies
- 5 Mitigate vendor lock-in

\*Source: [Gartner Says the Future of the Data Center is Software-Defined](#)

# Il Cloud è una delle chiavi per la Digital Transformation (fonte: AWS)

## Keys to Digital Transformation

### Lean Enterprise

- Customer Centric
- Minimum Viable Products
- Metrics-driven culture
- Low-cost experimentation
- Failure-embracing culture

### IT Enablers

- Microservice architecture
- DevOps
- Machine Learning
- Internet of Things (IoT)
- Mobile
- Big Analytics

Enabled  
By

# CLOUD



## ISSUES & TRENDS:

CLOUD & SOFTWARE-DEFINED COMPUTING

Positive trend indicators:

70%



Increased adoption



60%



Faster deployment



50%



Greater tangible benefits and ROI

### The State of the Cloud and Software-Defined Data Center (SDDC) 2016

125 C-Level Executives (CEO, CFO, COO, CTO, CDO/CSO)  
125 VP-level Business/Tech Executives (VP, SVP, EVP)  
Plus, 10<sup>th</sup> IT Directors, 20<sup>th</sup> IT Managers, 20<sup>th</sup> Systems/Network Admins & Engineers  
100 Large Enterprises (1000+ employees); 400 SMBs/Mid-Size Enterprises (250+ employees)

Study conducted by HyTrust, Inc.

01  
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# Cloud e SD IT: in quali aree?

## Usage will increase for...

55%

Storage virtualization



50%

Network virtualization

50%

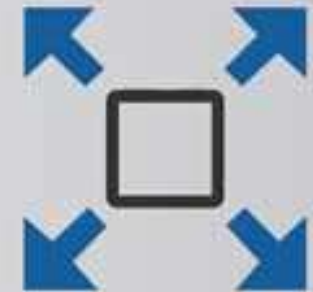
Public Cloud

40%

Hyper-converged infrastructure

40%

Workloads traversing Hybrid Clouds



# Cloud: le preoccupazioni

## #1 Concern of business and IT professionals: Security.



67% say security will slow down migration



55% believe there'll be more data breaches and other security problems

70% expect more or the same amount of internal compliance and auditing issues

**In fact,** the biggest security gap holding organizations back is the perception of inadequate security, or the fear that it's not as strong as physical data center security (**52%**), while, on the other hand, **44%** say the problem is split between a lack of solutions, immaturity of offerings, and interoperability issues.



**However...** 70% say security will be less of an obstacle





## Security will be key public sector cloud adoption driver by 2018, predicts Gartner



Caroline Donnelly  
Datacentre Editor

20 Jan 2016 15:36

Gartner predicts that by 2018 government agencies will be citing security as a reason to move to public cloud rather than to stay away from it



Better security will be the main reason by 2018 why government agencies decide to use the public cloud, Gartner predicts.

The market watcher says that over the next two years the cost and business agility perks of moving to the public cloud will pale in comparison to the security benefits government agencies stand to gain by using off-premise technologies.

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# La vostra infrastruttura è pronta per il Software-Defined IT?



Software-defined data center gaining mainstream adoption.

## Workloads/services already virtualized:



45%   
Mission Critical Servers

55%   
Active Directory/Directory

55%   
Network

55%   
Storage

60%   
Test/Dev Servers



Broad adoption across multiple disciplines and vertical industries.

# Software-Defined = automazione



**90%**

say effective automation—reducing the need for manual processes while ensuring top-tier security—is key to large-scale deployment of SDDC strategies and technologies.

**95%**

say consistent policies can be enforced that align to meet your compliance, security and business needs.



## BENEFITS OF CLOUD and SOFTWARE-DEFINED DATA CENTER (SDDC)



**95%**

say current SDDC platforms and strategies ensure top-tier security that meets their needs

**95%**

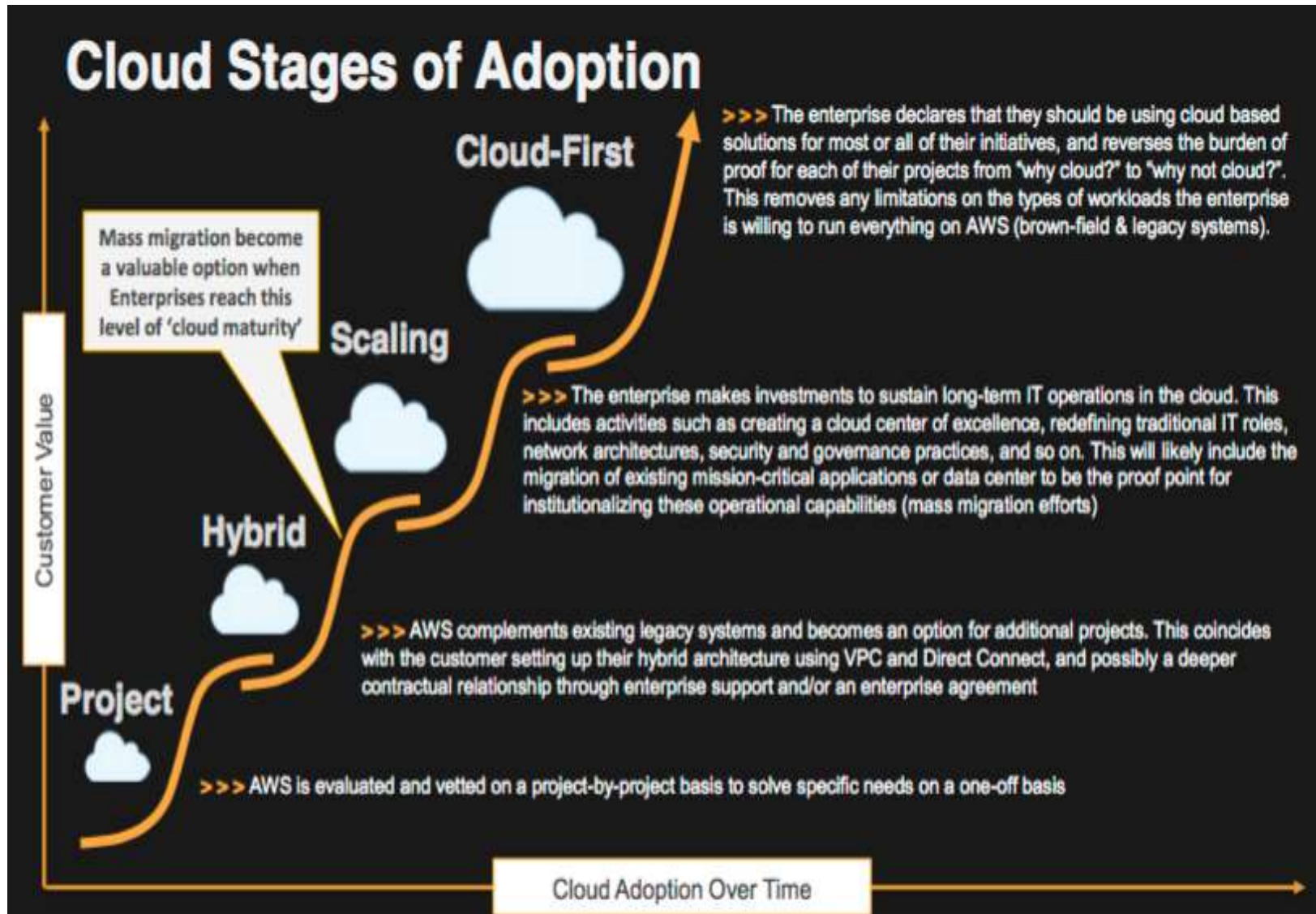
believe better security helps them quickly derive the obvious benefits—agility, performance, cost savings

**90%**

say optimal SDDC strategies and deployment noticeably benefit the bottom line, and quantifiably drive up virtualization ratios and server optimization



# Il passaggio al Cloud è quindi un percorso (fonte: AWS)



# Passare a Cloud e SD IT implica una migrazione



## Top 3 concerns during migration:

60%



Data breach

60%



Infrastructure-wide  
security & control

55%



Effective monitoring  
and visibility

# Siamo pronti per il Public Cloud?



# Cloud vuol dire governance?

**InfoWorld**  
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**CLOUD COMPUTING**

By [David Linthicum](#) | [Follow](#)

## The second cloud wave is upon us,



*Credit: World Surf League*



Enterprise cloud workloads should hit the 10 percent mark in 2018, and we'll need new management and governance tools to make it all work

# Una provocazione: i «mal di testa» del Cloud

[Infoworld] It's hangover time for enterprise cloud computing

September 30, 2017 / Cloud

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A new report from 451 Research shows that IT pros are dissatisfied with the service they get and with the difficulty of cloud migrations.

Now that enterprises have done serious work in the cloud, they're a bit unhappy with their cloud technology providers. It turns out that migrations are not so easy, and service levels aren't what they expect.

According to a recent report by 451 Research, **three quarters of organizations are willing to pay a premium for enhanced services from their cloud technology providers. Just under half (48.7 percent) of the 600 IT pros polled said they would pay to enhance their security, 43.3 percent said they would pay extra for guaranteed uptime and performance metrics, 33.6 percent would pay more for enhanced customer service, and 26.4 percent would pay more for enhanced operational management.**



**IT shops were also dissatisfied with the security services they were getting in their cloud services; only 38.8 percent were satisfied. But such services were important to more than half (58.1 percent) of those polled.**

Only one in five respondents said their cloud technology vendors met their expectations for migrating workloads to and from on-premises platforms.

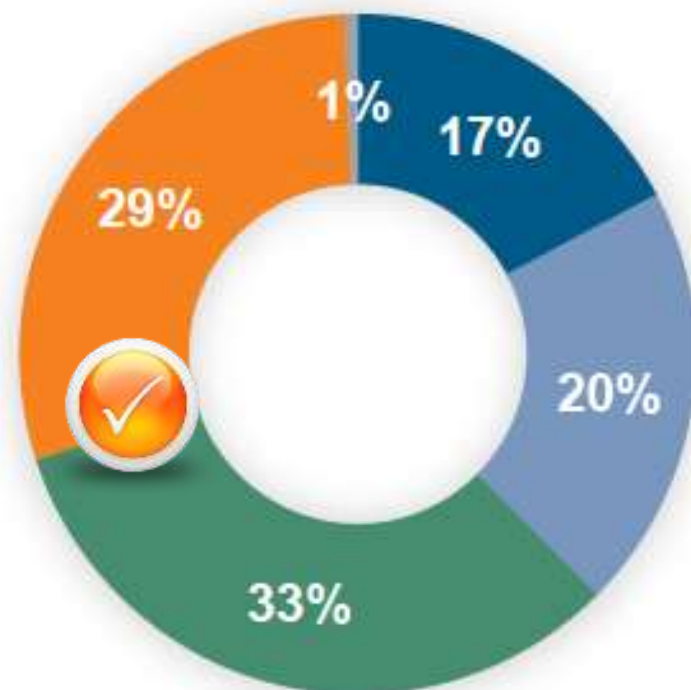




# E' chiaro che indietro non si torna

## Nearly 1/3 have a formal digital transformation strategy

Digital Transformation is the investment in new digital technologies and processes to not only more effectively engage customers, partners or employees, but also cut costs.



- We currently have no digital transformation strategy
- We are considering it, but have no formal plans
- We are in the planning stage - researching to form our digital transformation strategy
- We have a formal strategy and are actively digitizing our business processes and technologies
- Don't Know

Which of the following best describes your organization's status with regards to a Digital Transformation effort?

# Il ruolo chiave del CIO (fonte: McKinsey)



Discover how the involvement of CIOs in business strategy can increase IT performance in McKinsey & Company's newest survey.

Mc

**W**hen CIOs play an active role in business strategy, IT performance on a wide range of functional and business tasks improves. But in McKinsey's latest survey on business technology,<sup>1</sup> few executives say their IT leaders are closely involved in helping shape the strategic agenda, and confidence in IT's ability to support growth and other business goals is waning. Moreover, IT and business executives disagree strongly on the function's overall priorities—though both sides agree on the need for better data and analytics talent, a challenge that has grown in importance since the previous survey. The results suggest that closing the gap to engage more CIOs in strategy discussions could deliver business benefits and address widespread concerns over IT effectiveness.



2.

3.

# Ma, nel Management board, priorità e linguaggi possono naturalmente differire

## First step - align on the Outcome

	Priority
CEO	Competitive advantage Save money
CIO	Business alignment Move faster, more efficiency
CFO	Improved cash flow Save money
CMO	Respond to market changes More experimentation, better analytics
CISO	Visibility, auditability, control
CRO	Get more products to market Move faster, more efficiency

Attenzione: il CIO non è più il solo a spendere in IT (fonte: Gartner), e non stiamo parlando di “Shadow IT” ..

## Yes, CMOs Will Likely Spend More on Technology than CIOs by 2017

By [Jake Sorofman](#) | September 20, 2016 | 2 Comments

By 2017, CMOs will spend more on technology than CIOs.

This now-famous prediction was made several years ago by my former Gartner colleague [Laura McLellan](#).

At the time, it was polarizing, to say the least. Depending on who you asked, it was either highly provocative or wholly outrageous. And, according to our latest research, probably right on target!



Gartner's soon-to-be-published annual CMO spend survey suggests that, for 2016, CMOs allocated **3.24%** of revenue to technology spending, which is very close indeed to the **3.4%** of revenue CIOs earmark for IT.

This is an important finding.

It suggests that [marketing technology](#), once a relatively narrow and specialized adjunct to enterprise IT, is now garnering investment nearly equivalent to the core systems that run the business.

# Grazie e restiamo in contatto



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