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Using Cloud Computing as a Business Advantage

Cloud Vision 2009 • October 21,
2009 • Minneapolis

Chris Howard

VP and Service Director

Executive Advisory Program

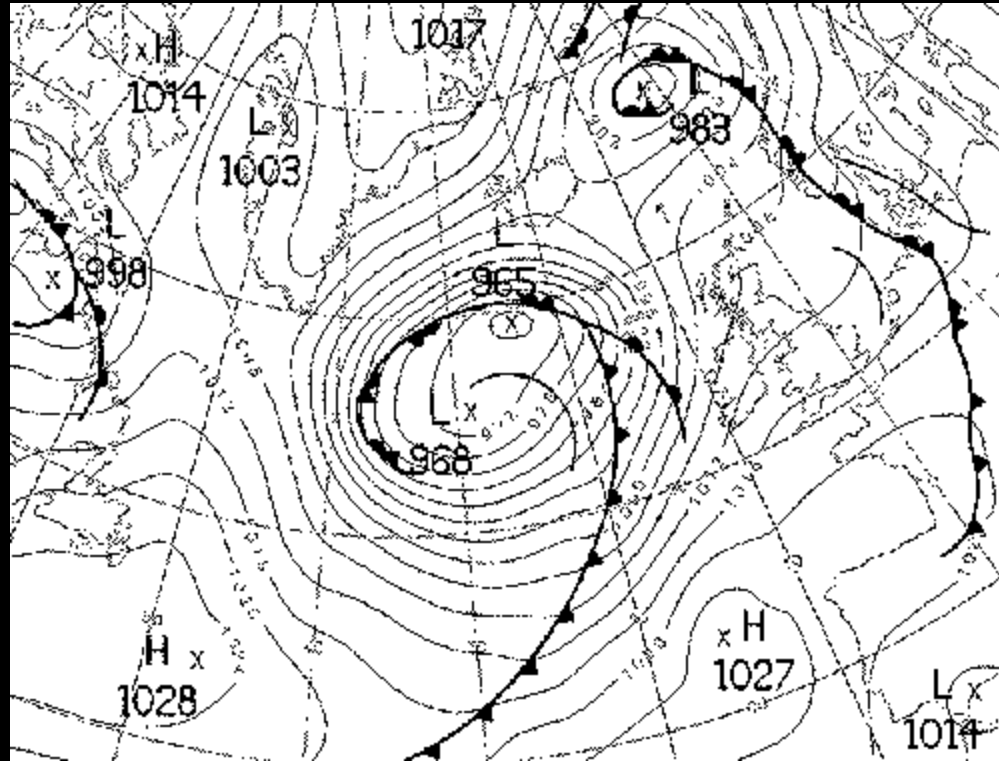
Burton Group

choward@burtongroup.com



Agenda

- Forces
- Reactions
- Definitions
- Preparation
- Recommendations

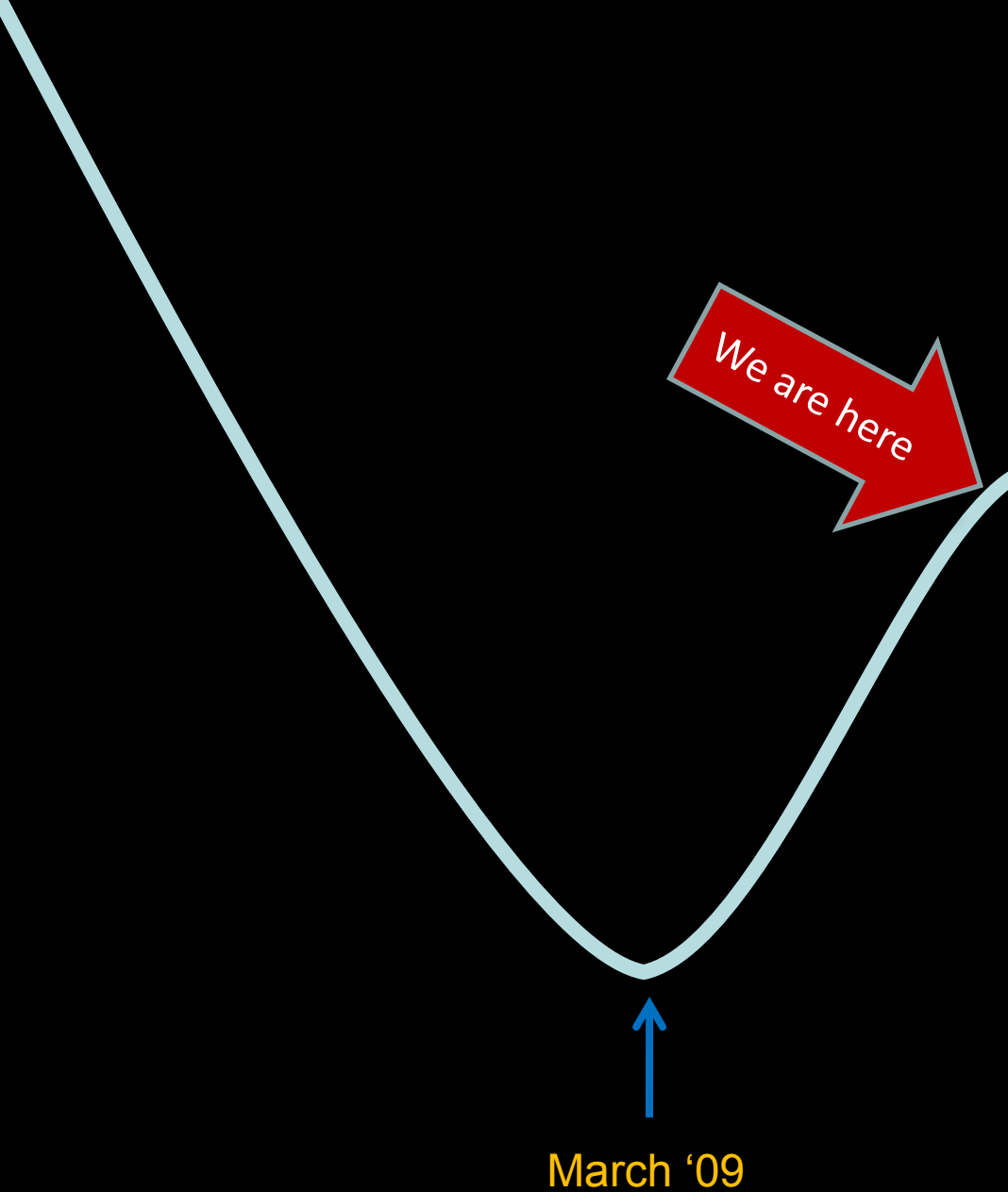


FORCES

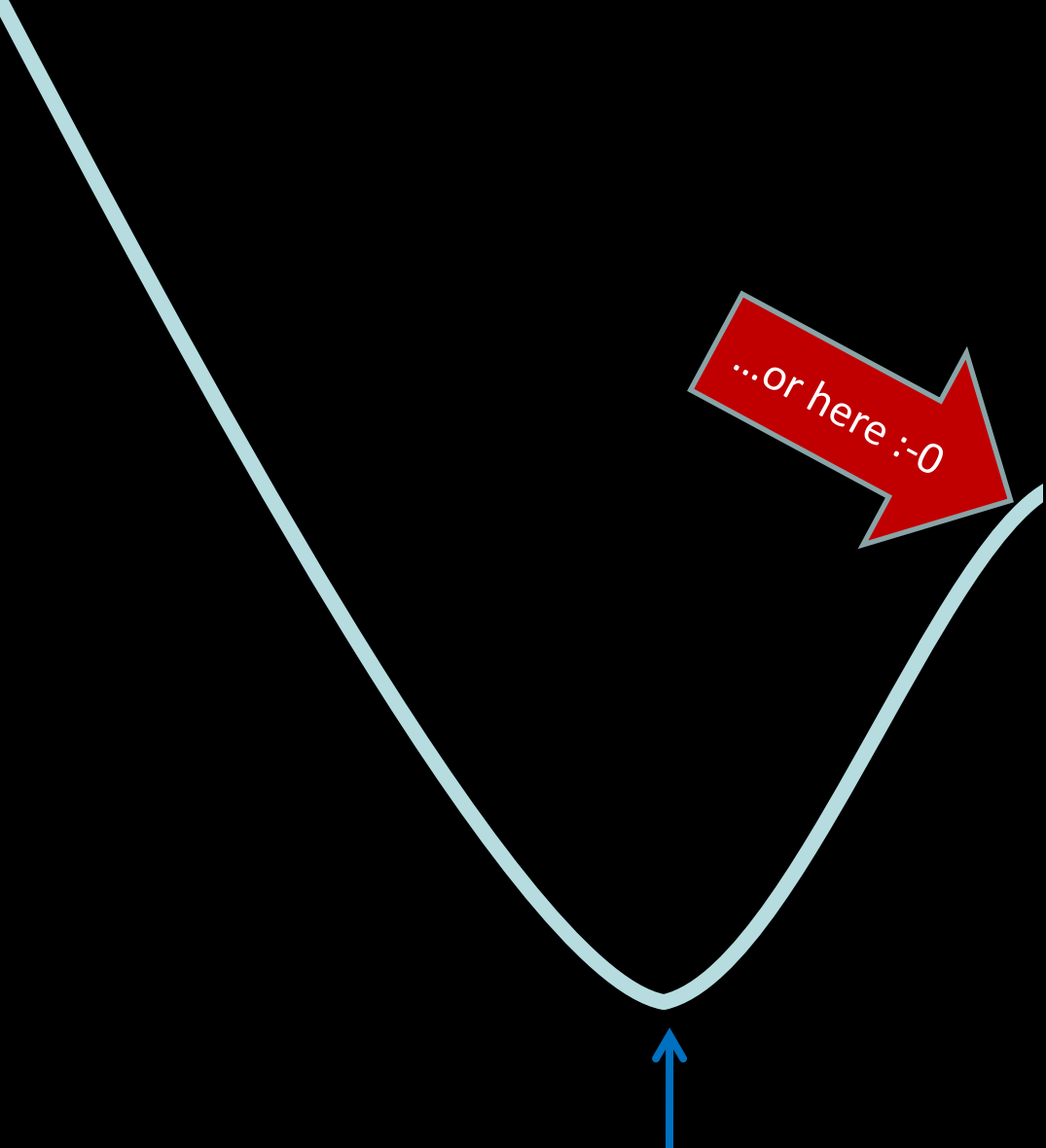
The Four Immutable IT Truths From a Business Executive Perspective.

1. We're running out of space and power.
2. We're spending lots of money on overhead.
3. It's not our core competency.
4. We could not exist without it.

Any Time



- Maybe the worst is over
- Tentative signs of recovery taking root
- Budgets starting to open up, a bit
- Cost containment efforts have been effective, mostly
- Renewed focus on management disciplines
- New competitive opportunities



March '09

...or here :-0



Photograph by Barry C. Bishop

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GEOGRAPHIC

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The Four Truths *at this Moment*

If it doesn't help the bottom line, we're not doing it.

If I can't prove ROI within six months, it's DOA at CAPEX.

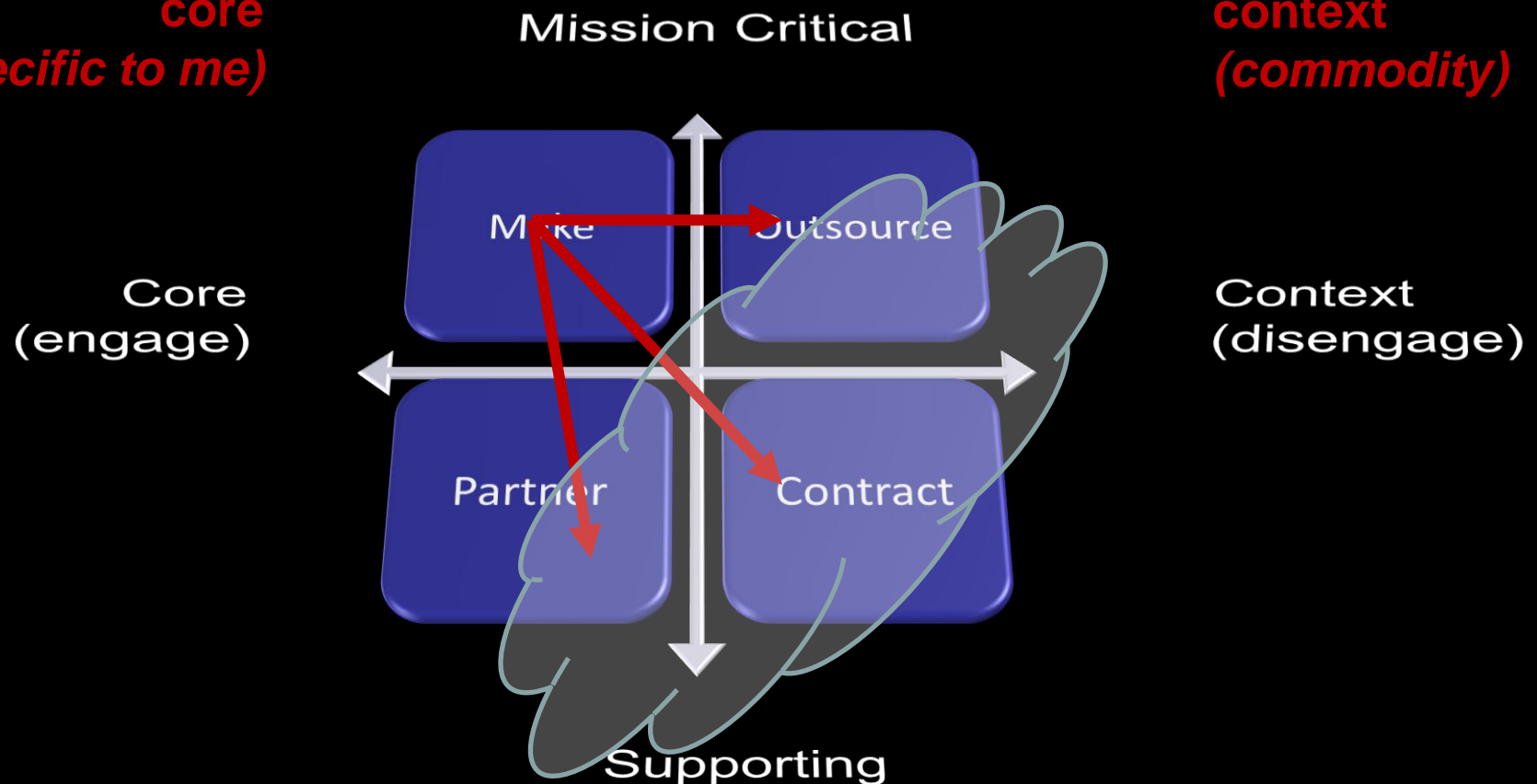
If I can get it cheaper (and safely) from somewhere else, then I will.

Only investments that position us for the upturn are being considered.

Externalization of IT

capitalize the
core
(specific to me)

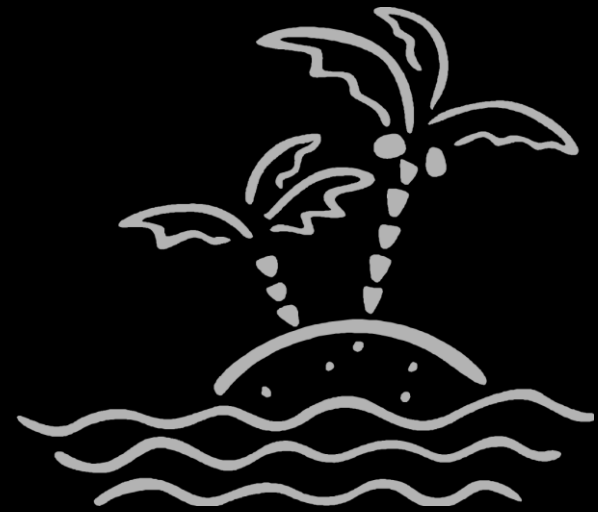
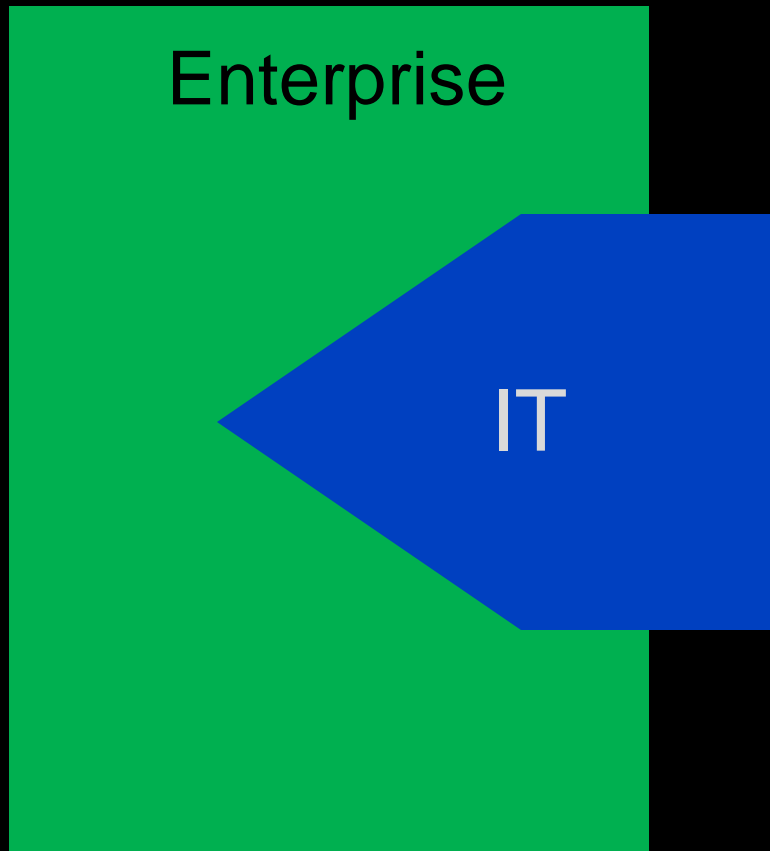
expense the
context
(commodity)



REACTIONS

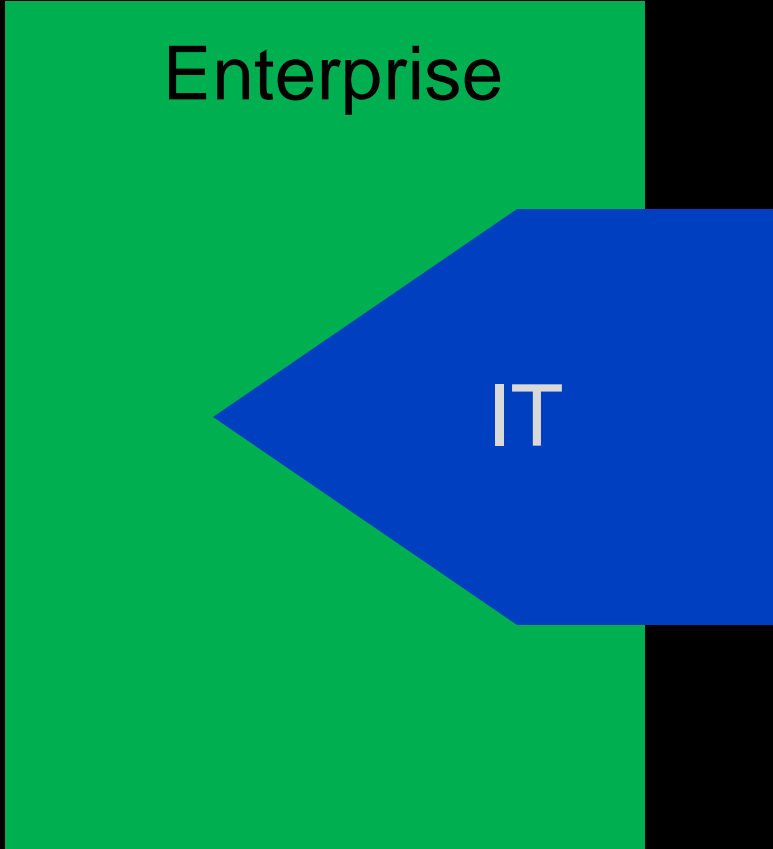


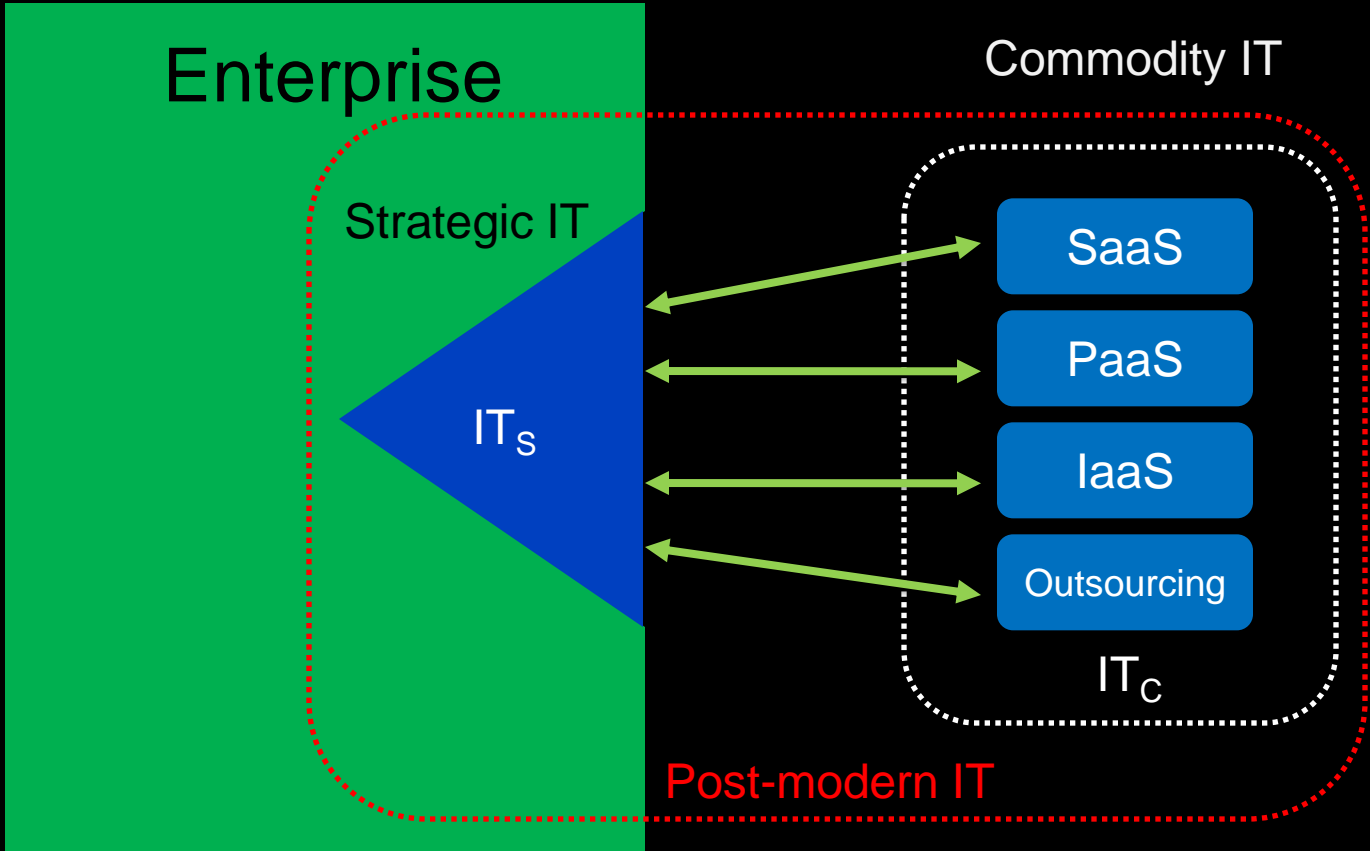
Cost Center Land

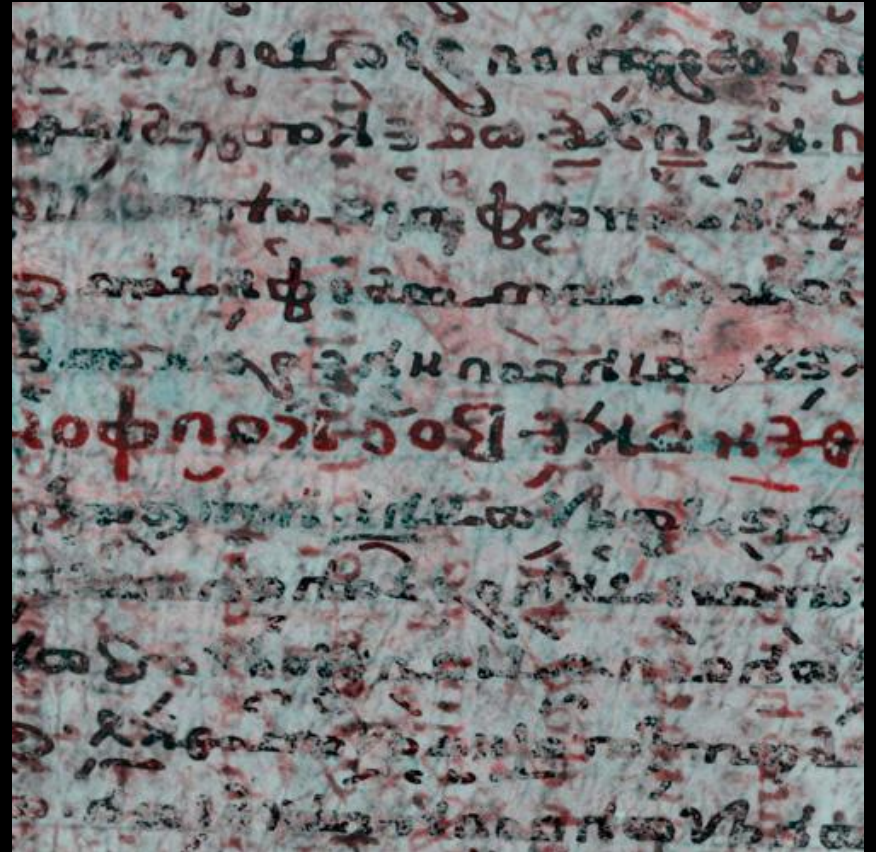


Enterprise

IT







DEFINITIONS

Definitions

- **Cloud Computing**

- “The set of disciplines, technologies, and business models used to deliver appropriately managed IT capabilities as an on-demand, scalable, elastic service.”

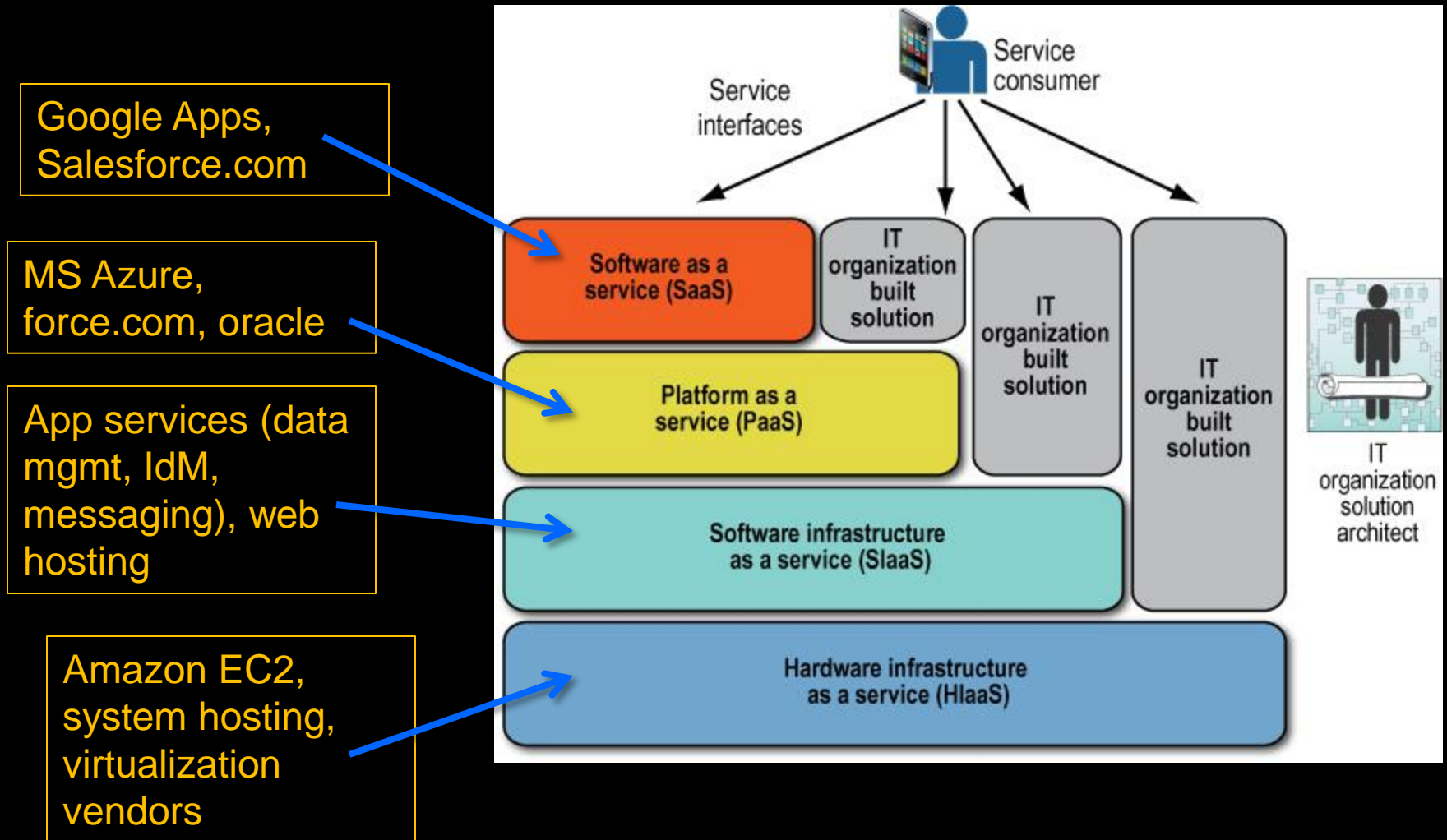
- **A Cloud**

- a “*specific instance* of a cloud computing service.”
 - E.g., Amazon’s Elastic Compute Cloud (EC2) is a specific cloud computing vendor implementation.

Definitions

- **Public cloud:**
 - An IT capability as a service that providers offer to consumers via the public Internet.
- **Private cloud:**
 - An IT capability as a service that providers offer to a select group of customers.
- **Internal cloud:**
 - An IT capability as a service that an IT organization provides for its own business

Multi-Layered Cloud Engagement



Cloud Computing Characteristics

- **Elastic and scalable:**
 - Consumers can quickly provision and deprovision IT services; Cloud service appears infinitely scalable to the consumer.
- **Self-service:**
 - Consumers have the ability to use cloud services as the need arises; Self-service increases IT agility to match the pace of business.
- **Consumption-based pricing model:**
 - Vendors charge customers based on amount of the service consumed. Customers pay for only the IT services they use, thereby increasing IT ROI.
- **Shared infrastructure:**
 - Vendors leverage the infrastructure to service multiple consumers; Multi-tenancy is vital to driving down infrastructure costs.
- **Virtualized and dynamic:**
 - Virtualization creates a dynamic environment for quick resource provisioning and better resource management.

Cloud Benefits

- Increases IT agility with on-demand, self-service business models
- Enables Faster ROI through better resource management
- Offers additional expert IT staff
- Improves business continuity by providing inexpensive disaster recovery
- Increases mobile workforce access to IT services

Cloud Drawbacks and Concerns

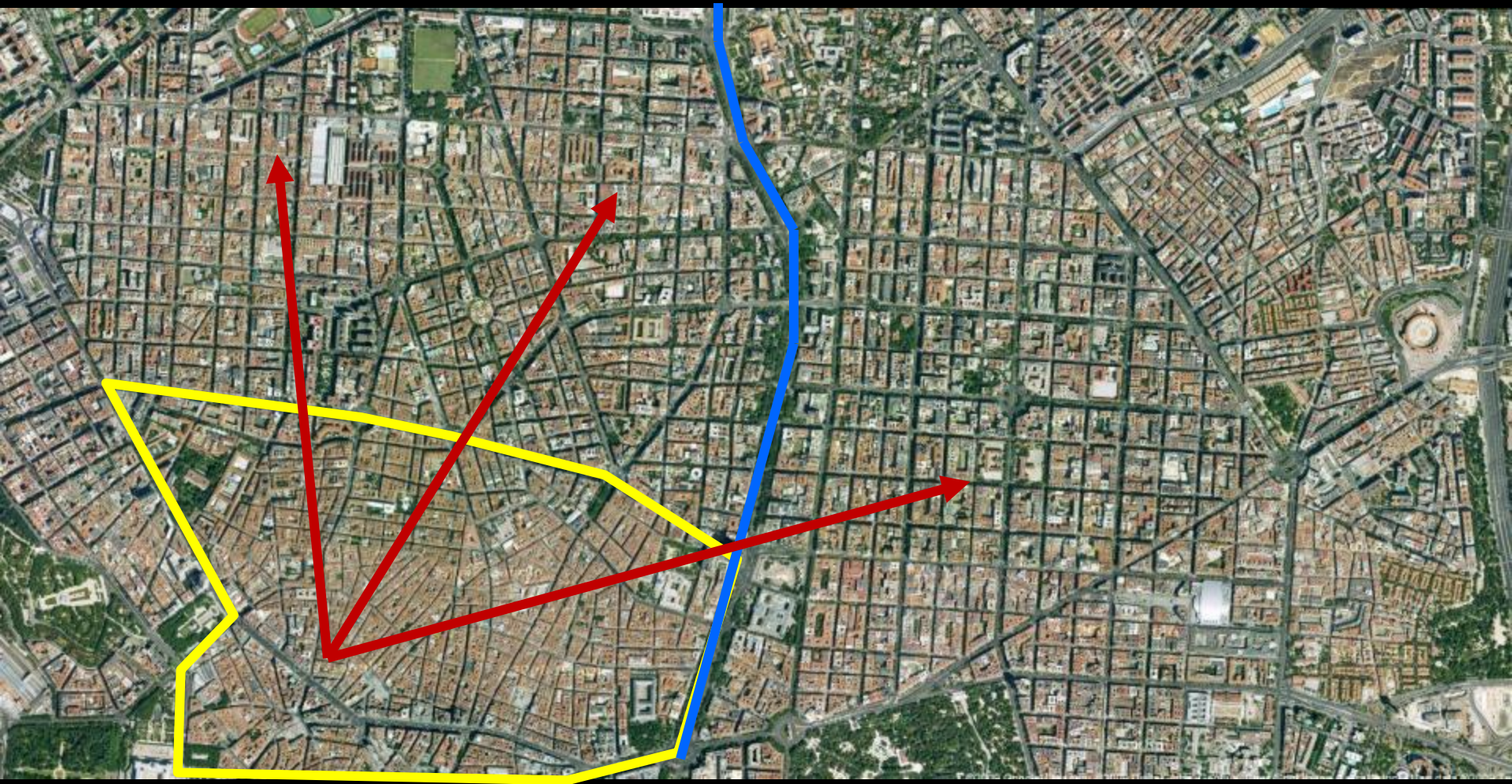
- **Poor or non-existent service-level agreements (SLAs):**
 - Inflexible, boilerplate SLAs are the norm.
- **Inability to manage risks:**
 - Lack of vendor transparency and inability to audit service security measures obscures risk assessment.
- **Unclear return on investment:**
 - Poor cost insight creates an inability to determine cloud service costs.
- **Vendor lock-in:**
 - Lack of cloud interoperability, proprietary data models, and poor application portability make cloud migration difficult.
- **Market immaturity:**
 - Vendor flux and poor service implementations creates consumer uncertainty.
- **Inability to manage and monitor service for events and issues**
 - Lack of management APIs needed to monitor/verify service levels.



PREPARATION



Madrid



Density decreases, regularity increases, large-scale patterns appear

Rome



Regularity is limited by geography, history, culture.
Density increases

When In Rome...

Road lanes and speed limits
are “suggestions”

Crosswalks are not for the
faint-of-heart

The ungoverned rush to a
goal is risky (and maybe
fatal)



Perhaps our IT shops are too Roman?

Everyone for themselves

Speed trumps governance

New construction is hindered by multiple layers of legacy

This complicates sophisticated cloud scenarios

Rome: Metro 'C' Subway Archaeological Surveys (Aug. 2005 - Feb. 2008)

Station Chiesa Nuova / Site S5 piazza d. Chiesa Nuova.

Station Largo Argentina / Site 6.

Station Venezia / Site S9 via C. Battisti.

Station Chiesa Nuova / Site S22 Via Sora.

Station Largo Argentina / Site 7 p.zza S. Andrea della Valle.

Station Venezia / Site S14 p.zza Madonna di Loreto.

Station Venezia / Site S8-B2 p.zza Venezia.

Station Venezia / Site S8-B1,B3 p.zza Venezia.

Station Largo Argentina / Site 23.

Station Venezia / site: S15.

Station Chiesa Nuova / Site 21 p.zza Sforza Cesarini.

0 200m

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Rome Metro Line C station plan (section)



RECOMMENDATIONS

What are our clients thinking?

- They are embracing the cloud
 - SaaS is in wide usage (renting)
 - Applications are being moved (hosting)
 - Some are planning internal clouds first, in anticipation (central services, composability)
- Risk is perceived
 - Many questions about data security
 - Providers are rushing to put solutions up
 - Business case not always convincing
 - Similar risks as seen with outsourcing in the past

Recommendations

- **Build an internal cloud:**
 - Building an internal IT services model can ease cloud adoption. IT organizations must comprehend what applications and infrastructure can/should be moved to the cloud.
- **Evaluate your organization's ability to consume the cloud:**
 - IT organizations must determine the processes and infrastructure that can be moved to the cloud and those that cannot. Can the organization manage multiple cloud vendor relationships?
- **Calculate cloud costs vs. do-it-yourself (DIY) costs:**
 - Monitor cloud costs closely and watch for hidden charges. Compare cloud costs to hosting the same service internally, including operational costs (e.g., energy or personnel) and capital costs (e.g., servers, storage, and software).
- **Don't abdicate responsibility to the cloud:**
 - Although cloud computing represents a way to offload IT capabilities, service delivery and liability remains with the IT organization.

Big Picture Advice

Apply healthy skepticism...

But don't let it hobble you

Understand your risks...

They are specific to your context

Stay engaged with the business...

Or else they will work around you

Push the vendors...

Your demand will drive the maturity of the market

Burton Group Research

- **Cloud Computing: An Executive Primer**
- Moving Out: The Externalization of IT
- Cloud Computing: Transforming IT
- Cloud Computing Security in the Enterprise
- Software as a Service and Google Apps: IT Strategy Implications
- Market Profile: Platform as a Service 2009
- Planning Considerations for Externalization in Cloud Computing

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