

# Obscured by Clouds A Workshop...



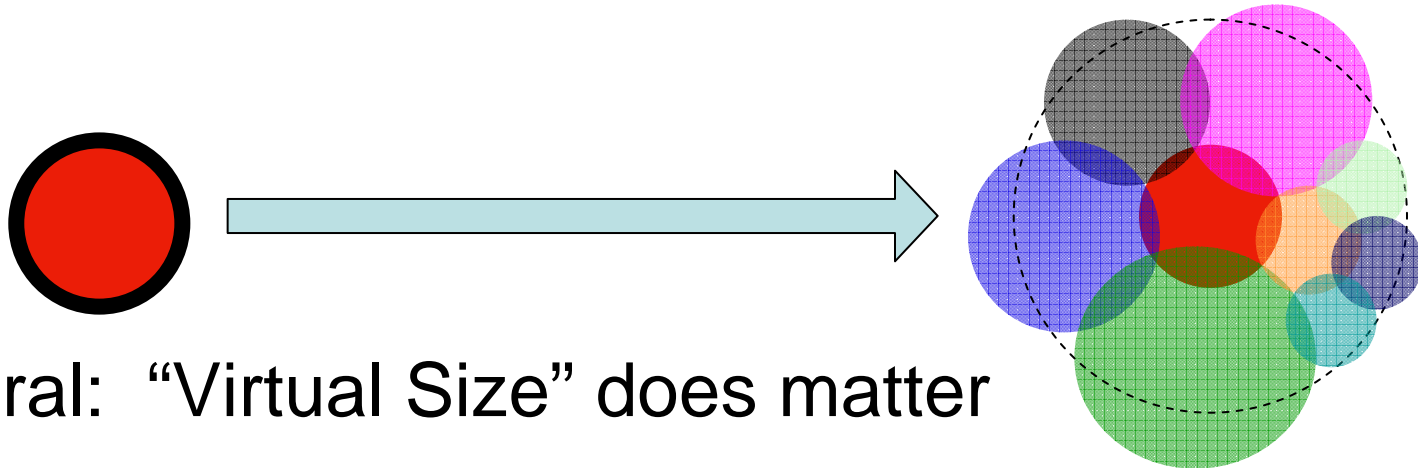
Adrian Seccombe

# Some words

- Ancient bonds are breaking
- Moving on and changing sides
- Dreaming of a new day
- Cast aside the other way
  
- Magic visions stirring....

# The Lilly Frame...

- We **are** changing from a FIPCo to a FIPNet.
  - Fully Integrated **P**harmaceutical **C**ompany
  - Fully Integrated **P**harmaceutical **N**etwork
- **Collaboration** will be a core capability.



The moral: “Virtual Size” does matter

Goals: Lower Cost, More Flexibility, Lower Risk!

# Some Cloud Words

- Obscure
- Translucent
- Opaque
- Obfuscate

The key word...

# Translucent

Transmitting light but causing sufficient diffusion to prevent perception of distinct images.

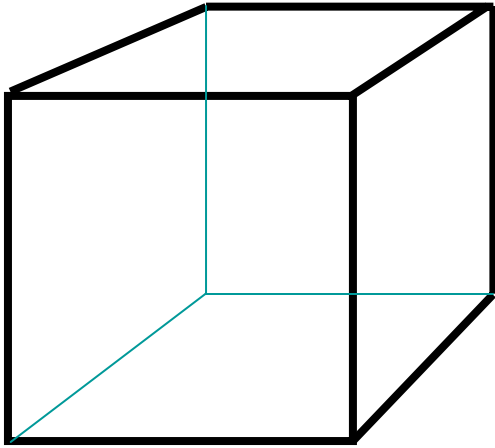
# Example of Translucent Service

Does your company own your own PABX

If NO...

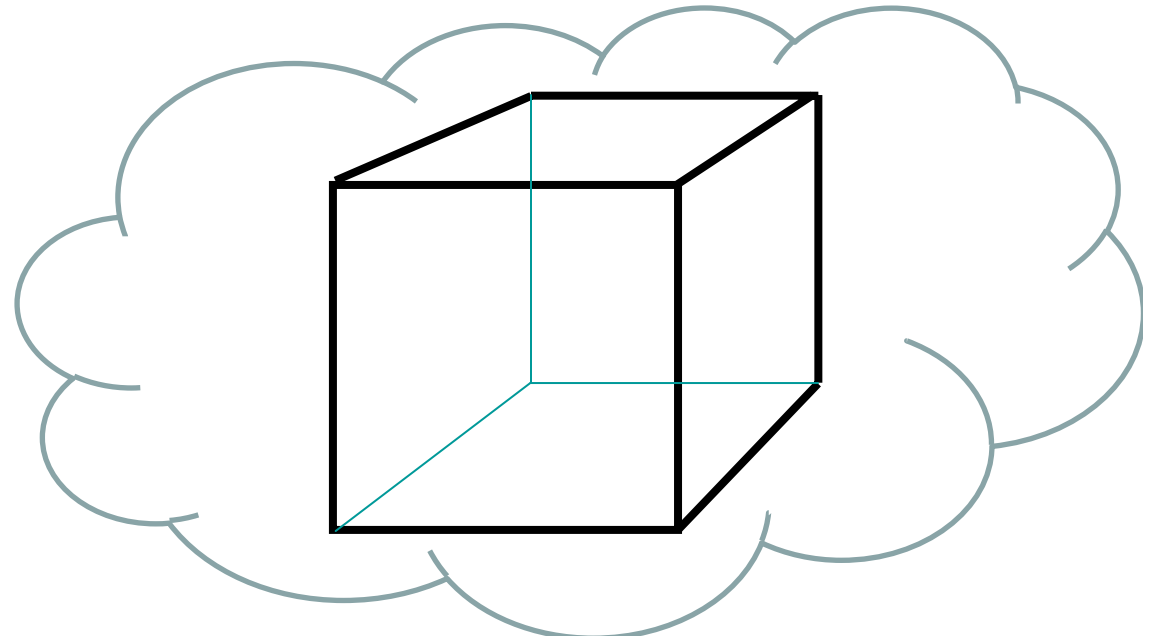
- Where, actually is it?
- How many Admins does it have?
- Is your PABX hardware shared with other companies?
- Do you care?

# To Cloud or Not to Cloud?



Traditional

Clouds



With what degree  
of translucency?



# For all Clouds are not equal...

## <<<< Same old Traditional Approach

Manual  
System Recovery

Tapes sent by Truck  
Data Backup and  
Recovery variable risk

Self owned Disk Storage  
Data Redundancy ...sometimes

Warmish Back up Data Centre  
For Disaster Recovery  
Significant switching impact  
And testing costs



Massive Scalability

Fully automated  
Supplier Redundancy

Fully automated  
Data / Process  
Backup and  
Recovery

Fully automated  
Data / Process  
Redundancy

Fully automated  
Disaster Recovery

Full on Clouds this way >>>>

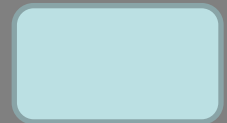
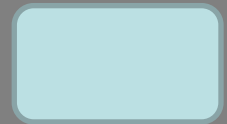
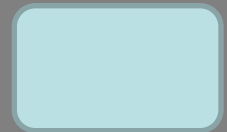
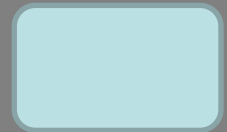
# Fully Translucent

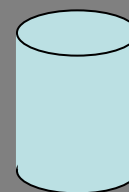
- Defined the degree of Confidentiality, Integrity and Availability
- Defined where information cannot be stored / processed
- Could be one of a number of Suppliers
- Location known only if required by Regulation

# Focii of the Workshop...

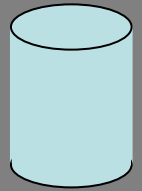
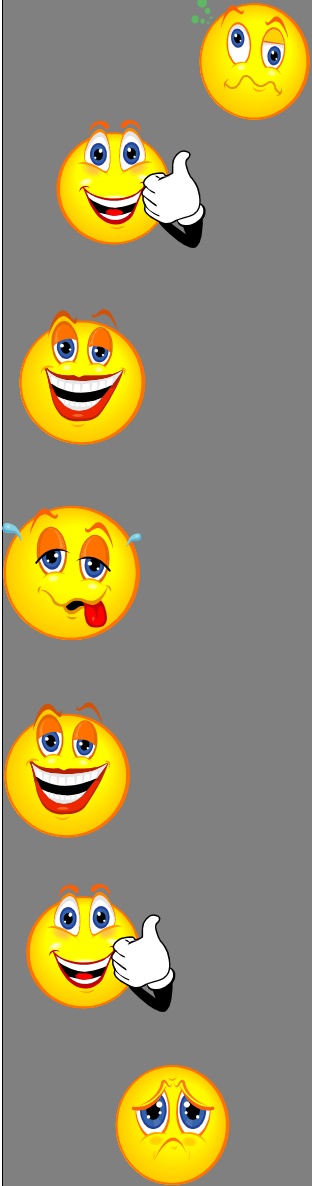
## 4 Directions

- Explore Why Clouds?
- Explore of Cloud Formations  
What are the types of Clouds
- Explore Early Business Case
- Explore Early Security Incident

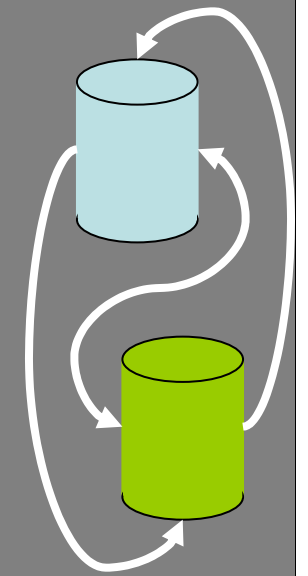




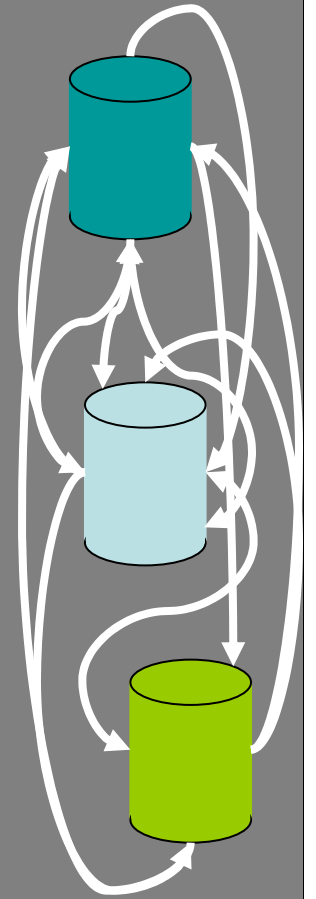
Once upon a time there was a silo...



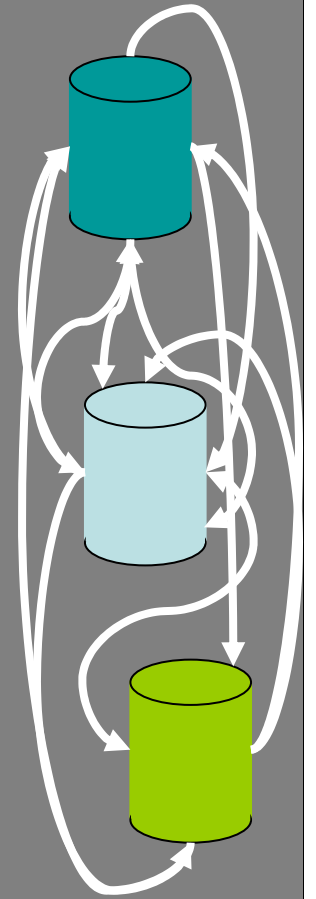
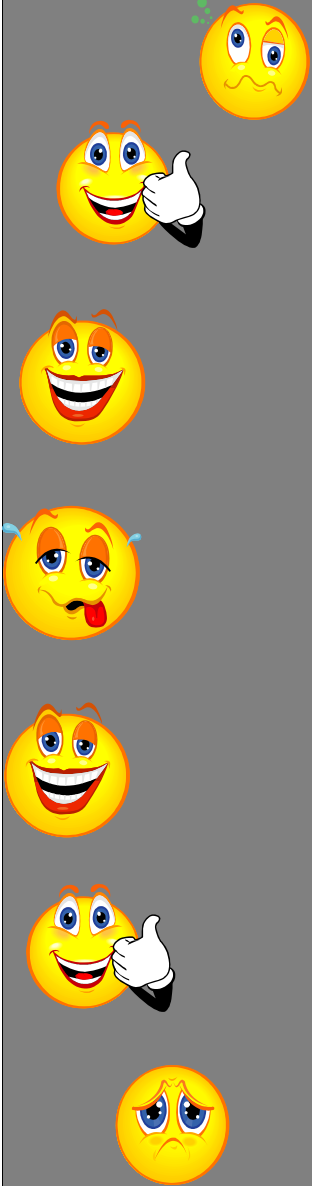
...and it had Customers...



...it wanted to work with other silos...

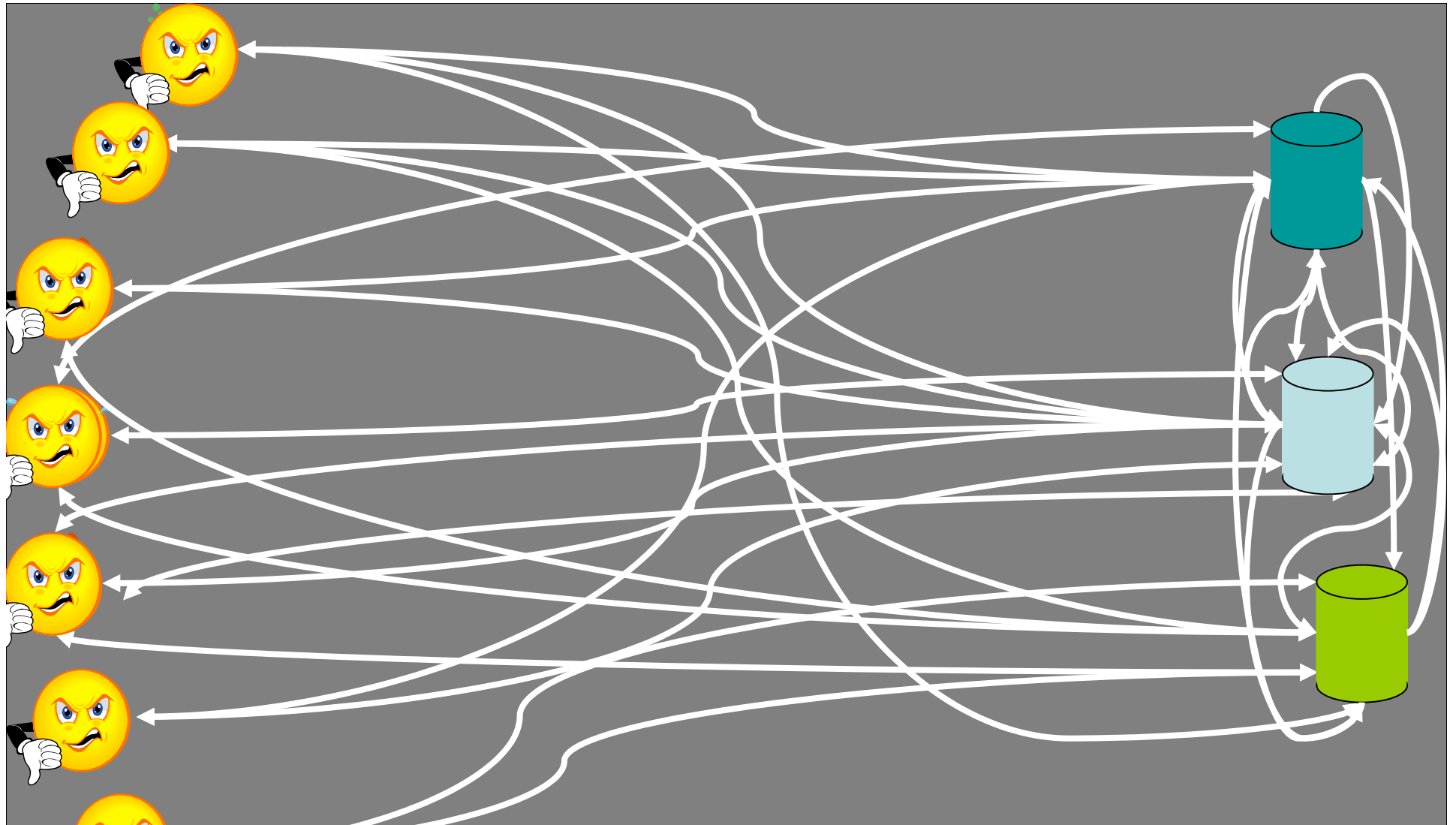


...and even more silos...

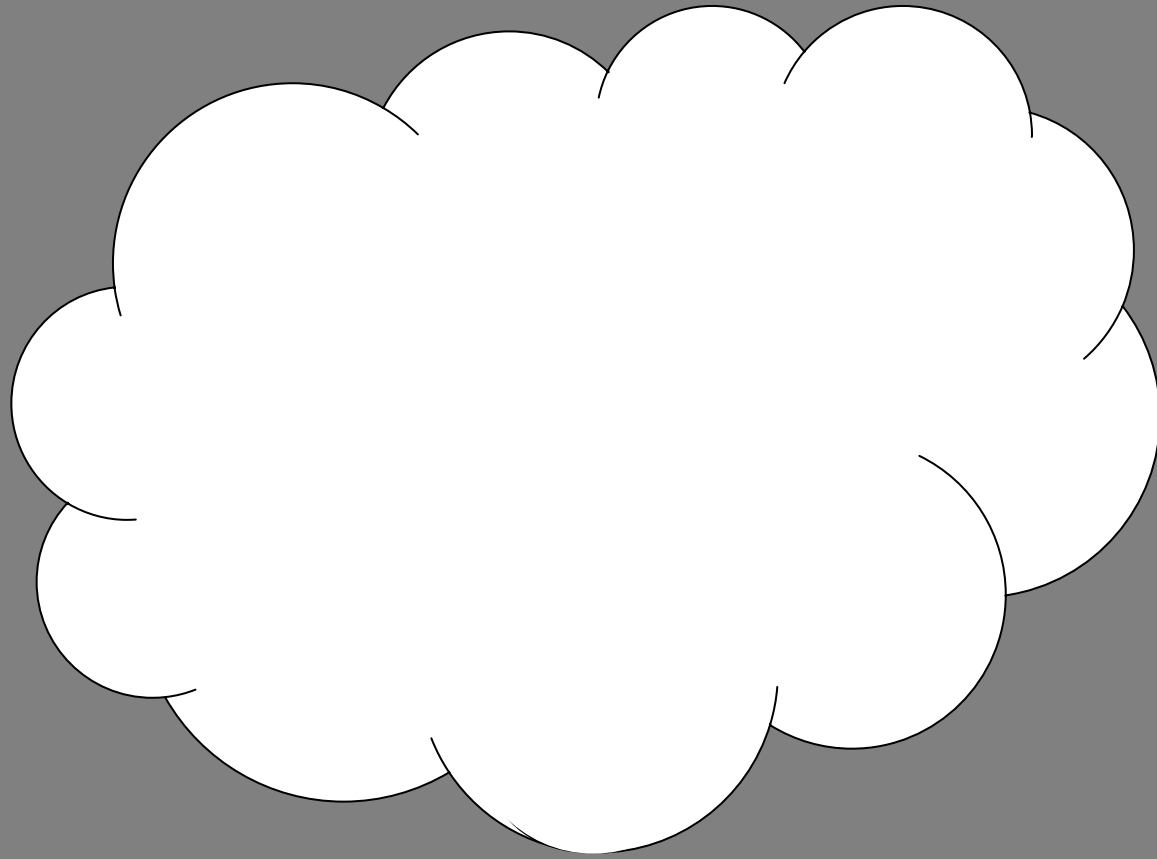


...to better deliver to its customers...

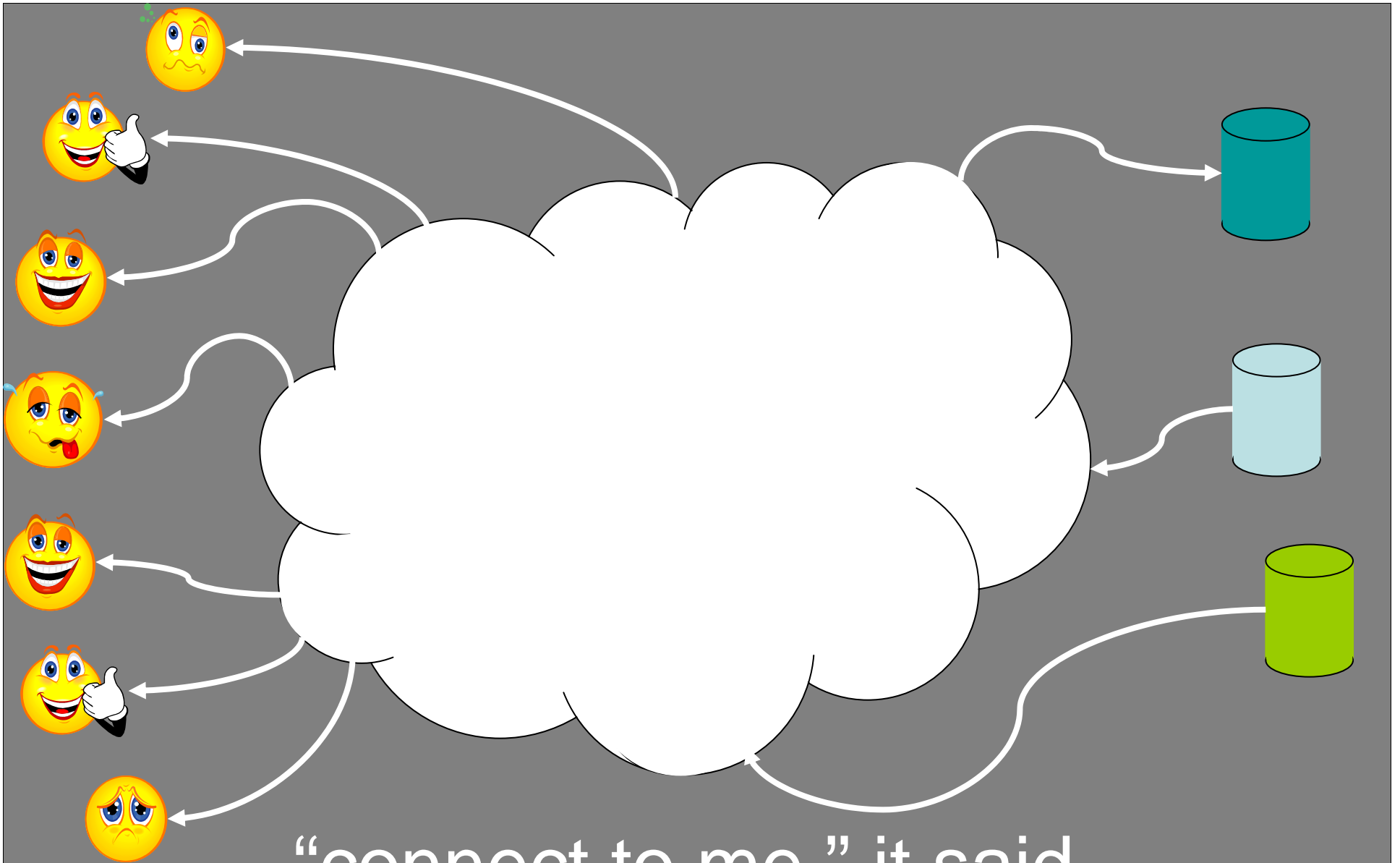




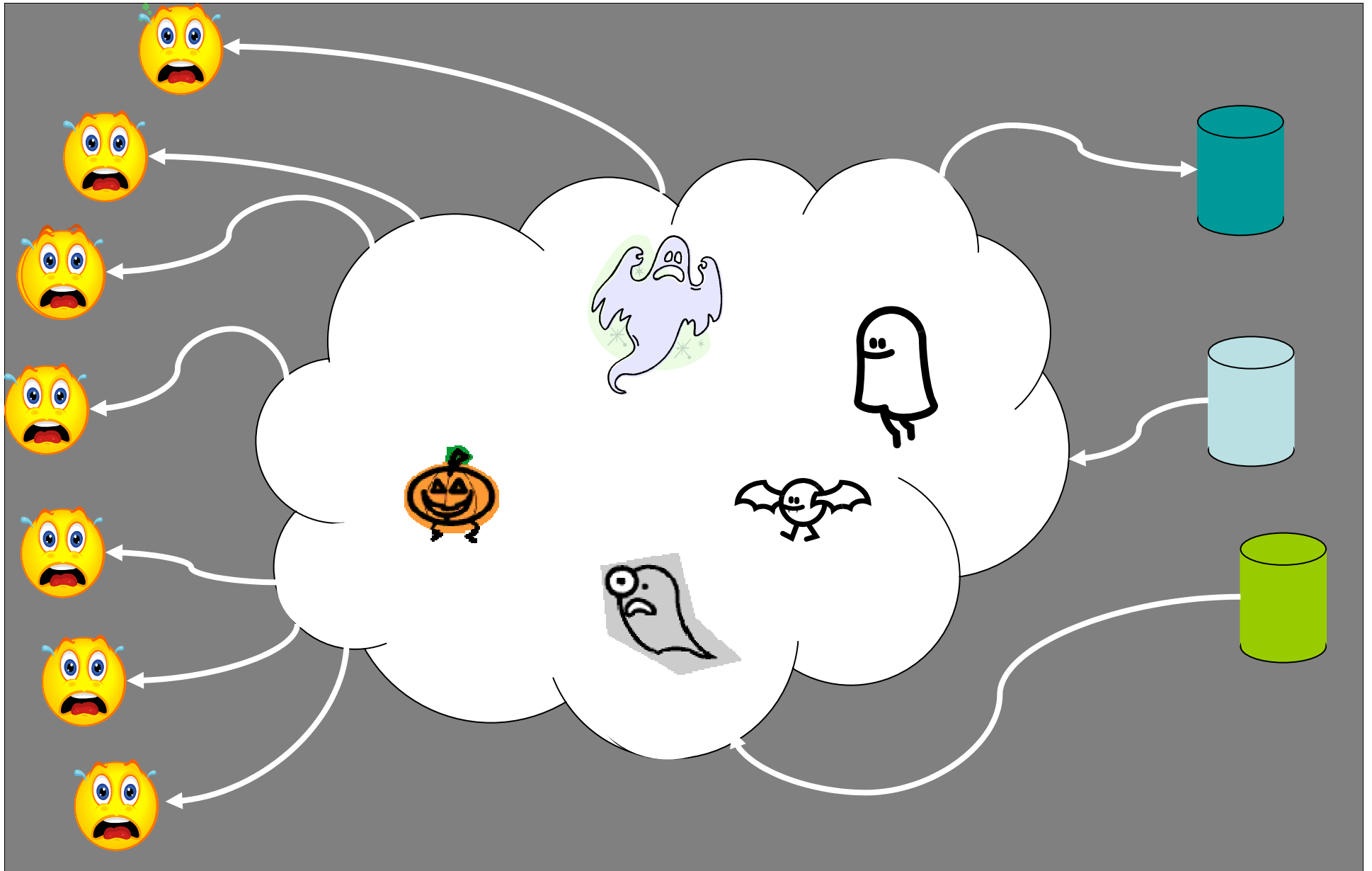
... insecure systems,  
...complex bespoke solutions  
...it was hard, expensive and insecure!



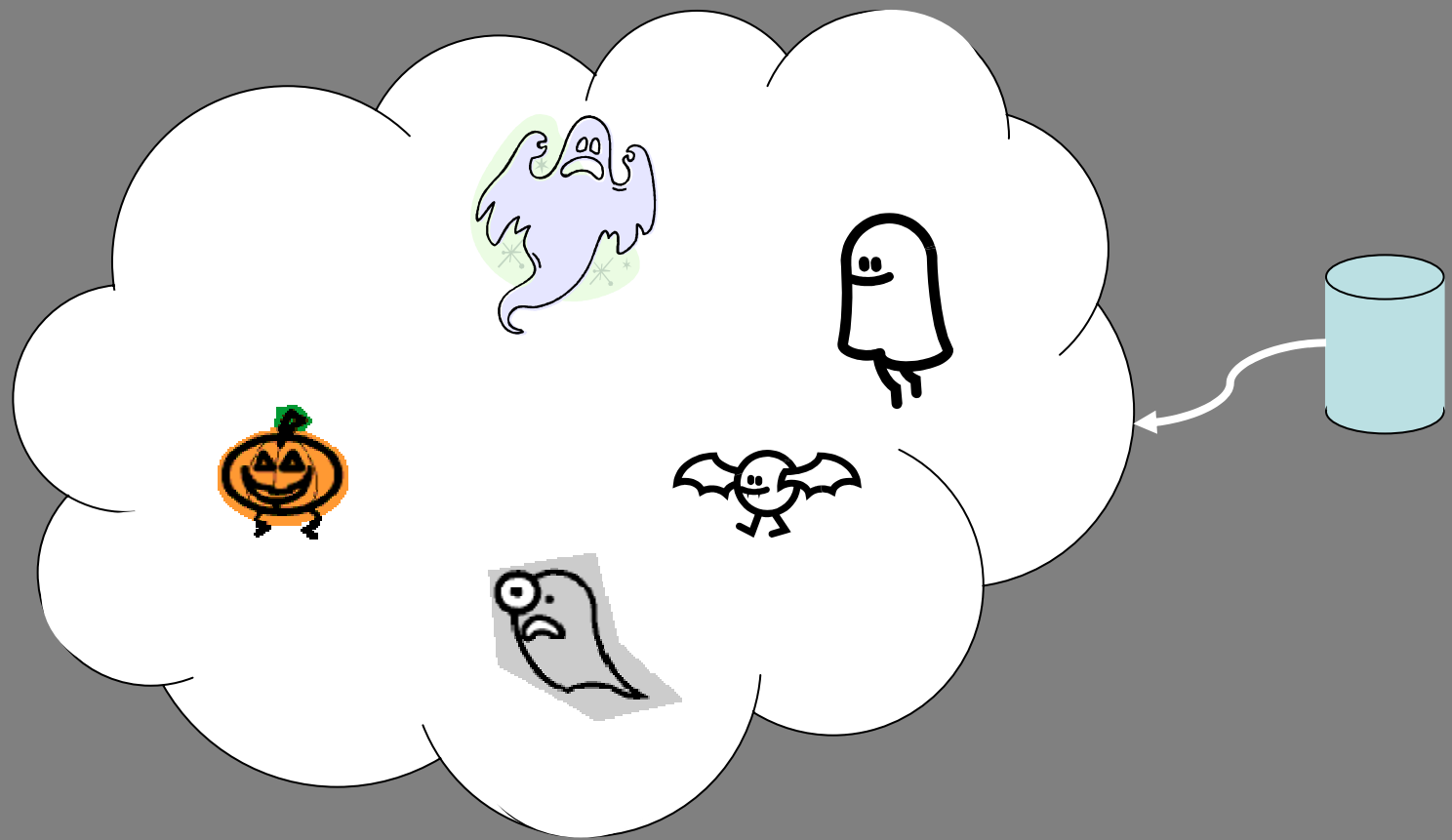
Then along came a cloud...



“connect to me,” it said,  
“I am easier and cheaper...”

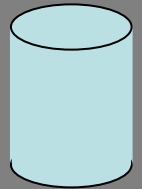


... "you can trust me!!" it grinned..."



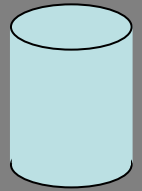
...and everyone ran away!

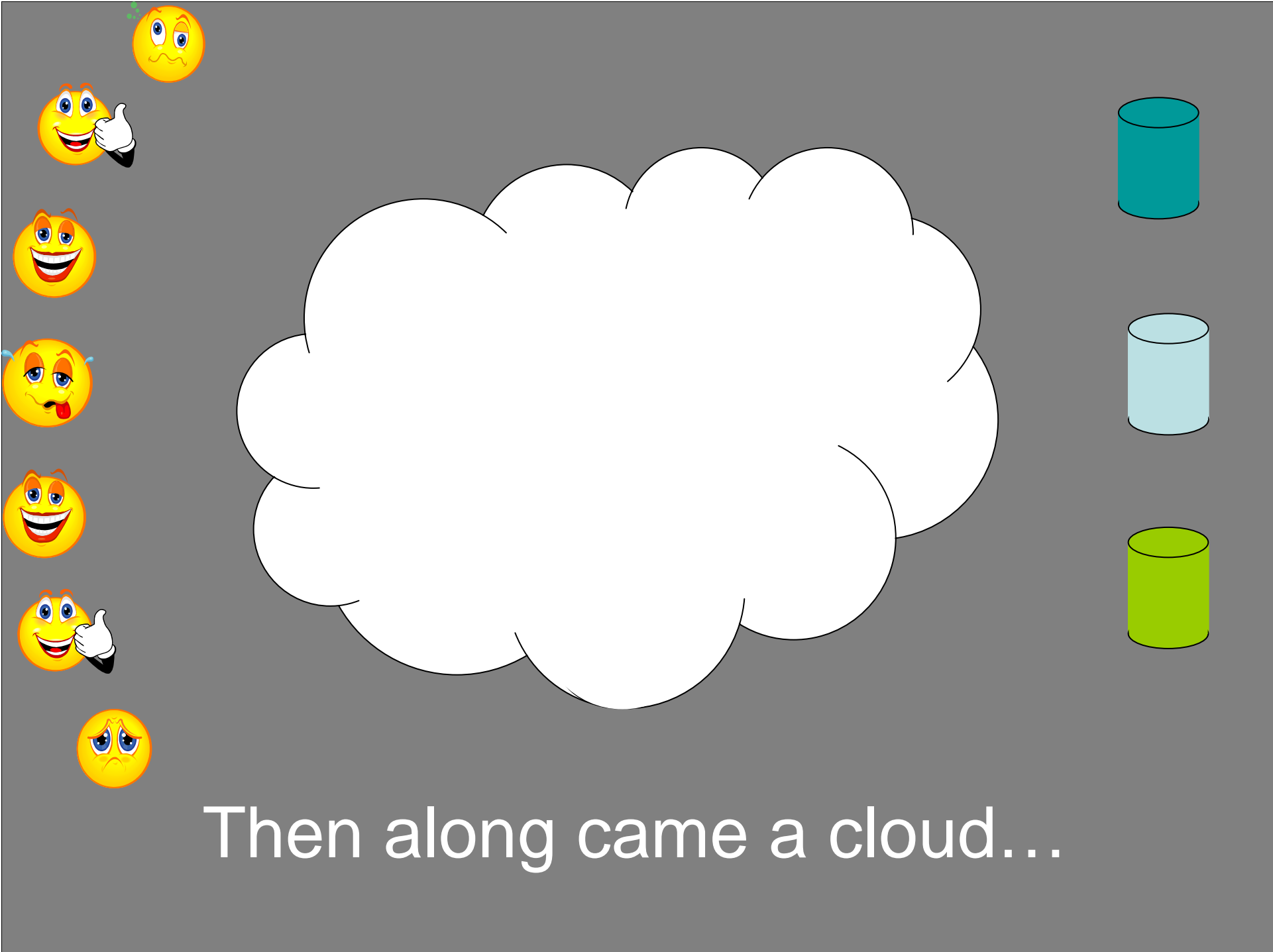
# The End!



Do we agree  
the positive implications  
of the Cloud?

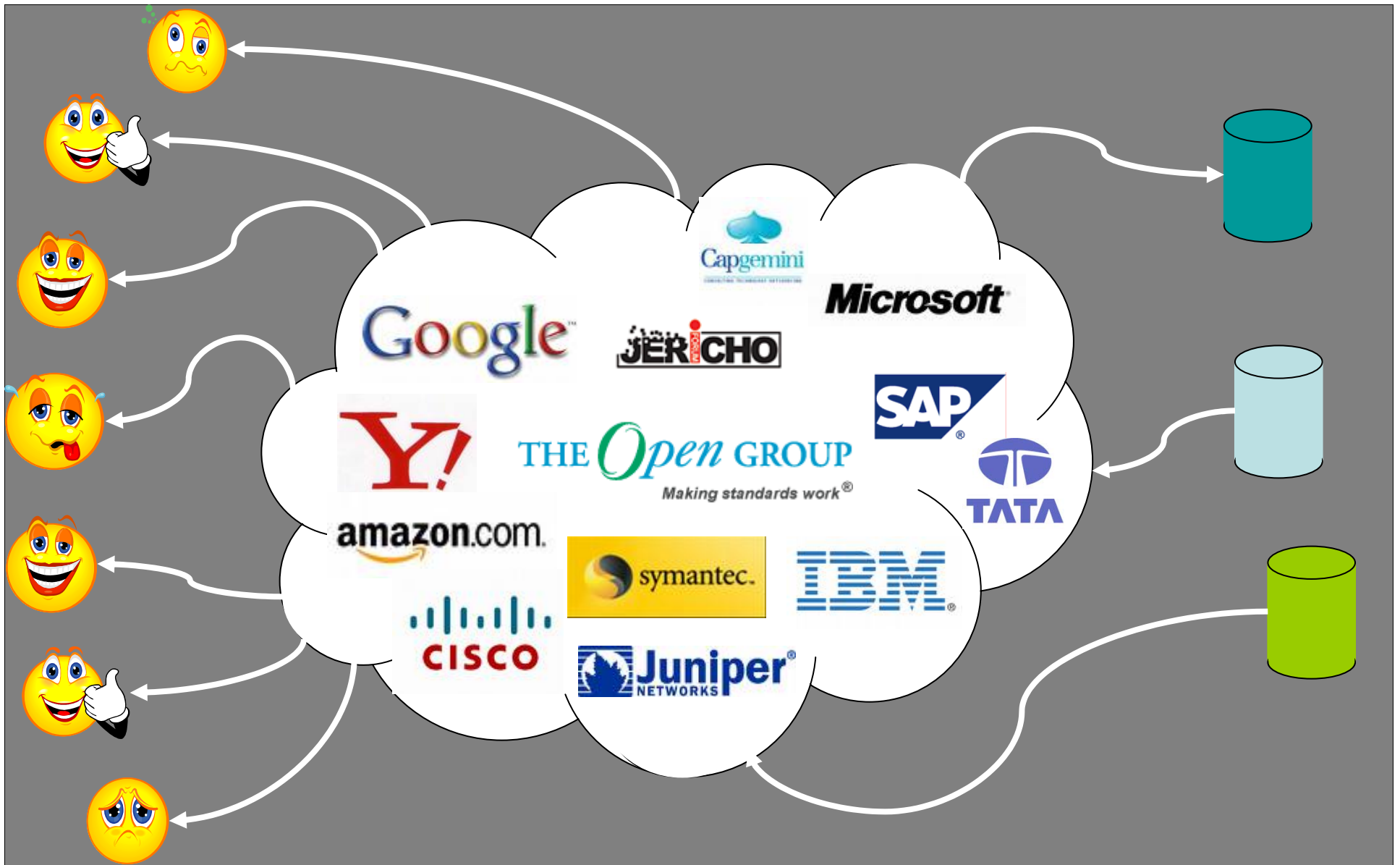
Alternate  
Dream Ending!





Then along came a cloud...



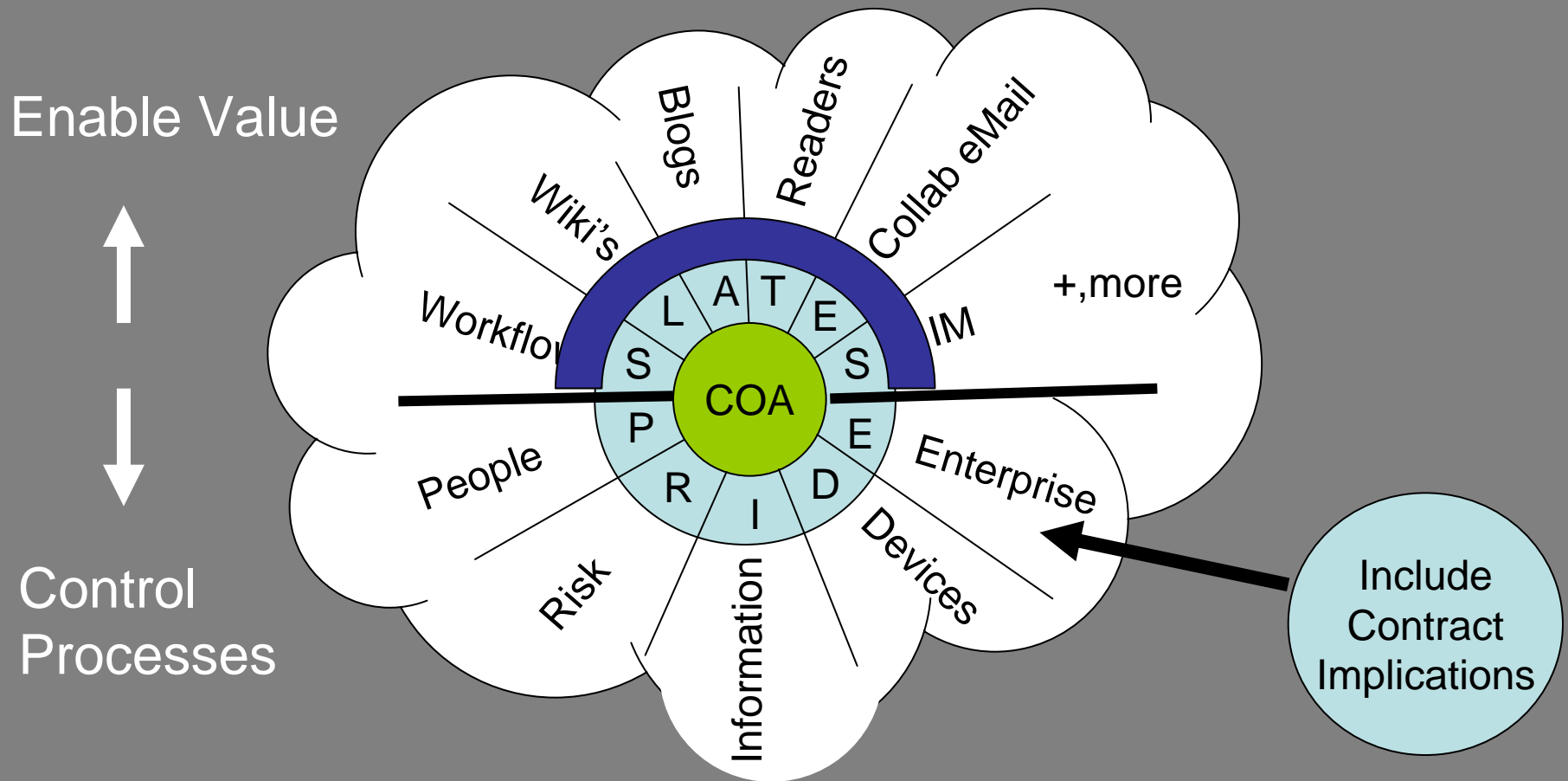


“connect to us,”  
said the folks inside...



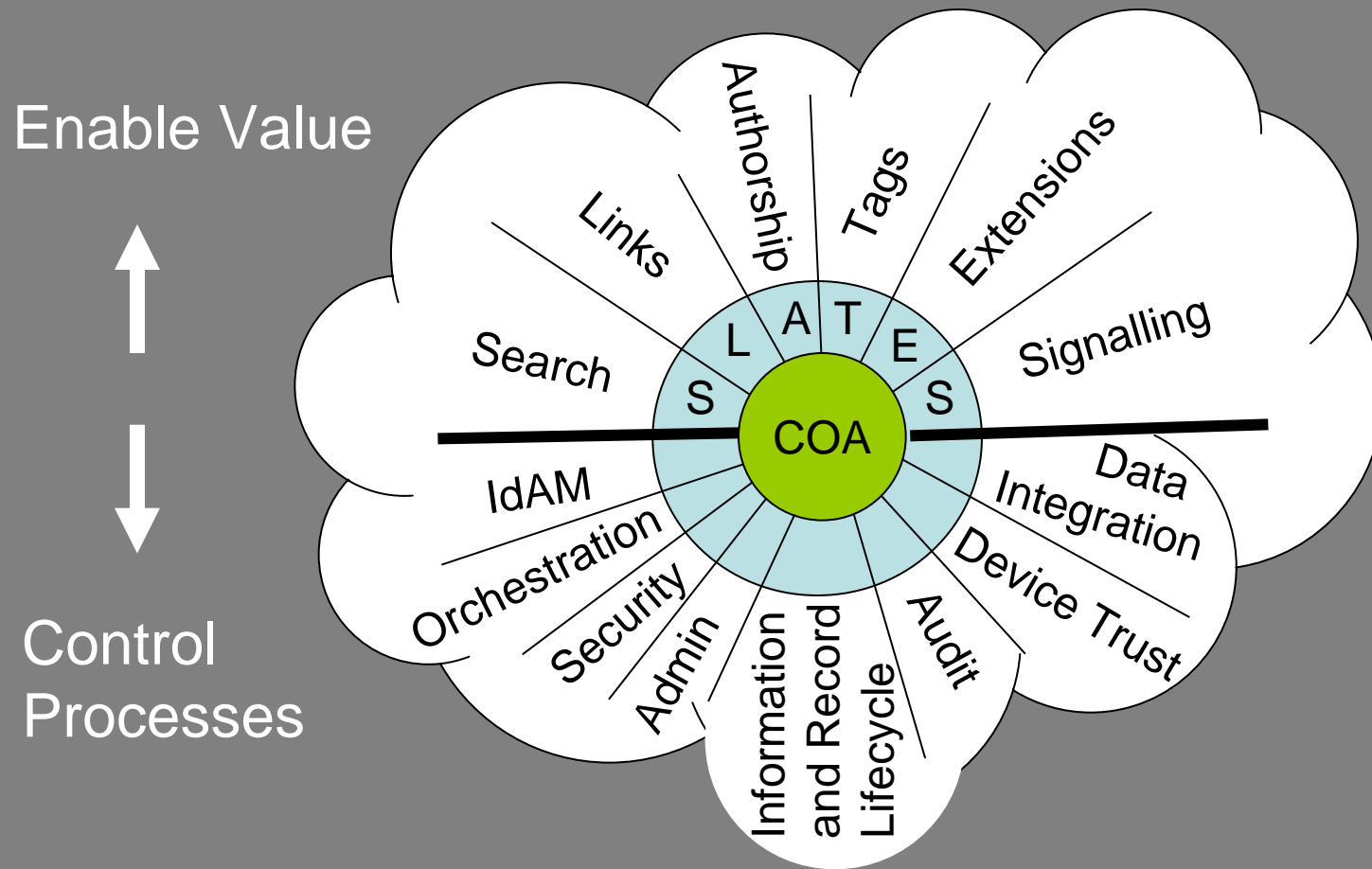
... "we are working together to allow you to operate securely in the Cloud"

# The Business View



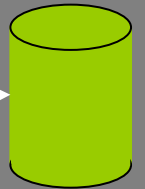
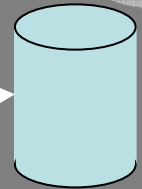
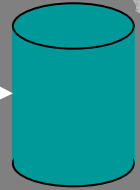
and the cloud had business capabilities!...

# The Technical View



and the cloud had the right technical enabling and control capabilities!

Everyone prospered...



Google™

Capgemini  
CONSULTING TECHNOLOGY SERVICES

Microsoft

JERICHO

Y!

THE Open GROUP  
Making standards work®

SAP®

TATA

amazon.com.

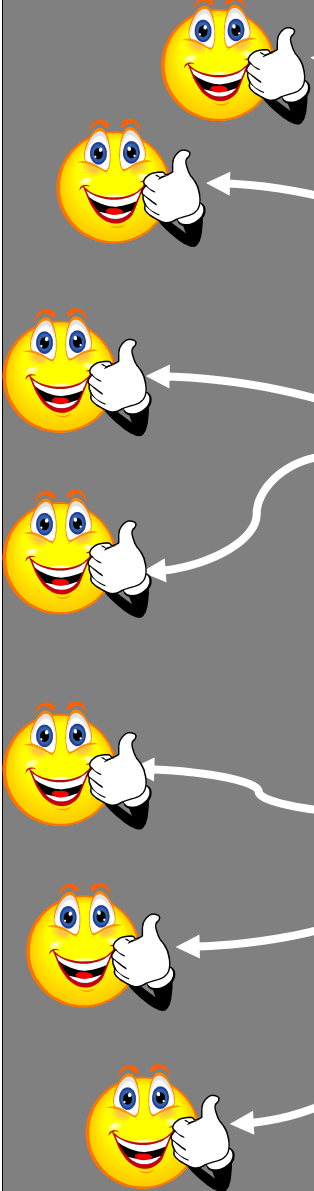
symantec.

IBM®

CISCO

Juniper®  
NETWORKS

...for the cloud was cheaper,  
more flexible and SECURE!



## The Jericho Forum

...pointed the way with  
“The Commandments”, the  
Collaboration Oriented Architectures  
(COA) White Paper and the more  
detailed position papers.

# The Open Group

...provided the fora for  
the right dialogue,  
to develop the right standards.

# The Suppliers

...stepped up by assisting in developing the standards, then implementing Collaboration Oriented Products and Services based on the Commandments, the COA and the Standards.



“That’s how Pharma  
prospered in the cloud...

...for e-Trust was built into  
the cloud, just in time!”

# The Jericho Forum Timeline

Completed

**Deperimeterisation**  
The PROBLEM defined

**Collaboration Oriented Architectures**  
The Framework developed

Phase Three

Web 2.0  
in the

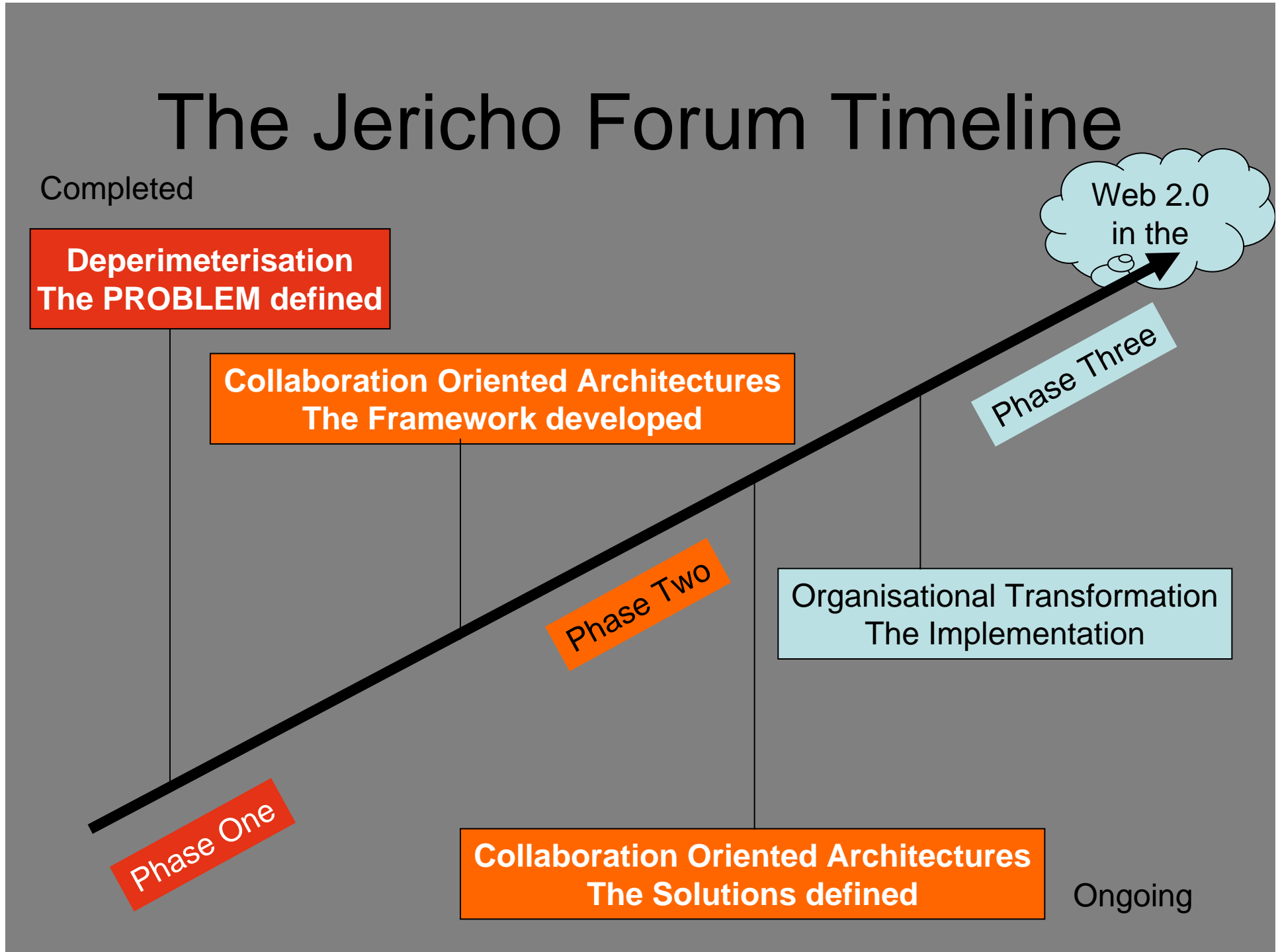
Organisational Transformation  
The Implementation

Phase Two

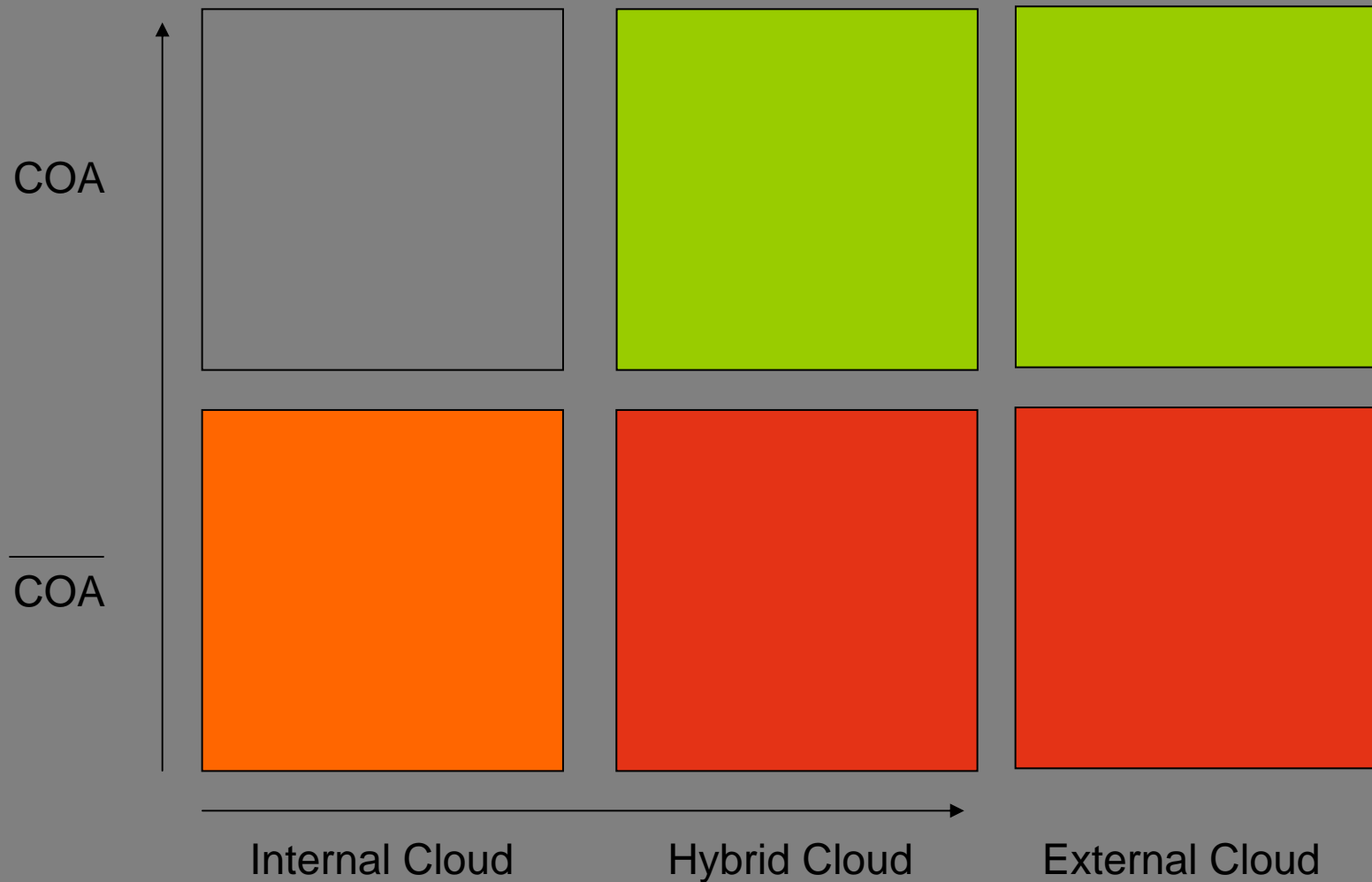
Phase One

**Collaboration Oriented Architectures**  
The Solutions defined

Ongoing



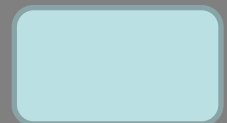
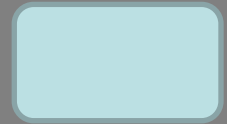
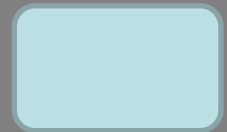
# The JF Six Box Risk Chart



# Focii of the Workshop...

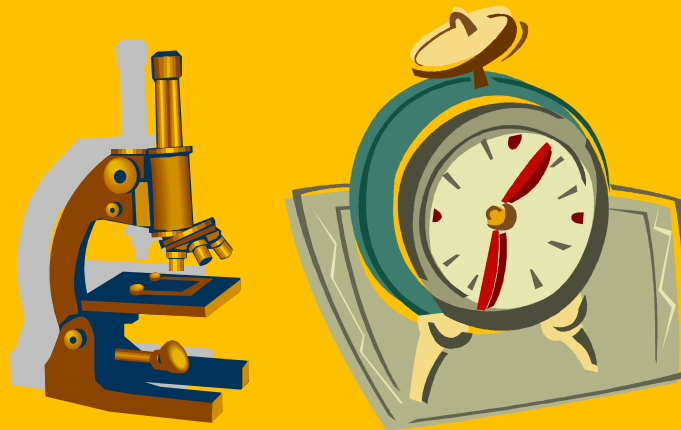
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# A Private Story...

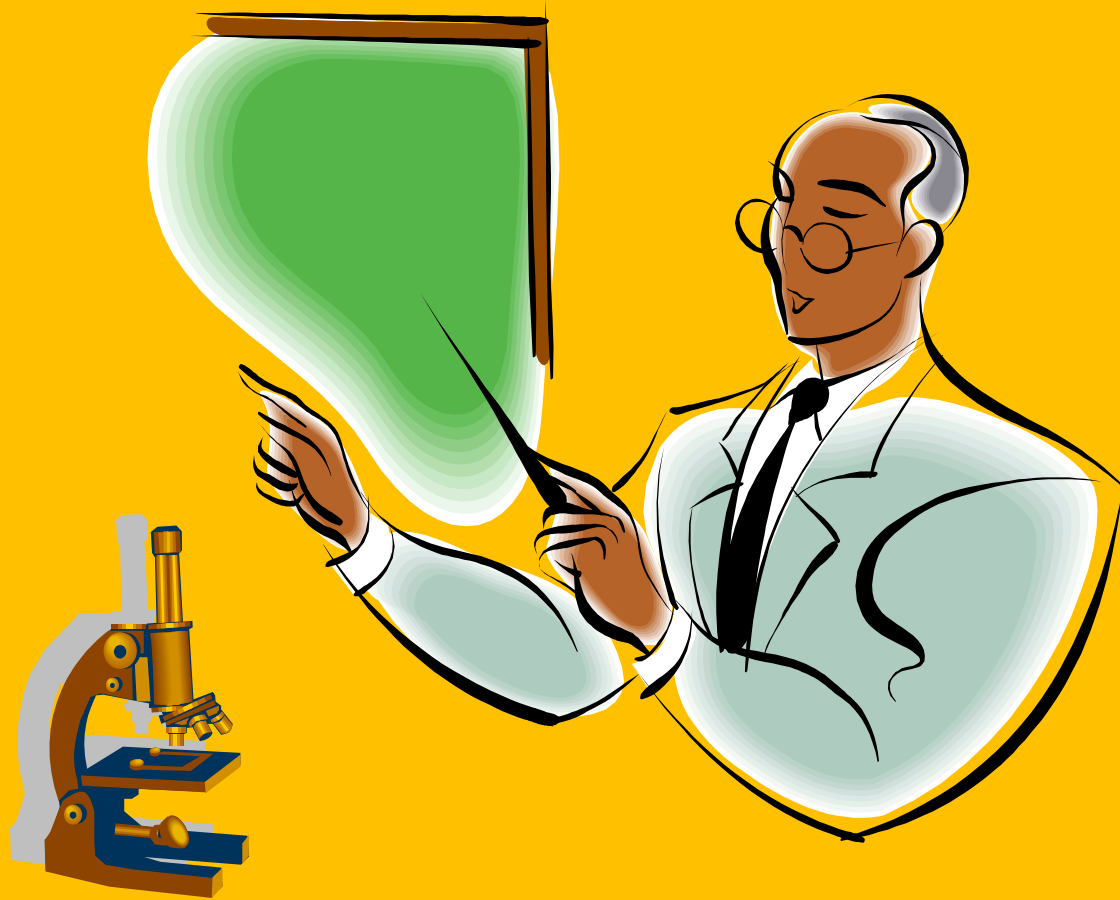
Cost of time in Pharma Research and Discovery



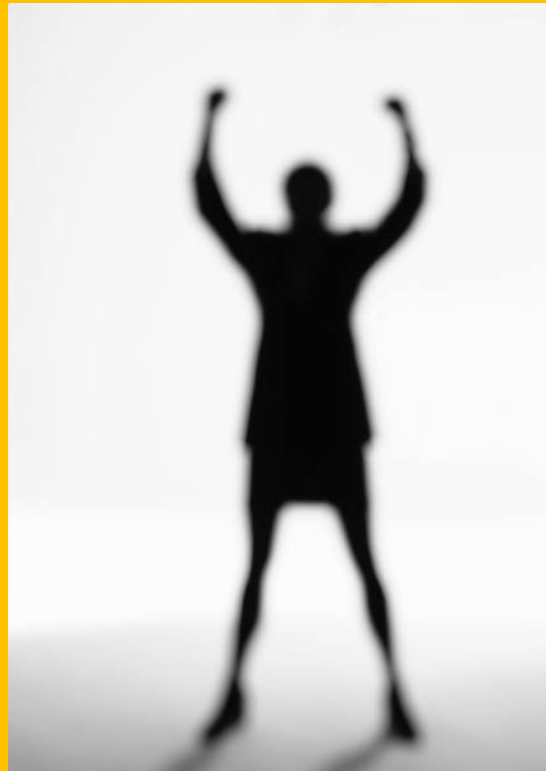
\$150/Sec (Circa 2000)

For delaying a Block Buster Project

# Imagine a Scientist...



Who wants 25 servers...



**Now!!!**

To crunch some numbers!

IT Dept....



“You want to see?”



# Who's being playing in the Clouds!

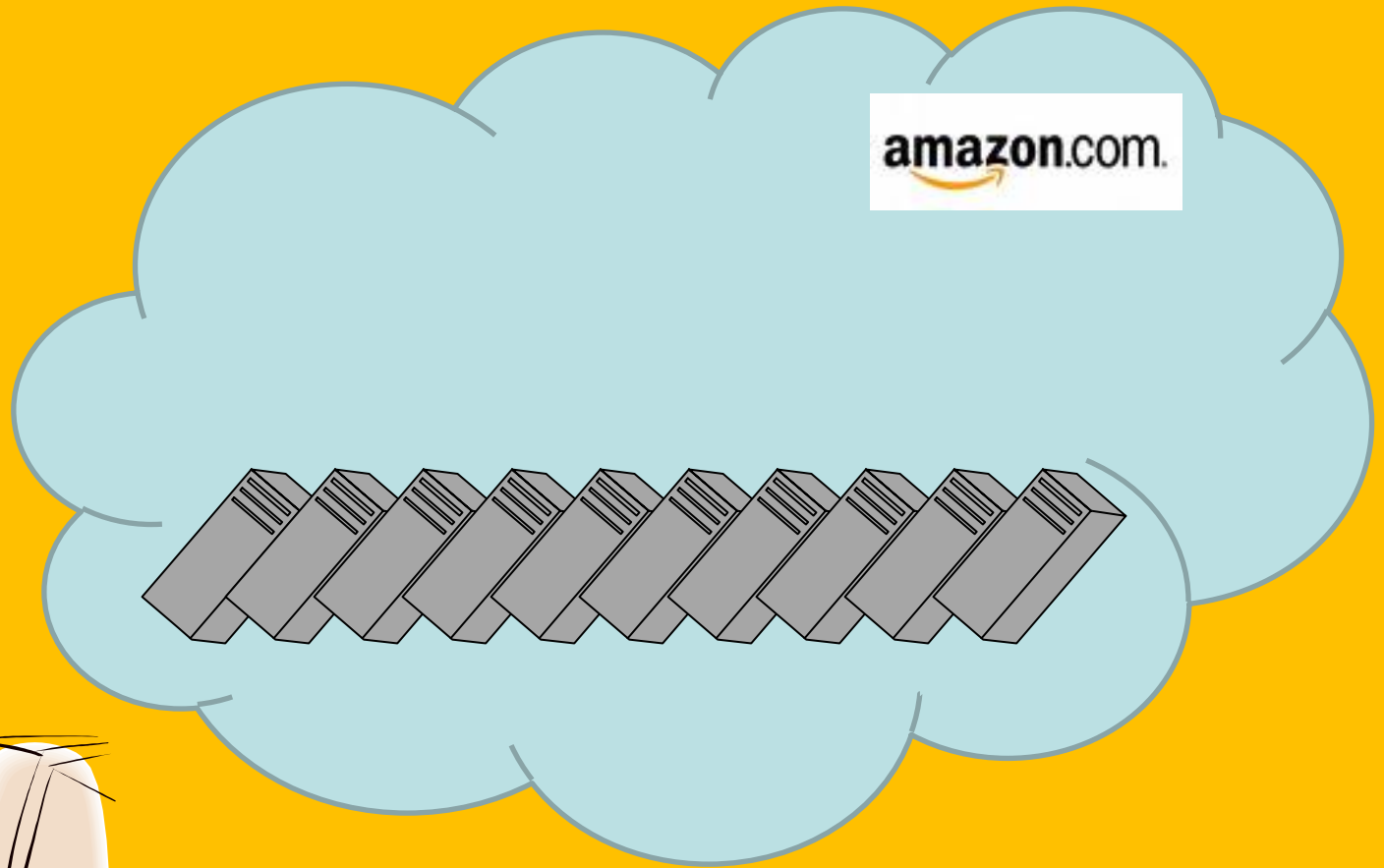


So he built 25 virtual servers ...



...in about an hour

# But he built them wrong!

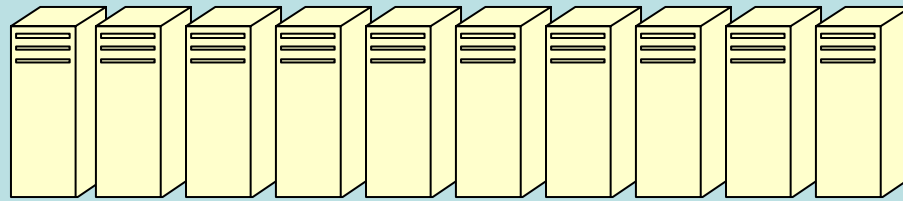


# He built them faster next time!

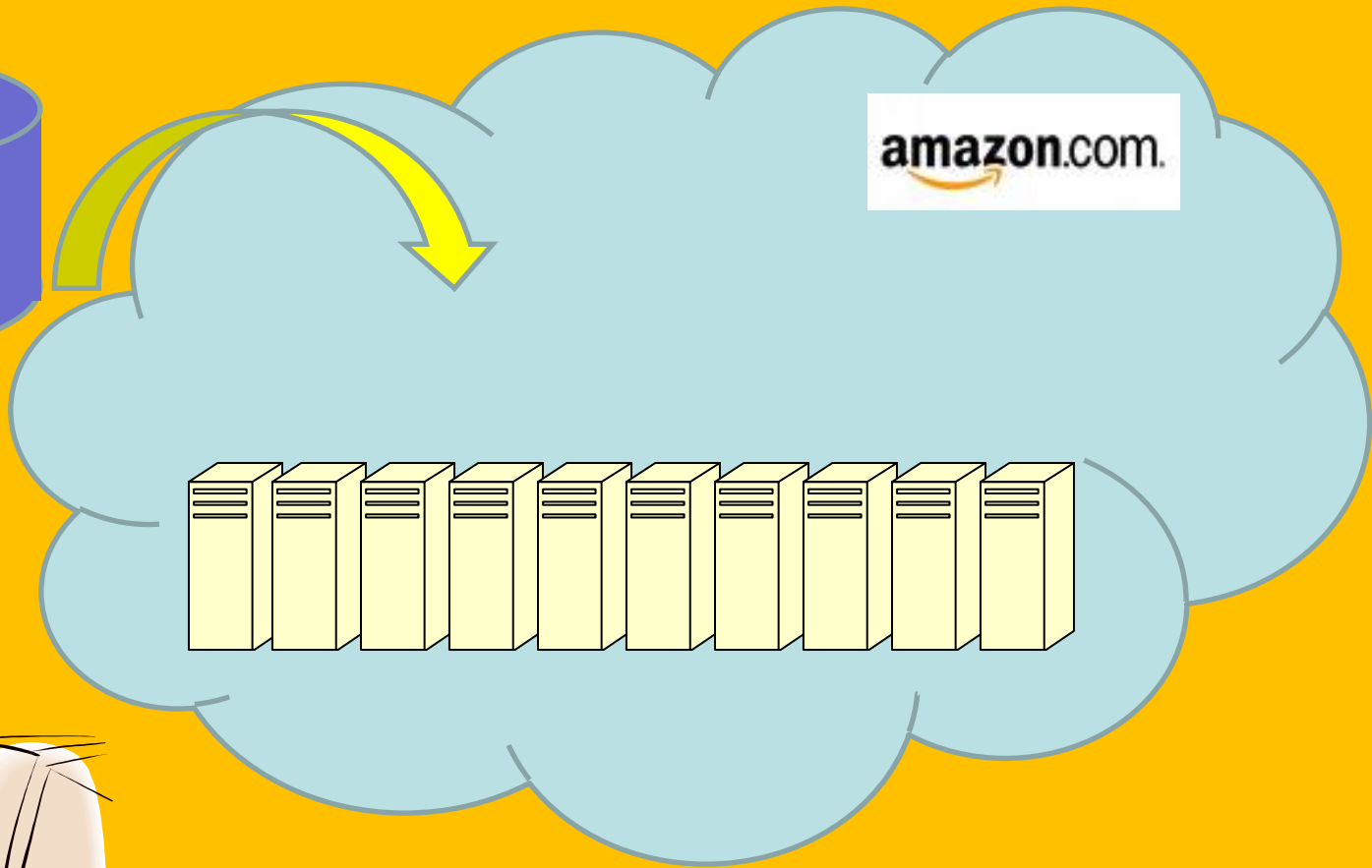


# He built them faster next time!

amazon.com.



# He loaded up the data!

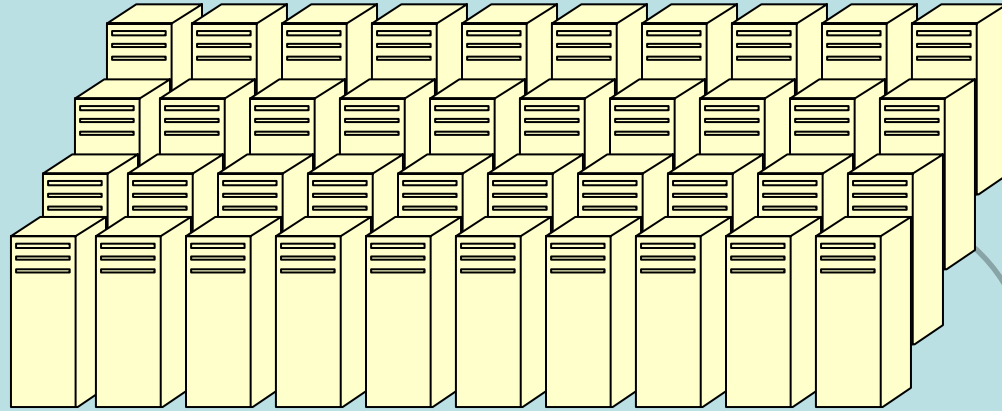


# And started the crunching

Drat it won't finish today!

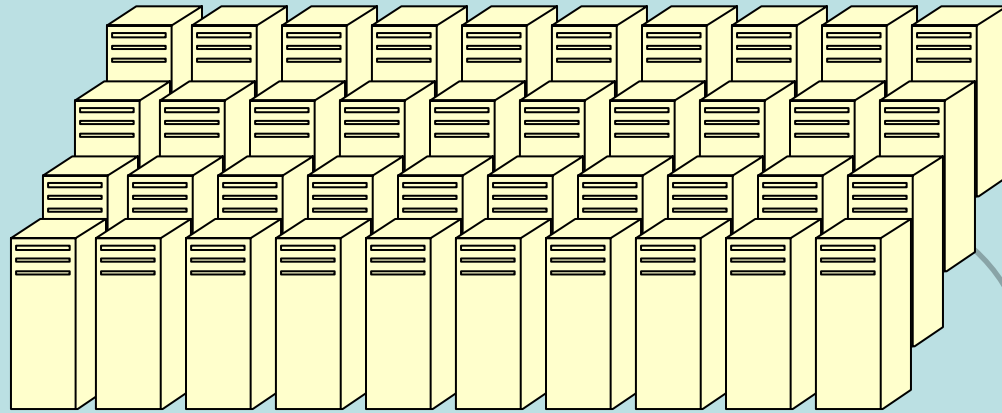


# So they built 250 virtual servers!





And the scientist was happy!  
The processing completed...



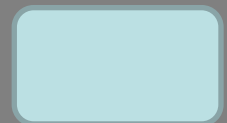
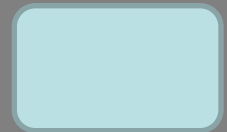
# The Cost?



# Focii of the Workshop...

## 4 Directions

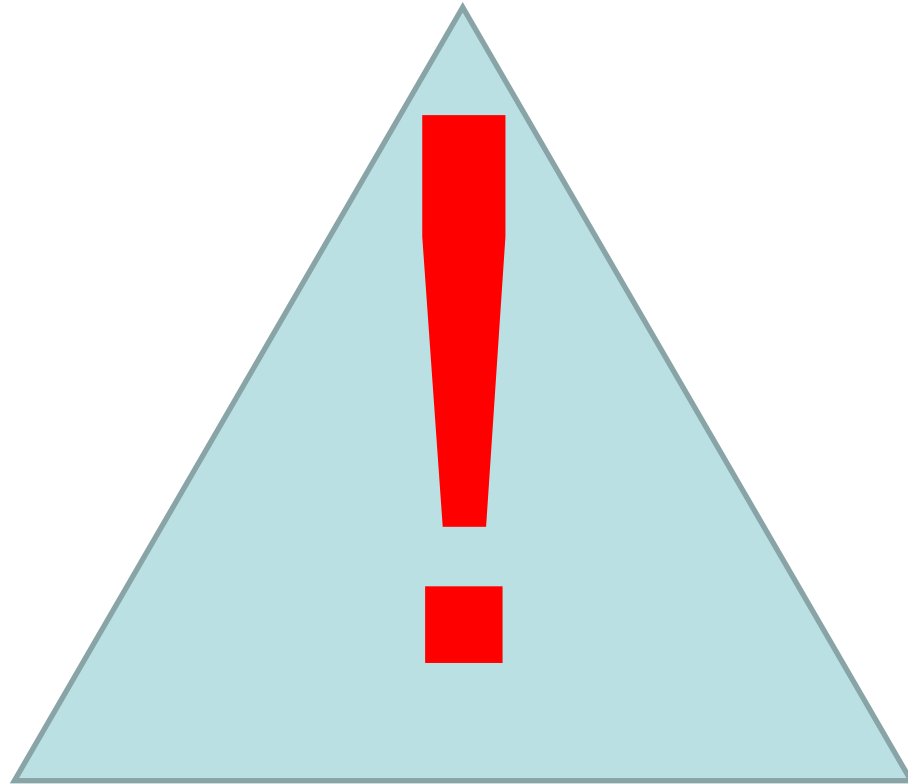
- Explore Why Clouds?
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So your interested in taking to  
the Clouds...

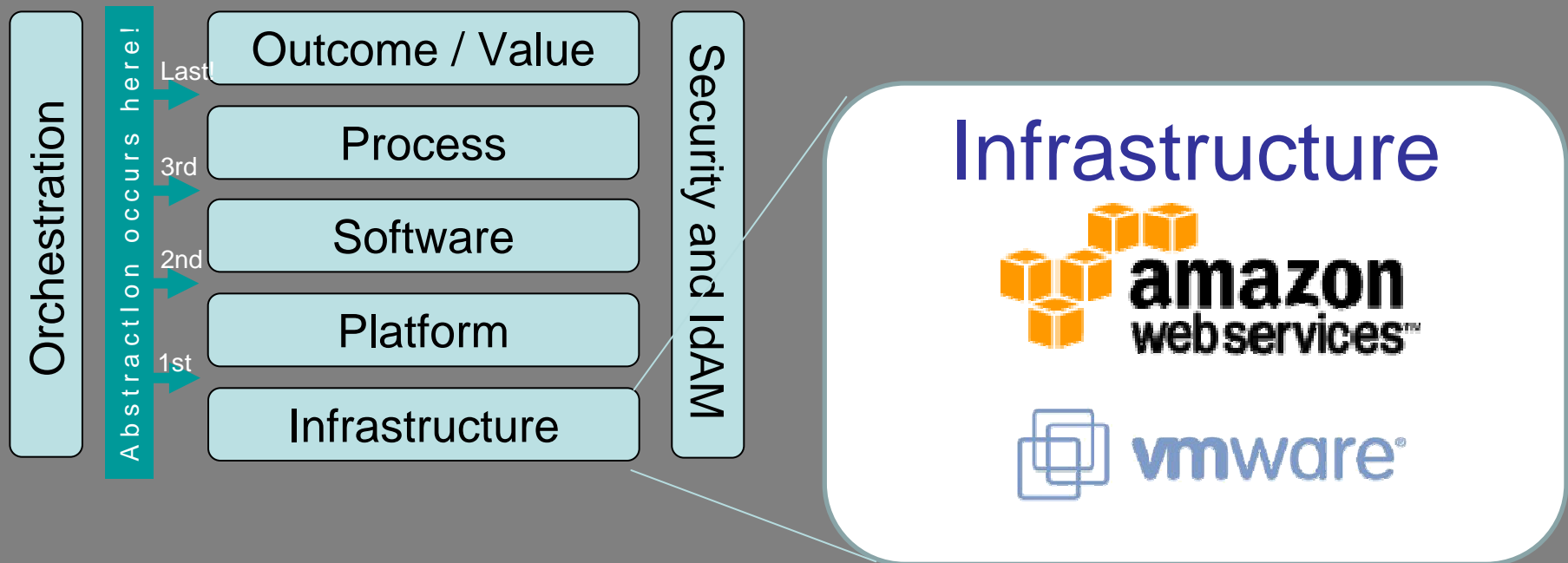
First determine what Cloud  
Level you are considering...

**Not everything is for the CLOUDS!  
(At least not yet!)**

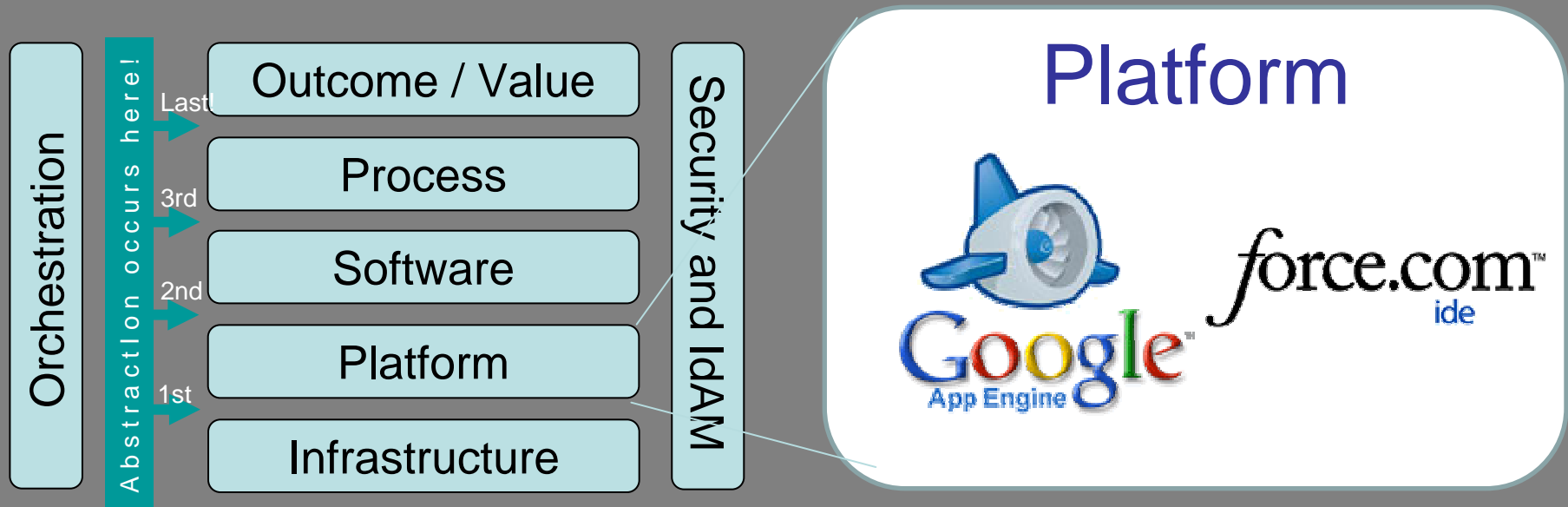


**Determine what things MUST  
stay out of the CLOUDS (for now...).**

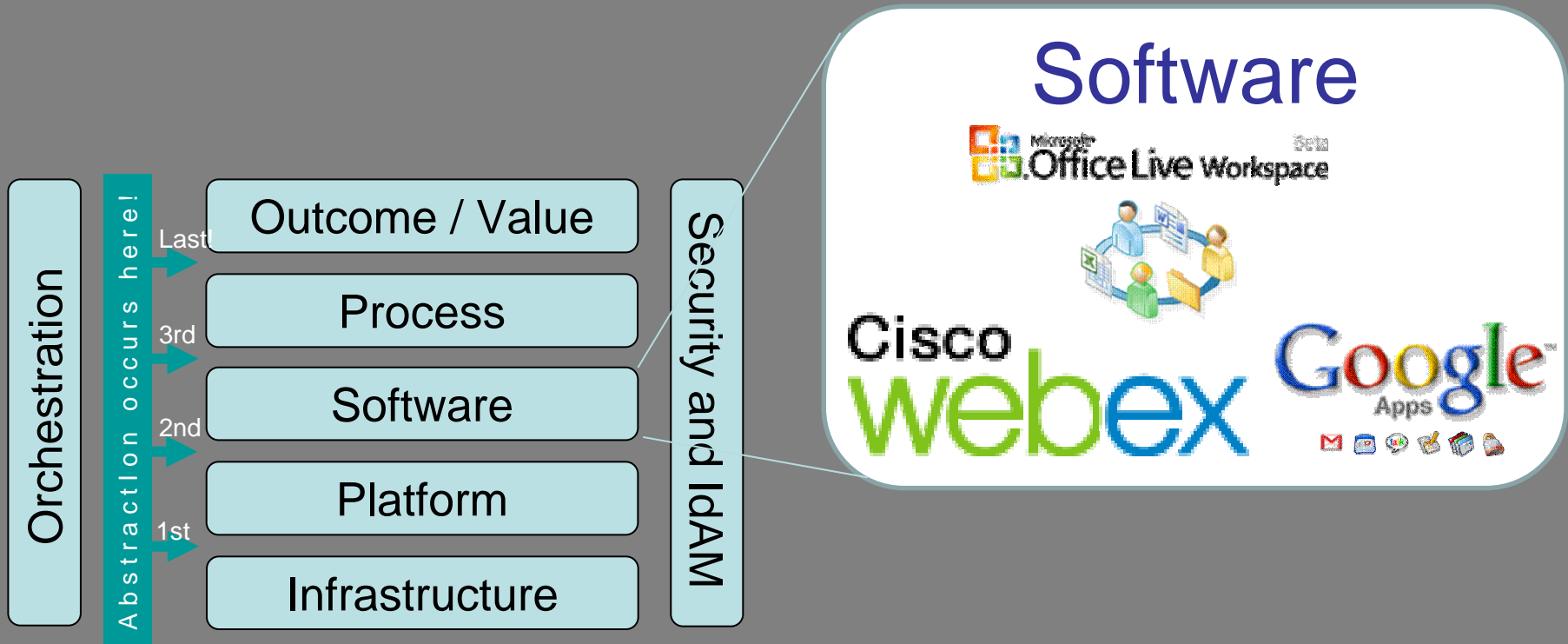
# Infrastructure Cloud Layer



# Platform Cloud Layer

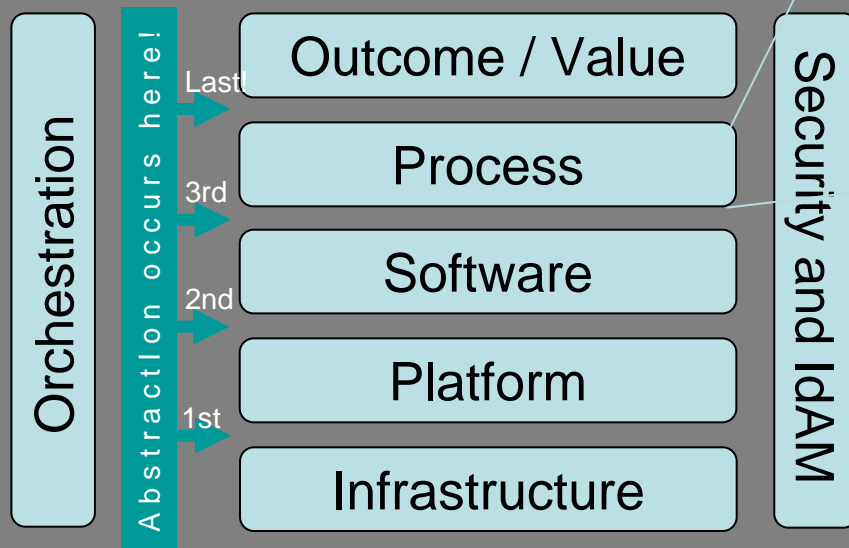


# Software Cloud Layer





# Process Cloud Layer

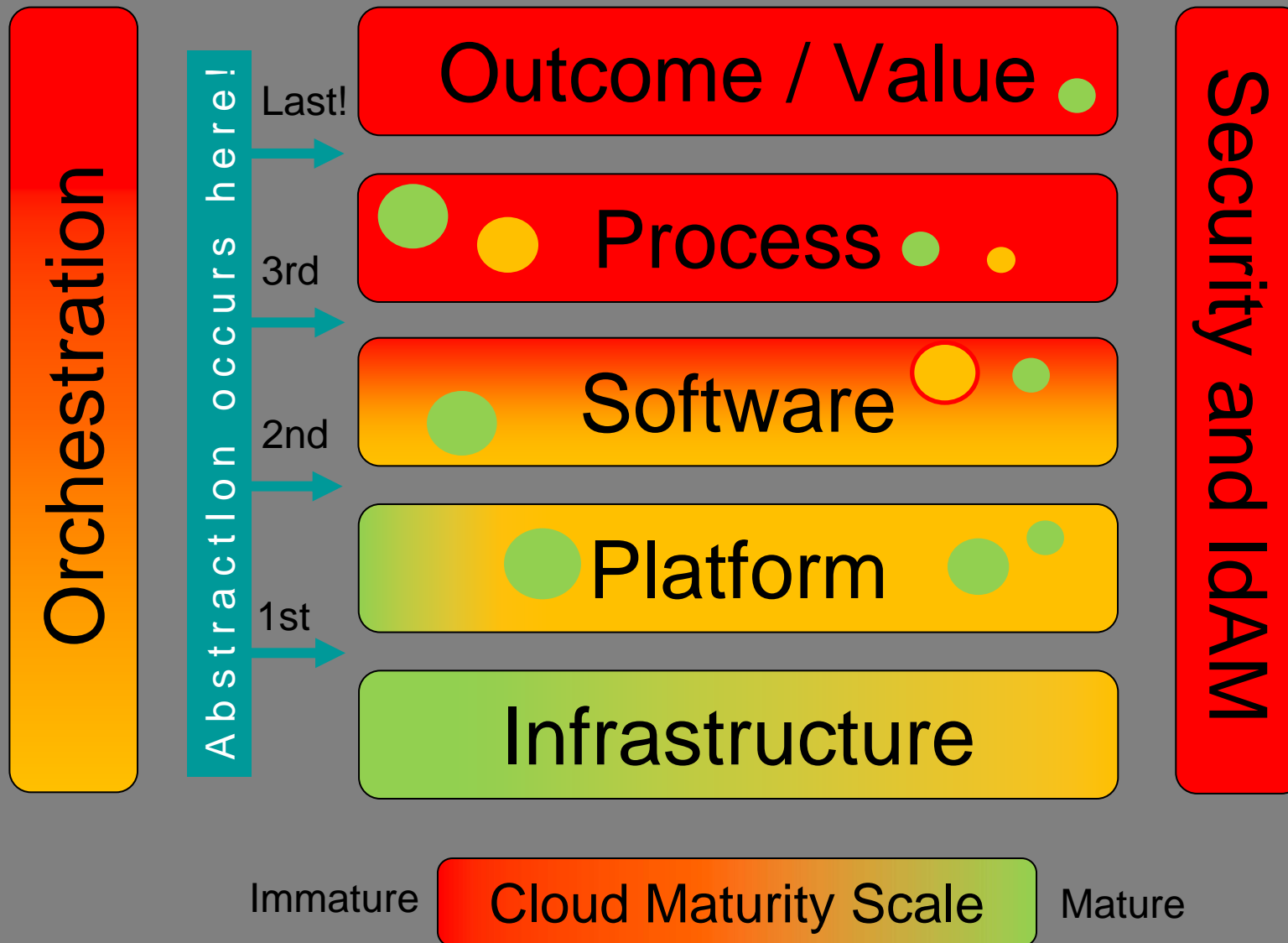


Process

*PayPal*

ebay

# Maturity of the Cloud Layers



# Cloud Market by Segment

Growing at ?...%;  
\$? ... billion by 2012

**Process  
as a  
Service**

Growing at over 24%  
\$22 billion by 2012

**Software  
as a Service**

Growing at almost 25%  
\$11 billion by 2012

**Platform  
as a Service**

Growing at almost 41%  
\$9 billion by 2012

**Infrastructure  
as a Service**  
(Utility  
Computing)

Source: The Next Stage of Computing, William Blair & Company, 2008

# Cloud Formations

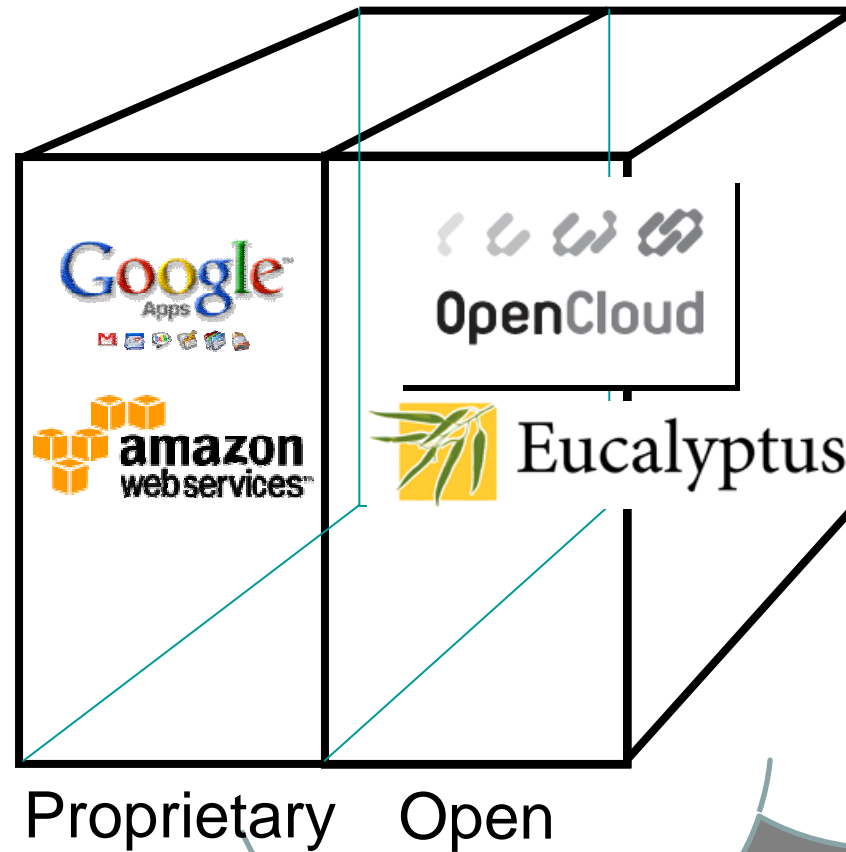
External



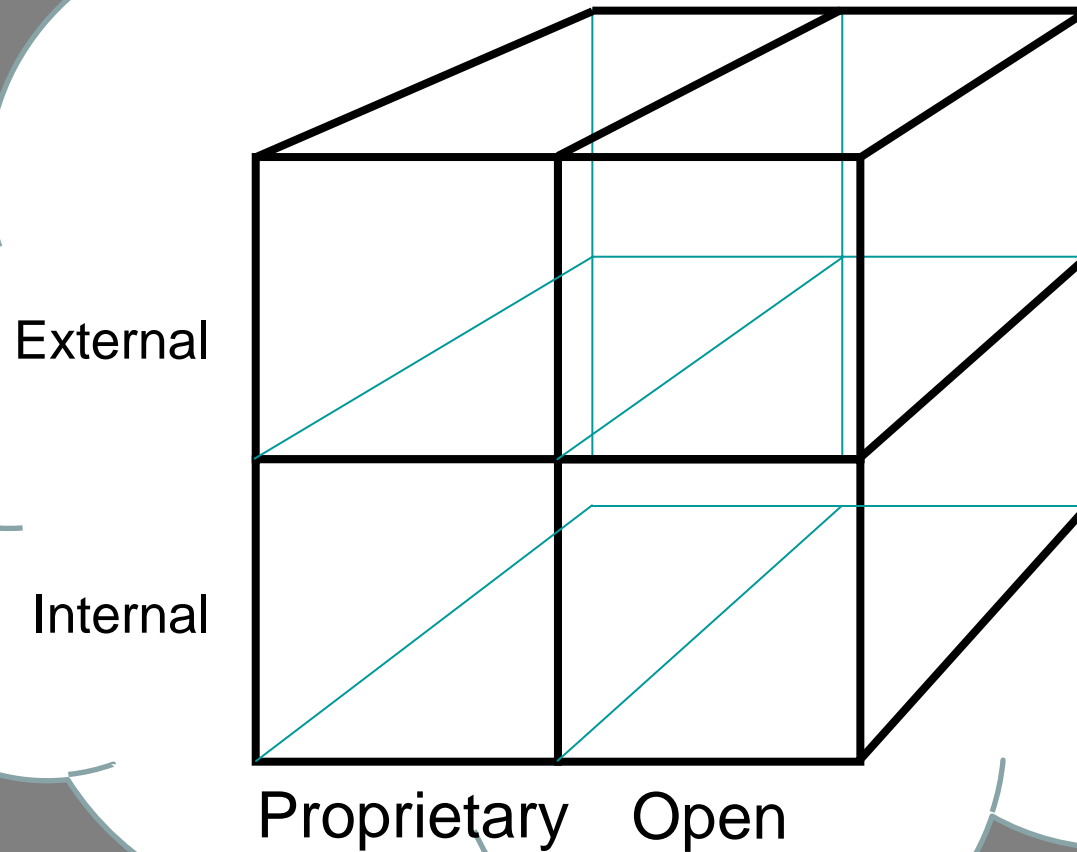
Internal



# Cloud Formations



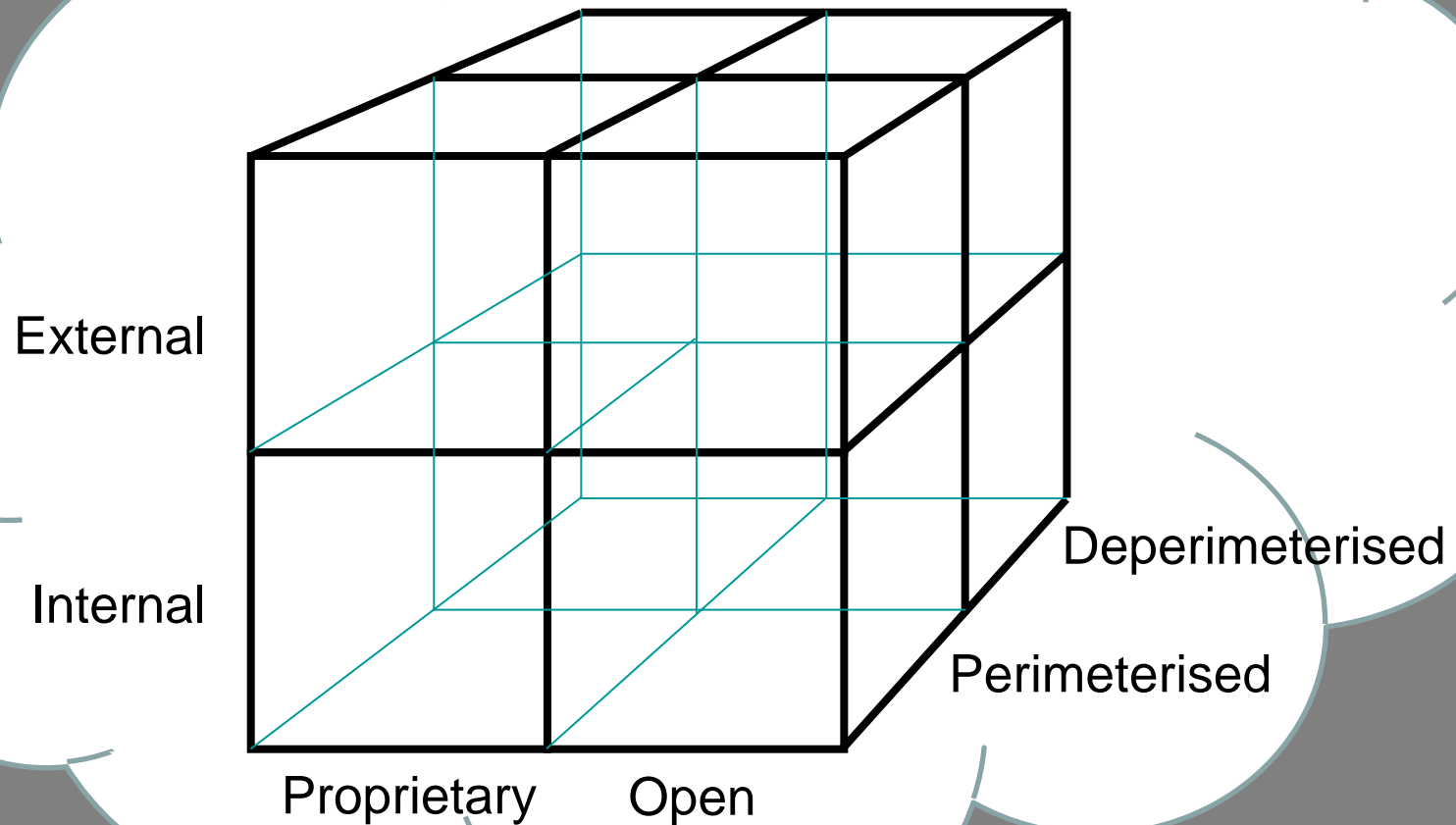
# Cloud Formations



# Open / Proprietary

- An area that is still being discussed as far as Cloud Computing is concerned given high enough Translucency, the lower Cloud Layers do not matter.
- The primary consideration of the Openness of Cloud Formations is the Openness of the abstracted interface, coupled with the “sufficiency” of the underlying services.

# Collaboration Cube





# Use Cases

- There are potentially 40 different types of Use Cases with 5 Cloud Layers and 8 Cloud Formations.
- Some Layers are more aligned with Formations than others.
- There are some “Formations” that should simply be avoided, apart from certain special cases.

# Cloud Formation Uses

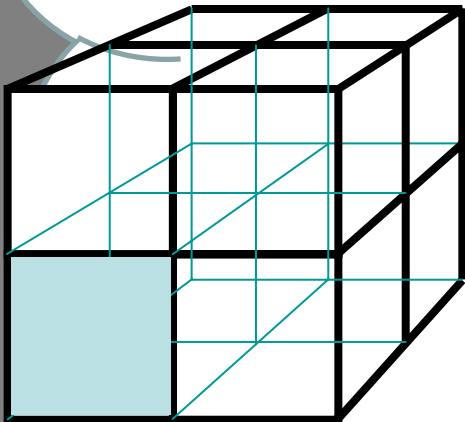
Internal

Proprietary

Perimeterised

## **Manufacturing Operations**

Where a manufacturing plant is operated using proprietary hardware, it is often more effective to use this formation. It normally includes the deeper levels of the ANSI S95 Model for integrating and Enterprise and Process Controls.



# Cloud Formation Uses

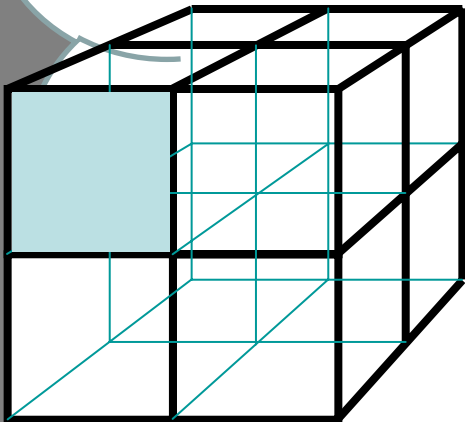
External

Proprietary

Perimeterised

## **Externally Hosted (Often Traditional Solutions)**

Where an organisation is looking to outsource the provision of legacy applications this formation is often used as a stepping stone to more efficient or effective formations. eg Hosting CRM / SAP at a Cloud PaaS Provider. Some examples of Security as a Service fit in this formation.



# Cloud Formation Uses

Internal

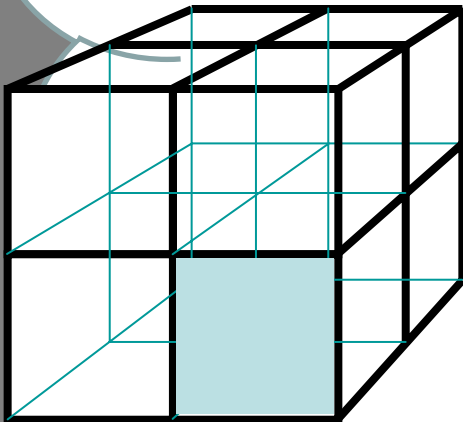
Open

Perimeterised

## **Internal Communications Services**

An implementation of the Open Source Twitter Service Laconica would be an example of this Cloud Formation. No connection from the application to external Twitter like services.

Running on an Open Internal Platform Cloud



# Cloud Formation Uses

External

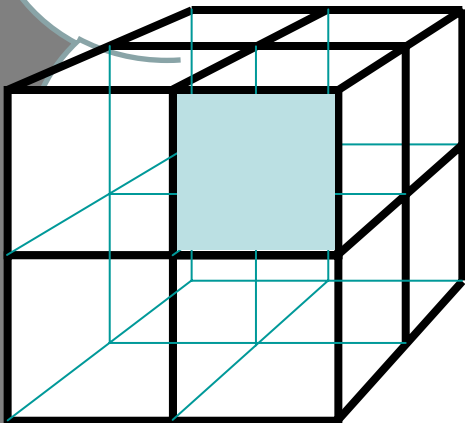
Open

Perimeterised

## **On the Journey to Translucency**

This Cloud formation would be used primarily for activities where external collaboration is not of paramount importance. Or the Services in question need to be controlled for regulatory or risk reasons.

Examples: Hosted Dedicated SMTP eMail Service  
Message Labs



# Cloud Formation Uses

Internal

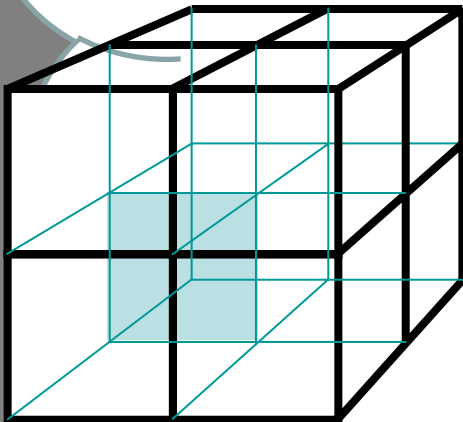
Proprietary

Deperimeterised

## **Why would you go here again?**

There may be services or solutions only available that are capable of meeting your needs. Often they are not designed to be De-Perimeterised and are therefore difficult to configure in a Deperimeterised Manner (Example Sharepoint)

Virtual File Server and Publically Accessible



# Cloud Formation Uses

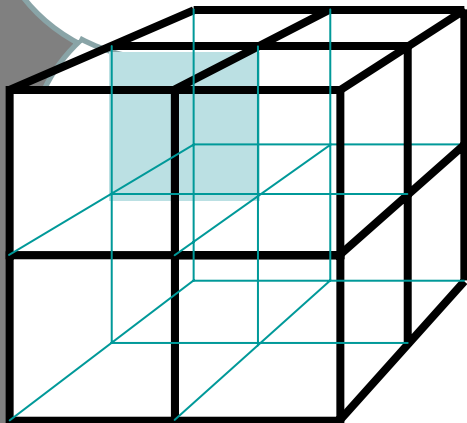
External

Proprietary

Deperimeterised

## **Warning: Stand alone Clouds**

While this is a viable Cloud formation, from the viewpoint of the user it contains all the traps and benefits of any proprietary solution. Especially around portability and limited Collaboration. Early signs are that IBM's clouds are heading in this direction. Examples: Salesforce.com, and Amazon (who profess to want to move to Open)



# Cloud Formation Uses

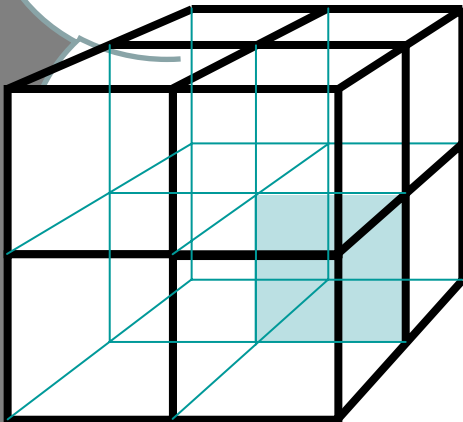
Internal

Open

Deperimeterised

## **On the journey to Full On Translucency**

Publically Accessible Virtual Web Server, operating on an internal Cloud Platform. An internally served Google Wave Machine would fit this pattern.





# Cloud Formation Uses

External

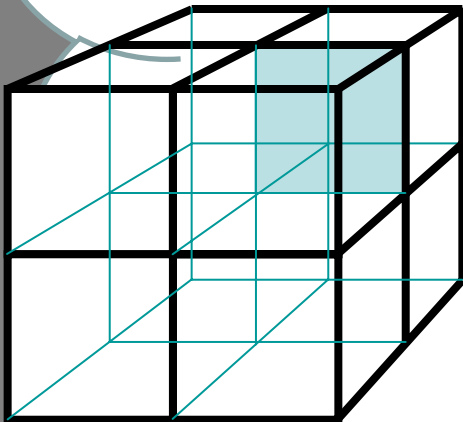
Open

Deperimeterised

## **The Formation for Collaboration**

The ultimate in Collaboration formations, this formation when well implemented ensures, portability, availability, and agility. An emerging example is Google Wave

External provided Services of our externalised processes (Mashup Corporations)



We haven't even identified all  
the needs yet.

Bread Crumb Detector  
Bread Crumb Hoover  
**Cloud Identity Services**  
or their Providers

# Posits

- Identity in the Clouds is going to be crucial
- Outsourcing is NOT **Cloud Sourcing**
- **Obscurity** is NOT Obfuscation, but does deliver Freedoms
- **Cloud Sourced** services will be more secure than your own datacentre, just not right now!
- Most organisations will become **Hybrid Cloud** users
- There are good reasons for some Processes to be kept out of the **Clouds**, and others raced to the Clouds ...you should determine what these reasons are for you!
- **Regulators** will need to be helped through this change, remember they are rightly fearfull



Join us in the Jericho Forum  
as we explore and work to  
define the future of  
Securely Collaborating  
in the Clouds