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 Pharmaceutical Company
  - Fully Integrated Pharmaceutical Network

- 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.
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

Enable Value

Control Processes

and the cloud had business capabilities!...
and the cloud had the right technical enabling and control capabilities!
Everyone prospered…

...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

Organisational Transformation
The Implementation

Ongoing

Phase One

Web 2.0 in the

Phase Two

Phase Three

Collaboration Oriented Architectures
The Solutions defined
The JF Six Box Risk Chart

- COA
- COA
- Internal Cloud
- Hybrid Cloud
- External Cloud
Focii of the Workshop...

4 Directions

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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 it when?”

“Yeah, want it in the 10th month?”
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!
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?

$89
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
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...).
Platform Cloud Layer

Orchestration

1st
Platform

2nd
Software

3rd
Process

Outcome / Value

Security and IdAM

Platform

Platform abstraction occurs here!
Software Cloud Layer

Orchestration

- Outcome / Value
- Process
- Software
- Platform
- Infrastructure

Security and IdAM

Software

Cisco Webex

Google Apps
Process Cloud Layer

Outcomes / Value
Process
Software
Platform
Infrastructure

Security and IdAM

Orchestration

Process
PayPal
eBay
Maturity of the Cloud Layers

<table>
<thead>
<tr>
<th>Process</th>
<th>Software</th>
<th>Platform</th>
<th>Infrastructure</th>
<th>Outcome / Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td>Last!</td>
<td></td>
</tr>
</tbody>
</table>

Orchestration

Abstraction occurs here!

Security and IdAM

Cloud Maturity Scale

Immature  Mature
Cloud Market by Segment

Growing at ?…%;
$?... billion by 2012

Growing at over 24%
$22 billion by 2012

Growing at almost 25%
$11 billion by 2012

Growing at almost 41%
$9 billion by 2012

Cloud Formations

![Cloud Formations Diagram](image)
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

- External
- Internal

- Proprietary
- Open

- Perimeterised
- Deperimeterised
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.
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.
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 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.
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
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
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)
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.
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
• 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