



# LSEC: The importance of IT Disaster Recovery as Part of a Integrated BCM

*Valdis Filks  
BDM - Central & Northern Europe  
November 2007*



## Agenda

- Introduction – why we are here
- What will happen
- Ingredients – it is the chef that counts
- Lifestyle decision – business model
- ILM & Application analysis
- How to check
- Technology

## Why we are here

The dictionary defines continuity as “an uninterrupted connection or union”. In IT terms, this translates into a defined link or service agreement between the information store and the business process it serves.

- Me

- > Have fun
- > Make money
- > What works, what does not

- You

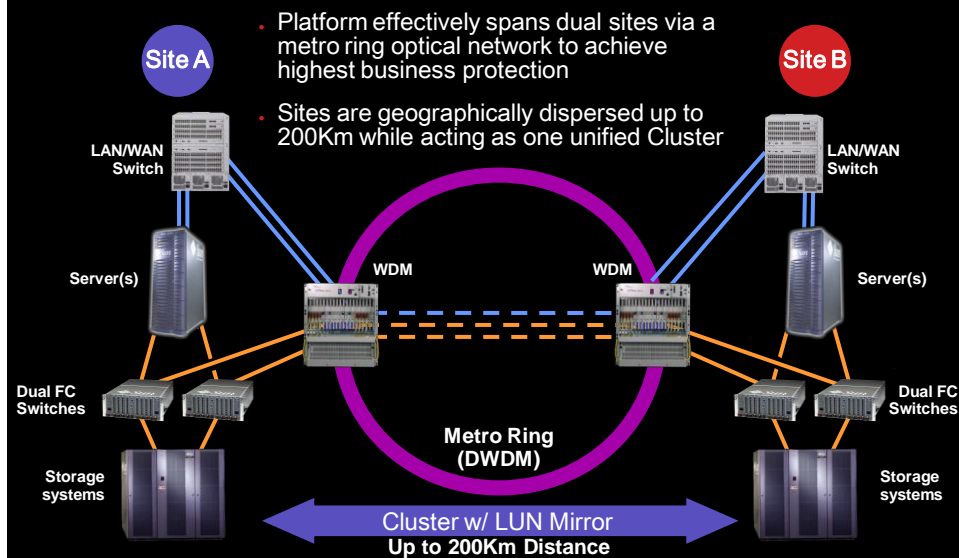
- > Make money
- > Make your life easier
- > Learn something that we can use at work



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## Continuous Operations Solution

*A Business Protection Solution*



## What will happen

- Fire dept will turn up with big boots and lots of water
- Journalists will ask for an interview
- Boss will ask when you are finished
- People may be missing
- You will look for procedures
- Wife will see you on TV and ask why she is the last to know



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## Ingredients - IT BCM planning

- DC Manager A
  - > Buy lots of hardware
  - > Integrate components
  - > Write management scripts
  - > Move apps to new infrastructure
  - > Move to next project
- DC Manager B
  - > Assign DR Mgr
  - > Analyse Requirements
  - > ILM
  - > RTO & RPO
  - > Sanity Check
  - > Reduce power usage
  - > Buy lots of hardware
  - > Test monthly

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## Lifestyle Decision

- To fail to prepare is to prepare to fail
- Manual failover decision
  - > Old mainframe apps that no-one understands or core business application that needs exec/govt approval
- Automated Decision
  - > With manual confirmation
- Remote Capability
  - > Via Web Browser on mobile
  - > From home office

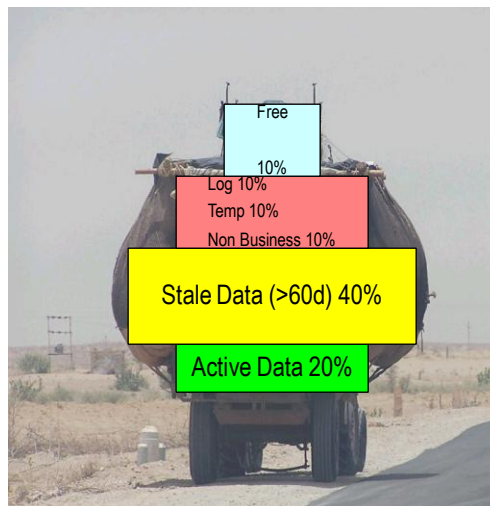


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## Tidy up your house first - Distributed Data profile

*'In most cases, 80% of online data is never looked at again' !!!!*

Source : IDC



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## Remember that 1MB spreadsheet file?

1MB Excell file downloaded 1 MB

It gets emailed to 100 people +100 MB  
 50% save it to their local files server +50 MB  
 25% delete it together -25 MB  
 25% Send to other people +50 MB

**176 MB**

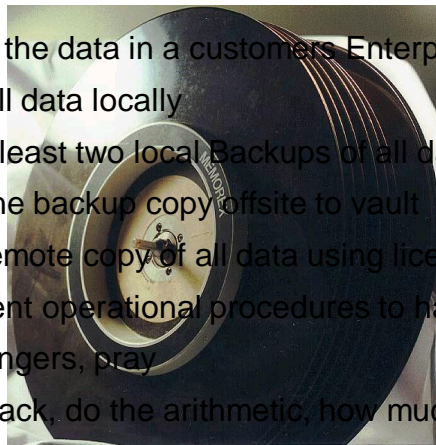
Choose your architecture to calculate total disk and TCO

DAS = 40% Utilization = 440MB = 3 Year TCO \$140  
 SAN = 80% Utilization = 220MB = 3 Year TCO \$59  
 Tape = 80% Utilization = 220MB = 3 Year TCO \$15

What if 1% of your 1TB looked like this (\$1.4m TCO DAS)!

## Is This Efficient Data Protection?

- Step 1: Take all the data in a customers Enterprise
- Step 2: Mirror all data locally
- Step 3: Take at least two local Backups of all data
- Step 4: Send one backup copy offsite to vault
- Step 5: Make remote copy of all data using licensed software
- Step 6: Document operational procedures to handle all above
- Step 7: Cross fingers, pray
- Step 8: Stand back, do the arithmetic, how much does the above c

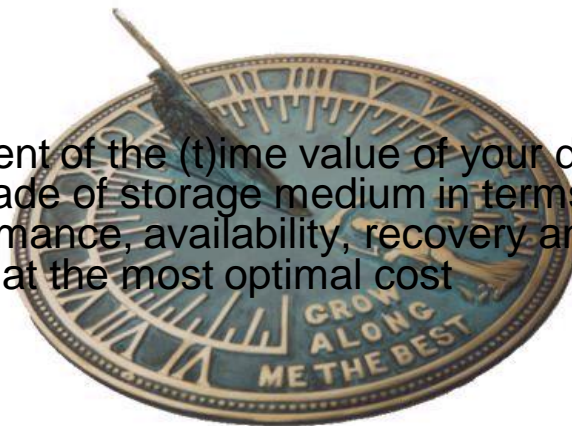


## Moving rubbish at the speed of light

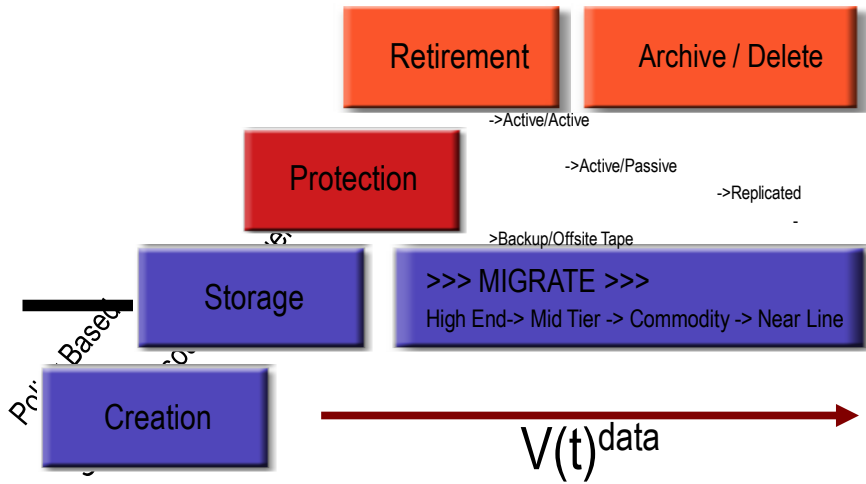
- Replication
  - > Synchronous
    - Consistency Groups
  - > Asynchronous
    - Consistency Groups
  - > Rate Of Change (ROC)
    - The rate at which application data is updated/changed
    - Must use highest level otherwise replication technologies may suspend, fail or restart from starting point

## What is ILM – old fashioned mgmt ?

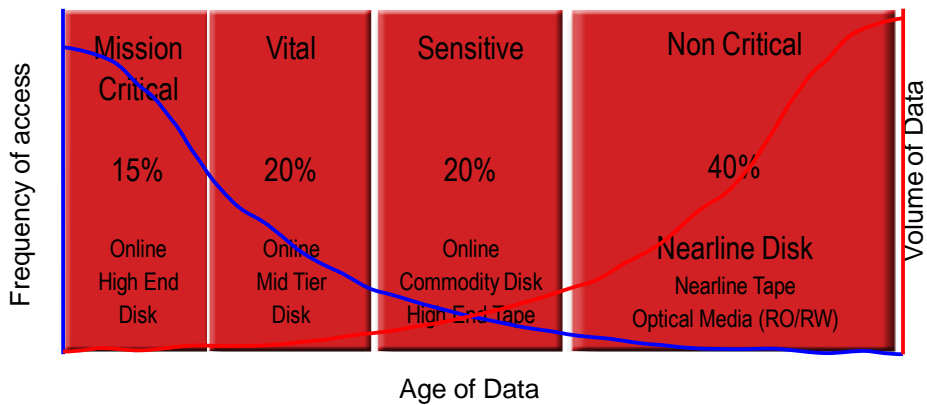
Alignment of the (t)ime value of your data to the grade of storage medium in terms of performance, availability, recovery and agility at the most optimal cost



# What Does ILM DO?



# Appropriate Data Management



## Still happening today



Power cut hits Rackspace UK

Published Wednesday 5th December 2007 17:45 GMT

A power cut in London's Park Royal area has knocked out half the servers in a Rackspace UK data centre. The web server hosting firm is telling customers it is "working to gain further information and updates will be provided in due course". About 10 per cent of Rackspace's UK customers, with servers housed at the company's LonB facility in Park Royal are affected by the outage. Emergency generators kicked in at another Rackspace facility in Park Royal. But one generator at LonB failed, the company said today. Emergency generators are tested monthly, he said; "Obviously, we will be testing to see what went wrong with this one." Rackspace also has a datacentre in Stockley Park, near London's Heathrow airport. It was unaffected by today's power cut.

Source: [http://www.theregister.co.uk/2007/12/05/rackspace\\_uk\\_power\\_cut/](http://www.theregister.co.uk/2007/12/05/rackspace_uk_power_cut/)

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## Data at Rest On Tape



# 0kWh, 0CO<sup>2</sup>

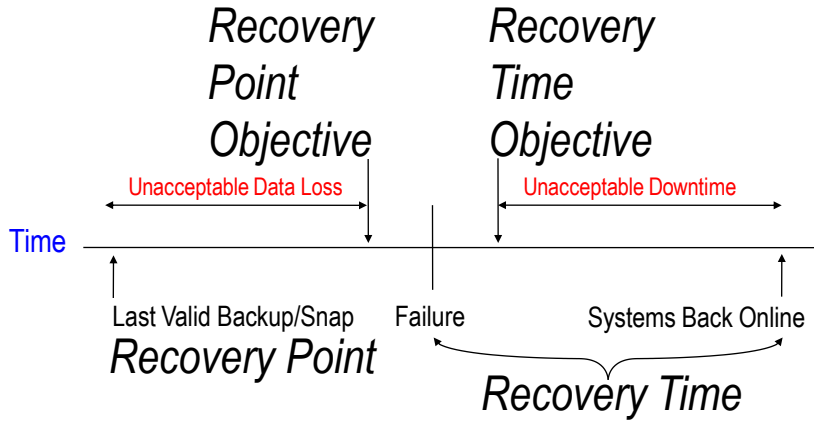
Transmissions via mutually authenticated TLS protocol, RSA2048 certificates and key exchange, AES-256 CBC to protect keys and HMAC using SHA-1 for message authentication, on EAL4+ KMS

= Smaller Diesel Generator on the roof



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## Recovery Objectives



RTO = How much time to you have to recover

RPO = To which point back in time do you want to recover. RPO= Zero, is real time or CDP, Continuous Data Protection

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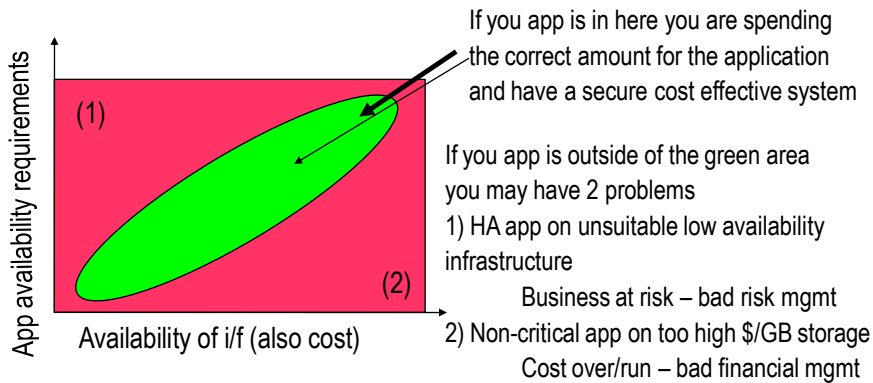
## Sanity Check

HA apps on HA servers/storage

Low value apps on Non-HA infrastructure

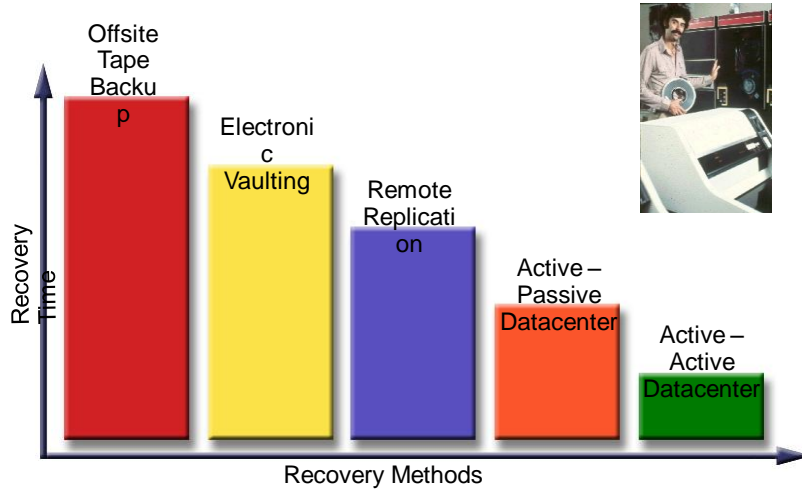
Get this wrong and it costs a lot of money via outages or unnecessary spending

Just map the apps on the graph below.



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# Which Continuity Strategy?



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## End result

Application	Hourly Revenue Loss	Clustered (Active/Active), (Active/Passive), None	Replication (Sync/Async, none)	Dual Site, single Site, Backup only	RTO (min)	RPO (min)	Test Schedule	Last successful site failover	Contact A	Contact B	Signed by business owner
Dealing system	€1bn	A/A	Sync	Yes	0	0	Weekly	03/12/07	Sarkozy	Merkel	
ATM	€1m	A/A	Sync	Yes	0	0	Weekly	03/12/07	Blair	Brown	
General ledger	€1bn	A/P	Async	Yes	10	0	Quarterly	07/10/07	Bush	Gore	
Email	Critical	A/P	Async	Yes	10	10	Quarterly	07/10/07	Thatcher	Reagan	
Internal Phone sys	Critical										
Meeting room book	€1000	Yes	Sync		1 week	1 week	Weekly	03/12/07	Putin	Zwornosky	
Printing	€1000	No	None		1 week	1 week					
Doom III				Backup							

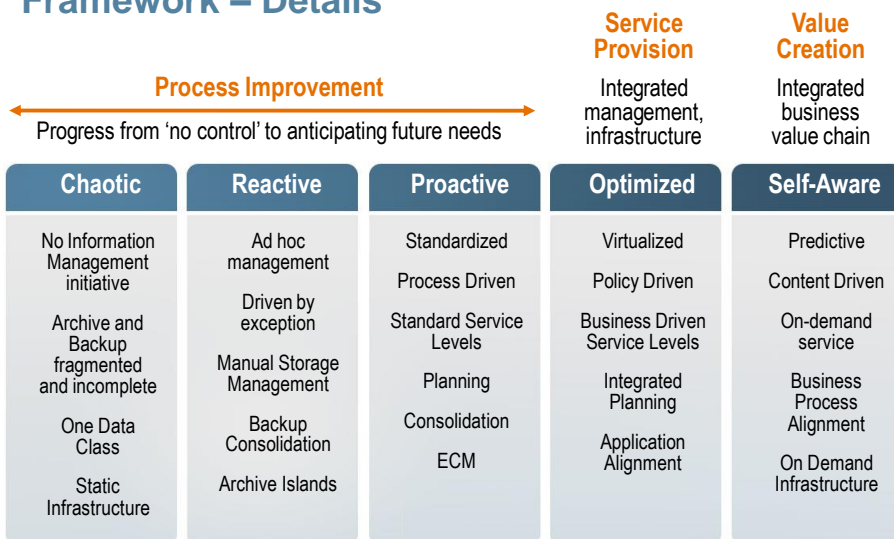
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# How can you check where you are ?



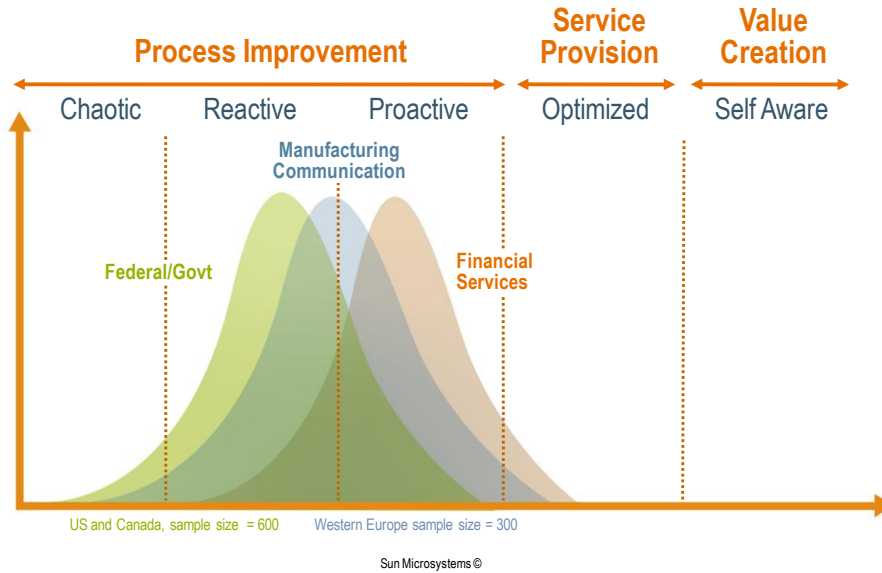
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## Information Management Maturity Model Framework – Details

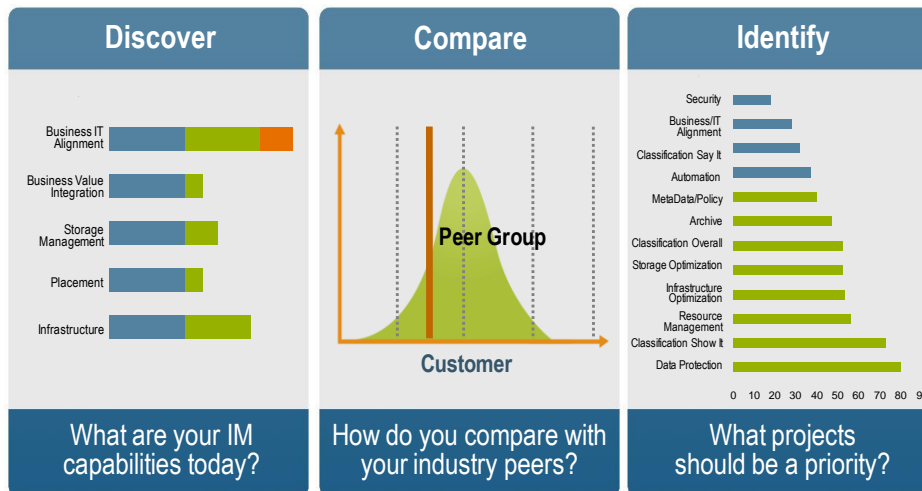


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# Industry Clusters



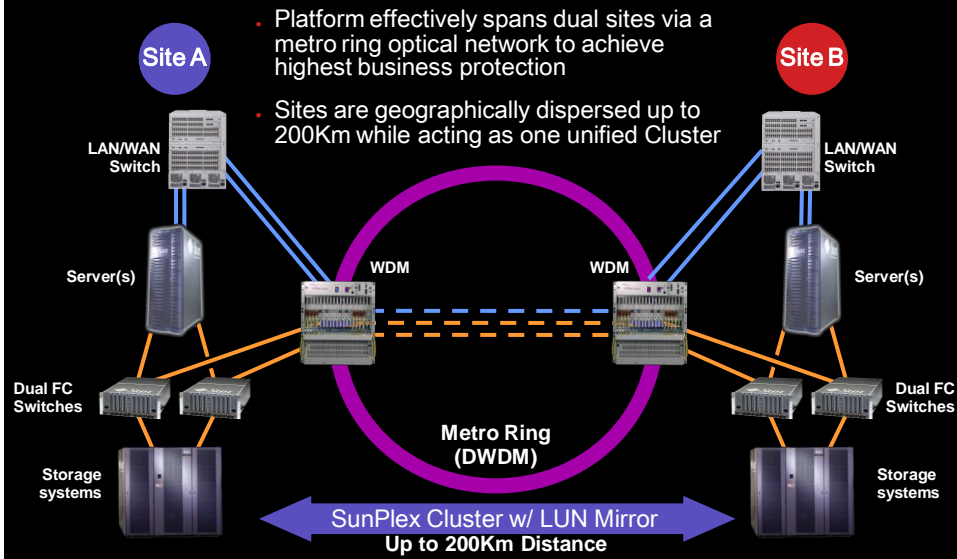
# What the Customer Gets





# Continuous Operations Solution

A Business Protection Solution



Thank you

[valdis.filks@sun.com](mailto:valdis.filks@sun.com)  
<http://blogs.sun.com/ValdisFilks/>

