Computershare

A Case Study of IT in the Global Financial Services Sector

Stuart Irving
Chief Information Officer
Computershare Technology Services

CERTAINTY | INGENUITY | ADVANTAGE

Computershare

❑ **Computershare can genuinely be considered an Australian success story. Beginning in 1978, the company now employs over 10,000 people and provides services in 17 countries to more than 14,000 clients.**

❑ **Computershare has become both the world's largest and leading provider of investor services. The prime focus of our growth and solution development has centred on issuers, their stakeholders and the challenge of removing barriers to efficient servicing of these important stakeholder groups.**

❑ **Our client and shareholder numbers have grown to 14,000 clients and 100 million investors. Heavily committed to technology, we spend over A$100M annually on technology services, including substantial expenditure on research and development.**

❑ **Today, Computershare is considered a world leader in share registration, employee equity plans, proxy solicitation and other specialised financial, governance and stakeholder communication services.**

Computershare

What should I talk about today?

❑**Taking your systems Overseas**

❑**Implementing a Global Development Model**

❑**Acquisition Integration (systems, process and culture)**

❑**Scaling to meet the international challenge**

❑**Regulatory environment**

❑**Information Security and what it means where**

Computershare

CERTAINTY | INGENUITY | ADVANTAGE

Taking your systems Overseas

- ❑ **Local Tax Rules**

- ❑ **Regulatory Reporting**

- ❑ **Language Issues**

- ❑ **Account Structures**

- ❑ **Address Validation**

- ❑ **Key Staff / Training**

Computershare

CERTAINTY   INGENUITY   ADVANTAGE

Implementing a Global Development Model

❑ **Prioritisation Battles**

- What Region shouts loudest?

- The Global Compromise (one size ?)

❑ **Development**

- Managing Scope Creep
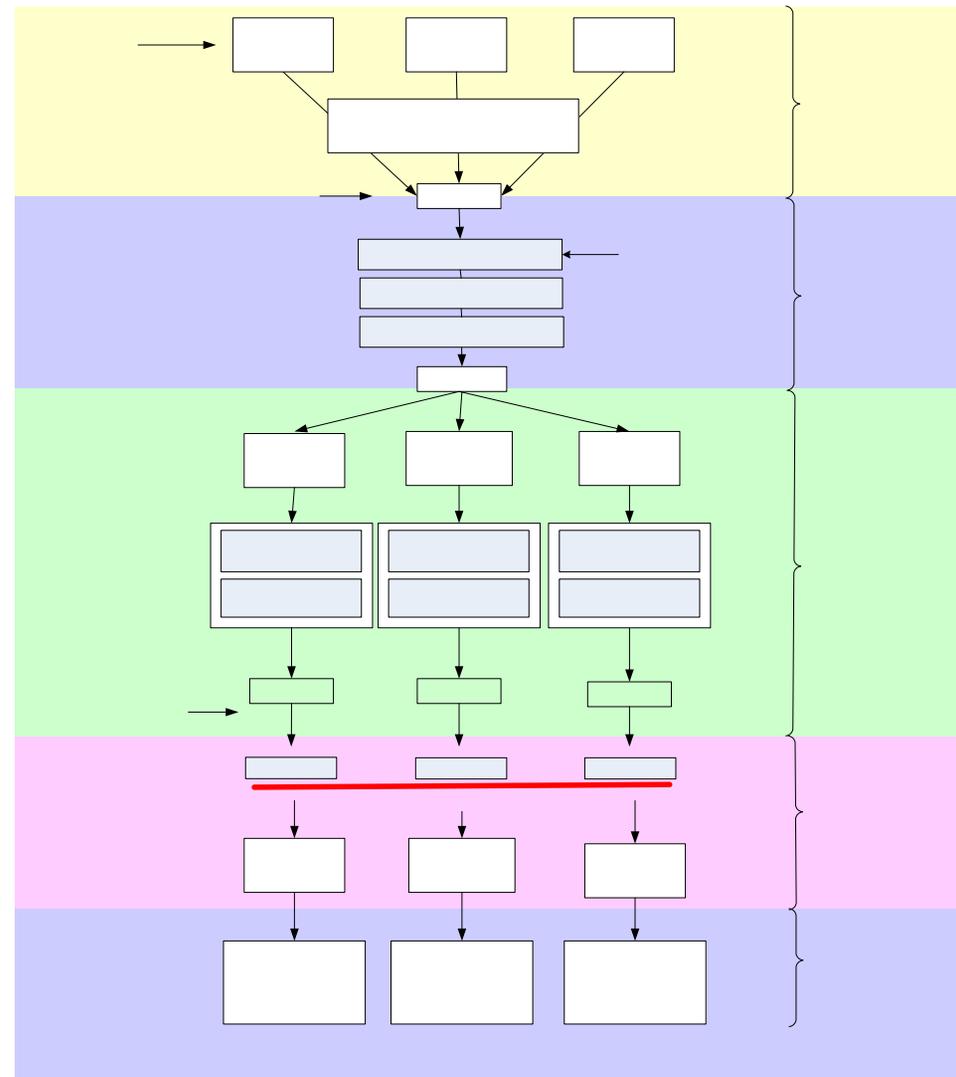
- Coordination

❑ **Regional Release Acceptance**

- Supporting multiple versions

- Matching timetables

❑ **Production**

- Which Regions go first?

❑ **Post Production**

- Monitoring > Ongoing maintenance

Computershare

Acquisition Integration (systems, process and culture)

❑ **What Systems should we use?**

  • Do we spend time creating "best of breed" or pick one and go with it?

❑ **Managing the staff and client expectations on the integrated entity**

❑ **Removing the "We have always done it like that" mentality**

❑ **Cultural Change program for an Australia company overseas**

❑ **Not forgetting about existing clients / entities**

Computershare

Scaling to meet the international challenge

☐ **Overseas often means Oversized**

☐ **Software just breaks**

☐ **Application Hardware Rethink**

☐ **Challenge of getting Head Office not to have the "well it works here" attitude**

Computershare

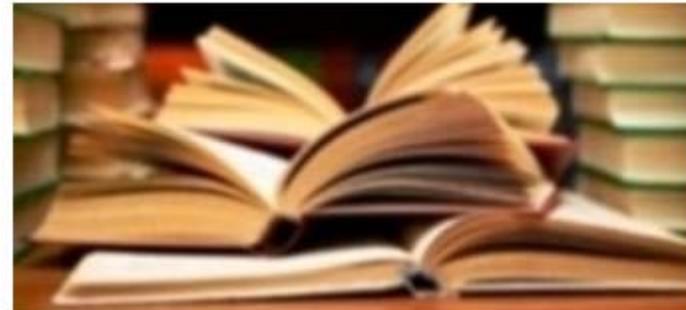CERTAINTY | INGENUITY | ADVANTAGE

IT Regulatory environment

❑ **Regulatory obligations expand**

- Office of the Controller of Currency (OCC)

- Financial Industry Regulatory Authority (FINRA)

- Securities and Exchange Commission (SEC)

- Financial Services Authority (FSA)

❑ **SAS70**

❑ **Client Audits**

❑ **Internal Audits**

Computershare

Information Security and what it means where

❑ **Different Rules in each Regions**

❑ **No consistent International Standards**

- BS7799

- ISO 17799-2

- ASNZS 4360-1999

- USDoD Orangebook

❑ **Priorities differ in each Region**

❑ **Common sense prevails**

Computershare

Information Security – (Privacy breaches / Identity Fraud)

❑ **Why talk about it today?**

❑ **It is more exciting and I have better stories than exploring the Global Software Development Lifecycle in depth!**

❑ **The wave of hysteria surrounding Non Public Customer Information is coming to a town near you.**

❑ **Data loss is becoming the norm rather than a significant event at the moment. If data was treated like a briefcase full of cash then I am sure there would be less incidents – all mindset.**

Computershare

Some horror stories

❑ **US bank loses unencrypted data**

- Couriers lost magnetic tapes containing the personal details of

  4.5 million people who had dealt with the Bank of New York

  Mellon

- Financial information, including Social Security numbers,

  names, addresses and bank account details has been exposed

  as a result of the breach

  ❑ http://www.theregister.co.uk/2008/06/02/ny_bank_lost_data_flap/

((omputershare

BNY MELLON
SHAREOWNER SERVICE

May 21, 2008

Dear Sir or Madam:

BNY Mellon Shareowner Services provides stock transfer agency, employee plan administration and related services for issuers of securities such as publicly traded corporations. While we have no reason to believe your information has been or will be accessed or misused, we are writing to inform you of an incident involving your personal information that we maintain in connection with these services. On February 27, 2008, our archive services vendor notified us that they could not account for one of several boxes of data backup tapes that they were transporting to an off-site storage facility. The missing tapes contained certain personal information, such as your name, address, Social Security number and/or shareowner account information that we maintain in providing these services.

Although we have no indication of any improper access to this data, as a precaution, to help you detect any possible misuse of your data, we are offering free credit monitoring for a 12-month period. We have engaged ConsumerInfo.com, Inc., an Experian® Company, to provide you with their Triple Alert℠ Credit Monitoring product, which includes daily monitoring of credit reports from three national credit reporting companies (Experian, Equifax® and TransUnion®), email monitoring alerts of key changes to your credit reports, and more.

For more information, please visit our website at **http://www.bnymellon.com/tapequery**. You have 90 days from the date of this notice to activate the credit monitoring by using the **activation code** This code is unique for your use and should not be shared. To learn more about Triple Alert℠ and to enroll, go to **http://partner.consumerinfo.com/monitor** and follow the instructions. To enroll by phone, or if you have any questions, please call us **toll-free at 1-877-278-3461.** Our customer service representatives are available Monday through Friday, between the hours of 8 a.m. and 8 p.m. ET; and Saturday, between 9 a.m. and 4 p.m. ET.

We recommend that you regularly review statements from your accounts and obtain your credit report from one or more of the national credit reporting companies. You may obtain a free copy of your credit report once every 12 months by visiting http://www.annualcreditreport.com or by calling one of the three national credit reporting companies, toll-free: Experian at (888) 397-3742; TransUnion at (800) 916-8800; Equifax at (800) 685-1111. We recommend you remain vigilant and that you report any suspected identity theft to us and to proper law enforcement authorities, including the Federal Trade Commission. Please visit the FTC's web site, http://www.ftc.gov/bcp/edu/microsites/idtheft, to learn more about protecting yourself from identity theft, such as requesting a fraud alert.

Please be assured that we take the protection of your information very seriously and have taken additional measures to protect your account with us. We have implemented additional measures that will help prevent a similar occurrence. We sincerely regret any inconvenience or concern caused by this incident.

Sincerely,

BNY Mellon Shareowner Services

Computershare

Some horror stories

❑ **5,000 NHS records vanish from UK hospital – stolen laptop**

- Laptop Stolen from outpatients. Hospital was in the middle of a review of security.

❑ **Other UK Incidents**

- HMRC twice lost 25 million records relating to child benefits

- DVLA lost 6,000 records for vehicle owners

- MoD misplaced a laptop containing details of 600,000 applicants to the armed services

Computershare

Some horror stories

❑ **Countrywide insider stole mortgage applicants' data**

- Alleged scheme to steal and sell sensitive personal

  information, including Social Security numbers, of as many as

  2 million mortgage applicants.

- Insider would copy information on about 20,000 customers at a

  time on Sunday nights by using a computer that did not have

  the same security features that other machines in the office

  had.

  http://www.latimes.com/business/la-fi-arrest2-2008aug02,0,7330731.story

Computershare

Some of our incidents

❑ **Laptops stolen – bars and cars seem to be the favourite**

❑ **Tape lost in transit – found at Fed Ex**

❑ **Excel file to friend – The Human Factor**

As a CIO, how much does this concern me ?

Computershare

Getting the basics right – ways to approach data loss

❑ **Categorise all your data**

❑ **Determine access level needs**

❑ **Implement complex file access rights and OU groups**

❑ **Implement Identity Access Management**

❑ **Digital Rights Management**

All of the above very worthwhile but complex and time consuming

Computershare

Getting The Basics Right – Laptop / Desktop Encryption

❑ **Desktop / Laptop encryption**

- Seen as a US issue initially, as the regulatory environment means reporting incidents to the client / State / OCC.

- Europe and AU felt less need for such measures. UK Government lost a few laptops, it hit the press. Europe now wanted the solution.

- Australia – accepting but not sure why !

- We use Pointsec on all Laptops

Computershare

Data Leakage Prevention (DLP)

❑ **Data can leave the organisation in so many different ways:**

- Email

- Web

- Instant Messenger

- USB devices

- CD Roms

- Etc

❑ **And it can also be sitting where it should not**

Computershare

Data Leakage Prevention at Computershare

❑ **We have implemented software from Symantec that does the following:**

- Monitoring and blocking for selected policies including but not limited to SSN, Canadian SIN, TFN, BSB Codes, ABA Routing and Account Numbers, Credit Card Numbers, Confidential Documents, Computershare Internal Confidential Documents and Merger and Acquisition Documents.

❑ **Policies are mostly configured around Financial and Government regulatory standards like Gramm-Leach-Bliley, Sarbanes-Oxley and HIPPA to name a few as well as client requests for 3rd party compliance.**

Computershare

Information Security

Data Leakage Prevention at Computershare
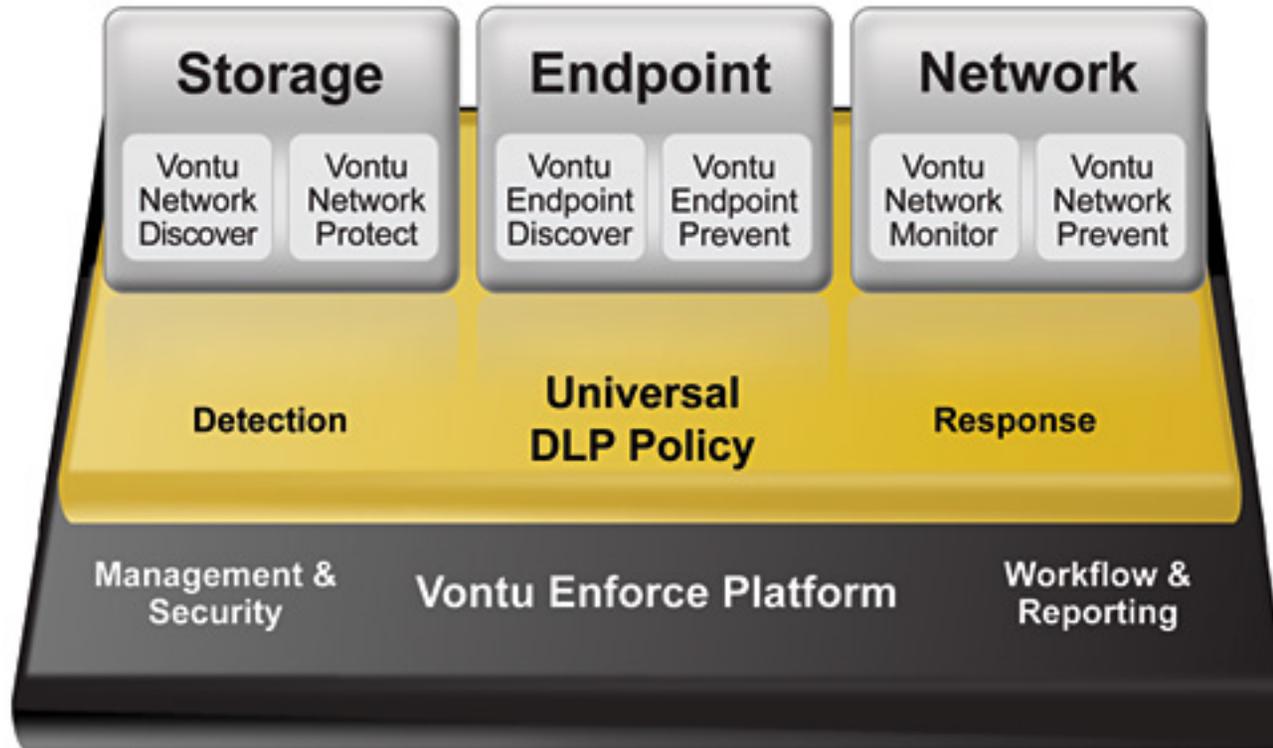
Copyright Symantec

Data Leakage Prevention – what does it look like ?

Computershare

Other Implementations at Computershare

❑ **<u>BACKUP TAPE ENCRYPTION</u>**

- Easy to do at small scale, gets harder at the enterprise level.

- Encrypting a tape is easy - making sure the right decryption key is available is harder.

- Loss of compression and slower backups give IT challenges.

❑ **<u>VDI</u>**

- Keeping the data in the Data Center is also a goal.

- Virtual Desktop technologies will help data stay in the Data Center and eliminate the need for local file server infrastructure.

Computershare

CERTAINTY | INGENUITY | ADVANTAGE

Changing the Mind Set – A lot harder than Tech Solutions

❑ **The truth is there are excellent products out there. It is about assessing the risk and having the will to implement.**

❑ **Software and hardware solutions are the easy part – the hard part is the internal cultural change and making sure company policy is clear and enforced.**

Computershare

Company Policy

❑ **We run amnesties to get data out of desks / cupboards. Most data is sent in by clients.**

❑ **Special bins are maintained for a regular clean up effort.**

❑ **You need constant reminders to drive the message. After years of complacency it is hard to change habits.**

❑ **As a Global Financial organisation this is not optional, but most importantly, is about action along with these seemingly endless company policy documents.**

Computershare

Comments, questions...

THE NPCI WAVE IS ABOUT TO HIT THESE SHORES! WILL YOU BE READY?

Information Security if everyone's business

Stuart Irving
Chief Information Officer
Computershare Technology Services

Computershare