

I²S - Allianz plc internal Innovation Award



Allianz plc I²S Awards, 2009

3.2 Use of Stonwize Compression Device on our Central Disk Storage



Idea Giver	Dan Gill
Role & Division	Infrastructure Test Analyst, IT
Idea Summary	<p>Data growth was increasing rapidly on the central shared storage environment which was a big and expensive problem for the organisation. Dan's idea was to use a Compression Appliance from Stonwize to compress the data on this environment by an average of 70%.</p> <p>This would eliminate the requirement to purchase vast quantities of new disk storage for a number of years, saving the organisation in excess of £600,000.</p> <p>Initially, the compression would be used on all our Microsoft Office application data; however there is scope for this to be used on all other applications that are stored in the same environment.</p>
Cost to Implement	£92,000
Estimated Annual Benefit	£608,000 (benefits have not been agreed and signed off)
Idea Status	Under implementation
Reason for Nomination	Although the storage of data was outside the idea giver's remit of work, he was so convinced by the product that he managed to obtain two appliances free for a trial period and used them to prove the efficiency of compression across several in-house applications. Four Stonwize appliances have now been purchased by the company and the compression of data is being rolled out to the organisation in various phases.
Judges' Reasons for Short-listing	The judges were impressed with this as the idea giver had shown dedication and commitment to see his idea through to implementation; it was also a great idea which has the potential to be used across other Allianz OEs globally.

Allianz Global SE

- Among the global top 3 insurers based on market cap
- Servicing over 75 million customers in more than 70 countries
- With an operating profit of \$9.5B (2009)
- Key group companies with different brands:
 - Fireman's Fund
 - Euler Hermes
 - Mondial

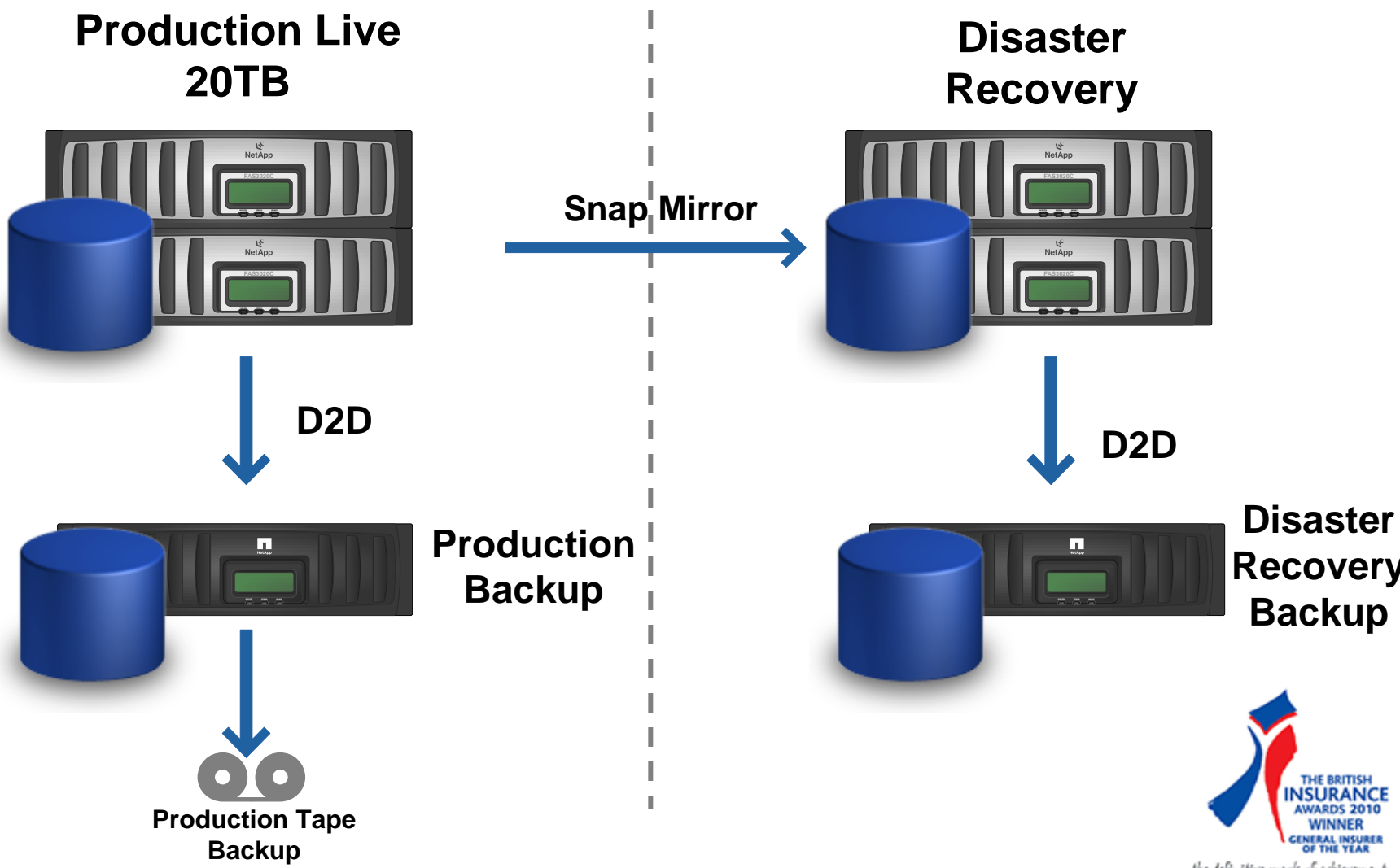
Allianz Insurance plc - UK

- Voted 'The General Insurer of the year' at The British Insurance Awards, 2010
- Allianz Insurance plc is one of many Operating Entities (OEs) within the Allianz SE Group based in Munich
- Allianz Insurance plc – UK Principle activity is General Insurance business:
 - General Commercial
 - Direct Insurance – Home / Motor
 - Pet Insurance
 - Legal Protection
 - Engineering
- With an operating profit of \$334M, (2009)

2008 - Our storage challenges

- Uncontrolled growth in storage – particularly in the unstructured area (Office data, Shared data)
- Required to do more with less – headcount pressures
- Did not want to continue to buy more and more storage – cost reduction and containment
- Needed a simple, cost-effective, resource light robust solution that was transparent to our customers

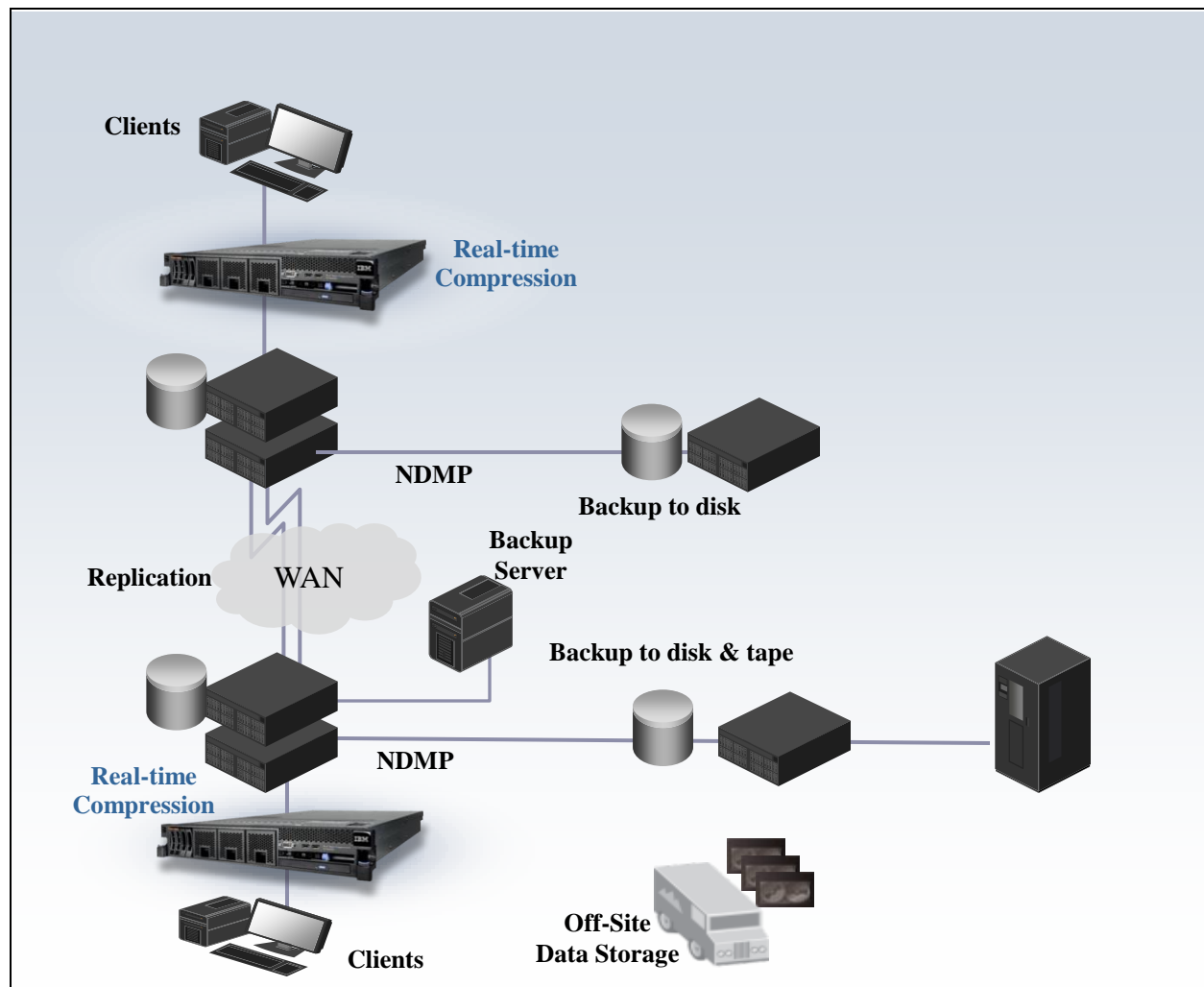
Unstructured Data – Configuration Overview



Storage Issues

- Primary storage upgrades have to be replicated three times (primary site, DR site, DR backup)
- Cost of new storage
- Primary unstructured data growing at over 5TB per year
- Volumes running at 80-90% capacity
- Between 2008 and 2009, have purchased 28TB for all the environment

Configuration – with RtC



Why IBM Real-Time Compression?

- Reviewed compression offering to compare with NetApp deduplication and other potential solutions
- Obtained agreement from Allianz management to run a Proof of Concept (PoC)
- Good fit with NetApp technology verified by Industry Analysts, including Gartner

2008 - Proof of Concept

- PoC run on separate environments, which included Oracle and unstructured data
- Rigorous test plan that encompassed load and performance testing
- Focus on unstructured data – our key uncontrolled growth problem
- Result: Consistent compression of between 50-80%

2009 – Phase 1: Unstructured Data

- Capacity Status at January 8, 2009:

Filer Head	Raw Data	Usable Space	Safety Limit @ 80%	Used Space	Monthly Data Growth	Reaching Limit
1	10.6 TB	7.7 TB	6 TB	5 TB	85 GB	October 2009
2	10.6 TB	7.7 TB	6 TB	4 TB	85 GB	September 2010

- Note: Several volumes are at 80%-90% of allocated space
- Agreement for the Real-time compression solution from our Head of IT who described it as **“A No Brainer”**

Phase 1 Milestones

- Jul 2009 – Purchased 4 x Real-time Compression appliances
- Sept 2009 – Appliances deployed for our production environment and our recovery site
- Oct 2009 – Pilot, IT shared directory compression and Disaster Recovery tests performed
- Jul 2010 – Completed the compression of all chosen existing data, after taking a cautious approach due to limited space available

Phase 1 Results

- Easy installation
- High Availability “Plug and Play”
- A few teething problems with hardware but quickly resolved with IBM Maintenance.
- We have not identified any performance issues or had any reported after 1 year in production
- **Still going strong after 3 years in production**
 - Successful project for the business
 - No new capacity purchased for the ‘Unstructured Data’ environment
 - No data availability issues related to RtC
 - Actively considering deploying RtC for structured data in Germany HQ

Benefits of Real-time Compression

- Deferral of storage costs for up to 3 years
- Providing us with an extra free space on our primary storage
- Achieving a slower growth rate of data
- Savings on the back-end storage including Disaster Recovery, allowing for extra backup retention
- Reduction in the tape backup window
- Transparency to our users and support staff

Additional Benefits

- Compression has enabled us to work smarter and store compliance data centrally
 - All our Firewall logs are now online, PCI Governance requirement to hold 12 Months of security data, 1TB worth of data uncompressed, 80% Compression on this data.
- Compression has enabled us to work smarter and improve on our processes
 - SQL backups. We used to backup straight to tape from Servers. Now with compression we can backup to central disk then tape, whilst keeping most recent backup online. Achieving 70 – 80% Compression on this data
- Reduced WAN Traffic to Disaster recovery, Mirror data
- Reduction in Snapshot Reserves from 20% to 10%

Questions ?

Thank You