Preserving Digital Assets: Issues and Considerations

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Introduction

Preserving Digital Assets:

- Background
- Strategy
- Business drivers
- Cost considerations
- Solutions

Background

- **Who we are**

  Barclays Wealth is an organisation dedicated to helping clients get the most from their wealth by acting as their guide. With access to the entire resources of the Barclays Group, we're able to provide services and expertise to make a difference whether clients want a close personal relationship or simply direct access to trading.

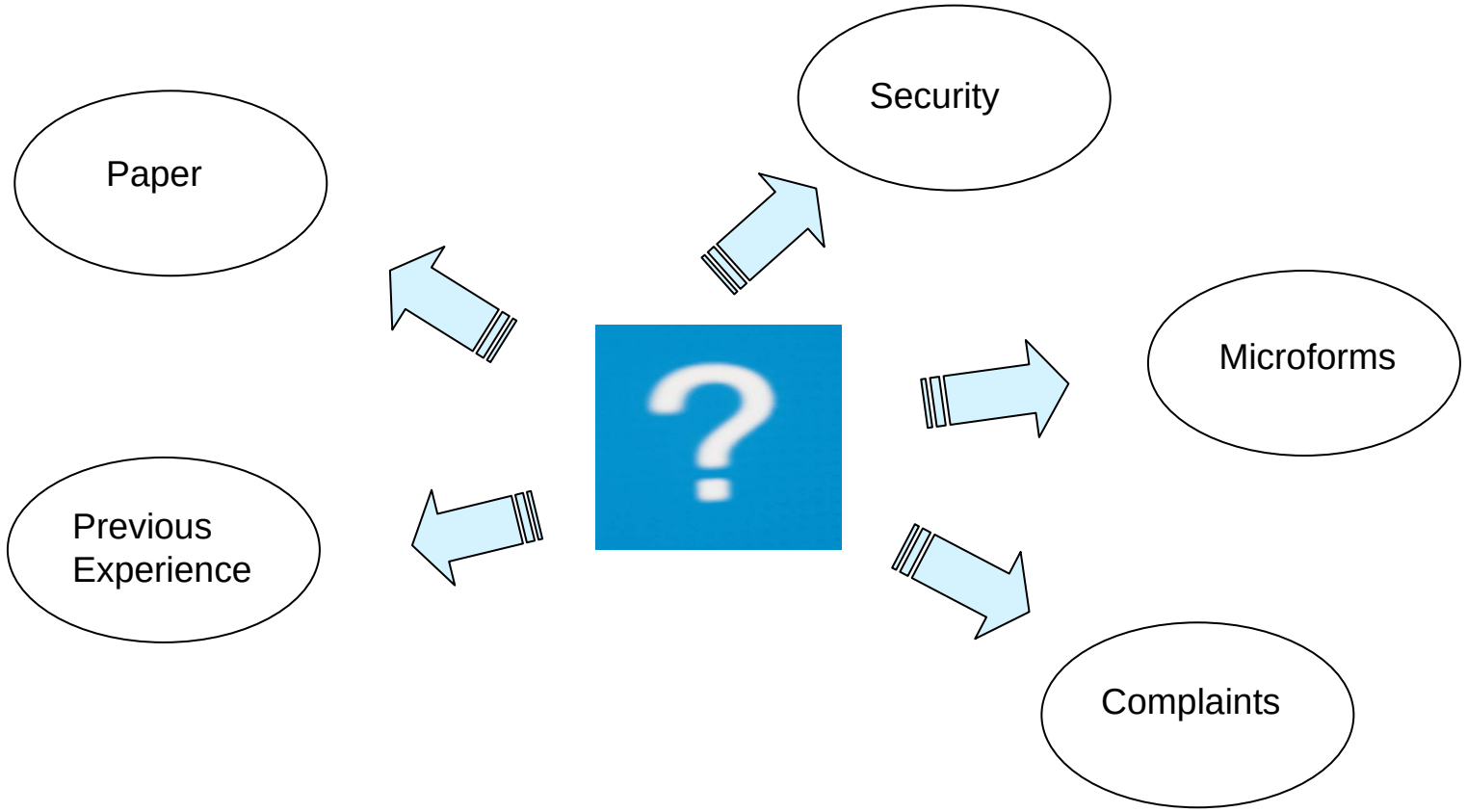
  We understand that wealth means different things to different people, and believe that no one is better placed to help our clients acquire wealth, use it, enjoy it and pass it on.

  We already have over 6,900 staff in 20 different countries (2007), and together they are working towards our mission of becoming the premier European Wealth manager, attracting clients through world class products, innovative solutions and outstanding service.

Strategy

- Rationale
- Analysis
- Senior Management engagement
- Communication
- Deliverables
- Outcomes
- Benefits

Strategy - Rationale



Solution: Project Set Up

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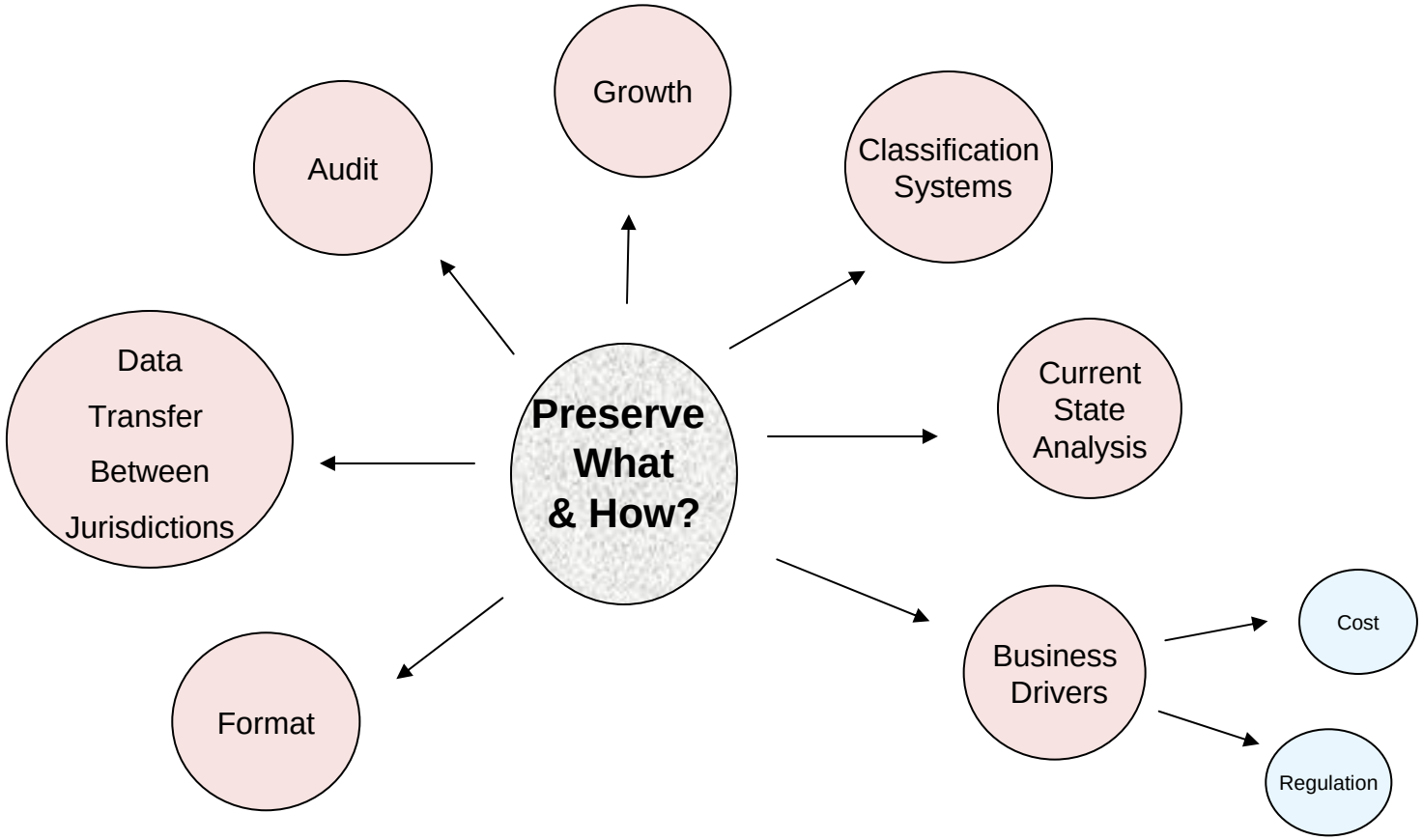
Strategy - Analysis



Key Issues:	Business requirements + drivers
	Staff responsibilities

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Strategy – Senior Management Engagement

Communicating the Business Value of Classification Schemes

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Strategy - Communication

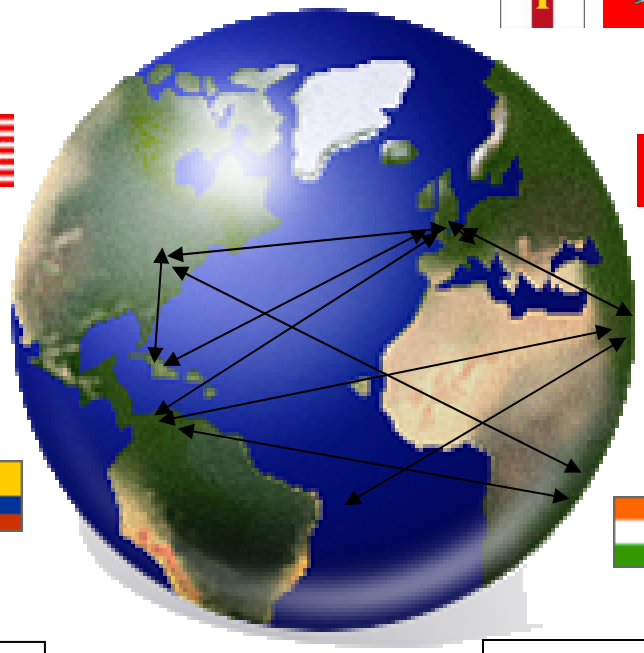
- Stakeholder engagement
  - Client
    - What information; how stored; where stored; how long?
  - Business
    - Access; Retrieval; Regulatory Compliance
- Staff
  - Responsibilities; Records Management Champion
- Data Transfer
- Image/brand

Communication – Data transfer example

HR DATABASE/ CUSTOMER DATA BASE HOSTED IN UK

US HEADQUARTERS – ACCESS VIA COMPANY INTRANET

UK Subsidiary



Can copies of UK records be made accessible to US headquarters via a company intranet?

Available Options:

The DPA:
The DPA states that personal data should not be transferred out of the EEA, unless it is adequately protected.

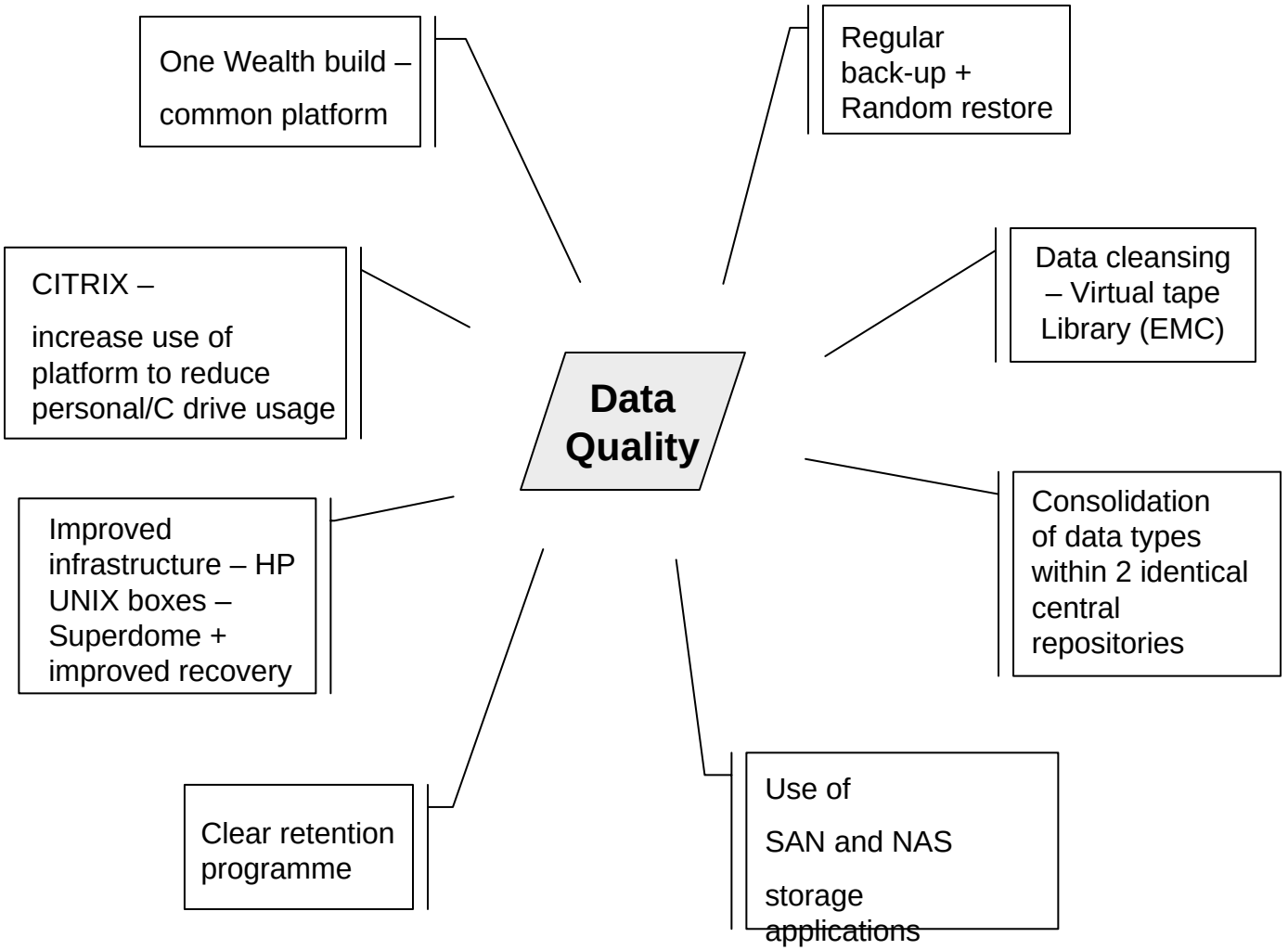
Safe Harbor:
The US is unique in that it is the only country where European approval provides that if a company has signed up to the Safe Harbor scheme then the transfer is permissible.

Consent:
Each employee could give consent to the data transfer. This could take time, employees could withdraw consent.

Binding Corporate Rules:
A set of rules could be put in place to ensure the protection of the personal data which is transferred from the UK subsidiary to the US holding company. The Information Commissioner, however, will need to approve the rules.

Model Clauses
Depending on the circumstances, the best option may be Model Clauses, which have been approved by the European Commission.

Strategy - Deliverables



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Strategy - Outcomes

- Improved interaction between IT and business
- Increased awareness of data transfer
- Greater responsibility by staff
- Improved IT quality + regular reviews

Key Outcome: Data Security

Strategy - Benefits

- Access to any Wealth office globally
- Improved security of data
- Improved preservation of data
- Regular review to counter obsolescence
- Raised staff awareness of data handling importance

Key Benefit:	Data Preservation

Business Drivers

- Data Protection + Data Privacy
- FoI
- FSA
- Legal Admissibility
- Sarbanes-Oxley
- Basel II
- Inland revenue
- Banking code
- Business standards
- Companies Act + CAICE
- Limitation Act
- BSI/Technical standards
- Physical deterioration
- Intellectual property
- Indexation
- BCM

Key Issue:

Protect
The
Brand

Cost Considerations

- Maintenance
- Sustainability
- Legacy media costs
- Risk/Compliance/Audit
- Marketing/Brand
- Business Drivers
- Retrievability

Key Consideration: Risk/Compliance

Solutions

The solutions relate to 3 aspects of preserving our digital assets;

- Infrastructure
- Data Handling
- User generation/handling of data

- The solutions to the 3 aspects of preserving our digital assets have been selected with software performance as a key requirement.

- The performance requirement ensures that digital objects remain accessible and meaningful.

- The performance requirement ensures that the notions of authenticity; adequacy as well as security of the software are maintained.

Solutions - Infrastructure

The infrastructure programme has achieved;

- An enhanced Asset Centre with common platforms and enhanced independent provenances
- More powerful SMTP relay servers for encrypted mail
- AQL capability to cover meta SQL requirements
- Increase in a dedicated team to monitor data quality, preservation and security.
- Random restore built in as a standard process within the programme.
- Automation of preserved digital objects where possible.
- Use of tools to wrap existing provision and plug gaps to ensure future use of historical platforms.

Solutions - Infrastructure

- SQL Servers replicated in 3 environments for performance, security and maintenance in the development lifecycle and beyond in production.
- A production server is not combined with other functionality (databases/application, OLTP/Data Warehouse) even on separate instances.
- The different types of database functionality including resources, security and resilience demand are kept physically separate, not just logically.

SQL Servers are dedicated builds and consider the following:

- Amount of CPU and memory;
- Usable and affordable
- Disk layout for load balancing, performance, resilience
- Standard directory structure
- Security
- A stable, reliable and responsive service, providing maximum uptime, minimum response time
- Maximum data integrity.

Solutions – Data Handling

- Standardised security code used to protect preserved data.
- Improved quality of data input. This has meant more meaningful data being preserved and less duplication.
- Data cleaning is performed through a Virtual Tape Library.
- Ensuring 3rd parties maintain our data in accordance with our standards.
- Classification systems to be used have been defined.
- A programme has been set up to improve and regularise integrity testing.
- Structured reviews of our retention programme.

Challenge:	How to establish and operate a systematic process to destroy data from preserved data?

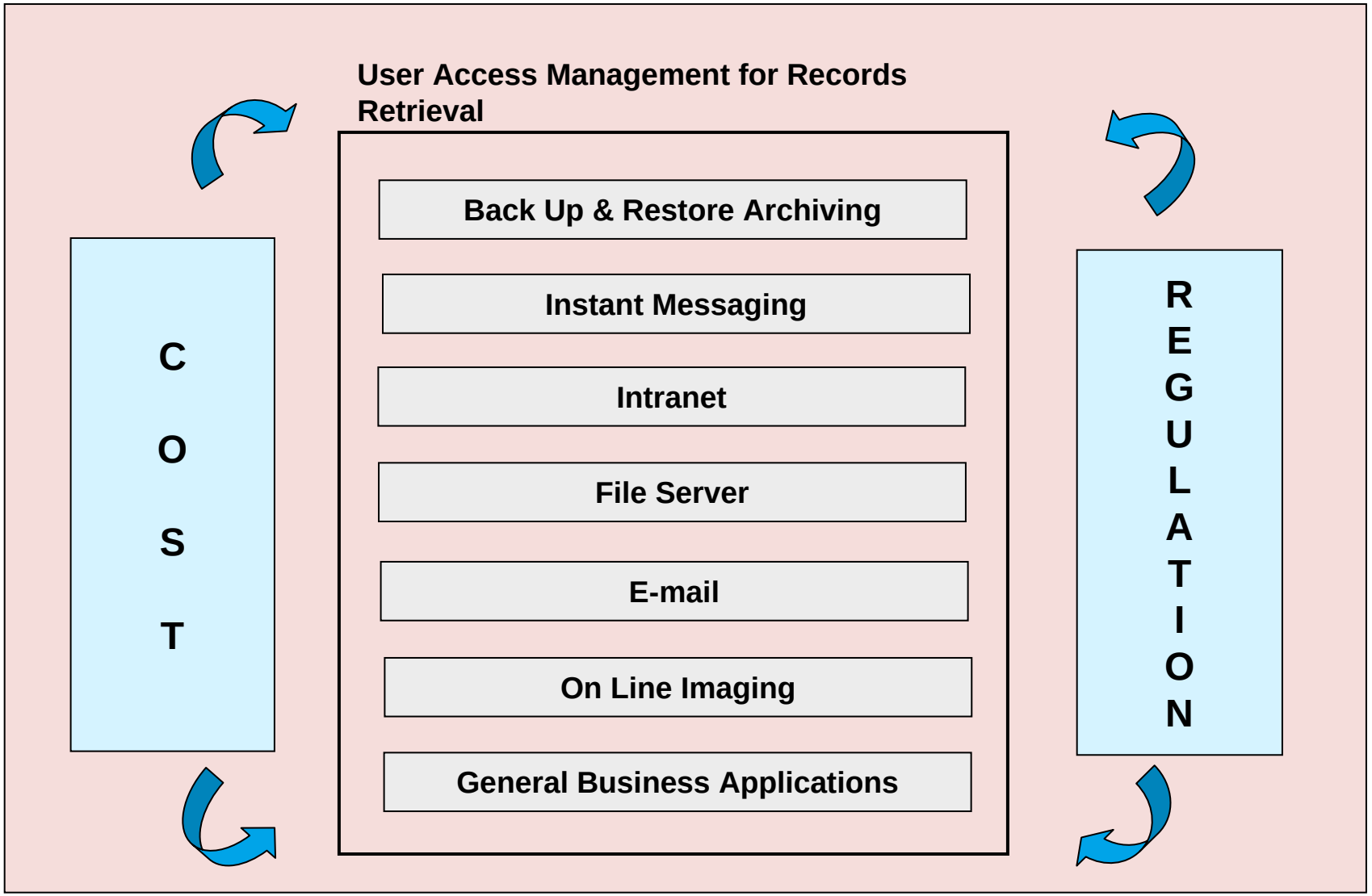
Solutions – Data Handling

- Increased stability of shared data is achieved by using NetApp Filers, DFS and a standardised security model and naming convention.
- QSS 6.2 is used to migrate the shared data from the legacy environment to the NetApp Filers.

During the migrations of legacy data:

- All shared data will be copied and not moved.
- A unique share name must be given to the target share on the NetApp Filer.
- All legacy share and NTFS permissions are migrated as part of the migration.
- Legacy shares are redirected to a folder containing a shortcut to the new share location and a text file with contact information.
- BAU technical support team is responsible for unsharing the legacy root shared folder and remapping users to new server by modifying the appropriate login script.

Solutions



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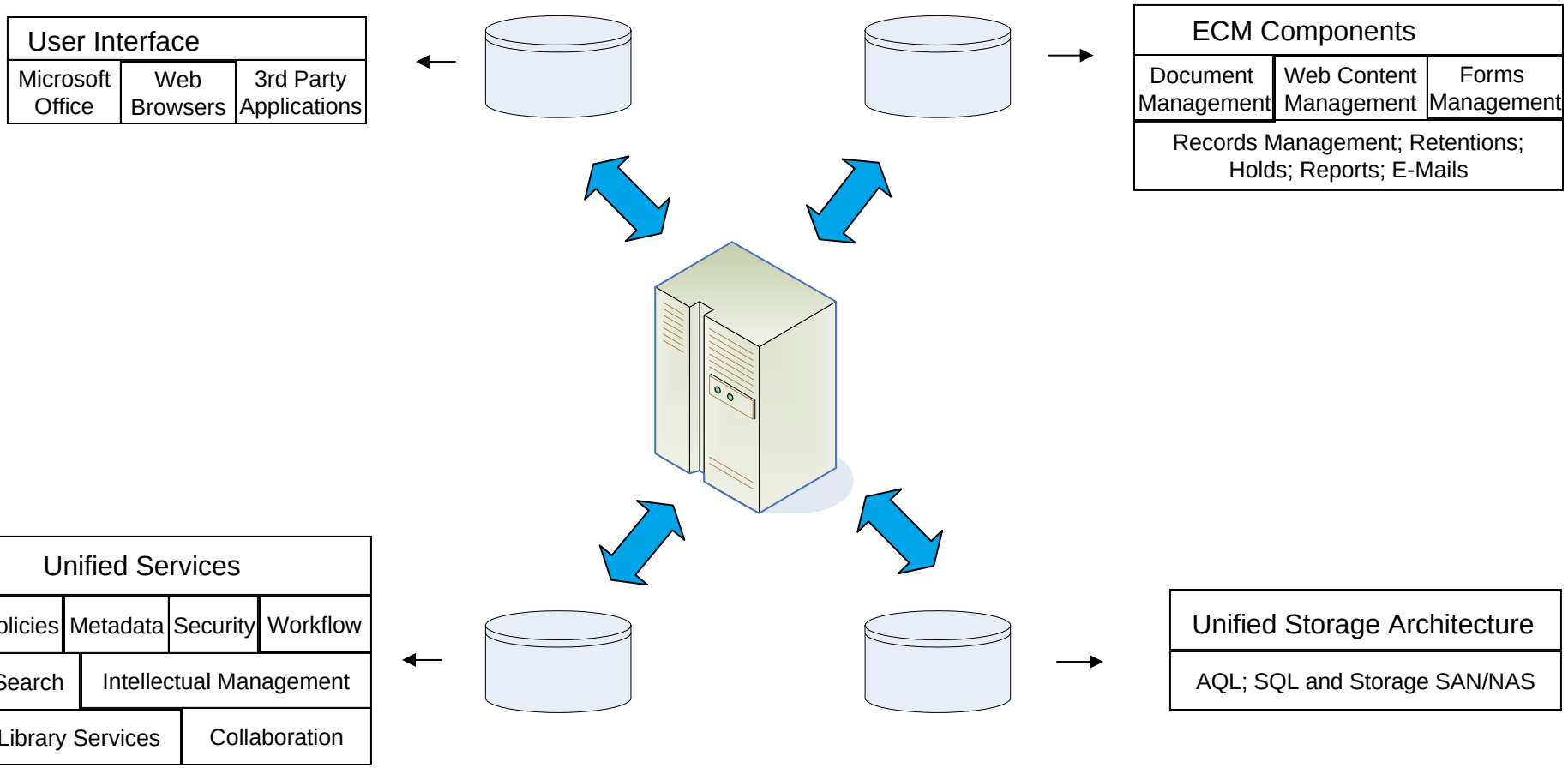
Summary

Many components and applications are required to preserve and secure our data.



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Summary - Software Preservation

- Our software system is seen as a ‘package’ with multiple sub-packages with independent provenances.
- The performance of our software for preservation requires that:
  - Authenticity
  - Adequacy
  - Security

  Are consistently monitored and maintained.

- A diversity of software preservation approaches are used and are dependent upon the nature of the data and the operating environment:
  - Technical preservation – for mainly legacy data
  - Emulation – our regulations require us to preserve data and software as accurately as possible
  - Migration – newly gathered data from outside sources and some legacy data