

## Whitepaper/

# Backup vs Archiving - the Great Debate

## Introduction

According to most surveys digital information has an annualised growth rate of 80%. This is having a profound effect on the IT infrastructure of many organisations world-wide. Public and private sector organisations are reliant on this information to help make decisions and operate key business processes. And, as this growth in data continues, so too does the issue of how to manage that data for the long-term - according to business needs, and in some cases regulatory pressures, while keeping control of the costs.

## Operational Requirements for Archiving

IT organisations are commonly involved in a tug of war with end users who want unlimited storage of information, while IT wants to reduce the burden on storage infrastructure and budgets. The problem is exacerbated by the fact that most users operate under the premise of store everything and manage nothing. It is no surprise therefore that over 80% of information remains inactive with older information rarely accessed but continuing to consume expensive IT resources.

Traditionally IT organisations have solved the problem simply by adding more disks or by imposing storage quotas, which forces users to delete older information to make room for newer data. What IT organisations and users need is a way of storing information whose costs reflects the business value of the information. Operational archiving solutions recognise this need.

## Compliance Requirements for File System Archiving

Heightened regulation in industries such as financial services, life sciences and telecommunications mean that organisations are increasingly required to comply with rules for data retention, access and security. Under these rules companies must keep purchase orders, contracts, customer complaints, claims, production records, reports and countless other types of information for a minimum period of time.

Compliance archiving helps businesses store, retain and find information based on industry specific business rules. The massive volumes of information involved require effective technology solutions to automate the retention and disposition of information over its lifetime.

## Backup vs. Archiving

One of the most common mistakes when implementing archiving strategies is in understanding how archiving differs from backup. The terms backup and archiving are often confused. But, it's when this confusion overflows into IT systems that fail to meet business needs for either disaster recovery or compliance that the problems really begin.

## Primary vs. Secondary

First of all it is important to recognise backup as a secondary copy of information. A backup is a copy of information on primary systems whether these are databases or file systems and are not to be relied upon for normal business operations. Archives on the other hand are primary copies of information – they are the final resting place for information that is aging, yet holds value for the business and will need to be accessed at some point in the future (perhaps not that often – but that isn't really the point).

## Recovery vs. Retrieval

When we speak about backups, we talk about "recovering from a backup" in the event of some failure in the primary systems. Recovery may need to occur because of catastrophic systems failure (which is rare) or occasionally because of human error (deleting information by accident). In both these instances backups are the last resort. On the other hand we know that we will need to retrieve information archives and for that reason they need to be far more readily accessible and available.

**Arkivum Limited**  
R21 Langley Park Way  
Chippenham  
Wiltshire  
SN15 1GE  
UK

+44 1249 405060

infor@arkivum.com  
@Arkivum  
Arkivum.com

**Title**  
Backup vs Archiving - the  
Great Debate

**Part no**  
ARK/MKTG/ALL/211

**Version**  
1.0

**Date**  
May 2014

**Status**  
Release

1/2

© Arkivum Ltd 2014



We know we will need to retrieve things from an archive – we hope we never have to restore from a backup.

## Availability vs. Operational Efficiency

Backups improve operational availability by enabling applications to be restored to a Point in Time (PiT) when presumably a failure or deletion occurred. They may therefore cause data loss as a result (because information may have been written since). On the other hand archiving is about operational efficiency, which it achieves by moving information from its source location to the archive. Archiving frees up applications to work quicker with less data, whilst relying on the archive to keep an accessible copy.

## Short Term vs. Long Term

Backups are short term – they are typically made on a schedule (daily, weekly, monthly) – but critically they will be overwritten as the cycle of backups come round again. Archives on the other hand are designed to last months, years or even decades. Relying on backups for the purpose of archiving is a grave mistake, as you cannot guarantee whether it has been kept. Archives must assure that information is searchable and retrievable long into the future whether it be for compliance, analysis or some other business reason.

## Compliance vs. Non-Compliance

Backups are not designed for regulatory compliance – though some are forced to use it for this purpose. We see many instances of backups being used as a compliance technology with the inevitable consequences for discovery. Backups are not designed, like archives, to support search, retention policies and the audit trails that are critical for regulatory compliance.

## The Arkivum Solution

Arkivum's next generation approach to archiving provides a cost-effective, easy-to-use, fully managed service that comes with a 100% data integrity guarantee - no matter how long you choose to archive your data.

At Arkivum we deal with the challenges of digital preservation every day and our services are designed to deliver long term file archiving over decades. The markets we serve include higher education, life sciences and the NGS research field. For example, in medical research, Medical Research Council (MRC) guidelines dictate retention times of between 10 and 20 years. In addition, the MRC guidelines also include the need to keep multiple copies in different secure geographical locations and that digital continuity plans are put in place.

We check and double-check data integrity every step of the way. We tightly control access to all aspects of our service. We use sophisticated monitoring to identify problems before they occur. These extreme measures allow us to provide absolute assurance that your data is safe and that only you can access it.

## About Arkivum

Arkivum specialises in the management and storage of an organisation's information assets. Arkivum delivers systems that can intelligently manage content to efficiently store and retrieve data over the long term while offering a highly cost effective solution, with low up-front investment and zero risk.

Arkivum was formed as a spin-out from the University of Southampton. With a world-class reputation in the field of digital preservation, the University has been working for over a decade to develop best practice for the safe keeping of digital data over the long term. With on-going links to the University, Arkivum has direct access to state-of-the-art research and this is complemented with a team that has in-depth experience in datacentre operations and storage system implementation.

Arkivum provides a completely transparent data archiving service and its approach to data safety and security is simple; it keeps multiple copies of customers' data in secure UK data centres and actively manages its integrity to ensure it remains in bit-perfect condition all the time. Arkivum relies on proven storage technology and open standards to deliver fast and efficient online access. The company's unique solution is the only system available on the market that guarantees 100% data integrity.

Arkivum Limited  
R21 Langley Park Way  
Chippenham  
Wiltshire  
SN15 1GE  
UK

+44 1249 405060

info@arkivum.com  
@Arkivum  
Arkivum.com

**Title**  
Backup vs Archiving - the  
Great Debate

**Part no**  
ARK/MKTG/ALL/211

**Version**  
1.0

**Date**  
May 2014

**Status**  
Release

2/2

© Arkivum Ltd 2014