

## Data Management Review

### DATA LIFECYCLE MANAGEMENT

<sup>4</sup>Data Lifecycle Management (DLM) is a policy-based approach to managing the flow of an information system's data throughout its lifecycle – from creation and initial storage, to the time it becomes obsolete and is deleted, or is forced to be deleted through legislation.

DLM products attempt to automate processes involved, typically organizing data into separate tiers according to specified policies, and automating data migration from one tier to another based on those criteria. As a rule DLM stores newer data, and data that must be accessed more frequently, on faster, but more expensive storage media. Less critical data is stored on cheaper, but slower media.

#### Data Archiving

Retention schedules are the foundation of a successful records management process. These schedules take into account an organization's legal, regulatory and operational requirements while providing guidance on how long records need to be kept and what to do with them when they are no longer needed. It is important to develop a schedule for backing up and archiving all computer records and for keeping current copies of all paper and computer files off-site and accessible.

To do so, it is vital for an organization to determine **what data needs to be backed up and what data needs to be archived**. This can be done with the business users of the data. At the same time, the archival retention periods for the various types of data need to be determined. It is also vital to remember that not all data has the same requirements, while some data may have overlapping requirements.

Backup and archive serve different purposes (recovery vs long-term preservation and retention and there are three (3) key differences between the two solutions:

1. The Data
2. Access
3. Disaster Recovery

There are currently no formal data management policies in place at SPi, resulting in insufficient controls and management of corporate storage, and incurring increased data management costs from the MSP (Fujitsu)

The MSP (Fujitsu) does not provide the customer (SPi) with any reporting that details a breakdown of total data protected by type or age.

Inactive data (that is data that hasn't been accessed in more than a year) can easily account for 50% of data residing on a primary storage volume.

The estimate of data currently residing within the MSP (Fujitsu) facility is 11TB.

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<sup>4</sup> A proper DLM product provides software for data archiving, retention, regulatory compliance, storage consolidation, backup and recovery optimization, and capacity management across a tiered-storage infrastructure. The software redefines storage management by enabling organizations to profile the criticality of their data within its lifecycle to automate discovery, classification, and placement on the most appropriate storage resource.

Without formal storage management practices the proliferation of data over the next 3 years will create substantial issues with regard to security, availability, scalability, and cost of data.

DATA CLASSIFICATION

SPI has no formal data classification processes or policies in place at this time.

A successful <sup>5</sup>data classification project tells you what data you have, how it's classified, and that it's stored and accessed efficiently. As part of a review of cybersecurity and data loss prevention (DLP) requirements, SPI needs to consider the development of corporate data classification practices.

**Table 4.0** summarizes the assessment of Data Management with a score based on a 1-5 rating as outlined in **Figure 4.0**:

Table 4.0: Data Management

DATA MANAGEMENT		
CRITERIA		ASSESSMENT
LEVEL OF ACCEPTANCE Discipline is accepted by the organization		There are no formal Data Archiving or Classification processes in place
BUSINESS ALIGNMENT Discipline aligns with business objectives		There are no formal Data Archiving or Classification processes in place
OBSOLESCENCE Component is up to date and fully supported		There are no formal Data Archiving or Classification processes in place
COST/EFFORT Includes direct costs (HW/SW) and indirect costs (downtime/operations)		There are no formal Data Archiving or Classification processes in place

Figure 4.0: Rating Legend – Data Management



<sup>5</sup> At a high level, **Data Classification** is the process of collecting the business requirements of data and applications, and using those requirements to store, protect and manage data at the appropriate service levels. A data classification project must begin with a definition of what's being classified and what metrics are appropriate for the level of classification desired.

# RECOMMENDATIONS

## DATA MANAGEMENT

### Data Lifecycle Management

A formal Data Lifecycle Management (DLM) strategy needs to be implemented including the following high-level activities to archive inactive “unstructured data”:

1. <sup>7</sup>Perform a data assessment of all unstructured data currently residing on production storage within both the Managed Service Provider and SPI facilities.
2. Establish rules to archive static unstructured data
3. Procure a data archiving service and migrate static data to the archive system

### Data Classification

Develop a Data Classification framework as per the steps below:

1. **Discovery** – Review existing activities and practices (surveys and data scans)
2. **Data and Application Risk Assessment** – Perform a risk assessment of business applications interacting with corporate data
3. **Data Discovery and Flow Monitoring** – Identify critical business content
4. **Risk Analysis** – Analyze and score sensitive data
5. **Recommendations** – Mitigate identified risks and implement a data classification framework

Please refer to [Appendix A: Data Classification Protocol](#) for a sample approach

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<sup>7</sup> Sample cost savings: The current vendor (Fujitsu) charges \$0.35 per GB for storage each month. The cost to archive inactive data to the cloud will be ~\$0.05 per GB each month for a **cost savings of \$1,500.00 per month** based on 5TB of data:  $(5000 \times \$0.35) - (5000 \times \$0.05) = \$1,500.00$