



Effective Risk Management in a Collaboration-Driven Enterprise

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DocAve® Software for SharePoint Resilience

The fundamental question for organizations planning to deploy SharePoint is: How will platform and content access interruptions affect productivity, revenue, and compliance-related exposure? This document will briefly analyze the most common consequences of such interruptions, and discuss why successful SharePoint deployments require effective management, vigorous protection, diligent compliance protocols, and continuous availability.

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Executive Summary

Effectively managing the risks associated with deploying collaborative and digital-asset repository platforms is crucial for success. As such platforms are increasingly relied upon to support mission-critical work processes and content, it is imperative for organizations to continually assess and address this risk exposure in order to mitigate any potential losses to business productivity. Optimal platform performance, availability, and security must be maintained in order to maximize end-user productivity, prevent loss of critical organizational knowledge assets, and proactively avoid related non-compliance and legal exposure.

As the world's most popular and powerful business collaboration and repository platform, Microsoft® SharePoint® is delivering accelerated business productivity and increased efficiency to organizations worldwide. Because of SharePoint's breadth of utilities and uniquely distributed architecture, deployment of the platform confronts administrators and other key stakeholders with myriad risk-related challenges.

This document will briefly review these challenges, and analyze how organizations may proactively address them. It is intended to aid all stakeholders responsible for managing and governing SharePoint deployments in their efforts to develop risk-aversion strategies appropriate to their organizational needs.

Risk #1: Disruption to Business Operations

As organizations increasingly rely on SharePoint as a knowledge repository and collaboration platform, the negative effects of platform failure and content inaccessibility on business productivity become more consequential. Success in today's competitive market environment demands organizations maintain uninterrupted access to business-critical digital assets and unfettered access to the digital workspace. Inadequate disaster recovery planning and inefficient data protection routines expose the organization to unnecessary risks, including:

Excessive Cost-Risk Related to Complex SharePoint Platform Recovery Procedures

SharePoint deployments are complex and include a multitude of different components. Without a comprehensive disaster recovery (DR) solution in place, organizations run the risk of time-consuming and costly environmental rebuilds. The cost of data recovery, when not involving a standby environment, is in large part determined by the IT resources required to perform the recovery operation and the expenditures related to the employment of the tasked individuals. The time and complexity required to recover data or rebuild an environment varies greatly, depending in large part on whether appropriate farm-level recovery solutions are in place. These costs are mitigated when standby capacity has been established. To reduce overall exposure to risk of DR outlays, appropriate solutions are required to satisfy acceptable RTO (Recovery Time Objectives) and improve recovery speeds.

Loss of Knowledge-Worker Productivity

As SharePoint users move crucial business processes online, inconsistent and unpredictable application performance can lead to content loss as well as prolonged downtime due to inaccessibility or underperformance of the platform. During downtime, and during the time in which the attempt to recover data is underway, knowledge workers are unable to access SharePoint. During periods of platform underperformance – due to inefficient storage and archiving routines – knowledge workers are prevented from optimal output. These inefficiencies, in conjunction with any unrecoverable data, negatively impacts the level of collaboration and productivity among end-users, leading to budget overruns, project delays, and loss of revenue-generating opportunities for the organization. Of equal importance is the ready access by the end user to archived data still necessary for production. If archiving protocols do not adequately provide seamless and deft access to archived materials, resources are wasted. These opportunity costs impact an organization's income statement just as potently as other more common and explicit costs.

Addressing it with DocAve

- ▲ **DocAve Backup and Restore**, with item-through-platform-level protection, provides fast, reliable safety for your entire SharePoint environment. With granularity of both backups and restoration, 'backup windows' and recovery times are reduced, keeping the costs of complex SharePoint DR activities in check and minimizing manual errors. DocAve is the only data protection solution available on the market that provides true item-level protection, down to the item version. In addition, the flexibility of DocAve Backup and Recovery allows for the execution of frequent backups even during production hours, achieving the lowest possible RPO (Recovery Point Objective). This means up-to-date versions of all SharePoint content, configurations, and components can easily be recovered following accidental deletion, corruption, or DR events. Productivity loss is minimized by ensuring restoration of the most current data.
- ▲ **DocAve High Availability** provides the industry's most potent continuous uptime solution, providing a full 'standby' environment that is easily accessible in the event of data-center or platform architecture-loss, helping organizations achieve minimal downtime following the loss of a production environment. Continuous scheduled synchronization allows for mirroring of the SharePoint environment which, in most cases, is completely seamless to end-users. This way, any business-critical data culled by knowledge workers is not lost.
- ▲ **DocAve SiteBin** allows administrators to instantly restore entire Microsoft SharePoint Server (MOSS) 2007 sites and site collections in the exact state they were prior to deletion – thereby reducing RPOs to zero and RTOs to mere seconds. Administrators can trigger a restore with one click via the module's unified SharePoint tree view. For end-users, optional deletion choices are available, including a "forced deletion" of unwanted content.
- ▲ **DocAve Archiver**, the industry's most powerful and flexible SharePoint archiving solution, ensures SQL capacity will be efficiently utilized and performance will be optimized. DocAve Archiver lets administrators manage valuable SQL storage by delivering item- through top-site level archiving with preservation of all metadata; to virtually any media, including local drives, network drives, and file systems. To ensure unfettered end-user access to archived materials, DocAve Archiver places a 1KB-object 'stub' on the interface, enabling simple, one-click restoration of the object. With intuitive, rule-based archiving capabilities, granular precision, and powerful monitoring tools, administrators can establish archiving routines based on any combination of object-attribute and storage requirements, while efficiently governing and controlling archiving activities in order to reduce exposure to risk.
- ▲ **DocAve Connector** empowers organizations to leverage SharePoint as the presentation layer for all of its file share content, thereby avoiding the burdens of migration and freeing up valuable space on SQL Servers. With full index and SharePoint search support, all file share content is seamlessly integrated into the SharePoint platform. With DocAve Connector, organizations can truly unify the delivery of content within legacy data stores, and optimize end-user productivity by exposing network and cloud file share data to all of SharePoint's powerful management and collaboration capabilities.

A DocAve Extender instantly offloads binary large object (BLOB) content to file-based storage in order to optimize SharePoint's SQL database resources, improve performance, and increase scalability. BLOBs can consume up to 80 percent of SQL Server storage and not only contribute to poor database performance, but also significantly impact user experience. Leveraging Microsoft's external BLOB storage (EBS) and remote BLOB storage (RBS) application programming interfaces, DocAve Extender analyzes the file size of all content being uploaded to SharePoint and instantly routes those files that exceed customizable file size triggers to the appropriate storage. Though it never resides within SQL, this content is fully accessible and manageable via SharePoint, where end-users can search for, access, and collaborate upon it just as if it was residing in SharePoint's SQL content database. This frees up valuable – and expensive – SQL storage space and improves the speed at which everyone in the organization can collaborate.

Risk #2: Vulnerability to Tampering and Uncontrolled Data Loss

Many organizations are inadequately protected against data tampering and data loss, lacking the necessary tools and internal controls to prevent, detect, or take corrective action. This risk is significantly compounded for vast information stores such as Microsoft SharePoint. Management must develop strategies to guarantee proper preservation of target compliance data for regulatory, legal, and intra-organizational demands. Without the proper safeguards in place, organizations will be exposed to:

Insufficient Compliance with Regulatory Demands, and Costly Litigation

Losing metadata unintentionally causes a falsification of records that not only leads to jeopardizing integrity of the business data, but also legal consequences for the person responsible for backup and restoration procedures. It also creates major liability for executive management – especially for public companies – as defined by various regulations, such as the Sarbanes-Oxley Act. Compliance with these regulations depends in part on reports created from accurate and often sensitive data. These reports must be generated from actual documents, including documents and metadata stored in SharePoint, with strict access and security processes, and be accompanied by executive-authorized documentation attesting to the existence of, and adherence to, these standards. Loss or corruption of this data can result in significant legal exposure, fines, and breaches of security through disclosure of proprietary information.

Addressing it with DocAve

DocAve Software Platform delivers the industry's most potent tools to ensure diligent and meticulous compliance on SharePoint platforms. Unlike any other SharePoint solution, all DocAve modules preserve *all* SharePoint objects with full fidelity, meaning all version histories, securities, and object metadata is always maintained.

- ▲ **DocAve Administrator for SharePoint** is the market's most powerful SharePoint management solution, letting administrators easily view, search, manage, report, and replicate configurations, security, and content of SharePoint objects – individually or in bulk – throughout the entire SharePoint deployment. DocAve Administrator provides precise, global control over securities and configurations, so organizations can ensure access to sensitive information is governed properly.
- ▲ **DocAve Auditor** provides SharePoint administrators with the precision tools to confidently track and record all SharePoint interactions – including usage, searches/queries, and security changes – to proactively satisfy compliance demands. User errors including unintended deletion of sites, unexpected transfers of site ownership, and unforeseen access rights changes can be tracked and identified quickly and with ease, minimizing costly non-compliance exposure. To assist in the preparation of responsive materials, DocAve Auditor delivers comprehensive, customizable reports of any SharePoint activity based on numerous attributes, including Time Viewed/Modified/Deleted/Renamed and workflow origin. To facilitate compliance-

related monitoring routines, DocAve Auditor delivers variable audit control from the portal-level and site-level, down to the user or item, and provides customizable data pruning for effective resource management based upon time-range, locations, users, and action types.

- A DocAve Report Center** leverages audit data to track and graphically represent platform usage, user activity, and vital analytics including disk space usage per user, site activity, and workflow status. Administrators can gain valuable insight into inherited permissions regimes, which terms are being searched for, and analyze trending for production and consumption of content by end users. Organizations cannot optimize what they cannot measure, and DocAve Report Center gives administrators the metrics necessary to make the best business decisions possible.
- A DocAve Vault**, the industry's most powerful and flexible compliance archiving solution for Microsoft SharePoint, retains all SharePoint content – including all metadata and usage reports – in immutable form, enabling easy search for total compliance. Functionality includes advanced and timeline-based searching across archived content for legal discovery, audit, and review. DocAve Compliance Vault gives organizations the opportunity to securely store all records and audit data with ease, meet regulatory policies with confidence, and avoid unnecessary legal exposure.
- A DocAve eDiscovery** enables administrators to search and report upon all SharePoint content for precision legal response, exactly when organizations need it most. DocAve eDiscovery provides the ability to scan and identify responsive materials by both full context search and metadata fields, search both active and archived Microsoft SharePoint content, easily export reports in multiple file formats, as well as implement and manage 'Legal Holds' on discrete SharePoint content and optionally prescribe new permissions (e.g. view-only) to the item and create an immutable, full fidelity copy of the item and place it in secure storage. This capability empowers organizations to proactively meet eDiscovery and compliance obligations with appropriate dexterity and scope.
- A DocAve Content Shield** scans all content prior to upload for MOSS 2007 against fully customizable dictionaries to ensure no non-compliant content ever resides within SharePoint. With both real-time and scheduled content scanning, organizations can define exactly how and when content is vetted. Fully customizable quarantine and email notification options empower administrators to align AvePoint Content Shield's powerful functionality with preferred business processes. With AvePoint Content Shield, organizations can establish a culture of proactive, preventative, automated compliance for their SharePoint environments.

Loss of Business-Critical Information

The key to SharePoint's utility is the platform's unsurpassed ability to enable multiple end-users to work together on a particular task. Fundamental to this collaboration is the capacity to understand the digital object's history and maintain its access-integrity. Working-groups must comprehend the unique history of the object (e.g. the original author or last modifier); be able to access the previous incarnations of an object (such as the previous draft or first version); and organizations must have the ability to limit object-access to only approved end-users. Without these associated attributes, productivity is put at risk as knowledge workers are denied a full understanding of an object's unique history and organizations risk exposing critical information to unauthorized parties. Without a proactive data recovery procedure in place, businesses are vulnerable to unrecoverable loss of vital information required for promoting effective and secure collaboration.

Addressing it with DocAve

Whether it's migration onto SharePoint from a legacy content data source like Documentum eRoom or Lotus Notes, the recovery of deleted or corrupted content residing in SharePoint, or the restoration of archived SharePoint data, the **DocAve Software Platform** provides the industry's most comprehensive full fidelity support, assuring knowledge workers that their critical documents are kept intact – with all associated metadata, access permissions and version histories fully maintained – and allowing for utmost continuity in business operations. With DocAve, business-critical information is always preserved.

Security Risks and Improper Access

End-users share highly sensitive information over SharePoint. Administrators must make them feel safe and secure by properly maintaining all access and modification permissions. SharePoint enables the setting of user permissions at the object level, with site administrators governing permissions at the site collection, site, list, folder and even document level. Improper and untimely permission handling reduces user confidence in a collaborative environment. As SharePoint deployments scale and end-user traffic accelerates, this governance becomes both more critical and – without the appropriate tools – extremely difficult.

Addressing it with DocAve

- ▲ **DocAve Administrator** reduces this risk by providing a unified, centralized solution to diligently monitor and manage securities and access control at every administrative level across multiple farms.
- ▲ **DocAve Vault** retains all SharePoint content – including metadata and usage reports – in immutable form, enabling easy search for total compliance. DocAve Compliance Vault gives organizations the ability to securely store all records and audit data with ease, meet regulatory policies with confidence, and avoid unnecessary legal exposure.
- ▲ **DocAve Antivirus for SharePoint – Powered by Trend Micro**, fully integrated into the Microsoft SharePoint Central Administration interface, provides for efficient centralized antivirus management for an organization's entire deployment. Real-time, event-based scanning ensures that malware is identified and quarantined before it reaches the SQL database, while optional scheduled and incremental scanning both protects pre-existing

content and optimizes system resources. File system-based quarantine protects the deployment, while access to quarantined materials directly through SharePoint interface for review ensures fast and efficient action can be taken on suspected content.

Risk #3: Failed End-User Adoption

SharePoint's market utility is largely derived from the platform's unrivaled ability to enable multiple end-users to collaborate and share digital assets. Leveraging these abilities to the benefit of the organization is vital to capturing new business opportunities and realizing goals. Without reasonable stability, appropriate governance, unfettered accessibility, and fully-integrated content, SharePoint deployments are exposed to the following unnecessary risks:

Instability of the SharePoint Platform Undermines End-User Confidence and Limits Return on Investment

If SharePoint data protection protocols necessitate lengthy restoration processes and critical metadata loss, end-user confidence in the platform as a repository for business-critical data will be depressed. End-users will simply not be willing to wait extended time periods for receipt of accidentally deleted or corrupted content. Similarly, if overall stability of the SharePoint platform is not achieved, knowledge workers will fail to rely on SharePoint to fully collaborate or deposit business-critical content, for fear that platform failure will lead to negative consequence for the individual or group. This end-user reluctance will result in an organization's failure to realize anticipated ROI's related to platform infrastructure, training investments, and IT staff outlays.

Improper Content and Securities Management Underutilizes IT Infrastructure and Human Resources

As an organization's SharePoint environment scales, failure to adequately replicate and synchronize content and configurations among geographically distributed workforces will cause a deceleration of end-user adoption. Not ensuring stable, secure and up-to-date content-access for all end-users disrupts workflow, negatively effects productivity of working groups, and leads to underutilization of valuable technology assets such as IT hardware and software licenses. Failure to provide utilities to adequately handle conflict resolution, deletion-event resolution, and network bandwidth limitations results in inefficient use of labor resources, wasted/underutilized infrastructure, and explicit financial loss.

Productivity Loss Due to Decentralized, Redundant, or Multiple Knowledge Repositories

As SharePoint becomes the central repository for an organization's digital assets, access to data residing in legacy platforms must be readily accessible to prevent productivity loss. End-users must have access to all legacy content via the SharePoint platform in order to leverage SharePoint's singular talents as a collaborative platform and portal. Failure to provide this access results in lower confidence in – and depressed adoption of – the new platform. Additional costs incurred include licensing for the legacy platform(s), and lost productivity resulting from multi-platform straddling. Without a robust tool that provides

appropriate mapping and secure migration of both operative content and associated metadata into the SharePoint platform, human resource costs remain unnecessarily inflated.

Addressing it with DocAve

DocAve Software Platform provides the tools necessary to preempt risks associated with slow or failed end-user adoption. DocAve Backup and Recovery delivers the reliable data protection and steadfast platform stability necessary to instill complete end-user confidence and promote adoption. With granularity of both backups and restoration, knowledge-workers will feel assured they can recall up-to-date, full-fidelity content that has been accidentally deleted or corrupted.

- ▲ **DocAve High Availability** reinforces end-user confidence in the platform as a whole by providing the industry's most potent continuous uptime solution in the event of data-center or platform architecture-loss. Secure in the comfort of a stable, secure environment, knowledge workers will embrace the platform. Utilizing these potent data and platform protection tools, organizations can realize ROI through accelerated end-user adoption and full technology investment utilization.
- ▲ **DocAve Archiver** facilitates end-user adoption by ensuring that platform storage capacity will be efficiently utilized and performance will be optimized. With DocAve Archiver, administrators are able to preserve valuable SQL storage while maintaining seamless knowledge-worker access to all archived materials. This archiving solution instills confidence in end-users by providing a stable platform and unfettered access to content.
- ▲ **DocAve Replicator** is the market's most complete and cost-effective SharePoint replication solution, providing both bi-directional and "one-to-many" synchronization of content, layouts, configurations, and securities within or across any number of SharePoint instances. With the industry's only customizable conflict-resolution tools, robust bandwidth and network traffic controls, and variable off-line replication capabilities, DocAve Replicator lets organizations fully utilize and synchronize their globally-distributed infrastructure.
- ▲ **DocAve Migrator Suite** provides reliable and cost-effective solutions for the transfer of collaborative workspace content and document libraries to SharePoint from legacy platforms such as Lotus Notes, EMC Documentum eRoom, File Shares, Public Folders, Oracle/Stellant, Open Text LiveLink, Vignette, and older versions of SharePoint. With platform-specific mapping tools, each DocAve Migrator solution enables the organized migration of legacy objects – in bulk or granularly – into SharePoint with full fidelity and integrity. Migration scheduling tools allow for data transfer during off-peak hours, while migration progress reports deliver real-time status of all migration jobs. With Website Migrator, organizations can migrate any HTTP/HTTPS web content to MOSS 2007 with precision and ease. DocAve Migrator Suite ensures all the data, information, and knowledge accumulated pre-SharePoint is not lost, assuring knowledge workers they do not have to start from a clean slate.
- ▲ **DocAve Extender** analyzes the file size of all content being uploaded to SharePoint and instantly routes those files that exceed customizable file size triggers to the appropriate storage. Though it never resides within SQL, this content is fully accessible and manageable via SharePoint, where end-users can search for, access, and collaborate upon it just as if it was residing in SharePoint's SQL content database. This optimizes

SharePoint's SQL database resources, improve performance, increase scalability, and vastly improve the user experience.

- DocAve Connector** gives organizations the opportunity to utilize SharePoint as the presentation layer for all of its file share content, thereby avoiding the burdens of migration and freeing up valuable space on SQL Servers. With full index and SharePoint search support, all file share content is seamlessly integrated into the SharePoint platform. With DocAve Connector, organizations can truly unify the delivery of content within legacy data stores, and optimize end-user productivity by exposing network and cloud file share data to all of SharePoint's powerful management and collaboration capabilities.
- DocAve Content Manager** allows seamless migration of SharePoint content from one location to another, within the same or multiple SharePoint farms. It provides customers with the ability to deftly move and reorganize all site collections, sites, and items. Administrators and authorized users can restructure the content and topology of the Microsoft SharePoint environment easily and accurately from a single web-based interface. Easily adaptable by end-users, DocAve Content Manager's centralized browser-based interface (integrated with Active Directory) allows designated users with different roles and permissions to manage content on all SharePoint farms. Its dual frame layout allows for easy selection of content and location in the tree mode. By providing the ability to restructure and optimize hierarchies, end-users can maintain a high level of productivity without wading through decentralized, redundant, and multiple knowledge repositories.

DocAve is the world's most powerful and comprehensive infrastructure management solution for Microsoft SharePoint. With a potent, flexible, and fully-integrated solution-set, DocAve eliminates or drastically mitigates the various risks associated with enterprise-class, multi-farm SharePoint deployments, including disruption to business operations, vulnerability to non-compliance exposure, and inability to instill end-user confidence. With a flexible, fully-distributed modular architecture anchored by a unified, browser-based user interface, DocAve sets the standard for scalable, enterprise-strength SharePoint migration, data protection, storage optimization, administration, compliance, and reporting.

To learn more about DocAve software for SharePoint and to purchase, visit www.avepoint.com



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