Overcoming Data Availability Challenges for the Remote Workforce

The 451 Take

Providing simple and secure data access to the right people at the right time can be a real challenge in the best of circumstances, but the shift to a remote workforce accelerated by the COVID pandemic has every sign of permanently changing the way that people work together for the foreseeable future. While COVID has made an unquestionable and immediate impact on how we work, it has also thrown a spotlight on a number of perpetual issues that have become more pronounced as hybrid cloud technology has become the norm for hosting modern business applications. With hybrid IT, applications and data are no longer limited to the constraints of traditional datacenter infrastructure – but this decentralization of storage to multiple physical locations can lead to excessive data duplication, reduced availability, poor application performance and gaps in data visibility. And this ultimately leads to increased storage costs and data management headaches.
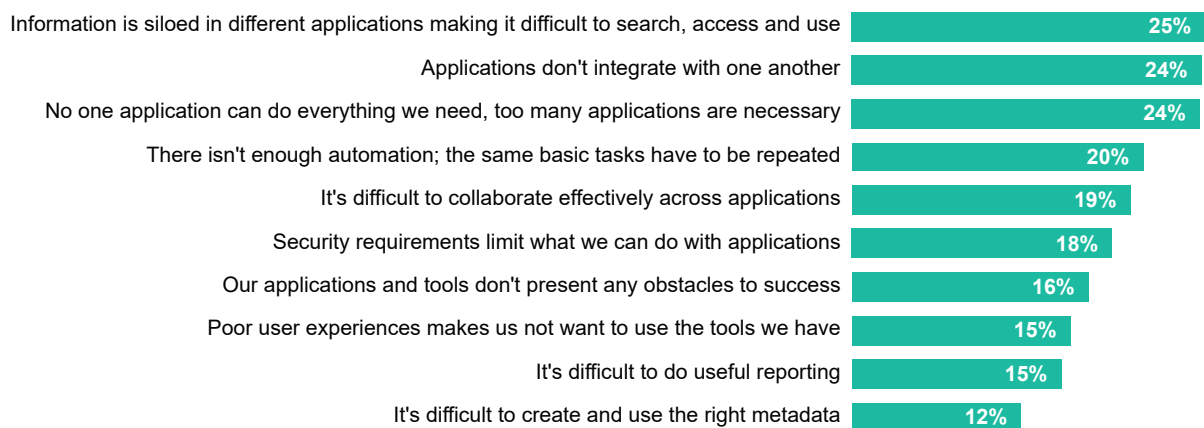
Data growth is nothing new, but what's interesting is the increasing shift toward unstructured data as the most common type of data being stored and leveraged by businesses. Structured database information still plays a key role in enterprise storage, but unstructured file-based data from next-generation business applications is now growing at a much faster rate than ever. And while documents, spreadsheets, logfiles and other ASCII data still account for a large number of sources, perhaps the greatest contributors to current storage growth are common media files such as images, audio and video, with the truly dense content coming from applications in areas such as genomics, weather, engineering and medicine, where individual files can range from gigabytes to terabytes in scale.

The challenges of dealing with data at this new and massive scale go beyond basic issues of capacity, especially for distributed applications that require shared read/write access. Data availability must now span a far greater number of locations and platforms for collaboration purposes, while continuing to provide the relative efficiency, security and management capabilities of on-premises IT services. A 451 Voice of the Enterprise Coronavirus Flash Survey fielded in March 2020 garnered responses from nearly 800 business IT users that illustrated some of the technology-related difficulties that have become commonplace in a work-from-home environment. While the impact of some of these challenges has increased as a result of the worldwide quarantine, many of the issues listed in the figure below have been steadily growing in importance in recent years as more business applications and data become decentralized through hybrid cloud initiatives.

Technology Challenges Impacting Worker Productivity

Source: 451 Voice of the Enterprise: Digital Pulse, Coronavirus Flash Survey March 2020

Q. Thinking about all the different applications and tools your team uses, which of the following are the biggest obstacles to your team's success? Select all that apply. (Sample size = 788)

Challenge	%
Information is siloed in different applications making it difficult to search, access and use	25%
Applications don't integrate with one another	24%
No one application can do everything we need, too many applications are necessary	24%
There isn't enough automation; the same basic tasks have to be repeated	20%
It's difficult to collaborate effectively across applications	19%
Security requirements limit what we can do with applications	18%
Our applications and tools don't present any obstacles to success	16%
Poor user experiences makes us not want to use the tools we have	15%
It's difficult to do useful reporting	15%
It's difficult to create and use the right metadata	12%

Business Impact

Businesses in every vertical market are increasingly dependent on technology to remain productive and competitive, which makes the secure, reliable and responsive availability of business data a primary goal for those managing IT services. Many of these storage-centric challenges have been consistent for more than a decade, and contribute directly to spiraling storage costs and lost productivity.

STORAGE NEEDS are continually growing, yet most organizations' IT budgets aren't increasing at a similar rate.

UNSTRUCTURED DATA is becoming increasingly business-critical, and this data presents the greatest management challenges due to lack of visibility into its contents and provenance.

COMPLIANCE REQUIREMENTS across the industry are setting new expectations for data security, protection and availability that can have serious legal and financial repercussions for failure.

DATA IS KEPT LONGER so that organizations can extract its maximum business value over time.

HYBRID TECHNOLOGY ADOPTION is increasing the decentralization of storage, and sets new expectations for data visibility and management that increasingly span multiple platforms.

The freedom that hybrid cloud offers for hosting both data and workloads must be complemented by an active storage model capable of addressing most or all of these challenges in order to manage storage growth, simplify management, ensure availability and meet the evolving needs of long-term data governance.

Looking Ahead

The effects of COVID-19 are being felt worldwide, and while no one's really sure what the post-pandemic business world will look like, it's highly probable that many of the adjustments made in 2020 will persist going forward. For example, our most recent polling shows that nearly two-thirds of enterprises (63%) believe that the significant increase in remote working will become permanent.

But beyond the pandemic, it's nearly certain that the challenges of data management will continue to evolve and expand as the business value of unstructured data grows – especially as we discover new unstructured data sources and applications through major initiatives such as IoT. We believe that next-generation, intelligent storage systems will need to address future storage management challenges through a combination of data awareness, automation, unified visibility and policy-based governance that can span a wide variety of storage platforms beyond the traditional datacenter.