TAKING CONTROL

OF YOUR DATA

clearwater

What Does it Mean to Have Control of Your Investment Data?

What does it mean to have control of your investment data? Some assume that maintaining control of their data means literally keeping their hands on it. Manually entering, aggregating, reconciling, and sharing their data provides a sense of confidence that they are aware of the state of their data and can answer for it when clients come calling. But there are other factors in this equation.

FOR INSTANCE: are you and your team committing time to high-level data analysis? Do you have the time and data necessary to think about long term strategies? Or are you stuck performing time-consuming and exhausting data entry?

Can you maintain control of your team's processes if and when a key team member leaves your organization? Do you know how they access the data they use and what workarounds or custom-built tools they have patched together to get their work done? Or is vital knowledge siloed with certain individuals?

Can you keep control of the quality and efficiency of your processes if your firm's AUM changes significantly in a short period of time? If asked, could you accommodate a large acquisition or change in investment strategy?

Taking Control

The extent to which a security operations team can take control of their data has changed drastically in the last few decades for one primary reason: technology.

Imagine, not so long ago, operations personnel penciling numerals into a paper ledger. Consider how technology improved that process when spreadsheet software was developed. That software provided exponentially more control over the accuracy of their calculations, their ability to archive data, and the type of analysis they were capable of. In recent decades, sophisticated technology was built specifically for those managing and maintaining investment data in order to solve their challenges and enable professionals to do their jobs with more efficiency and insight than ever before.

That technology has reached a new milestone.

Cloud Computing and Software-as-a-Service

The concept of cloud computing has become hard to avoid. It is the paradigm-shifting kind of innovation that gets people talking in grandiose terms.

The Economist compares cloud computing to a structural change on the scale of the power grid:

> "Electricity was once generated where it was used; now it comes from the grid. So it is with computing power, once the province of mainframes and personal computers, and now moving into the 'cloud'—networks of data centres that use the internet to supply all kinds of services, from email and social networks to data storage and analysis."[1]

But the term "cloud computing" can be a little misleading. It conjures the image of data coming and going from the sky, being held in the air in a shifting, porous mass. In fact, the opposite is true.

Cloud computing marks the shift away from individual organizations maintaining their own data storage centers, often on servers maintained and stored by an in-house IT team. Instead, cloud computing technology enables organizations to store their data remotely in large, heavily secured data warehouses maintained by a third-party vendor (Dropbox, Google Drive, Concur, and Salesforce are all examples of companies who offer cloud computing services). When those vendors offer corresponding solutions—like tools for reconciliation, data analysis, reporting, etc. — in tandem with hosting the data, it is called software-as-a-service (SaaS).[2]

This shift benefits companies in a variety of ways:

> "The gains for customers have been [...] dramatic. Compared with older IT systems, cloud computing is often much cheaper. It adds tremendous flexibility: firms that need more computing capacity no longer have to spend weeks adding new servers and installing software. In the cloud they can get hold of it in minutes. Their applications can be updated continually, rather than just every few months. Individual users can reach their emails, files and photos from any device. And cloud services also tend to be more secure, since providers know better than their customers how to protect their computing systems against hackers."[3]

The move to SaaS software from the installed software of the late twentieth century has reached the level of "sea change" that Bill Gates predicted more than a decade ago.[4] In fact, a recent report from Gartner confirmed that for CIOs across the globe, "SaaS deployments are now mission critical."[5]

Where does investment data management fit into this industry-spanning shift? And in what ways do the benefits of cloud computing increase a securities operations team's real sense of control over their data?
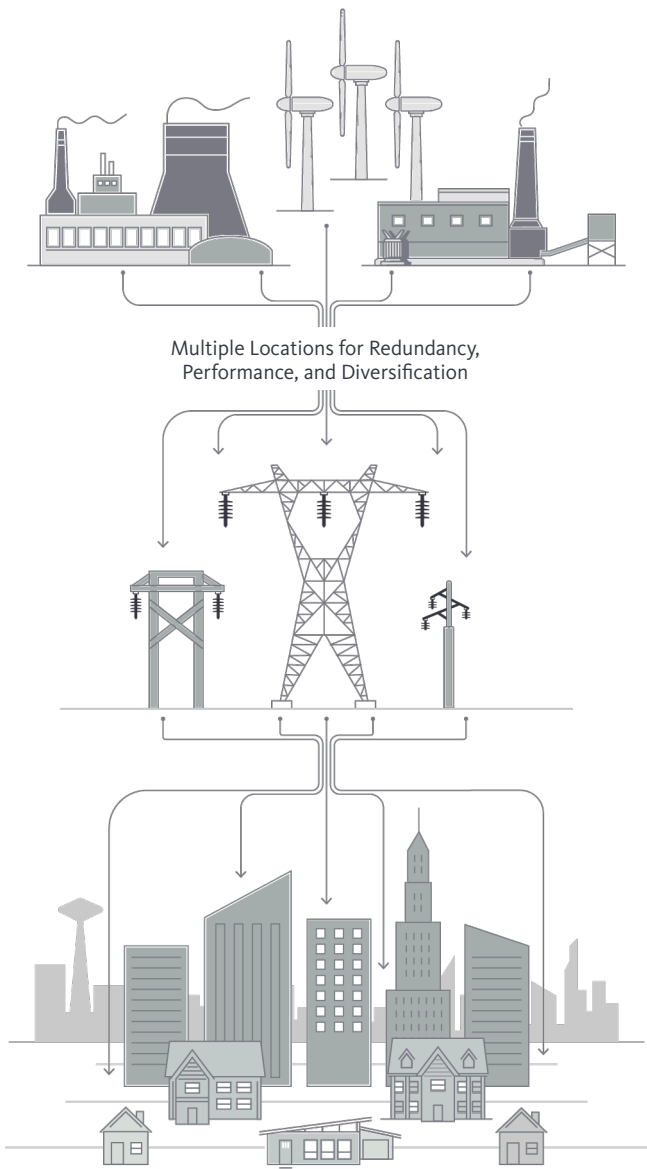
To understand how SaaS increases your control, it is helpful to understand how it is fundamentally different than legacy installed software.

NOTES: **1.** *The Economist*. 2015. "The sky's limit." October 17. **2.** *Gartner*. Accessed January 2, 2017. http://www.gartner.com/it-glossary/software-as-a-service-saas/ **3.** *The Economist*. 2015. "The sky's limit." October 17. **4.** *The Economist*. 2006. "Universal Service?" Apr 22, 70. **5.** *Gartner*. November 25. Accessed January 2, 2017. http://www.gartner.com/newsroom/id/2923217
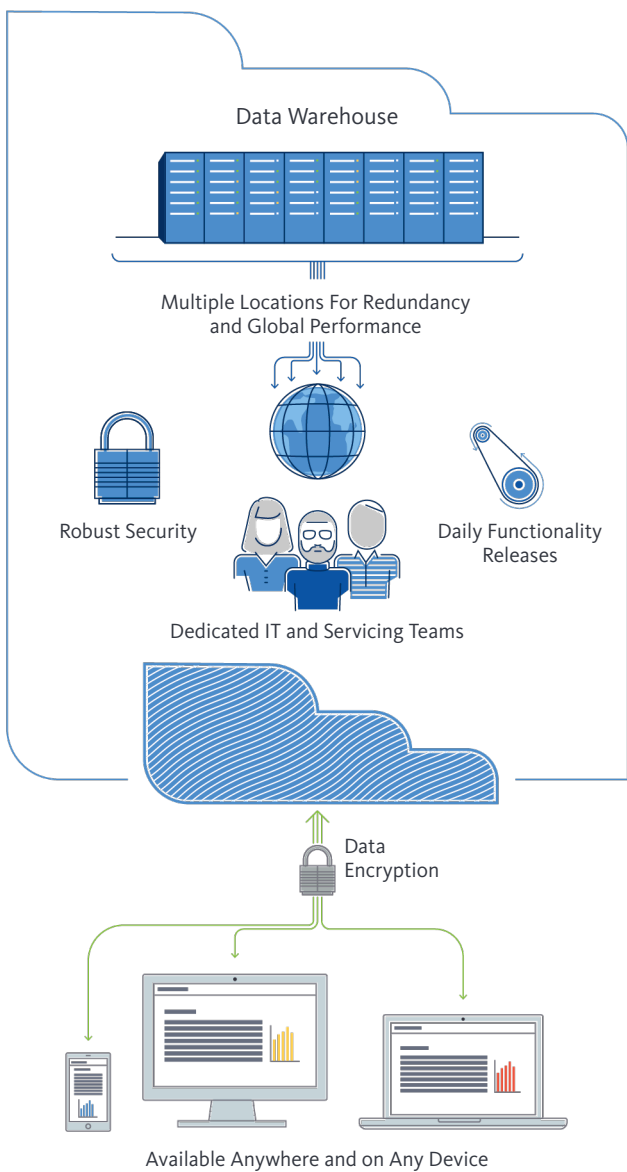
> *"Electricity was once generated where it was used; now it comes from the grid. So it is with computing power…"*
>
> —*The Economist*

THE ELECTRICAL GRID

Multiple Locations for Redundancy,
Performance, and Diversification

SOFTWARE–AS–A–SERVICE

Data Warehouse

Multiple Locations For Redundancy
and Global Performance

Robust Security

Daily Functionality
Releases

Dedicated IT and Servicing Teams

Data
Encryption

Available Anywhere and on Any Device

SaaS Versus Installed Investment Accounting Software

The type of software you rely on to do your daily work has a significant impact on the amount of control you have over your data.

1. Data Accuracy

Data accuracy is the primary benchmark firms use when assessing their control of investment data. Whether you process portfolio information internally or utilize a vendor for reconciliation and validation, accurate information determines the success of every trade decision and downstream reporting process.

The primary cause of data inaccuracies are manual processes. Firms are looking for ways to leverage technology to reduce or eliminate manual work to improve data integrity and increase their level of control over their investment data.

LOCALLY-INSTALLED SOFTWARE

Outdated in-house platforms simply weren't designed to be automated. Most installed solutions were built when investment strategies and their accompanying asset class mixes were simpler, so the complexity of today's portfolio mandates put a huge strain on the organization. This typically means extensive manual data entry of key security master file and portfolio data.

In addition, as regulations change and evolve, many installed systems lag behind the most recent accounting pronouncements, adding to an ever-growing list of workarounds the firm is responsible for managing when processing portfolio data.

SOFTWARE-AS-A-SERVICE

Web-based platforms are built on a foundation of data integration and automation. SaaS solutions process investment information at scale and have large, comprehensive data feeds with custodial banks and security master data providers. This automation allows SaaS vendors to review the quality of their feeds daily and constantly improve their level of automation. As automation increases, so does accuracy, efficiency, and accessibility.

2. Flexible Reporting

Flexibility in your reporting system is as important as data accuracy. Once you have determined that your investment information is correct, it is critical to customize your reporting platform to get the exact portfolio information you need to analyze.

Flexibility takes two forms. First, the reporting system must be robust enough to handle the nuances of every asset class you are invested in. For instance, if your system cannot differentiate between a distribution of income and return of capital on your limited partnership investments, do you truly have control over how that particular data is reported?

Second, the accounting system must be customizable on the front end to deliver meaningful reporting. The interface should be intuitive and easy-to-use, and accommodate customized data points, report manipulation, and team and department standardization via report sharing capabilities.

LOCALLY-INSTALLED SOFTWARE

Traditional installed platforms don't provide users with the flexibility they need, both because of system limitations and reporting deficiencies. Installed platforms are typically updated infrequently. And, the installed systems that exist today were not built as reporting engines, but rather as programs to generate regulatory statements. This means the reporting available is generally inflexible, requiring significant manual adjustments outside of the system to produce an output that is useful for company-wide reporting.

SOFTWARE-AS-A-SERVICE

SaaS systems have two critical advantages regarding flexibility. First, the speed with which SaaS platforms evolve is unmatched by any installed system available, meaning SaaS solutions can provide significantly more upstream customization when processing investment data. Second, web-based platforms are built with usability as a top priority. When it comes to investment reporting, this means investment managers can customize and save reports in seconds that previously would have taken hours to create using a legacy or manual system.
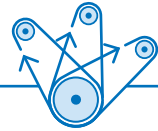
3. Integration of Key Systems

Control also means that data flows well between various investment systems, ensuring there are no breaks or inaccuracies as information moves throughout the organization. Again, automation is key: the easiest way to lose control is through manual feeds or reconciliations between systems. Ideally, firms consolidate systems, choosing increasingly comprehensive platforms with robust reporting capabilities to minimize inter-system data flow. Avoiding siloed platforms in favor of comprehensive solutions is a critical first step to improving integration across the organization.

LOCALLY-INSTALLED SOFTWARE

In-house solutions are difficult to integrate. Typically, installed systems are designed for a single use, meaning that firms who deploy them usually rely on a variety of solutions (often from the same vendor), resulting in significant system-to-system data flow. Most of those connections between systems are internally built and maintained through manual workarounds, opening the door for errors and inaccuracies.

SOFTWARE-AS-A-SERVICE

SaaS firms are experts at creating quality data feeds due to the hundreds they already manage on a daily basis. This helps ensure that information is automated as it moves throughout the company, minimizing opportunities for the loss of accuracy and control. SaaS platforms are also designed to be broad-based systems rather than single-purpose. This means companies can consolidate the number of systems they use and improve overall system integration.

4. Software Support and Training

Without a well-executed service model, you may never get the most out of your data management platform. A responsive team who knows the details of your portfolio is key to getting the most out of your system. No matter how advanced the technology, the value of any system without a dynamic service model will diminish over time.

LOCALLY-INSTALLED SOFTWARE

Most in-house platforms do not include support as part of their baseline fees. The servicing available is typically offered as a help line or queue system with little or no ongoing training. For this reason, just learning to use the system can be expensive. Many firms simply abandon the effort to deploy the platform beyond a narrow scope, and end up with a system that is significantly underutilized.

SOFTWARE-AS-A-SERVICE

SaaS is, by its very definition, built on a model of service and support. For investment data management services, this means you have a dedicated team processing your portfolio data, answering your day-to-day questions, and ensuring smooth close processes. Best-in-class solutions offer unlimited system training and don't charge extra for servicing.

5. Staying at the Cutting Edge

It has never been more important to ensure your reporting platform is constantly evolving. The speed at which new regulations take effect is only increasing. The asset mix strategy companies deploy is growing in complexity at an increasing rate. You simply cannot afford to be out of the loop on the reporting requirements that are impacting the industry or have any ambiguity regarding how those challenges will be overcome by your reporting system. Technological evolution and scalability have been a huge focus for large firms as they consider their ideal system going forward.

LOCALLY-INSTALLED SOFTWARE

Installed platforms are slow to change and difficult to upgrade. Significant updates occur infrequently—sometimes years apart. When they do, they require thorough manual testing by users, resulting in the potential for data inaccuracies and the loss of quality control.

SOFTWARE-AS-A-SERVICE

SaaS solutions provide ever-growing levels of control by releasing functionality and adding value to the system on a consistent basis (typically monthly). Updates to cloud-based software have completely changed the way firms think about the IT expenses and testing protocols needed to upgrade their system. SaaS firms are, at their core, software development companies with robust quality assurance processes built into every line of code that enters their systems. This commitment to consistent development and testing gives companies peace-of-mind that the update process is simple, frequent, and accurate.

Glossary

Cloud Computing
Cloud computing is a metaphor used to describe software and data that is stored on large, remote servers and accessed through an internet web browser.

Data Warehouse
Large, robust, and secure network of servers that software vendors use to deploy their SaaS solution and store user data. SaaS providers maintain multiple data warehouses for redundancy, safety, and global performance.

Locally-Installed Software
Enterprise software that is installed and runs on servers on the premises of the organization that uses it. Maintenance and upkeep is performed by internal IT resources.

Software-as-a-Service (SaaS)
Software built using cloud computing technology. Data is stored on the software provider's robust and secure servers and accessed by users via an internet web browser. Purpose-built business tools and client servicing expertise is provided in tandem with automated data processing.
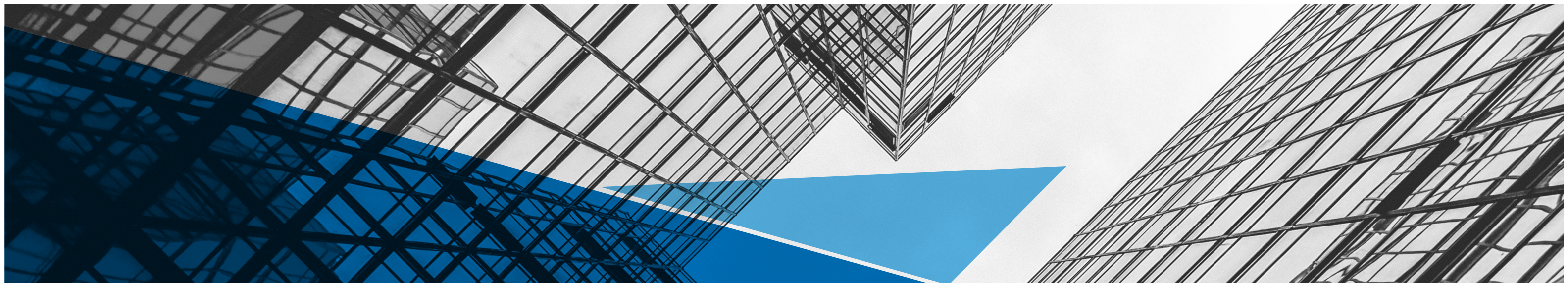
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