



WHITE PAPER: Savvis Markets Infrastructure

IT as a Competitive Weapon: Gain Speed, Agility and Cost Efficiency with Your IT Infrastructure

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Introduction

Over the past several decades, the financial industry has been in a state of seemingly endless transformation, from deregulation to social media adoption to the many forms of electronic trading. Instead of hitting a peak and leveling off, the rapid pace of change seems to be accelerating exponentially as consumer and investor behaviors continue to shift, regulatory bodies exert their influence, competition increases and global markets become more accessible. There's no end in sight to the changes facing the financial services sector, so companies must anticipate and adapt — even reinvent themselves as necessary — to remain firmly ahead of the competitive pack.

While new product and service offerings, global expansion and electronic trading are outward signs of the transformation happening in financial services, IT infrastructure is the internal engine that makes them possible. For many companies, however, that engine is at maximum RPMs. The IT department is facing a constant onslaught of requirements as the complexity and costs of building and maintaining IT infrastructure mount. In this case, simply giving the IT engine more fuel isn't the answer to better performance, greater flexibility and ease of maintenance.

To complicate matters, there is a tendency for financial services companies to coalesce around similar strategies for adapting to electronic trading and other technology-driven changes. It should come as no surprise that similar strategies lead to similar approaches to technology infrastructure, making it exceedingly difficult for any one competitor to differentiate itself.

How can financial services companies attain an ever-agile, scalable and global IT infrastructure that can help set them apart from the competition while supporting current and future needs, whatever they may be? When faced with this question, many IT staff may instinctively opt for “build-it-yourself” strategies. However, there is a limit to the scalability and performance achievable within the four walls of the enterprise. Indeed, build-it-yourself IT is fast becoming a hindrance for financial services companies looking to stay ahead of the curve, for those looking to define the market, not catch up to it.

This whitepaper discusses the current pressures on the IT infrastructure faced by financial services organizations of every kind, including both the buy and sell sides, commercial banks, solution providers, and independent software vendors.

Opening Up the World

Globalization has been a fact of business life for several decades, but for financial markets, new, high-stakes opportunities and challenges continue to emerge and evolve with breath-taking speed. For example, consider cross-border mergers of stock exchanges. This and other expansions of global reach are pushing the envelope for more globalized trading.

As deals like these clear regulatory hurdles, the global trading environment is turning out to be much more open than in the past. Markets are expanding and becoming more accessible, which means financial services companies need to be able to reach new geographies and markets more rapidly than ever before. The complex, global nature of today's markets presents an immense challenge: deploying infrastructure on a worldwide scale. From understanding the market structure in region, hiring staff, to importing or buying equipment, to finding physical space to set up an office or build a data center, the time and expense that goes into moving into new geographies can sink expansion plans before they even get off the ground.

To stay competitive in global markets, financial services companies need speed and flexibility. Rather than building infrastructure from the bottom up in each new location, it is faster and easier to work with a partner that has existing in-country resources and expertise along with a broad range of options leveraging a trading ecosystem.

A Rising Tide of Regulation

Global financial markets are governed by myriad regulatory bodies that serve up a steady stream of rules, directives and changes to existing requirements. In the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act took effect in July 2010, substantially increasing regulation of the financial services industry to help restore public confidence in the financial system and prevent another financial crisis.

In the European Union, financial services companies must abide by the Markets in Financial Instruments Directive. Often called MiFID, the directive went into effect in late 2007 and has already accumulated enough changes to give rise to MiFID II. In growth markets like Asia, markets are regulated by a host of agencies, from the China Securities Regulatory Commission to the Monetary Authority of Singapore, each with its own set of rules and requirements.

While many of these regulatory initiatives have yet to articulate demands on capital markets firms, concerns about the speed and health of the ongoing global economic recovery mean that regulators across the globe will remain squarely focused on financial markets for some time to come.

These regulatory factors can exert further pressure on the IT department. Growing global footprints mean that transactions may be subject to a web of domestic and international regulations. Firms need to understand these risks as they arise in real time to help ensure compliance and manage their business more effectively overall. To meet these constantly changing, complex needs, IT needs to stay flexible and scalable while being mindful of the additional cost and time to deploy that more processes can add to already time-critical transactions and systems.

The Ripple Effect

While some of these pressures may not directly affect all financial services providers, every company can gain insight from the ripple effect that changes like these can have across the industry. For example, the “Flash Crash” of May 6, 2010. This event put a spotlight on the ongoing debate about the fairness of automated / high-frequency trading — not to mention resulted in stiffer regulations — and highlighted just how lucrative these forms of trading can be for many financial services companies. While the Flash Crash had an immediate impact on equities trading, it could be felt across multiple asset classes — such as futures, currencies and commodities — and sent a strong, undeniable message: Where nanoseconds can mean the difference between making or losing millions of dollars, technology makes all the difference.

The revenue potential of high-frequency trading has goaded even traditional institutional trading firms into pressing their IT infrastructures to achieve ever-lower latency and stay competitive. Firms are now jockeying to make trading as fast as possible. Latency is now down to milliseconds, and it’s being pushed to microseconds or even nanoseconds.

Is this mad dash for lower latency justified? Do miniscule time differences that the human brain has a hard time imagining really matter? The answer is an unqualified yes. In fact, one industry analyst firm calculated that if a trading platform is only five milliseconds behind the competition, it could lose at least 1 percent of its flow. That equals \$4 million in revenues per millisecond, while 10 milliseconds of latency — the amount of time it takes a honeybee to flap its wings twice — could result in a 10 percent drop in revenues.¹

¹ <http://www.tabbgroup.com/PublicationDetail.aspx?PublicationID=346>

Competition among firms is driving latency lower, but one of the trading sector's most powerful regulatory agencies, the Securities and Exchange Commission (SEC), is also joining the fray. The SEC's new Market Access Rule "15c3-5" will require big investments in new ultra-low-latency technology.² This rule requires brokers to implement checks on orders that they submit to exchanges on behalf of their customers. The rule was created to limit exposure and risk that might result from erroneous orders, making trades safer but also adding latency and slowing them down. With thousands of orders placed each second, IT infrastructure will need to compensate for the increased delivery time by achieving even higher performance and ultra-low latency.

For Financial Firms, the Cloud Is on the Money

The cloud has been a major topic of discussion over the past few years, but recent research shows that there's more to the cloud than just talk. A poll of financial executives found that investments in cloud-computing services yield the best return on investment compared to any other type of infrastructure investment. In fact, 45 percent of chief information officers and technology executives at financial services firms said that cloud services provide the best ROI.³

Creating Advantage with Your IT Infrastructure

When it comes to the IT infrastructures that support the financial services sector, there's good news and bad news. First the good: CIOs and their staffs have done an incredible job of creating IT infrastructures that let their companies adapt and grow in the face of a constant stream of new pressures, challenges and opportunities. Now, the bad: These infrastructures may be reaching their breaking points.

If IT is the internal engine that drives financial services, then all of the infrastructure required to make it run fast and smoothly may be too big and unruly to house in one location. In IT, bigger isn't always better, so what can help companies develop and sustain competitive advantage? The IT infrastructure needed to support today's financial services industry — as well as the vision of the industry that will emerge tomorrow — requires unprecedented levels of:

- **Agility:** The ability to quickly adjust and scale to take advantage of new opportunities and stay ahead of the competition
- **Speed:** Both the ability to achieve ultra-low latency as well as the speed of deploying new services and capabilities
- **Reliability:** Ensuring availability and business continuity for all of the critical systems relied upon by the company, its clients and its partners

² <http://www.wallstreetandtech.com/blogs/229402489>

³ <http://www.information-management.com/news/Financial-Firms-Say-Cloud-Gives-Best-Bang-for-Buck-10020452-1.html?msite=cloudcomputing>

Creating such an IT infrastructure in house can be extremely costly and complex. Aside from the expense, a build-it-yourself approach also saps IT resources, taking valuable time and energy away from more important tasks, such as developing solutions essential to maintaining competitive advantage.

That's why financial services firms of all kinds — from buy-side to sell-side, liquidity venues to solution providers — are divesting themselves of IT infrastructure worries and focusing on trading and competitive strategy.

Turning to an IT Infrastructure Expert

To divest themselves of the burden of IT infrastructure, financial services companies need to turn to a qualified, proven partner with deep expertise in IT infrastructure specifically related to the financial industry.

However, financial services companies face some particular pitfalls when it comes to selecting a partner. For example, many trading exchanges are investing in on-site infrastructure and offering colocation services and proximity hosting. While this may seem like a sensible idea — particularly from the exchange's point of view — it is clear that IT is generally not the main business of a trading exchange. Working with a partner that makes building and maintaining IT infrastructure its core competency is a better choice.

Beyond IT capabilities, it is also important to work with an infrastructure provider that is market neutral. Third-party partners should facilitate business and make IT systems work; they should have no influence on the priority of transactions or other factors that could influence day-to-day business operations. Given the stakes, working with a trusted partner that is market neutral and offers a 100 percent focus on IT infrastructure is the best way to help ensure success. This concentration on market neutral, best-in-class IT infrastructure is what differentiates service providers like Savvis from trading exchanges or companies that only offer colocation services.

Top Business Objectives for IT Spending

An Aite Group survey in early 2011 showed that the top business objectives for IT spending according to CIOs and their equivalents in capital markets firms worldwide were, in order of priority⁴:

1. Business agility
2. Operational efficiency
3. Compliance
4. Risk management
5. Growth
6. Cost reduction
7. Organizational integration
8. Latency reduction

Is the Cloud Right for Your Business?

For more information about cloud-based services and how they can improve your business, download the Savvis White Paper, "Outsourcing for Innovation: How Cloud Transforms Outsourcing from a Cost-Cutting Measure to Something More Strategic".

http://www.savvis.com/en-US/Info_Center/Documents/CORP-Whitepaper-OutsourcingforInnovations.pdf

⁴ "2011 Capital Markets Technology Spending: Risk, Compliance, and Uncertainty Abound," Aite Group, March 7, 2011

Savvis Offers Purpose-Built Solutions for Financial Services Companies

Financial services companies around the world have turned to Savvis to help them achieve the IT infrastructure they need to compete in today's fast-paced, constantly changing environment. Six of the top 10 Fortune 500 financial services and banking firms — as well as 14 of Fortune's top 20 securities trading firms — rely on Savvis, as do nine of the top 10 Hoovers investment banks. In fact, with its global footprint and its leading IT infrastructure services, Savvis can enable any financial services company to expand its reach anywhere in the world.

Savvis Markets Infrastructure offering for the financial services industry includes:

- **Unmatched Portfolio of IT Infrastructure Solutions:** Broad portfolio of flexibly deployed solutions including: colocation/proximity hosting; managed hosting; cloud computing; web hosting, Software-as-a-Service, storage, security and networking services; scalable grid solutions; and fully managed IT infrastructure
- **Connectivity:** Savvis Application Transport Services (ATS) delivers market data and interconnectivity between data centers, clients, trading partners and execution venues. With bandwidths up to 40 GigE, our low-latency, high performance network lets you scale your connectivity to fit the specific needs of each of your locations
- **Broad Reach Among Liquidity Venues:** Savvis hosts a range of liquidity venues across multiple asset classes, including one of the top three major US equities exchanges' matching engines; five of the nine largest US equity dark pools, representing almost 50 percent of average daily volume; two major FX ECNs with roughly 49 percent of global spot FX matched in Savvis data centers; and a broad range of alternative trading venues and solutions providers
- **Market Data:** Savvis offers ultra-low latency connectivity to more than 200 exchange and liquidity venue feeds across the globe, including: BATS, London Stock Exchange, Singapore Exchange, CME Group, NASDAQ OMX, DirectEdge and NYSE Euronext
- **Third-Party Services:** Our rich ecosystem of solutions providers allow you to expand your capabilities with value-added applications and services including news and information, analytics and consulting
- **Thomson Reuters Elektron Hosting:** A strategic collaboration between Savvis and Thomson Reuters, this global hosting platform provides high-performance liquidity discovery and execution support
- **Neutrality:** As a market-neutral services provider, Savvis focuses on making markets work by providing the same level of excellent service regardless of customer size or location

With Savvis, financial services companies gain a flexible and scalable, on-demand technology platform that can significantly reduce time to market and costs. Instead of focusing on the infrastructure, CIOs and IT management can focus on helping the company remain competitive and keeping pace with the constant change inherent in the industry.

Case Study

The Global Wealth Management division of a world-leading financial management and advisory company serving more than 50 million customers in 150 countries was facing limitations to its organic growth strategy. The Web portals that its 16,000 financial advisors used to market products and services to a global base of private clients were outdated and couldn't scale to feature new offerings. To complicate matters, the firm was in the midst of a merger with another major international financial institution, requiring the renaming and rebranding of every website across the combined enterprise. The firm turned to Savvis to modernize its portals to take advantage of new and emerging Web capabilities while simultaneously updating a significant number of applications, many of them residing in legacy environments and requiring specialized knowledge to operate.

As a result of outsourcing its mission-critical infrastructure to Savvis and allowing Savvis to manage its IT environment, the company was not only able to meet aggressive deployment timelines, but also eliminated day-to-day IT headaches, freeing the firm up to focus on more strategic initiatives. As for the merger, with both institutions being Savvis clients, the new organization reaped substantial advantages, since any IT consolidations, moves, changes, or additions occurring because of the merger could be implemented more quickly and efficiently because of the depth of knowledge Savvis has accrued over the past decade of supporting both firms.

Conclusion

There's a familiar saying that the only constant in life is change, and that is especially true for the financial services sector. In addition to regulatory pressures and globalization, financial services companies now have to contend with lightning-fast competitors that can complete business transactions not measured in weeks or days, but nanoseconds.

IT infrastructure underpins this shifting technology landscape, but cracks are starting to appear in the foundation. To keep up with the pace of innovation, IT staffs at financial services companies need the ability to meet the ever-changing demands of the financial sector.

Creating an infrastructure from scratch may seem tempting — after all, who knows more about the needs of your company than you — but working with a trusted partner like Savvis can accelerate your speed to market and help you realize success faster.



To find out more about Savvis Financial Services visit www.savvis.com/financial or call **1.800.SAVVIS.1**



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