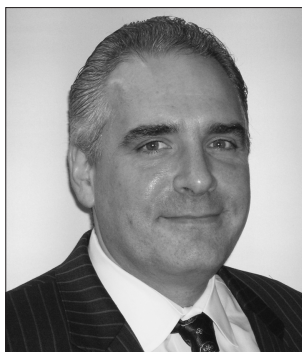


# Optimism & Innovation Lead Enterprise Software

EDWARD MAGUIRE — CREDIT AGRICOLE SECURITIES (USA)



**EDWARD MAGUIRE** is a Senior Analyst at Credit Agricole Securities (USA), where he covers the software industry. Previously he was President of strategic consultancy firm MAGNet Strategies and Director at Merrill Lynch Technology Investment Banking, where he acted as the East Coast Software Coverage Officer and Industry Specialist. From 2000-2007, he was Senior Director at Merrill Lynch Equity Research, and a highly regarded and widely quoted enterprise software analyst. Prior to this, Mr. Maguire was an Equity

Research Associate at CIBC World Markets, he and worked as a Senior Sales Manager for Twinbrook Music, an independent distributor of prerecorded music. Mr. Maguire holds a B.A. in music from Columbia University, and an MBA in finance and management information systems from Rutgers Business School.

## SECTOR — MULTIMEDIA SOFTWARE

(ABV808) TWST: What do you cover within application software?

**Mr. Maguire:** I cover enterprise software. The names I cover include **Microsoft** (MSFT), **Citrix** (CTXS), **Salesforce.com** (CRM), **Red Hat** (RHT), **Symantec** (SYMC), **VeriSign** (VRSN), **Trend Micro** (4704.T), **Teradata** (TDC) and **Syniverse** (SVR). We previously covered **McAfee** and **Sybase**, but they were acquired earlier this year.

**TWST:** You recently published a paper, “20/20 Foresight,” and said there are many reasons for optimism in this sector. Why are you optimistic?

**Mr. Maguire:** I would say the optimism is because I believe there is a lot of opportunity for innovation that will change the way that we live and how it will impact our daily lives. Now would I extrapolate this into a near-term stock call or state this is going to be good for the economy? Not really. But I think what we’re seeing is the confluence of several secular trends that are lowering barriers to innovation and leading to an acceleration of change that certainly, if harnessed the proper way, could have a fundamental impact on the way we live our

lives. By extension, I think the application of information technology,

## Highlights

*Edward Maguire discusses his coverage of the enterprise software space. He highlights the major themes impacting the space, including mobile-enabled devices, transparent IT and simplicity in complex programming. Though some investors have shied away from Microsoft, the analyst urges investors to take a second look at its Azure cloud computing, which can be scaled across platforms. Mr. Maguire also provides an overview of his favorite names and which companies are best positioned to benefit in an environment of accelerated innovation. Companies include: Microsoft Corp. (MSFT); Citrix Systems (CTXS); Salesforce.com (CRM); Red Hat (RHT); Symantec Corporation (SYMC); VeriSign (VRSN); Trend Micro (4704.T); Teradata Corp. (TDC); Syniverse Holdings (SVR); Oracle Corp. (ORCL); International Business Machines Corp. (IBM); Amazon.com (AMZN); Fujitsu Ltd. (6702.T)*

not just entertainment and information management, but also areas such as the hard sciences and in particular some of the uses of super computing capabilities to harness analysis of the human genome, and medical, biotech and nanotech research — this goes a little far afield from pure enterprise software — but when you look at where innovation is going to come, a lot of the seeds are being sown by broad availability of cloud computing, which is facilitated by virtualization technologies and the broad availability of open-source software, software as a service, the rise of ubiquitous connectivity and the availability of sensors that can become recursive control systems with always-on connections to a mobile Internet network. I would say all of these enabling technologies provide the seeds for accelerating innovation.

**TWST:** So innovation is the critical issue?

**Mr. Maguire:** Yes, if you look at what creates value in technology, it boils down to innovation

— very broadly to have either large companies or startups come up with a new idea, test it and be able to bring this new idea to market and have it create value, whether a consumer or enterprise product or service. The ability to create value by solving a problem in a unique or innovative way is really the key to economic growth.

**TWST: What are the major themes in the sector and in the technology right now?**

**Mr. Maguire:** The first meta theme that we've identified is this idea of transparent IT — that over the next decade, we're going to see systems increasingly becoming invisible or embedded into our daily life. There are several dimensions to this trend. One is the idea of how cloud computing creates this almost pervasive resource for data center-level computing, or scalable, extensible and dynamic computing resources available to anybody on demand, whether this be a couple of folks with a credit card looking to test a couple of applications or Web site, to major corporations. The second major enabler for transparent IT is the idea of the pervasive mobile Internet with high-speed networks and an increasing range of mobile-enabled devices that are connected. This goes beyond PCs and smartphones, and includes sensors of all kinds. Another enabling trend is the rise of nontraditional user interfaces going beyond the traditional keyboard and mouse — touch screen and haptic interfaces to intuitive, motion-sensing interfaces. Speech is already a relatively mature type of interface, but the idea that users can interact with technology in far more intuitive ways will make it just far easier and then far less intrusive for average users to access computing. **Microsoft's** Kinect is an example of this for gaming, and we would expect this to extend to corporate computing as well.

#### 1-Year Daily Chart of Amazon.com



Chart provided by [www.BigCharts.com](http://www.BigCharts.com)

The last enabling trend here is a new generation of development tools and standards that make it easier for your nontechnical users to create applications and simplify so much of the complexity in programming, in creating apps, in architecting our applications. Managing complex workflows essentially will get pushed down a level so that business users and consumers will be increasingly empowered to create their own applications with minimal intermediation from the former gatekeepers within IT departments. Those

are really the four key enabling factors that I see driving adoption of transparent IT.

The second meta theme is this idea of intelligent systems, and this certainly is not a new theme. I think there has been this concept of ambient intelligence around for a decade or so, with the idea that we will increasingly see systems that employ analytics,

predictive analytics, to optimize, for instance, advertising or manufacturing quality assurance, or provide responsiveness to users so that you will be able to have self-optimizing feedback loops between physical systems and IT systems. The prime example is the idea of the smart grid or intelligent building management, where you have constant inputs of data in terms of energy usage, energy costs that

can be optimized in an automated fashion. Another dimension of this theme of intelligent systems is that you're seeing an explosion of data of all types and the need to make sense of it. For corporations, media companies and end users, the question is, "How do you optimize that experience?" What we're starting to see recently with **Oracle's** (ORCL) focus on their data warehouse appliances, **IBM's** (IBM) acquisition of **Netezza**, is increasing validation that the analytics are a strategic necessity for large tech vendors. And there is increasing interest in embedding that intelligence into all types of systems, whether it be consumer search, which is probably one of the most obvious uses of predictive analytics. I would use **Amazon** (AMZN) and **Pandora** as other examples of predictive analytics used to prompt user experience. We will see this in areas such as risk management in financial services, and I think increasingly we'll see this intelligence embedded into the physical infrastructure of traffic management and, as we mentioned, smart grids and buildings, and public infrastructure.

The last meta theme I'd highlight is the idea that we are seeing convergence of software, hardware, services and content. Where we've already seen this broader trend over the last decade or so is in the consumer markets, where consumers really just care about what gives them an optimal experience, whether it be entertainment or a functional utility, and you think of the iPod or the iPhone. That offers a combination of optimized software and hardware, as well as availability of a content ecosystem and services, such as Sync Services like MobileMe, around that. What we're seeing is this broader move among software vendors to embrace hardware and content as well as services. Hardware vendors are eternally moving up the stack into software and services, the services vendors are moving into more proprietary software and content, and even content vendors we expect are going to be moving into providing hardware and software. This convergence creates new dynamics of competition across what we would consider traditionally discrete segments of technology. Investors have historically categorized companies into specific sectors, such as hardware, media, software, IT services, and I think we'll start to see more and

***"You're seeing an explosion of data of all types and the need to make sense of it. For corporations, media companies and end users, the question is, 'How do you optimize that experience?'"***

more of a blending of these categories. That may make it more challenging for investors who like to have unique categories of comps, but for the end users ultimately, whether it's a corporation or a consumer that cares only about the experience, they don't necessarily care about all of the pieces that are involved in putting them together.

**TWST: Who will benefit from these technological changes, and who will be left behind?**

**Mr. Maguire:** I think when you look at who is well positioned or who is leading the charge into the next phase of evolution of technology, I would point to **Salesforce.com**, which has led and defined the market for software as a service, but also has been quite forward-thinking in embracing the idea of a platform as a service, which can potentially support a custom development offering with infrastructure and back-end services as a support resource to drive innovation at the edge. They've also been early in adopting the idea of content as a service with the acquisition of **Jigsaw**. **Jigsaw** was a vendor of contact data that maps nicely into their **Salesforce** automation product, but I think what's more significant about it is that it represents a proprietary data store that becomes a source of recurring revenue for the vendor. I think it could be a harbinger of other potential M&A activity or other directions that I would expect application vendors to pursue in the future. Lastly the launch of **Chatter** and the promotion of this social networking approach or paradigm for enterprise users is an important trend that will give rise to a more collaborative project management, the types of project management and communications, and potentially even change the nature of communications within large organizations by flattening their hierarchy and allowing users to communicate across the organization in a much more transparent manner. I would certainly highlight **Salesforce** as one of the leaders in this vision.

***"One of the names that we like that has not gotten a lot of love from investors recently has been Microsoft. While there certainly are parts of their business that have lagged in some of the leading-edge trends, such as smartphones and tablets, I think Microsoft's vision for their Azure cloud computing platform is quite forward-thinking."***

**Microsoft's** vision for their Azure cloud computing platform is quite forward-thinking. It is a "bet-the-company" transition that they are trying to make, from being a provider of products with an ecosystem of partners and systems integrators, and independent software vendors that all depend on and build businesses around **Microsoft's** software products. This move to the Azure platform, which is essentially a cloud operating system, creates an opportunity for small systems integrators and VARs to make the transition to being more service providers themselves, to build new

business models out of their own domain expertise and rely on **Microsoft's** expertise in creating new cloud services that can be scaled not just in **Microsoft's** own infrastructure, but across platforms by partners such as **Fujitsu** (6702.T). Unique to this emerging cloud services provider market, **Microsoft** has a strategy to scale its technology through partners, whereas **Google**, **Salesforce.com**, **Amazon.com**, **Rackspace** and others have been able to build businesses that serve up software as a service or infrastructure as a service or platform as a service from their own proprietary infrastructure. **Microsoft** is really the only one of these vendors that has developed a platform that can empower partners. I'm thinking of **Fujitsu** in particular, but also potentially telecom providers and other systems integrators to build their own clouds.

**TWST: Anybody else you'd like to mention?**

**Mr. Maguire:** **Red Hat** is another name we like a lot. The importance of **Red Hat** is not so much that they've been the primary proponent of Linux, but that they are really at the center of an open-source ecosystem that's proving to be fundamental infrastructure for cloud computing itself. Certainly the Linux operating system and their JBoss application server empower IT departments and developers to deploy applications at a very low cost. But I think more fundamentally, the company has adopted the role of curator of open-source technology with the open-source development process, which inherently generates a far higher quality of code than the proprietary competition. In our "20/20 Foresight" report, we interviewed Michael Tiemann, who is their VP of Public Affairs, and he highlighted how Edward Deming, who initially had been one of the thought leaders behind Japan's rise as a post World War II automotive manufacturing force, and how those principles applied to open source, where you are empowering the people at the edge to have significant input on quality. This has resulted in an ecosystem now where for any developer or startup that wants to launch a new Web site, there are close to a billion lines of open source code that are available at the beginning of this decade, which is pretty astounding to think about. The question becomes, "Why do you need to purchase proprietary software from anyone?" And I think that's certainly a provocative question for every vendor, but I think all tech vendors have to focus on providing value for and around their products and for their partners. **Red Hat** is unique in that they've built a business, it's approaching a billion dollars in run rate based

**1-Year Daily Chart of Microsoft Corp.**



Chart provided by [www.BigCharts.com](http://www.BigCharts.com)

One of the names that we like that has not gotten a lot of love from investors recently has been **Microsoft**. While there certainly are parts of their business that have lagged in some of the leading-edge trends, such as smartphones and tablets, I think **Mi-**

on software that virtually has no switching costs and very low barriers to entry for competition, but the value of their services is such that they continue to grow well ahead of IT spending overall, and they're a key player in the longer-term transition.

**TWST: Tell us about your background. How did you become an enterprise software analyst?**

**Mr. Maguire:** I followed a relatively unusual path to research. I was a music major in college and spent the first part of my career as a professional musician, worked for a music distributor, played and produced records, and realized that being a jazz musician was a fun thing to do in my 20s but would be a tough life. I was ready for a challenge and after I went to business school, fully expecting that I would end up working for one of the big music companies, I ended up working as an associate at CIBC World Markets for the enterprise software analyst. I'd always been interested in technology, but I immersed myself in tech and over last the 10 or 11 years, I've been focused exclusively on software. I worked at Merrill Lynch for close to nine years, first as an equity analyst and then as an investment banking coverage officer before joining CLSA.

What's truly provocative about some of the changes that are occurring in tech more broadly is this convergence of software, hardware, services and content, but the importance of media — how media companies are having to evolve and embrace technology that preserve their own business models, how carriers are having to fight the commoditization of voice and data services to drive greater

value from their customer basis, how you have this continual erosion in commoditization in pricing of hardware. What that creates is a dynamic where the value of technology increasingly migrates to the software itself, where the value of applications and the utility that they bring to the user is ultimately the defining aspect of the entire technology purchasing decision. The applications that people need to run define all of the requirements for the hardware architecture. Certainly, corporate policy and compliance are huge considerations, but if you think about the rise of Internet video and how that's had a disruptive impact on traditional media advertising on one end, and then also on the other side, driving a huge buildout of network infrastructure and requirements for bandwidth, these are fundamentally powerful and empowering changes going forward.

**TWST: Thank you. (LMR)**

*Note: Opinions and recommendations are as of 10/04/10.*

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