



INSIGHT

Dell Acquires EMC, Gains Controlling Stake in VMware

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IDC OPINION

Seldom does a megamerger or acquisition have a ripple effect across the entire ICT market spectrum. But when it does, the impact goes deep — and often leaves indelible marks on the industry. It even inadvertently sets in motion an industrywide consolidation movement, as other suppliers left in the wake of this acquisition scramble to ensure their relevance in the market. Such is the nature of the announcement on October 12, 2015, by Dell Inc. — a leading supplier of enterprise, cloud, and enduser computing solutions — that it has signed a definitive agreement to acquire EMC — a leading supplier of enterprise and cloud solutions — for \$65 billion. As a part of this acquisition, Dell intends to take all of EMC's business under its fold but leave VMware as a publicly traded company, in which it will still own EMC's existing share. Initially, Dell plans to "move" its enterprise business under David Goulden's leadership inside EMC and maintain the end-user computing business as a separate independent business unit. IDC believes that the results of this acquisition are significant and farreaching:

- By combining two already leading IT organizations into a single entity called Dell, the combined entity will become one of the world's two largest IT suppliers with industry leadership positions in several key enterprise and cloud markets. These markets include enduser computing, virtual desktop infrastructure, enterprise servers, storage systems and software (including data protection and availability), networking, converged and software-defined infrastructure, analytics, and security.
- When this acquisition closes sometime in 2016, it will redraw the map of existing partnerships in enterprise and cloud markets. Several key partnerships such as the ones that premerger Dell and EMC respectively have with suppliers like Cisco, Lenovo, Nutanix, and HP could potentially break because of each other's competitive positions. This will likely lead to a new wave of partnerships and acquisitions as suppliers realign to ensure that their revenue streams are maintained.
- It will lead to a dramatic shift in buyer sentiment. On one hand, both EMC and Dell have a common buyer base in the IT buyer. However, the EMC deal gives Dell further entry into highend enterprise datacenter customers it has not reached with its own storage portfolio. Since many customers are looking to simplify the number of technology suppliers they work with, it is also likely that some customers will look to introduce choice elsewhere in their technology procurement decisions. For example, customers going deeper with Dell and EMC in the datacenter may decide to standardize on end-user computing solutions from Lenovo or HP Inc. The combined entity will need to work hard to reinforce its end-to-end value proposition and grow its current installed base. This installed base includes enterprises, SMBs, service

- providers, and hyperscalers to whom Dell specifically caters via its Datacenter Scalable Solutions (DSS) group.
- This acquisition will also lead to the creation of an IT supplier with three huge technology hubs in Austin, Boston, and Silicon Valley. While it is too soon to discuss the fallout of combined synergies, we believe its logical initial cost synergies will be found in back-office functions across both organizations.
- The value of the Pivotal business under the EMC Federation cannot be overlooked. There is a change underway in enterprises. As businesses look to interact with customers in new and meaningful ways, new types of applications, typically custom applications, are being written. These modern applications are built using continuous integration and development methodologies and are built using open source languages, development frameworks, middleware, and infrastructure software and leverage industry standard hardware. For the typical investor or customer, it may not be apparent the strategic role that Pivotal had for EMC and can have for Dell in the future. Recently, Dell purchased StatSoft and got its hands on Statistica to help it create analytics, big data, and predictive modeling capabilities. Pivotal, either standalone or combined with Dell Software, presents an opportunity for Dell to gain access to several new types of customers, the developer, and the operations technology (OT) part of the industrial Internet.
- EMC will benefit from the flexibility of operating as a private entity. This will streamline decision making between investments in EMC core and emerging businesses and put to bed the open activist activity from Elliot Investments, pushing to spin out VMware. It will also give EMC both a computing platform upon which to run its increasingly software-defined storage portfolio and, at a lower price per gigabyte than with its traditional appliance business, a benefit for hyperscale customers that seek to leverage industry standard servers and independently installable software as the building blocks for their storage platforms.
- It is important to note that, while Dell's historic strength in the market has been in midmarket and small enterprise, EMC's strength has been in large enterprise accounts. By acquiring EMC and its largely complementary technology portfolio, Dell also gains significant enterprise selling capabilities via EMC's high-value sales force. Developing these capabilities has been one of Dell's goals as a private organization and the acquisition clearly elevates its ability to sell into complex global 2000 accounts.
- One of key forces driving this acquisition is the growing tendency of enterprise customers to get out of the datacenter business, depending more on managed services and cloud deployments, rather than expanding existing facilities. The combined company still needs to address disconnects between its managed services and cloud service provider partnering strategies, including Virtustream, which EMC recently acquired.

IN THIS INSIGHT

This IDC Insight discusses IDC's perspectives on the October 12, 2015, announcement by Dell – a leading supplier of enterprise, cloud, and end-user computing solutions – that it has signed a definitive agreement to acquire EMC – a leading supplier of enterprise and cloud solutions – for \$65 billion.

SITUATION OVERVIEW

The IT industry has seen its fair share of M&A. While most of the M&A can be categorized as technology "tuck ins," at times as a result of stalled industry growth, or the need to enter new

segments, we do see mega-acquisitions or mergers. In recent times, much of the enterprise supplier base has been reeling from the effects of public cloud providers and hyperscalers growing at an unprecedented scale. It is not the scale itself that is bothering these suppliers but rather the manner in which these providers build their infrastructure. Unlike the enterprise buyers that prefer a fully built out solution delivered in a turnkey fashion, cloud providers and hyperscalers like Amazon, Google, Microsoft, Facebook, Baidu, Alibaba, and Tencent prefer to acquire computing infrastructure from server manufacturers and ODMs, develop their own software, and build their own infrastructure services by combining the two. This means that for suppliers like EMC, Dell, and HP the opportunity to participate in the fastest-growing segment of the market is limited.

At the same time, traditional buyers are undergoing a quiet transformation. As commodity hardware has dropped in price, traditional buyers have warmed up to a future that is software defined and increasingly relies on industry standard hardware for delivering computing and storage services. VMware, which revolutionized computing virtualization, continues to do well in this new era but is now joined by Red Hat, Microsoft, and a slew of new suppliers to deliver new (software-defined infrastructure) solutions like software-defined storage, next-generation (container-based) virtualization, and hyperconverged infrastructure and cloud frameworks like OpenStack. As well, buyers face new challenges around digital transformation. In attempting to leverage the power of IT to a greater extent in their businesses, areas such as information security, mobile access, and DevOps all loom large and are not optional.

All these trends mean that suppliers like EMC and HP need to rethink their respective value propositions (culture, products, go-to-market strategies, etc.), all while keeping their buyer base (i.e., existing revenue streams) intact. This is tough and can lead to varied strategies such as partnerships, acquisitions, mergers, divestitures, and separations, all of which are seen as avenues to viability. In recent times, we have seen deals such as the Symantec-Veritas divestiture, HP separate into end-user computing and enterprise-focused entities, and IBM's multiyear divestiture to become a services and software company differentiating via mobile, security, analytics, and cloud transformation.

However, these deals all dwarf in comparison with the announcement by Dell that it plans to acquire EMC for \$65 billion. As a part of this acquisition, Dell intends to take all of EMC's business under its fold but leave VMware as a publicly traded company – albeit still owning EMC's stake in it. Initially, Dell plans to "move" its enterprise infrastructure business (i.e., server, storage, and networking) under EMC and maintain its end-user computing, software, and services businesses as independent business units. The sections that follow will highlight the impact of the combined firm – known as Dell-EMC throughout this document – on the various markets that IDC tracks.

Infrastructure Software

Software Portfolio (including Pivotal)

Contributing Analyst: Al Gillen

Dell has long held a software portfolio, originally starting with server management tools. More recently, the company has added to its portfolio through notable acquisitions such as SonicWALL for security (2012); Quest Software for management, security, business intelligence, and applications (2012); and KACE for management appliances (2010). More recently, the company acquired Enstratius for cloud management (2013) and StatSoft for business intelligence and predictive analytics (2014). In all, the company has made over 15 direct and indirect acquisitions in the past 5 years and close to 40 software company acquisitions since the late 1990s.

Dell's acquisition of EMC will broaden Dell's software portfolio in a number of ways well beyond EMC's storage software products. VMware, of course, is a software company, as is the fellow EMC Federation entity, Pivotal. Then there is also the EMC RSA business. What makes this acquisition different is that it puts both Dell and VMware into an increasingly competitive position with both companies' key partners.

The assets and strategic value of Pivotal should not be dismissed. Although not a material business in and of itself, Pivotal has been at the intersection of a change that is underway in enterprises today. Increasingly, line-of-business and decentralized application development teams are writing custom applications that allow an organization to interact with customers in new ways. These systems, sometimes referred to as systems of engagement, are often native mobile applications and/or have mobile features. They may have been built to run in the cloud or leverage cloud computing in some aspect. The way the applications are written tends to be to leverage open source tools, languages, and frameworks. These applications tend to make use of industry standard components for the compute and storage layer. These new applications lend themselves to server-based storage approaches. In addition, the collaboration between Pivotal and Dell Services (through their announcement of expanded digital business services) includes cloud application services that leverage Pivotal Cloud Foundry for public and private cloud. So Pivotal gives Dell expertise in this new application ecosystem, and a future Dell provides the infrastructure software and systems.

Security Software

Contributing Analysts: Chris Christensen and Sean Pike

Merging RSA into Dell's security offerings is highly synergistic because there is very little existing market overlap. RSA adds high-growth technologies like antifraud, threat intelligence, compliance management, and multifactor authentication to Dell's data security, managed services, network security, and identity management. Adding the highly dynamic Amit Yoran, RSA's president, to Dell's senior management team could meld these security products under an extended "RSA 2.0" strategy. This would be a very comprehensive competitive offering.

Dell may leverage its security assets to generate liquidity events to offset the acquisition costs associated with EMC and potentially other purchases. As a potential prelude, Dell has expressed an intent to IPO its managed security services business, SecureWorks. We suspect that an RSA IPO combining all Dell's enterprise security products might follow in 12-24 months and would be very well received in the market.

Infrastructure Hardware and Platforms

Computing Hardware/Platforms (Servers)

Contributing Analysts: Matt Eastwood and Al Gillen

Dell has long believed in the value and power of standard x86 infrastructure in the market. This vision has also included the belief that by partnering in the market effectively Dell could leverage the research and development investments made by technology partners and further accelerate the shift toward industry standard computing platforms such as Dell PowerEdge. As Dell has grown its server business, partnerships with companies such as Intel, Microsoft, Red Hat, and VMware have undoubtedly served it well.

In recent years, Dell has maintained a differentiated value proposition by developing an increasingly deep set of its own intellectual property (IP). This IP has focused on software assets along with complementary professional services, which generally fit into Dell's strategic focus areas spanning transforming, connecting, informing, and protecting customer business assets and data. At the same time, Dell has looked at creating technology-optimized solutions for specific market segments including offerings such as VRTX and FX2 as well as density-optimized systems for DSS and DCS clients. While VRTX and FX2 are aimed at midmarket and small sites and DSS and DCS at service providers and hyperscalers, Dell hasn't created computing platforms specifically for large enterprises. The merger with EMC could shift some of the focus toward enterprises as a design point for Dell computing systems.

Storage Systems and Software

Contributing Analysts: Laura DuBois and Ashish Nadkarni

Until recently, EMC was a pure-play storage supplier. Not too long ago, Dell was a pure-play server supplier and had a close OEM partnership with EMC for storage. In fact, at one point, Dell also license manufactured the CLARiiON/VNX line of storage arrays under the Dell brand. All this started changing when Dell acquired EqualLogic. In 2010, Dell unsuccessfully tried to acquire 3PAR Data but eventually acquired Compellent instead after it lost the bidding war to HP. Eventually, Dell and EMC ended their long-standing storage partnership and the former decided to continue expanding its storage footprint with the acquisition of storage suppliers like Exanet, Ocarina, and RDX. The recent acquisition of Quest Software also provided Dell with entry into the data protection market. Dell has largely pursued a "tuck in" strategy, taking its time to integrate the products into Dell's portfolio instead of creating new business units.

Meanwhile, EMC aggressively pursued an acquisitive strategy that allowed it to create new lines of businesses and expand into more storage systems and software markets. EMC's long list of acquisitions (in no particular order) include Avamar Isilon, ScaleIO, DSSD, XtremIO, Data Domain, and Maginatics. These acquisitions not only allowed EMC to consolidate its leadership position in the storage markets but also created more competitive differentiation with Dell.

While EMC was very successful in gaining traction in the enterprise, it was Dell that gained traction in the midmarket – thanks to its loyal server base and sales model. This install base was initially caught in the midst of the Dell-EMC relationship but largely stayed with Dell thanks to its unwavering customer service and support.

Dell's acquisitions of EqualLogic and Compellent, which today are underlying PS and SC series technology, were seminal events for the company in securing its own intellectual property and providing the foundation for implementing its storage vision. Since then, Dell's mission has been to enable customers to leverage the Dell storage they have today, while in parallel delivering new solutions that work within a customer's current environment. This approach not only provides investment protection but also allows the customer to transition, over time at their own pace, to new architectures. Dell has described this as "Integrate and Accelerate." The step of integrating new solutions into existing environments allows for greater economic leverage of existing assets while acceleration has brought forward the best design attributes across the Dell Storage portfolio. Following the EMC deal, Dell will need to rationalize and prioritize product lines to optimize investment dollars and provide maximum value to its customers.

Dell and VMware

Contributing Analyst: Al Gillen

Early indications from the announcement briefing seem to imply that Dell is going to follow EMC's lead of keeping the VMware business unit at arm's length, allowing VMware to continue functioning as a standalone operation with the autonomy to make its own decisions, commitments, relationships, and partnerships. This is both a positive and a negative, depending on which partner you might ask.

Consider Dell's still-crucial partnership with Microsoft. Despite the excitement about hybrid cloud, cloud native applications, and the future for PaaS in cloud, the bills today continue to be paid for by traditional 2nd Platform shipments of servers and software. As such, Dell will continue to receive a crucial revenue stream through its relationship with Microsoft – an instrumental vehicle for financing Dell's transformation. Dell also counts Microsoft as a customer as well, where Dell supplies servers to Microsoft for its Azure cloud. Dell also recently entered into an enterprise sales and support deal for Microsoft's Surface productivity products – a product line that received a major refresh just last week.

On the other hand, Microsoft sees VMware as one of its key 3rd Platform rivals, along with cloud service providers such as Amazon and Google. With Dell to hold the controlling interest in VMware, any VMware behavior that Microsoft sees as damaging may percolate up to the executive suite at Dell.

In particular, there is a strong focus on the part of both EMC (through Pivotal and a larger cloud-native app strategy) and VMware's cloud-native initiative (see *VMware Forges Ahead into Application Support*, IDC #IcUS25580115, April 2015, and *VMworld 2015: Going Deeper and Wider*, IDC #258904, September 2015) around diverting application development to a Linux-based, container-housed, and cloud hosted deployment model. This approach is in direct opposition to a Windows-based deployment model, although the resulting applications could, in theory, be hosted on a Microsoft Azure-based Linux container environment. To the extent that these initiatives gain traction, it puts competitive pressure on Microsoft.

Other partners are likely to be less than thrilled with VMware being in the portfolio, for some of the same reasons as Microsoft. Linux distribution providers Red Hat and SUSE are both likely to be disappointed at the more competitive environment this creates for their products. While Dell has classically offered support to all major infrastructure solutions, including Microsoft, Red Hat, SUSE, and VMware, the perception that VMware has something of an insider position is likely to, at a minimum, be uncomfortable to Dell's longtime partners.

Internally, there is another interesting dynamic: In 2012, Dell bought Wyse Technology, a vendor of thin client devices and related software products. Wyse products offer synergy with the VMware Horizon product portfolio. It's not clear that Dell would transfer the Wyse products over to VMware, but it is likely that bundled selling of a larger portfolio will happen.

One other key question that will need to be answered is how this change will affect VMware's plans for its vCloud Air infrastructure as a service offering. Dell opted out of that business several years ago, while maintaining a specialized industry cloud for medical records/images. Running a public cloud is a capital-intensive business, so VMware will need to assure customers that it has the backing to continue expansions and ongoing upgrades.

The bigger picture analysis can be simply stated as "welcome to the new world order," where partners and competitors are also competitors and partners. We expect that Dell will hold on to VMware

because of the cash that business spins off, to help fund the company's transitions. Dell will need to negotiate these relationships and competitive friction points intelligently and carefully.

FUTURE OUTLOOK

Megamergers and acquisitions are always newsworthy. But their impact is often felt long after the "breaking news" euphoria has died down. It is the job of the suppliers involved in such acquisitions or mergers to paint a rosy picture of the future as a combined entity. But the truth of the matter is that history has shown us otherwise. Mergers and acquisitions have a checkered track record. In almost every case where the M&A has been a failure, the reason for failure can be attributed not to the lack of a vision for the combined entity but rather to the execution of the strategy that goes with that vision.

IDC believes that the foundational vision for Dell remains the same with four guiding principles for both technology innovation and customer engagement:

- Transform: Migrate a customer's technology portfolio to appropriate environments, including cloud, converged datacenter, and software-defined infrastructure and offering advanced facilitation and financing services to smooth the transition.
- Connect: Focus on the "integrated, optimized enterprise" by providing secure access to remote resources including mobility, Internet of Things (IoT), and preexisting cloud-based applications that the enterprise already depends upon.
- **Inform:** Effectively develop and distribute key information management and data analytics operating metrics that customers can use to understand the strength of Dell's business.
- Protect: Provide hardware, software, and services necessary to provide data protection, control, and security across an organization's endpoints and datacenter assets.

As IDC has noted in our coverage of Dell, the company continues to increase the pace at which it is transforming itself. While the above strategy remains the same, Dell's acquisition of EMC reinforces the notion that a private Dell with a broader product and solutions portfolio aims to continue differentiating itself in the market via both product innovation and customer experience.

EMC helps in two strategic areas. First, it expands Dell's technology portfolio in private and public cloud, data management, and security. Second, it provides Dell with greatly expanded selling capabilities in critically important global enterprises — many of which are also facing critical decisions regarding their own digital transformation. Dell must pay particular attention to this asset as it is one that is especially susceptible to disruption in major acquisitions.

What's less clear is what EMC gets from this deal. EMC's products are largely designed for the most demanding high-end enterprise customer. This is not an area where Dell can get EMC access. Therefore, as a function of this deal, Dell needs to have a plan for how it can move EMC's IP into a wider array of offerings, in order to make them attractive to midmarket customers. While this will be difficult to do, it would provide a new, potentially profitable avenue of growth for Dell.

IoT, robotics, augmented reality, and cognitive computing all represent future business opportunities for Dell that may be best served via embedded technologies realized through its well-established OEM business. IDC believes Dell can succeed in these areas, but it will require significant changes in how human capital, financial capital, and technology assets are leveraged across the business. Michael Dell is making a very large strategic bet that EMC and its human capital and technology assets can further his vision for the company.

If this merger is integrated and executed in the marketplace effectively, Dell will become increasingly competent at putting hardware, software, and services offerings together to meet unique customer challenges and to deliver new and better business solutions. Out of the view of public markets, the odds of success increase materially, as short-term expectations for growth can be tempered as long-term strategies are executed. This deal is a game changer, and Dell has put itself in a central role.

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