

# Windows Based Appliances

## The Expanded Citrix & Microsoft Strategic Partnership

Internet Research Group  
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### **About The Internet Research Group**

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The Internet Research Group (IRG) provides market research and market strategy services to product and service vendors. IRG services combine the formidable and unique experience and perspective of the two principals: John Katsaros and Peter Christy, each an experienced industry veteran. The overarching mission of IRG is to help clients make faster and better decisions about product strategy, market entry, and market development. Katsaros and Christy recently published a book on high tech business strategy *Getting It Right the First Time* – Praeger, 2005 [www.gettingitrightthefirsttime.com](http://www.gettingitrightthefirsttime.com).

Over time most events diminish in importance but others end up being more significant than they first seem. We believe this strengthened partnership will be in the second category. There are two key aspects:

1. Together and going forward Microsoft & Citrix present an extremely strong offering to provide branch office and remote user application delivery solutions.
2. Demonstration that network appliances can be built on a Windows Server platform enables software-integrated, merged IT/communications solutions with disruptive economics.

We are at an important inflection point in enterprise IT. The growing value of network-accessed applications drives a need to improve application performance in the remote locations where the majority of users work. At the same time there is pressure to improve IT cost-efficiency and improve the security and robustness of business processes. The need for performance suggests putting more IT technology in branch offices. Cost efficiency and data security suggest consolidating everything back to centralized data centers. These conflicting goals create a perfect environment for innovation and for rethinking old problems in new ways which is exactly what the Citrix and Microsoft partnership provides.

### **Citrix**

Citrix Presentation Server has long dominated the remote (“end-to-end”) application delivery market by providing the means to run client-server applications from a data center server to a standard client on a PC. Although this approach initially seems to be contrary to the basic idea of a “personal” computer, Citrix’ growth (approaching \$1B/year revenues, \$6B market cap) clearly demonstrates that these are valuable solutions to real problems. The recent increased focus on consolidation and data protection make Citrix’ approach look modern and even farsighted. What is perhaps most surprising is that Citrix and Microsoft have evolved a very synergistic business partnership. The Microsoft licenses that Citrix sales drag along have made Citrix Microsoft’s ISV of the Year in 2 of the last 3 years. As Web delivery of applications has grown in importance Citrix has moved to complement the Presentation Server solutions with a broader portfolio of application delivery solutions including the NetScaler, Net6 (Citrix Access Gateway), Teros (Citrix Application Firewall), Reflectent Software (Citrix EdgeSight) and Orbital Data (Citrix WANScaler) acquisitions over the last 21 months. Citrix is clearly the overall end-to-end application delivery market leader and investing to hold onto that position.

### **Microsoft Branch Office Initiative**

Microsoft recognized early on that the growing demand for IT cost efficacy (mistakenly called “consolidation”) created strong motivation to deploy fewer distributed Windows Servers, instead emphasizing centralized servers and communications as an alternative. Since branch office Windows Servers are an important market Microsoft responded to this threat by systematically investing to reduce the administrative and operational costs of a remote server (e.g., working to eliminate all needs for system expertise at remote locations) and working to minimize the cost of storage in remote locations (driven by the cost of backup, replication and recover, not the cost of the disks). These efforts can be seen in the R2 and Network Scaling Feature releases of Windows Server 2003, the reengineering of the Distributed File System, modifications to the file access and main network stacks, and the optimization of file caching in the platform. These features carry forward in Vista and Windows Server Longhorn and reflect a well-reasoned and significantly-invested effort to improve the life-cycle affordability of remote Windows Servers while at the same time creating a framework for high-performance application solutions. These efforts by Microsoft constitute the most comprehensive platform solution for branch office applications.

### **Edge Appliance Systems**

Appliances are purpose-engineered computer systems that are very easy to install and operate. Appliances have been an important product form factor for systems that provide some form of processing on network streams such as caching and WAN acceleration systems. Most appliances to date have been built on specialized real-time operating system platforms, or on variants of UNIX (specifically LINUX). Microsoft has been providing appliance solutions that run on Windows Server (e.g. appliance configurations of the ISA Server). At TechEd this Microsoft SVP Bob Muglia stated Microsoft’s intent to compete with LINUX in platform markets of significant value, calling out edge appliances specifically. Most engineers who develop appliance systems are skeptical of the use of Windows Server for this purpose (most are LINUX engineers) as are many of the network engineers that use these systems. It would be hard for a small appliance vendor to convert to a Windows platform and overcome these market perceptions. Citrix is thus an ideal partner for Microsoft with whom to demonstrate the viability of Windows-based appliance systems. (We believe in fact that there are many very real technical and business advantages to using a Windows platform including access to all the communications adaptation that Microsoft has done as part of the branch office initiative and the development and test economics of using the forthcoming componentized version of Windows Server).

### **The Appeal of Merged Appliances**

The disruptive impact of accelerating the availability of Windows-based appliances is the possibility of running these functions on an existing branch office Windows Server without deploying a second appliance system. Modern commodity server hardware has more than enough power to function as an office server (file and print services, etc.) and provide comprehensive communications processing for the T1-class lines that are typically used. There is a great savings in reducing the number of computer systems in a branch office, in part due to the elimination of unneeded server boxes, but to an even greater degree due to minimized administration complexity and cost. When Windows is demonstrated to be as good or better than LINUX as an appliance platform, a vendor that moves to a Windows platform can offer the product functionality as a software product that runs on Windows Server as well. These box and vendor minimized solutions have compelling economics for enterprises with a larger number of branch office to service.

### **Summary**

The strengthened partnership between Microsoft and Citrix is likely to have a large impact over time. Microsoft and Citrix have proven they can work together to high mutual value. Given what each has done to provide branch office solutions, the combined offering provides a market leading position. The move to Windows Server based appliances by itself may not seem of high strategic importance but the economics of running the same function on an existing Windows Server is.