

Virtual Instruments: Early Incumbents in the VIO Market

By Frank Berry

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Privately held Virtual Instruments is a 2008 spin-out of Finisar Corporation that has established early incumbency in the nascent market for Virtual Infrastructure Optimization (VIO), the next big wave in management of information technology. Founded in 2008, the company is funded by a group of highly experienced, well known IT industry veterans including CEO John Thompson. The former CEO of Symantec Corporation, Mr. Thompson played a key role in the development of two markets that grew to multi-billion dollars in value — distributed systems management and internet applications security. Mr. Thompson brings to Virtual Instruments, world-class leadership experience, familiarity with emerging infrastructure management technology, and a proven track record of successfully exploiting new infrastructure management market opportunities

The New World of Virtual Infrastructure

The discrete physical data center consists of islands of servers, network connections and storage dedicated to specific applications. This discrete infrastructure is rapidly being replaced by virtual infrastructure — physical devices connected by a network, and carved up into “virtual” servers, networks and storage units that IT organizations can provision to applications in the same way your local utilities can automatically deliver more electricity, gas, or water when you need it. The ability to deliver IT resources in this manner is the essence of cloud computing.

Unfortunately for data center managers tasked to consolidate their resources with virtualization technology, the tools used to optimize the reliability, security and performance of their discrete resources don't always work the same way for their new virtual resources. And as John Thompson is fond of saying, “you can't optimize your infrastructure if you can't measure it.”

Products from Virtual Instruments tap deep into physical *and* virtual infrastructure, providing data center managers with vital information needed to proactively optimize their IT cloud. Although early adopters of VIO are large data centers, I believe the technology will follow server virtualization and SANs into the mid-market and beyond, making this technology the next big wave in management of IT infrastructure.



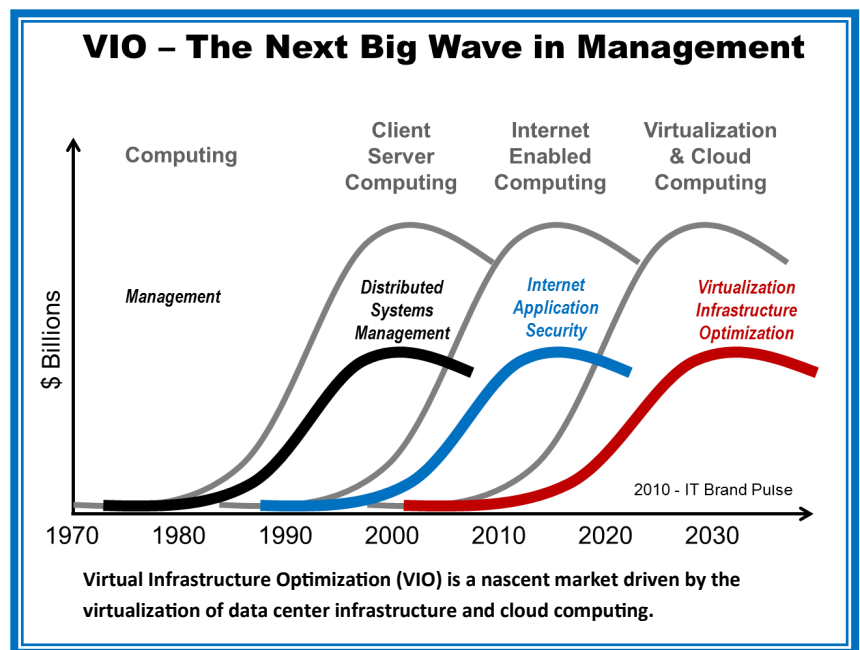
Virtual Instruments is led by CEO John Thompson, former CEO of Symantec Corporation. Mr. Thompson played a key role in the development of the multi-billion dollar markets for distributed systems and security for web-enabled applications.

The Next Big Wave in Management of Data Center Infrastructure

In the early 1980s, client-server architectures emerged from vendors like Sun. In the early 1990s, millions of PC clients, and object oriented programming, transformed the small client-server market into a huge market for distributed systems. As distributed systems scaled up, so did the need for better management tools — and a wave of management products for distributed systems emerged. Today, distributed systems management software is a large part of the approximately \$10 billion market for systems management software.

When the Internet wave came in the late 1990s, Internet-enabled applications accessible from a browser brought the need to combat ever-changing malware and hackers. The billions of internet users created a rich new opportunity for companies, such as Symantec, to provide internet application security—another large part of the overall market for systems management software.

Today, the newest technology wave is virtualization and cloud computing with the cost benefits of infrastructure consolidation driving a tsunami of virtual server, network and virtualized storage deployments. Eventually, virtual infrastructure, including servers and storage, will be pervasive. One result will be VIO emerging as the next billion dollar wave in systems management. VIO includes the optimization of virtual infrastructure performance, availability and utilization.



Total Available Market Growing to \$2.5B in 2014

Virtual Instruments estimates that the Virtual Infrastructure Optimization market opportunity, which includes virtual server, switch, and storage port monitoring, could exceed \$2.5B in 2014. This is derived from reports from research firms Infonetics and the 451Group. The growth in the VIO market is being driven by the “2nd wave” of virtualization. Whereas the 1st wave of virtualization efforts focused on virtualizing test and development environments, file servers and web services, the 2nd wave is all about applying virtualization to production-level business critical applications such as those built on Oracle, DB2, and SAP. These applications are typically very I/O intensive and are just now beginning to be virtualized thanks to VMware’s new vSphere offerings. Ensuring application performance and the Service Level Agreements (SLAs) associated with virtualized business-critical applications will require VIO solutions such as those offered by Virtual Instruments.

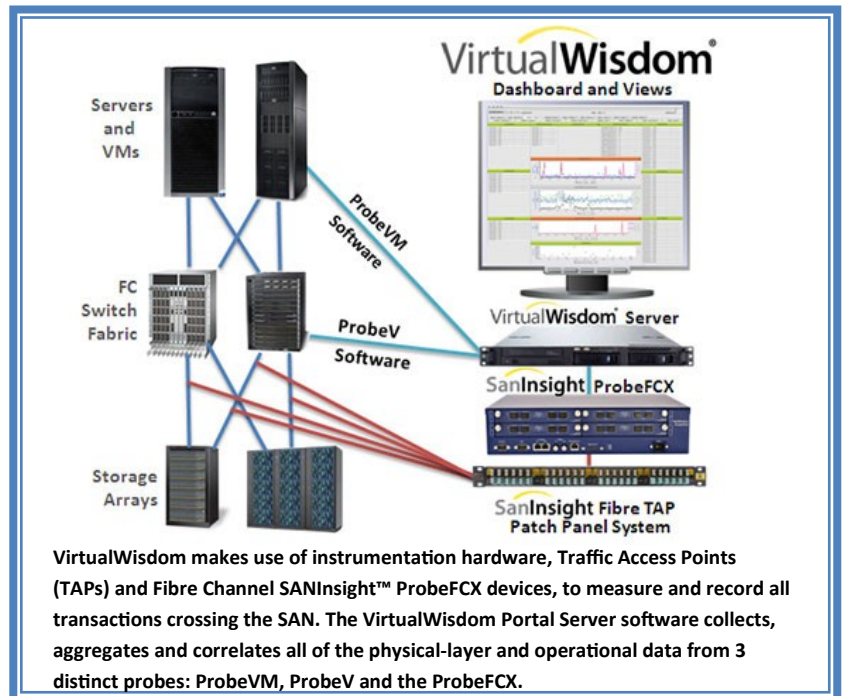
A New Class of Hardware and Software

The [VirtualWisdom](#) instrumentation, measurement, and analysis solution is designed to provide visibility into complex, heterogeneous virtual infrastructure deployed with Fibre Channel, and eventually FCoE, SANs. VirtualWisdom adds SAN I/O intelligence for VMware performance monitoring and troubleshooting, enabling administrators to better balance the deployment of virtual machines based on real-time measurements and feedback of I/O performance. Given that over 70% of VMware deployments rely on FC SANs, VirtualWisdom helps solve a critical infrastructure problem.

By identifying VMware performance bottlenecks in the SAN, VirtualWisdom enables significantly higher virtual infrastructure utilization and helps administrators deliver the virtualization promise of reduced capital and operational costs promised by data center virtualization.

Virtual Instrument's innovative new SANInsight TAP Patch Panel System provides the key to collecting the real-time transaction data from the Fibre Channel SAN. The TAP copies a portion of the light and sends the traffic data to the VI ProbeFCX for real-time I/O analysis.

By unifying TAP and patch functions into a single layer of physical infrastructure, the SANInsight Fibre TAP Patch Panel System significantly reduces the cost and complexity impact of TAP deployment. SANInsight facilitates the broad installation of TAPs into both new and existing data centers.



SANInsight™ Fibre TAP Patch Panel System



The innovative SANInsight Fibre TAP Patch Panel System is the world's first solution to integrate a network TAP function into a fiber-optic patch panel enclosure. The modular TAP Patch Cassette houses the TAPs and provides standard fiber optic adapters for connecting the trunk, patch, and TAP cabling.

Bottom Line

On July 15, Virtual Instruments announced it had more than doubled revenues in its recently finished fiscal 2010 over the similar 2009 period. Short term, considering the rapid pace of virtual infrastructure deployments, I expect healthy growth to become a trend. Long term, by establishing early incumbency in this exciting new market, John Thompson and Virtual Instruments are well positioned to fend off new entrants.

Related Links

[Virtual Instruments Doubles Revenue in the First Half of 2010](#)

[Virtual Instruments Hardware](#)

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About the Author



Frank Berry is founder and senior analyst for IT Brand Pulse. As former vice president of product marketing for the host bus adapter group and vice president of corporate marketing for QLogic, Mr. Berry has over 9 years experience in the development and marketing of host bus adapters. Prior to that Mr. Berry was vice president of worldwide marketing for the automated tape library (ATL) division of Quantum. You can contact Frank at frank.berry@itbrandpulse.com.

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