



## Xen.org Case Study



### Pivot3 delivers Serverless™ Computing on Xen

"The open source Xen® hypervisor gave Pivot3 the flexibility and features to enable serverless computing"

Bill Galloway  
CTO, Founder  
Pivot3

Founded in 2003, Pivot3 brings together the three pivot points in the data center: servers, networking, and storage. For the first time, customers in I/O intensive application environments can integrate applications running in virtual machine images onto a storage platform (Cloudbank™) that has ample compute power to shoulder the load. Serverless Computing is a next-generation approach to server consolidation, integrating both server virtualization and storage virtualization onto the RAIGE™ Storage platform.

### The Challenge: Eliminating standalone application servers by computing on IP SAN

#### KEY BENEFITS

High Availability

Scalability

Open Source Access

Cost Efficiency

Security

The technology drivers that make this possible are advances in x86 CPU performance combined with hypervisor virtualization designed for servers. Pivot3 uses these pivotal server technologies in a new way to re-invent the concept of intelligent storage. In fact, the server node has also become the compute node also, a pivotal and game-changing transformational architecture in the performance, power, complexity and manageability of the system for the High-Definition Storage market.

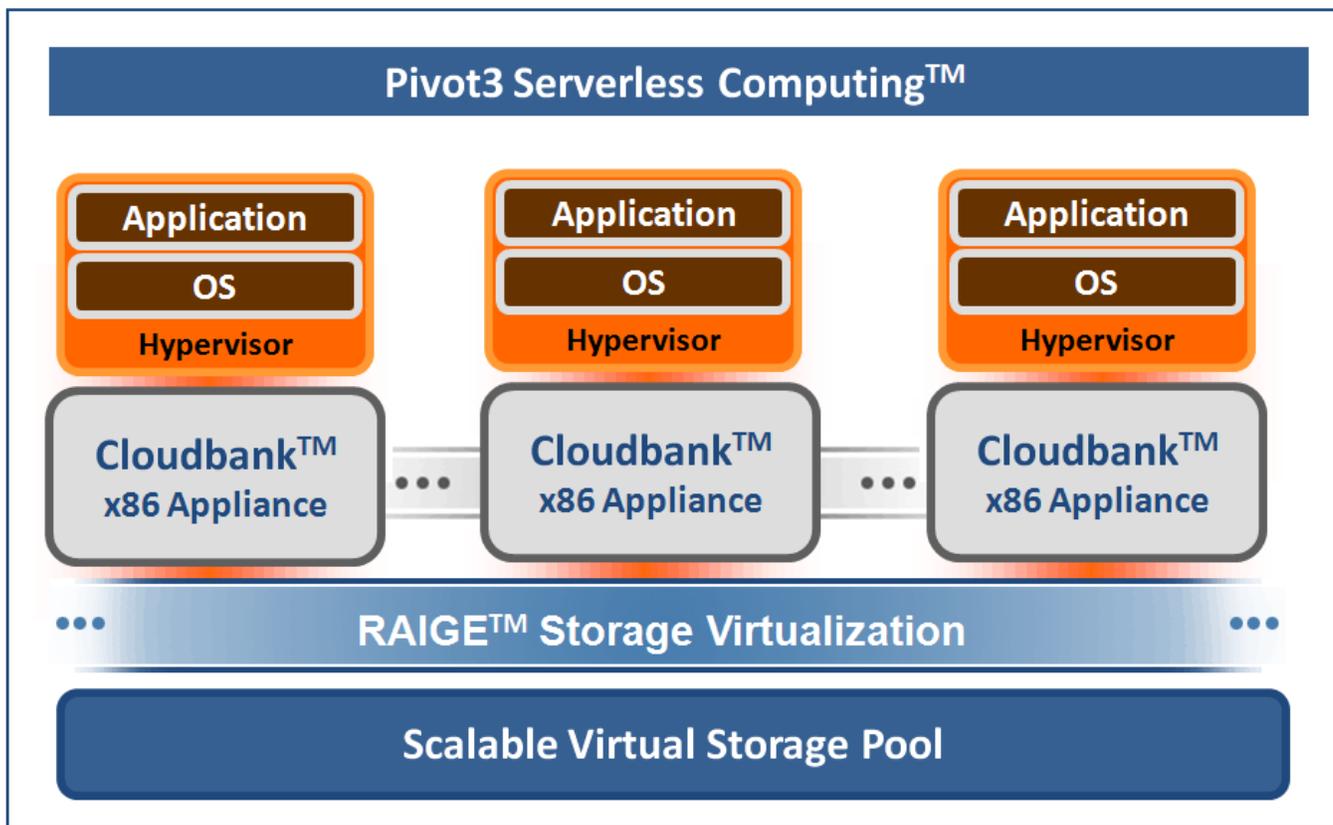
Pivot3's Serverless Computing concept is simply this: Take servers out of the equation by consolidating everything onto the storage platform.

"The approach that we have applies server consolidation to areas that have not been a good fit for server virtualization," says Lee Caswell, Pivot3's chief marketing officer. "Applications that consume a lot of x86 resources and a lot of bandwidth would not typically be candidates for consolidation, but we can take CPU-intensive servers with I/O-intensive applications because our array has so much headroom. It makes sense to encapsulate and virtualize those servers on our array."

## Implementing Open Source Xen Hypervisor

"Pivot3 has taken advantage of the openness and high performance of the Xen hypervisor to deliver a powerful new architecture for storage subsystems," said Ian Pratt, chairman of xen.org.

The integration of storage and server virtualization technologies is at the heart of the patent-pending technology, see figure below.



## LinuxWorld 2008 Product Excellence Award for Best Virtualization Solution

"It is incredibly exciting to see the technical community embrace the Pivot3 Serverless Computing while we are spreading the word about its end-user benefits," said Lee Caswell, a founder and chief marketing officer of Pivot3. "This award confirms the elegant simplicity of combining conventional server virtualization with storage virtualization to eliminate physical servers and pass the power, cooling and cost savings along to the customer."

**About Pivot3.** Pivot3 is the fastest-growing storage company in the high-definition storage market, with its leading-edge High-Definition Video Storage technology being deployed in the gaming, homeland security, public safety, education and transportation markets. The company introduced the innovative RAIGE (RAID Across Gigabit Ethernet) architecture that redefined the use of storage in capacity and bandwidth-intensive environments. For markets such as surveillance and video streaming, Pivot3 has replaced standalone DAS RAID boxes with an IP SAN solution that matches the availability, manageability, performance and cost targets of these customers. For more information, please visit [www.pivot3.com](http://www.pivot3.com) or call (877) 574-8683.

**About Xen.org.** Xen.org is the home of the open source Xen® hypervisor, a fast, secure industry standard code base for operating system virtualization. Founded and led by Ian Pratt the community benefits from the hundreds of contributors from leading hardware, software, and security vendors. Xen.org is guided by the Xen Advisory Board, which is drawn from key contributors to the project. For more information, visit [www.xen.org](http://www.xen.org).