



# Virtual Datacenter

## You've built your business making smart decisions. Here's another.

Beyond all the hype, cloud computing boils down to a strategy businesses have been employing for as long as there have been businesses. That is, over time, identifying areas that are not core to their business, finding experts who can achieve the same or better results cost-effectively, and offloading the tasks in order to reinvest valuable time and talent back into the business.

Cloud computing applies this tried and true practice to IT functions, allowing business and technology leaders a smart and economical alternative when assessing their IT procurement, management and maintenance strategies.

### Moving to the cloud offers dramatic results:

1. Significant reduction in capital expenditures for hardware and software (utility pricing) and virtual elimination of hardware refreshes,
2. Leverage of a pre-built platform to rapidly and securely scale to meet your business needs, and
3. Redirection of IT spending towards projects and processes that contribute to the bottom line (ERP applications, CRM, etc).

As part of CenterBeam's Private Cloud service portfolio, CenterBeam's Virtual Datacenter offers a compelling way for business and technical leaders to buy, consume, and manage their IT.

Similar to the packaging of public utilities such as electricity, CenterBeam's Virtual Datacenter provides convenient, on-demand network access to a shared pool of configurable computing resources (for example, networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

And with more than 11 years of experience, subject matter expertise and wide range of service offerings, CenterBeam is uniquely positioned to help you successfully position IT to meet your specific business requirements.

## Why Choose CenterBeam?

### Experience Matters

While the cloud terminology is new, the technology isn't. Since our founding in 1999, CenterBeam's core business has been providing our customers with Software-as-a-Service (SaaS) solutions. CenterBeam's Hosted Microsoft® Exchange environment was the original multi-tenant deployment of Exchange in the world and the inspiration for hosted collaboration suites and architecture currently used by the majority of managed service providers today.

For us, the cloud is a natural extension of what we already excel in. We've utilized the cloud to deliver our SaaS solutions for years; now we're simply allowing our customers to leverage the enterprise-class infrastructure we already have in place and host your private cloud within CenterBeam's infrastructure. The benefit to you is an evergreen infrastructure managed by a true pioneer in the cloud computing space.



### Business Benefits:

- Utility pricing – subscribe vs. build model
- Flexibility – transition when it makes business sense
- Scalability – on demand IT capacity and services
- Security – complete resource segmentation
- Improved IT performance – LAN speed from anywhere
- Seamless integration – true Single-Sign-On
- Single point of accountability
- Inherent disaster recovery – secure access to your corporate apps and information from anywhere
- Easy on boarding – dedicated project manager
- Evergreen IT– no need to invest in infrastructure hardware / software

### CenterBeam Virtual Datacenter:

- Virtual Applications
- Virtual Private Server
- Database Hosting
- Web Hosting

### Service Options:

- 24x7 Helpdesk – calls answered by live, helpful specialists
- Management and monitoring – geo-redundant NOCs
- Professional Services – deep breadth of capabilities

## Complete Application Ecosystem Management

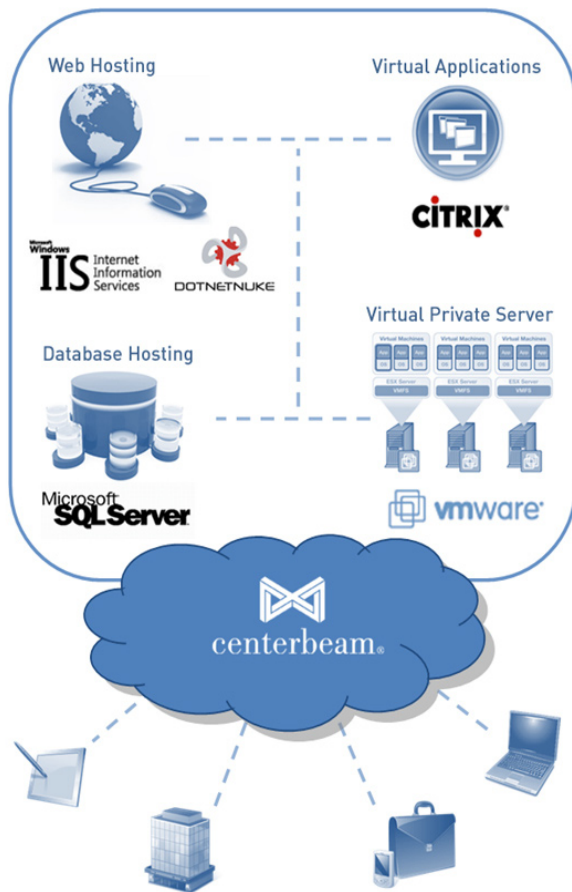


FIG. 1 CenterBeam Virtual Datacenter

Many providers can help you virtualize your hardware, CenterBeam is unique in its ability to take on an entire application ecosystem, from the server to the application. This lowers the cost of applications, and removes the IT maintenance burden that can cripple many organizations. It also allows customers to deliver innovation to their end users much more rapidly.

### Flexibility

With CenterBeam's Virtual Datacenter solution, you can transition when it makes good business sense for your organization, taking advantage of natural inflection points to move specific services or capabilities. CenterBeam removes the "all or nothing barrier," and in fact, we expect most customers to migrate to the cloud in a deliberate and phased approach.

### Scalability

"Tune" your computing resources on demand to align with your business need. CenterBeam's Virtual Datacenter makes it possible to subscribe to just those services you need when you need them.

## Pay As You Go

With CenterBeam's Virtual Datacenter, you don't incur the large capital expenditures associated with building or maintaining an in-house data center. Instead of investing in fixed costs, you can consume IT capacity and services on demand and easily align to your business requirements in a pay-as-you-go model. Usage-based billing ensures that you only pay for what you use – with the ability to scale up when business needs dictate, and turning off when the need evaporates.

## Simplicity

Most cloud providers offer Infrastructure-as-a-Service (IaaS). CenterBeam's Virtual Datacenter offering includes Platform-as-a-Service (PaaS), IaaS and Virtual Applications (DaaS) components which allow you to capitalize on the platform rather than force you to build out each component yourself. With CenterBeam, you not only minimize your server hardware requirements, you offload your infrastructure licensing and management complexities as well.

With CenterBeam, you don't have to buy licenses for Citrix®, VMware®, SQL Server™, Windows IIS™ or manage the underlying virtualization infrastructure, database software, network or load balancing, etc. You simply manage your application and operating systems (OS). CenterBeam offers Server Management, Monitoring and Backup as optional add-on capabilities, which are delivered from our geo-redundant NOCs.

CenterBeam's Virtual Datacenter offering allows you to consume exactly what you need to deliver a true N-tier application solution in the cloud without the need for expertise in anything but the application layer.

## Housing all application tiers in the cloud means you can:

- Increase security
- Eliminate latency
- Boost performance

## Enterprise-Class Security

CenterBeam provides a robust and secure infrastructure – one that has been built from the ground up with security as our priority. Our customers are protected by a Tier 3 Class A data center, with redundant systems from top to bottom, and geographically dispersed NOCs. Your resources are completely segmented from other customers in our cloud, from the application all the way down to the network layer.

CenterBeam maintains SAS-70 (Statement on Auditing Standards, number 70) Type II certification. Annually, CenterBeam’s controls on security procedures, policies and best practices are certified by independent third party auditors. CenterBeam’s controls are based on the COSO framework, which is the same control framework SOX compliance is based on. This enables easy integration into your existing audit procedures.

CenterBeam’s Virtual Datacenter solutions are more secure because we don’t expose Application Programming Interfaces (APIs) publicly. This means access is limited to only authorized individuals, eliminating exposure to hackers.

### Improved IT Performance + Seamless Integration

Our cloud services perform equal to or better than a local area network (LAN) connection because our infrastructure is built on a 1 GB backbone, which is more bandwidth than most midmarket organizations’ internal infrastructures provide.

CenterBeam’s infrastructure allows for a true three or four tier application to live in the cloud and have all tiers work together seamlessly.

### Inherent Disaster Recovery Benefits

With Network Operation Centers (NOCs) in different geographies at multiple redundant sites, any risk is spread physically and therefore reduced dramatically. Using a complete cloud solution, if your business experienced any kind of outage, you simply need to get your employees to an Internet access point and you are back up and running. There is also a disaster recovery option from hot to cold site for your virtual infrastructure.

	Features & Services	CenterBeam Differentiators
Security & Compliance	Dedicated VLANs True Single-Sign-On SAS-70, Type II compliant CISSP certified staff	✓
Control	Shared administration Role-based user permissions Usage controls Track usage by site	✓
Support	24x7 phone support included Level II technicians Live person answers within 90 secs (average) North American native English speakers	✓
Standards	Built on VMware, Citrix, SQL & IIS virtualization Windows OS options Enterprise load balancing	✓
Availability	100% SLA On-demand sign-up & purchasing True cloud storage offering Geo-redundant NOCs <1ms latency between devices in virtual datacenter	✓
Flexibility	Web-based control panel True Single Sign On Configurable servers Burstable CPU Utility pricing plans	✓
Hosted Collaboration w/True Single-Sign On	SharePoint WSS w/dedicated app pool Secure Instant Messaging Hosted Dynamics CRM Hosted Exchange	✓
Virtual Datacenter	Virtual Private Servers vApp Citrix XenApp Database Hosting Full SQL instance Web Hosting IIS & DotNetNuke w/dedicated app pool	✓

FIG. 2 CenterBeam Virtual Datacenter differentiators

### Move At Your Own Pace

CenterBeam’s patented technology not only simplifies the transition process, but it allows you to move one server, one website, database, or virtual application at a time. Integration between services is automatic, so no complicated development is required.

Some practical drivers for moving into the cloud include:

- Hardware End of Life (EOL)
- Collocation or Hosting Contract Renewal
- Facilities Move
- Server or Website Consolidation
- Disaster Recovery Requirements
- Need for High Availability (HA)

### On-Premise “Feel”

CenterBeam’s Patented True Single-Sign-On technology allows you to integrate your existing security models into regardless of where the components reside; on-premise, in a co-location facility or in the cloud. From a user perspective, there’s no noticeable difference.

### Easy On-Boarding

As part of our standard on-boarding process, every implementation with CenterBeam is led by an experienced project manager and customized to meet the particular requirements and culture of your organization.

## Platform Specifications

All CenterBeam's Virtual Datacenter services share the following features:

- 100% infrastructure uptime SLA
- Multi-tiered security
- Complete segmentation from other customers (CenterBeam patented technology)
- True Single-Sign-On technology allows integration of existing security models
- No compromising open application programming interfaces (APIs)
- Easily scales – dynamically add and remove resources
- Same (or better) user experience as an on premise solution
- Includes 24x7 support
- 24x7 Monitoring and Management available

## Solution Specifications

Virtual Applications (vApp)	Virtual Private Server (VPS)	Database Hosting	Web Hosting
<p>Citrix's clustering, high availability, compression and speed algorithms make it possible to deliver a virtual application experience with equal or improved performance to a thick client installation.</p> <p>Our True Single-Sign-On technology allows you to integrate your existing security models into your Virtual Applications – no need to manage multiple security models.</p> <p><b>vApp Specifications</b></p> <ul style="list-style-type: none"> <li>• Powered by Citrix® XenApp™</li> <li>• Portability – “stream” applications from any device, anywhere</li> <li>• Improves performance – better than installed speed</li> <li>• Transforms applications that haven't traditionally been SaaS</li> <li>• Extends the life of your PC investment – because apps aren't running on the PC, this solution breathes life into old laptops</li> </ul>	<p>CenterBeam's highly available and secure Virtual Private Servers (VPS) allow you to run any kind of server on our best-of-breed infrastructure. Eliminate the need for hardware, servers, and virtualization, as well as the headaches associated with managing, maintaining and refreshing them.</p> <p><b>VPS Specifications</b></p> <ul style="list-style-type: none"> <li>• VMware® vSphere™ infrastructure</li> <li>• Operating systems compatibility: Windows, Unix, Linus, Ubuntu or any OS VMware supports</li> <li>• Built on High-Availability fail-over clusters, already load-balanced by default</li> <li>• Clustering / High Availability / Vmotion available</li> <li>• Microsoft® SQL reporting</li> <li>• SSH and/or RDP connectivity</li> <li>• Integration between services is automatic</li> <li>• Enterprise virus, malware and security available with management option</li> </ul>	<p>CenterBeam's highly available and secure hosted databases provide you with best-of-breed capabilities and tools to assure your databases are running smoothly and consistently.</p> <p>Built on a multi-tiered, enterprise-class infrastructure, you can be assured your databases will be secure, available, and able to handle the load you generate.</p> <p><b>DB Hosting Specifications</b></p> <ul style="list-style-type: none"> <li>• Powered by Microsoft® SQL Server</li> <li>• Up to ten databases included in each SQL Server Instance</li> <li>• SQL Server Management Studio</li> <li>• Built on High-Availability fail-over clusters</li> <li>• Includes Analysis Services, Integration Services, Reporting Services, Policy Based Management, Replication Capabilities</li> <li>• Includes enterprise virus, malware and security</li> <li>• DBA services available</li> <li>• Clustering, high availability available</li> </ul>	<p>CenterBeam's Private Cloud Web Hosting eliminates your need to own, operate, monitor, manage, or maintain any hardware, software or licensing related to your web sites.</p> <p>Your web developers create and manage your content using industry standard tools to make updates.</p> <p><b>Web Hosting Specifications</b></p> <ul style="list-style-type: none"> <li>• Powered by Microsoft® IIS</li> <li>• Frameworks available: .NET 3.5 SP1, .NET 3.0, and .NET 2.0. PHP 5</li> <li>• ASP.NET and PHP support</li> <li>• Built on high availability web farms</li> <li>• SSL certificates available</li> <li>• Additional IPs available</li> <li>• Web-based management portal</li> <li>• Developers have access to industry standard tools</li> <li>• DotNetNuke® Professional CMS included</li> <li>• User friendly, web based portal to manage sites</li> <li>• Includes enterprise virus, malware and security</li> <li>• DNS Hosting (optional)</li> </ul>

## CenterBeam Service Portfolio

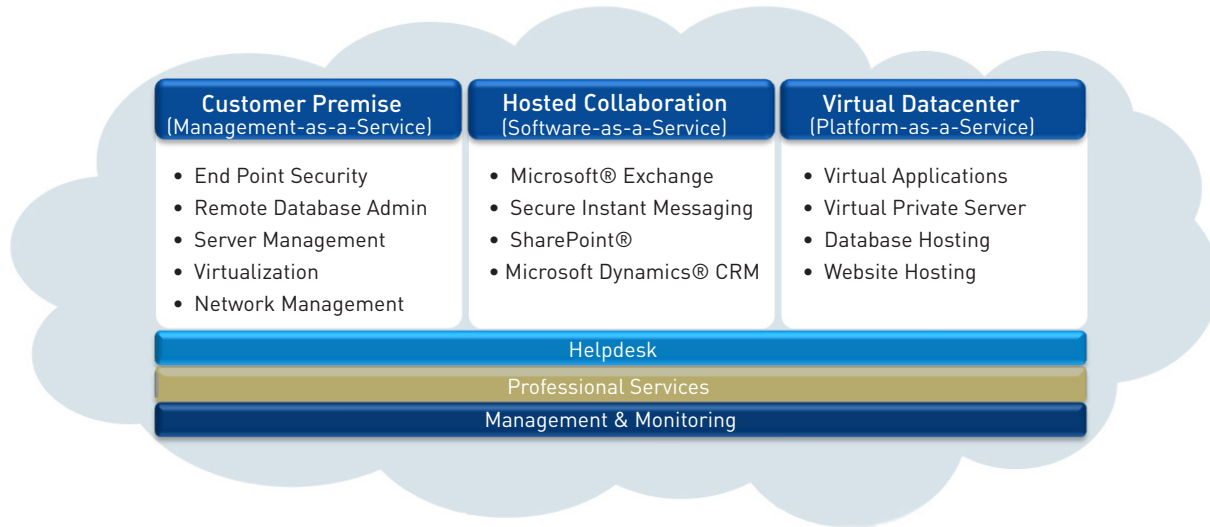


FIG. 3 CenterBeam offers a full suite of services to extend your IT capabilities, no matter where your infrastructure resides.

## Contact Us

For more than eleven years, CenterBeam's business model has been clear. Our goal is twofold: to simplify IT for our customers, so they don't lose any cycles on day to day IT operations. And to do so in a way that delivers a high level of satisfaction throughout all levels of the organization.

CenterBeam offers your organization single vendor accountability while boosting your IT performance and security. We're here to fill any IT gaps no matter where the bits and pieces of your infrastructure reside, including a 24x7 Monitoring & Management option to further alleviate your IT burden.

And now, with CenterBeam's Virtual Datacenter solutions, we make it easy for you to move to the cloud. With CenterBeam able to manage any or all tiers of your platform (thick client, web frontend, database backend, and application), you can focus on your applications, not infrastructure. Visit us at [www.centerbeam.com/VirtualDatacenter](http://www.centerbeam.com/VirtualDatacenter).



CenterBeam, Inc.  
30 Rio Robles Drive  
San Jose, CA 95134  
[www.centerbeam.com](http://www.centerbeam.com)  
877-775-7600 Tel  
408-750-0555 Fax