

Dynamic Data Center Tool Kit enables Managed Hosting and On-demand Virtualized infrastructure services based on System Center and Windows Server 2008/Hyper-V.



MaximumASP listens to customer needs and adapts to the evolving market. Delivers on-demand scalability and high availability at an affordable price.

Overview

Country or Region: United States
Industry: Hosting Services Provider

Situation

Cater to customer demand for lower overall costs, instant scalability, and high availability via virtual server services

Solution

By leveraging the Microsoft Dynamic Data Center Tool Kit, MaximumASP provides on-demand scalability and high availability which helps organizations easily, economically, and rapidly meet the dynamic requirements of their businesses

Benefits

Customers realize real benefits at a low price point without compromising on quality of service:

- High Availability Clustering
- Scalability
- Intelligent Monitoring
- Recurrent Backups
- Superior Support

“As the need to reduce costs, simplify management, and establish sustainable computing practices continues to grow, we will continue to provide only the best growth path options for our customers. In the case of MaxV, developers can tap into our resources to maximize their coding efficiency and reduce the cost of development by building on existing, extensible components without having to build anything from scratch.”

- **Wade Lewis, Managing Partner of MaximumASP**

A Louisville, Kentucky based hosting partner, MaximumASP provides exclusively Windows® based web hosting and managed IT services to over 2,500 customers in more than 60 countries, with over 50,000 domains with 2,700 servers. The company provides comprehensive network protection, automated server patching, and advanced server monitoring to customers. MaximumASP’s customers are primarily web developers, including ISV’s and SMB’s looking to outsource application hosting. Due to its expertise in Microsoft technologies, MaximumASP focuses on Microsoft’s developer ecosystem for their hosting needs. MaximumASP takes pride in working closely with customers on a regular basis and routinely soliciting their feedback.

"We're able to provide the economy, scalability, and high availability of the cloud, while providing the compatibility, manageability, and support users expect. MaxV, by leveraging Windows Server and System Center, is democratizing the cloud."

Ryan Jones,
Product Manager
MaximumASP

Situation

Background

MaximumASP's key value proposition is depth of expertise with Microsoft technologies and tight alignment with Microsoft partners. MaximumASP was first to offer IIS 7 and SQL 2008 betas in a hosted environment; and MaxV is the first line of Microsoft-based virtualized hosting services featuring dynamic IT on demand.

Customers like the promise of cloud and they want more

After internally enabling Hyper-V based virtualization in their environment, MaximumASP surveyed its customers to determine what features customers sought in a next generation platform – especially in the context of cloud based services.

Some customers perceived cloud based services would lower operational costs because of the 'on demand' model. The ability to change processor, memory, and storage allocations enticed clients. In other words, instant scalability was appealing. Customers also looked to the cloud for high availability solutions.

As MaximumASP reviewed more responses, they were surprised to see that the customers raised numerous questions and concerns in their responses regarding cloud computing, including:

- Is the cloud compatible with existing in-house and/or at third-party data centers?
- Are applications re-architected prior to cloud deployment?
- How are applications managed once in the cloud?
- Is the cloud compliant with standards such as PCI, US-EU Safe Harbor, HIPAA, SOX, etc?
- Does the cloud provide a "hand to hold" when assistance is needed?

Responses showed that customers were interested in capabilities of cloud based services, but were not willing to compromise on the continuity, flexibility, support, trust, control and compliance MaximumASP brings to its customers. In short, clients wanted the benefits of the cloud, while still maintaining a trusted relationship with their hosting partner.

With this data in hand, MaximumASP sought to build on its core strengths to meet customers' needs.

Solution

A timely initiative from Microsoft: Dynamic Data Center Tool Kit

Microsoft's Dynamic Data Center Tool Kit helps hosting providers build Managed Hosting services and On-demand Virtualized Infrastructure powered by System Center and Windows Server 2008/Hyper-V/IIS. The tool kit provides a set of guidelines and building blocks in the form of documents, sample code, and a prototype customer portal.

MaximumASP worked closely with Microsoft to develop the tool kit, and ultimately created an agile infrastructure based on Windows Server 2008 and System Center known as MaxV.

With MaxV, MaximumASP is able to deploy on-demand, highly available virtual servers, with simplified visibility into the Hyper-V, cluster, networking, and storage infrastructure. MaxV customers have a self-service portal that provides a range of capabilities, including customer profile and billing management, performance data warehousing, infrastructure health monitoring, and patch management.

To validate the functionality provided by the Dynamic Data Center Tool Kit, MaximumASP approached two MaxV early adopters.

“For Sullivan University, MaxV is a choice based on sound economics. It is a ‘pay as we grow’ program, which helps us conserve capital expenditure. In the current - economic conditions, this is important for any business. MaximumASP is offering a timely service to their customers. “

Michael Johnson
Executive Director of e-
Learning,
Sullivan University

Sullivan University approached MaximumASP, and MaxV was proposed as a solution for Sullivan's LMS

Growth challenge at Sullivan University

Located in Louisville, Kentucky, Sullivan University is a pioneer in higher education e-learning. There are currently 4000 e-learning students who are registered for over 400 online courses. Two critical components of the e-learning experience are the Learning Management System (LMS) and the streaming server. The streaming server is used to manage and stream the audio, video, and graphic assets over the internet. The breadth of content and number of streams continues to increase by several folds, since online enrollment is growing much faster than traditional on-campus enrollment. Sullivan University's internal IT and business groups were asked to prepare for this challenges presented by this trend.

The university evaluated capital expenditure for hardware, software and services required to support this growth, and found the numbers were exorbitantly high. Apart from that, it was difficult to plan for the growth during volatile times. Onsite hosting would be both a risky and heavy burden on the university's budget.

and streaming server needs. Sullivan agreed and used MaxV to host their LMS test server and streaming media systems. The test environment was greatly appreciated by the LMS administrators and faculty. After the positive response, Sullivan University's IT performed stress tests with expected load scenarios in MaxV environment. After load testing exceeded their expectations, Sullivan University decided to leverage MaxV for their e-learning initiatives.

“Technology has really caught up to what we always wished. The ability to add or remove resources as per my needs and the cost benefits it provides helps me to pass these savings to my customers who really need it. Isolation of systems with various test and production environments saves us up to 40% of time in managing various environments. Our customer latency has gone from 3 days of setting up to about 30 minutes.”

Jonathan Marbutt
MCSD, MCAD, MCDBA
WayCool Software

A Technologist's Wish Came True

Jonathan Marbutt is a busy man as the chief technologist at WayCool Software in Alabama, US. He wears several hats while designing, developing, deploying and managing the software solutions to support a growing list of several hundred customers.

WayCool Software's mission is to provide intuitive, affordable software solutions to address the entire operations of nonprofit organizations. WayCool Software addresses customer needs through adoption of emerging technologies, and was approached by MaximumASP as an early adopter of MaxV.

WayCool Software faces several challenges and constraints. Customers are looking for cost effective solutions that provide real value, as constrained by nonprofit budgets. Extensibility requirements require concurrent management of multiple versions. Maintaining multiple testing and production environments for over 200 customers is a daunting requirement. This makes it a complex business to manage – from development to testing, production, and finally support. WayCool Software's online hosted software also carries sensitive personal data. Therefore, it is critical to be compliant with several standards, including HIPAA. Overall, it is imperative for WayCool Software to keep its total operations costs low to pass the savings on to customers.

For MaximumASP, it was clear that WayCool software's needs centered on isolation of customer data, manageability, conserving resources, and lowering operating costs. Following an introductory briefing session, Jonathan immediately wanted to leverage the MaxV environment for his business. He used it first to setup isolated test environments for his application. The effortless process of provisioning an entire server, the ability to seamlessly upgrade that server, and the ease of adding an additional server without involving MaximumASP support

amazed Jonathan. After using MaxV, Jonathan says, “Isolation of systems with various test and production environments saves us 40% of time in managing various environments. Our customer turnaround time has gone from 3 days of setting up to about 30 minutes.”

The above testimonials illustrate the business value of MaxV from MaximumASP. They prove the power of the foundations MaxV is built upon - Windows Server 2008 and System Center.

“High-availability services are another revenue opportunity for us and provide a huge benefit to our customers. Instead of customers having to purchase two servers and license two operating systems, we can include high availability in the price of our standard offering.”

Dominic Foster,
Chief Technology Officer,
MaximumASP

Benefits

High Availability Clustering

Highly available infrastructure helps keep customers’ businesses running during both planned and unplanned downtimes. For most customers, high availability (HA) implies deploying redundant, costly, underutilized servers. Multiple hardware boxes take up more capital and resources to manage.

With Hyper-V server virtualization in Windows Server2008, customers leverage redundant virtual servers instead of extraneous physical boxes, thus eliminating the need to deploy more expensive physical servers for redundancy.

With Windows Server 2008 and System Center based infrastructure in place, MaximumASP can now use clustering to improve uptime for all customers, not just large customers. MaximumASP CTO Dominic Foster says, “High-availability services are another revenue opportunity for us and provide a huge benefit to our customers. Instead of customers having to purchase two servers and license two operating systems, we can include high availability in the price of our standard offering. This will help us grow our business and encourage existing customers to upgrade their services”.

There are clear benefits for MaximumASP’s internal operations as well. According to Foster, “If a hardware node in a cluster fails, the virtual machine running that customer’s application will automatically come up on another node. If you just pull the power plug of a server, all virtual machines will automatically restart to another server without user intervention. Hyper-V based virtual servers can be copied from one physical machine to another without modifications or hardware alterations.”

Horizontal and Vertical Scalability

Many customers struggle with capacity planning. Overbuying capacity locks up capital, while unexpected growth and lack of capacity impacts revenues.

Utilizing the Dynamic Data Center Tool Kit, MaximumASP enables customers to add a new server in less than 15 minutes through a self-service web based portal, giving them near instant horizontal scalability. Previously it used to take 24 hours or more and the customer had to call and provision a server when available. Customers can also add processor, memory and storage resources to existing servers, which gives them immediate vertical scalability.

In effect, MaxV eliminates the risk from capacity planning.

Intelligent Monitoring Leads to Superior Customer Experience

The MaximumASP operations and support team has tools and dashboards which provide end-to-end visibility of MaxV infrastructure. Every customer has access to a consolidated view of their infrastructure through a secure customer portal.

Customers are empowered through the ability to view the status of the virtual infrastructure.

Recurrent Backups and Business Continuity

Everyone realizes the need for backups after disaster strikes. Recurrent backups are provided by MaximumASP's MaxV services. Customers can drill into the backed up data and can restore files. This is invaluable to ISV and SMB customers, as developers are able to rollback changes made during software development and testing. System Center's Disaster Protection Manager delivers this capability.

Superior Service and customer trust

MaximumASP takes pride in its strong and trusted customer relationship. With MaxV, this superior support empowers the customer through the tools provided.

Lessons Learned

The MaxV platform has not only proven to be the underpinning for MaximumASP's virtualized product offering, but has become the foundation for internal projects, new products, and custom solutions for other customers. The enhancements in upcoming Windows Server and System Center revisions will make MaximumASP offerings stronger, and allow extensibility to a proven technology suite. The MaxV platform is now dynamic, and is managed through a single pane of glass, provided by System Center.

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