

KAMIND Uses Intel® Modular Server to Open Up New Markets for Managed Services for Small and Midsize Businesses

"One of the problems with managed services right now is that the technology assumes that everything is in a fixed desktop environment," says Matt Katzer, partner at KAMIND IT, Inc. But now that many small companies, such as WiMAX Forum*, have moved to a 100% portable environment, the challenge becomes managing an environment where not everyone is constantly connected to the same server at the same time. "From our standpoint, Intel® Modular Server is the most cost-effective solution for the customer and gives the greatest flexibility in terms of supporting users in a distributed environment."

As a locally-owned small business themselves, KAMIND IT, Inc. understands first-hand the pain an improper IT solution can have on productivity and a budget. KAMIND's business model was built specifically to address the unique needs and requirements of small businesses. Their phased solutions approach gives small businesses the opportunity to build an appropriate IT infrastructure that meets their needs – without breaking their wallet.



Challenges Faced By WiMAX Forum*

- **Needed a network built from scratch** that would reliably support a globally distributed workforce of 60+ people
- **Wanted a scalable solution they could remotely manage and maintain** – and do it cost-effectively to support their quickly growing company
- **Provided a transparent business model** where all communication and documents could be accessible and made available easily

Solution Offered by KAMIND

- Intel® Modular Server
- Microsoft* Small Business Server*
- Microsoft Essential Business Server*
- Microsoft Business Productivity Online Suite* (email, calendar, documentation collaboration and workspace, and web conferencing)

Results for WiMAX Forum

- After the 3rd month, saved \$2,400 a month on support and maintenance costs
- Created a standard and stable infrastructure that allows them to grow and scale as needed
- Infrastructure can be supported locally or remotely from any location
- Maximized productivity of their employees by creating an efficient infrastructure that reduced downtime for users



"We can pick and choose what we want to do. It's a very flexible system for us."

– Matt Wangler, Director of Operations,
WiMAX Forum*

A Small Company with Big Plans

KAMIND's customer, WiMAX Forum, is an industry-led, not-for-profit organization formed to certify and promote the compatibility and interoperability of broadband wireless products. They work closely with service providers and regulators to ensure

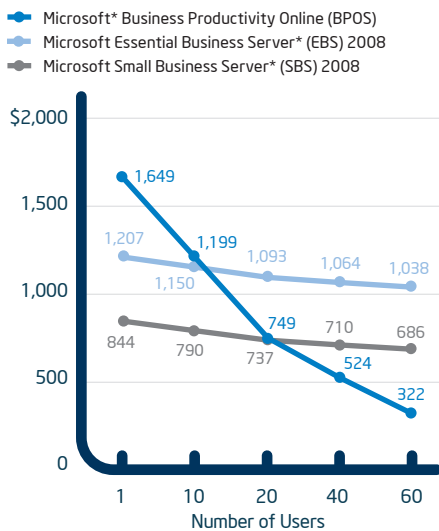
that WiMAX Forum Certified systems meet customer and government requirements.

WiMAX Forum faced some serious challenges – some very common for a small business and some that would test even the largest companies.

“Other people have different solutions, but this [Intel® Modular Server] is probably the most integrated one – and that’s really the key.”

– Matt Katzer, Partner, KAMIND IT, Inc.

3 Year - EBS/SBS Per User Cost vs. Online (includes hardware)¹



	3 YEAR	MONTHLY SUPPORT	
SBS Module server	\$8,563	\$714	\$399
EBS Module server	\$12,963	\$1,080	\$599
EBS 2008	\$5,067	\$141	
EBS 2008 SA	\$8,901	\$229	
SBS 2008	\$1,089	\$15	
SBS 2008 SA	\$1,674	\$47	
BPOS Support	\$299		
EBS CAL	\$81	\$2	
SBS CAL	\$77	\$2	
EBS CAL +SA	\$129	\$4	
SBS CAL +SA	\$108	\$3	
LIVEMEETING	\$60	\$5	

Figure 1: Comparing software and hardware costs over a 3-year period to help determine whether customers should consider an online or in-house solution.

Starting From Scratch

“The group started out in 2005 with three guys in a closet,” says Matt Wangler, Director of Operations at WiMAX Forum. “I was doing the IT, but it was becoming clear that we wouldn’t be able to do it internally.” WiMAX Forum quickly outgrew their small business infrastructure and realized that they had no consistency in the hardware they were using. They even got to the point where they didn’t know what they had in inventory or what equipment their employees were using.

“When we started, they had nothing,” says Katzer, referring to when they first started working with WiMAX Forum. WiMAX Forum employees had laptops, but there was no IT infrastructure within the organization regarding servers, backup, or even an email system. “They were using POP mail,” said Katzer.

Supporting a Worldwide Workforce

Originally, KAMIND thought they would be supporting approximately 12 users, but when they started planning the architecture, they quickly realized they were supporting a highly distributed workforce of 60 to 90 people located throughout the world. “Because of our membership being worldwide, the staff and a number of the non-staff members need to be up all the time,” said Matt Wangler, Director of Operations at WiMAX Forum.

Another aspect of supporting a large number of users in the WiMAX Forum environment was that the employees were all using different devices – from different types of laptops to PDAs. “Because there was no infrastructure built around a set of hardware standards, employees used what they needed to get the job done,” Katzer says. “The way the organization is structured, the IT philosophy is that portable laptops are disposable so we had to design an infrastructure so that a new laptop could be provisioned from a standard software image, we could download their mail, whatever they had from the cache server, into it and ship them a new laptop overnight.”

Keeping Track of It All

WiMAX Forum is an industry-led organization formed to certify and promote the compatibility and interoperability of broadband wireless products. Because they are a not-for-profit

organization, their business practices and the information they keep need to be transparent and highly accessible at all times. In their prior infrastructure, they had no servers for storage or backup capabilities. Says Wangler, “With our original configuration, if something went down it was gone.”

WiMAX Forum was growing at a tremendous pace and needed an infrastructure that would keep with their needs. Without putting an infrastructure in place, Wangler says “we’d be cobbling pieces together each time we needed to add something.” Instead of reacting to their current needs, they wanted a flexible infrastructure that would scale to their needs now – and in the future.

Solution Analysis and Deployment

Using Cost Analysis to Help Decide on a Solution

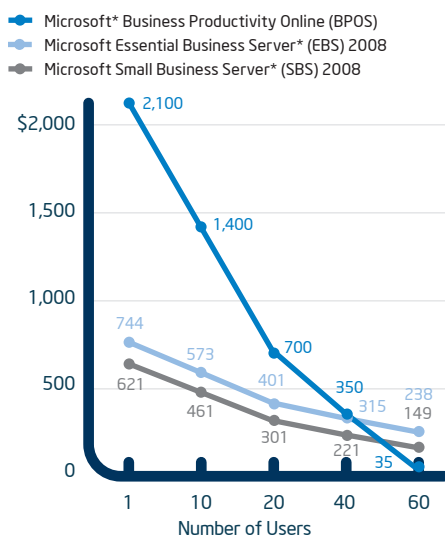
Part of the standard procedure at KAMIND is to create an executive summary of the IT policy and business goals for their customers. Once they get agreement from their customers on the document, “we use that as the framework on how to define the organization and what the solution will be for them,” says Katzer. Whether to keep the infrastructure in-house or contract it out to hosting services depends upon many factors, including the size of the company, the needs of the business, and the business model.

In the case of WiMAX Forum, Katzer’s group looked at the cost of using a solution of Intel® Modular Server combined with either Microsoft* Essential Business Server* or Microsoft Small Business Server* and Microsoft Business Productivity Online Suite*. KAMIND created a graph over a 3-year period that compared these solutions to figure out where it made sense for customers to use a public cloud service or own their own equipment in a private cloud. In Figure 1, Katzer looked at the cost of Microsoft Business Productivity Online Suite (BPOS) on a monthly basis and scaled it between 1 and 60 users. He then did the same for two other products that compete in this space – Microsoft Essential Business Server (EBS) and Microsoft Small Business Server (SBS).

KAMIND found that, on a 3-year payback schedule (aligning with Microsoft Software assurance program), if a company had less than 20 users they should look at a public cloud service and if a company had more than 20 users they should consider an in-house solution.

KAMIND included basic server support for BPOS, SBS and EBS solutions on a modular server. KAMIND did not include support on a per user basis because when they looked at what they had to maintain on a per user account, they

2 Year - EBS/SBS Per User Cost vs. Online (includes hardware)²



	3 YEAR	MONTHLY
EBS 2008	\$5,067	\$141
EBS 2008 SA	\$8,901	\$229
SBS 2008	\$1,089	\$15
SBS 2008 SA	\$1,674	\$47
EBS CAL	\$81	\$2
SBS CAL	\$77	\$2
EBS CAL +SA	\$129	\$4
SBS CAL +SA	\$108	\$3
LIVEMEETING	\$60	\$5

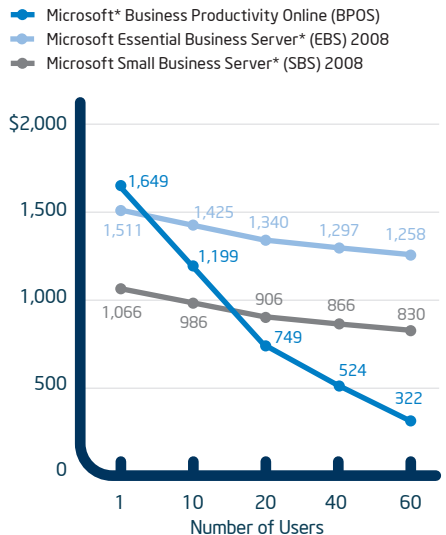
Figure 2: Comparing software and hardware costs over a 2-year period to help determine whether customers should consider an online or in-house solution.

had to do the same work whether or not the customer uses an in-house service or a public cloud service.

In Figure 2, KAMIND took the same approach in looking at the crossover point, but created a 2-year cost model that includes hardware and software to determine the immediate payoff.

Figure 3 shows the real cost of the solution (in terms of software) for the follow-on years once the hardware is paid for. At this time the customer has already amortized the hardware costs.

1 Year - EBS/SBS Per User Cost vs. Online (no hardware)³



	3 YEAR	MONTHLY	SUPPORT
SBS Module server	\$8,563	\$714	\$399
EBS Module server	\$12,963	\$1,080	\$599
EBS 2008	\$5,067	\$141	
EBS 2008 SA	\$8,901	\$229	\$399
SBS 2008	\$1,089	\$15	
SBS 2008 SA	\$1,674	\$47	
BPOS Support	\$299		
EBS CAL	\$81	\$2	
SBS CAL	\$77	\$2	
EBS CAL +SA	\$129	\$4	
SBS CAL +SA	\$108	\$3	
LIVEMEETING	\$60	\$5	

Figure 3: Comparing software and service costs over a 1-year period (assuming hardware is paid for) to help determine whether customers should consider an online or in-house solution.

OVERVIEW OF INTEL® MODULAR SERVER

Intel® Modular Server combines storage, computing, and networking right out of the box and offers seamless installation, migration, and growth capabilities for small to midsize businesses. Available features include the following:

- Six Server Compute Modules
- Integrated SAN
- Two hard disk drive options (six 3.5" SAS/SATA or fourteen 2.5" SAS hard disk drives)
- Two Ethernet Switch Modules
- Fully Integrated Remote Management

BENEFITS OF INTEL MODULAR SERVER INCLUDE:

- **Scalable Server Compute Capacity**
Supports up to six Multi-Core Intel® Xeon® dual processor-based Server Compute Modules.
- **Virtual, Integrated Shared Storage**
Diskless Server Compute Modules use the integrated SAN, now offering Intel® Shared LUN, with virtual drives to increase flexibility and maximize storage capacity. Customers purchase only what they need, when they need it.
- **Virtual Presence GUI Management**
Manage customers' systems as if you were standing right in front of them with the Virtual Presence GUI Management Interface.

- **Integrated Networking**
A Gigabit Ethernet switch with ten 1 GbE uplinks per module comes standard. There is room for a second switch module if needed.

- **Full Redundancy and Hot Swap Capabilities**
Hot-swappable Server Compute Modules and storage drives let you increase capacity on-demand. Redundant modules and hot spare options improve IT availability of the Intel Modular Server.

- **Flexible Power Options**
Chassis power supplies can use 100-240V power, eliminating special power requirements worldwide. The consolidated power and cooling features reduce operating costs.

"Look at the history of your company. How many projects did you work on that you weren't expecting?"

– Matt Wangler, Director of Operations, WiMAX Forum*

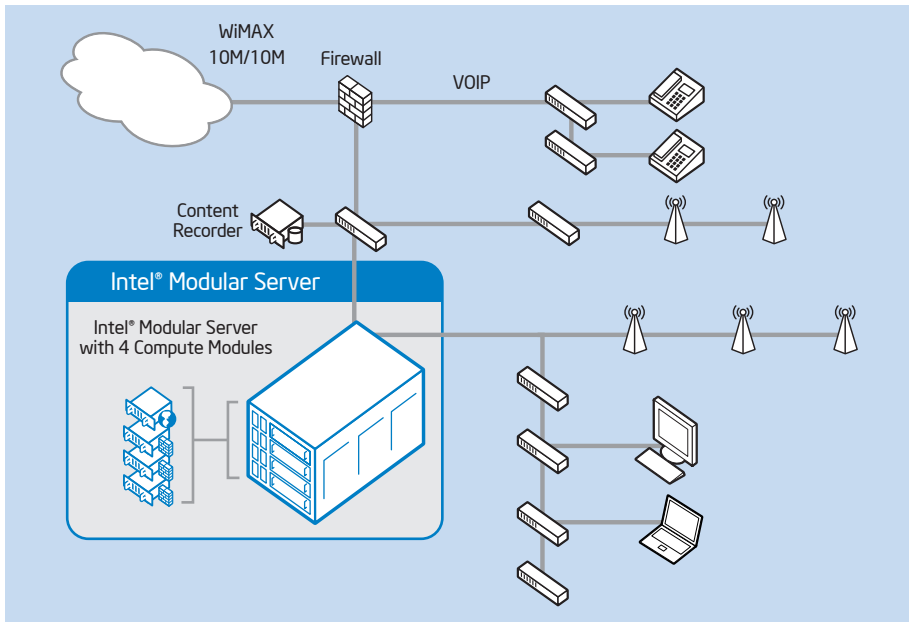


Figure 4: WiMAX Forum* solution using Intel® Modular Server as implemented by KAMIND.

Why Intel Modular Server?

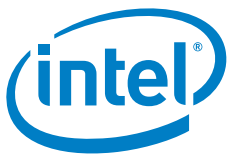
Based on their analysis and large user base, WiMAX Forum decided to implement a solution using Intel Modular Server with Microsoft Essential Business Server, as seen in Figure 4. "From our standpoint," says Katzer, "it's the most cost-effective solution for the customer and gives the greatest flexibility. What's nice about Intel Modular Server is that customers can literally enter whatever price point they want for whatever their compute needs are – then they can scale it."

Intel Modular Server gives both KAMIND and WiMAX Forum great flexibility to be able to make changes when they need to – with minimal disruption to users. "Literally we can take and replace drives in the SAN right during work hours, totally transparent to anyone. Then we can dynamically expand the Intel Modular Server storage pools and reallocate disk space on the fly," said Katzer.

For More Information:

- On Intel® Modular Server, visit www.intelmodularserver.com.
- On Microsoft's Online Services such as Business Productivity Online Suite, visit www.microsoft.com/online/products.
- On KAMIND, visit www.kamind.net.

SOLUTION PROVIDED BY:



¹ Figure 1 notes: EBS mod server: 3 compute mod, 1 quad cores +8GB, 1.2TB SAN (MSRP \$12,963); SBS mod server: 1 compute mod, 1 quad cores +8GB, 1.2TB SAN (MSRP \$8,563); Online Service: Microsoft Exchange*, Microsoft Sharepoint*, Microsoft LiveMeeting* - 2GB mailbox size (MSRP \$35/month); Server Support: \$299 (BPOS), \$399 (SBS), \$599 (EBS). Prices quoted are MSRP and are subject to change.

² Figure 2 notes: EBS/SBS software (3 year +SA); Online Service: Microsoft Exchange*, Microsoft Sharepoint*, Microsoft LiveMeeting* - 3.5GB mailbox size (MSRP \$22.5/month). Prices quoted are MSRP and are subject to change.

³ Figure 3 notes: EBS mod server: 3 compute mod, 1 quad cores +8GB, 1.2TB SAN (MSRP \$12,963); SBS mod server: 1 compute mod, 1 quad cores +8GB, 1.2TB SAN (MSRP \$8,563); Online Service: Microsoft Exchange*, Microsoft Sharepoint*, Microsoft LiveMeeting* (3.5GB mailbox size (MSRP \$22.5/month); Server Support: \$299 (BPOS), \$399 (SBS) \$599 (EBS). Prices quoted are MSRP and are subject to change.

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