

Bluewater District School Board

Challenge

To bring a sprawling and inefficient infrastructure under control while reducing cost and system failures.

Solution

Leverage Itergy's expertise in Microsoft virtualization and System Centre to help deliver an efficient, proactively managed and easily maintained IT infrastructure.

Benefits

- A dynamic data centre – cloud ready for 21st century learners
- Improved efficiencies
- Reduced costs
- Server deployment time reduced from 6 weeks to hours
- Improved security and recovery
- Integrated environment
- Full transparency into system health
- Proactive ongoing management



The following is based upon an interview with Mr. Bill Rumley, Supervisor of System Engineering and Mr. Bill Golem, System Engineer, Bluewater District School Board

Profile:

The Bluewater District School Board (BWDSB) serves an area of 8,763 square kilometres and is defined by the borders of Bruce and Grey Counties in Ontario, Canada. The Board is responsible for the education of 18,659 students in 42 elementary schools and 11 secondary schools. BWDSB employs approximately 3,500 permanent and casual staff.

Background:

In 2006, Bill Rumley and his team were facing a myriad of challenges with their hardware and software infrastructure:

- Server sprawl
- Independent physical servers severely underutilized
- Skyrocketing energy costs
- Limited physical floor space
- Inconsistent power supply issues for air conditioners to cool servers

Bill attended a solutions briefing on VMware and the Board didn't look back. He knew logically that this was the way of the future. They started with 2 separate environments – 2 servers in each. And it was a terrific solution, in the short term. They quickly found however, over the next 2 years that they chewed up resources and jammed up memory much faster than any of them could have anticipated. At this point they also knew that their hardware was beat. To top it off, VMware changed their licensing structure and things were getting expensive for the School Board.

The move from VMware to Microsoft

In the meantime, Microsoft had come out with Windows Server 2008 R2 HyperV as a competitive product to VMware. BWDSB started testing HyperV at its elementary school locations and quickly realized that the Microsoft server consolidation tool could do everything they needed and more. Plus, it was already included in their existing licensing agreement.

Bill Golem, Systems Engineer at BWDSB, says that there were some other considerations that helped to make the decision to move to Microsoft even easier:

- "The Windows platform is just more easily adopted by our end users. It doesn't require re-training."
- "We also found that the VMware support was inconsistent – Microsoft is much better."
- "The VMware maintenance costs were getting too high."

Now, 5 years later, the virtualized BWDSB infrastructure still includes a little bit of VMware, but not for long. The Board has built a dynamic data centre using Microsoft virtualization products and has realized huge benefits as a result.

Today at BWDSB:

The School Board has now implemented an end to end virtualization solution which leverages the Microsoft platform. This includes HyperV (Windows Server 2008 R2), App-V and the Systems Centre (SC) family of products to manage and monitor their solution (Configuration Manager-SCCM, Operations Manager-SCOM, Virtual Machine Manager-SCVMM). Both of the "Bills" feel that they now have the best Dynamic Data Centre in their corner of the world! As Bill Rumley says, "We love this stuff!"

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Montreal, Toronto, Quebec City, Reading (UK).

Bluewater District School Board

About Itergy

Itergy is a Microsoft Gold certified infrastructure expert that provides end to end virtualization solutions and deep expertise in Systems Centre products. Itergy played a key role in helping BWDSB build their Dynamic Data Center Vision, assisting in the planning, designing and deployment of the Core System Center Platforms and Microsoft Hyper-V. Itergy and BWDSB have built a true partnership. Together, they are working to build a totally optimized environment for the Board. With an agile and dynamic foundation, BWDSB will be ready and able to meet the needs of 21st century learners in the years to come.

"We have a great partnership with Itergy. Our Account Manager, is a trusted strategic advisor. The consultants that work with us from Itergy are always very competent and professional."

Bill Rumley, Supervisor of System Engineering, Bluewater District School Board

For more information on virtualization solutions including Hyper V, managing a multi-hypervisor environment or System Centre management solutions, contact us at

info@itergy.com.

Specific benefits realized by BWDSB include:

- ⊗ Decreased costs (energy, hardware, licensing, IT resources)
- ⊗ New server deployment time reduced from 6 weeks to 1 day (tops) – this allows them to be far more responsive to the needs of their teachers, administrators and students. And no new hardware is required.
- ⊗ Each remote location (school) needs their own server due to poor WAN connectivity issues. Hyper V has allowed them to put a Domain Controller, File Server and SC Configuration Manager on a single box at each school. It is extremely efficient and is managed remotely with a single management console by the IT team.
- ⊗ The VMware pieces left in their environment are integrated and managed easily with Microsoft Systems Centre.
- ⊗ Power outages are a regular occurrence for the Board. With SCOM and remote cards, Bill Golem can safely and securely power-up a remote server from his office in Chesley before anyone at the school even knows there was a problem. No more 100km, panic drives for an IT resource to physically turn on the machine.
- ⊗ Bill's team used to have to work nights and weekends to get updates done. With their virtual environment, they now update anytime they want without end user disruption because of the high availability of their server environment.
- ⊗ Hyper V really helped them manage legacy and "odd" applications more effectively. For example, a recent Help Desk Automation tool which was a web portal application required 5 servers. Each one doing a tiny task but all needing their own operating systems (no co-existence). By virtualizing, they were able to get them all on one server together, utilizing their space more effectively.
- ⊗ Old legacy applications that didn't have a good failover are now supported by HyperV.
- ⊗ In their experience, the Microsoft support environment is excellent for these products – both Microsoft and the related community are very responsive.
- ⊗ The BWDSB IT team now has the tools they need to be proactive and strategically add value to their organization - instead of being constantly reactive.
- ⊗ Reduced risk of application failure and negative end user impact. Outages are managed and issues resolved quickly before they impact the environment.

The Future for BWDSB

With next year's budget they will bring their expandable server cluster to a total of 3 – each with 128gb of memory. With their highly efficient Dynamic Data Centre in place, they feel confident in their ability to deploy Windows 7 and make the move towards cloud based web apps for education with platforms like LIVE@edu and Office 365 online services.

Looking Back:

A final question: "Before you virtualized and started using Systems Centre to monitor and manage your server and application environment, what did you do?"

The honest answer: "Nothing. We just didn't know. We thought everything was fine unless there was a critical failure- really not a good way to manage an enterprise."