

Azure Hybrid Cloud: Planning and Implementation

Enable security-rich, managed protection



Highlights

- **Save**—Reduces total cost of ownership with cloud-based solutions
 - **Protect**—Enables security-rich, fully-managed protection of critical data in a hybrid cloud environment
 - **Manage**—Helps manage peak loads without purchasing additional, under-utilized infrastructure.
-



Cloud Computing is recognized as a transformational capability for organizations – delivering significant value, speed and agility.

Some of the most important benefits are:

- Elastic resources—Scale up or down quickly and easily to meet demand
- Metered service—You only pay for what you use
- Self-service—All the IT resources you need with self-service access
- High availability – 99.9%
- High bandwidth capabilities – Azure can accommodate a very large influx of web site network traffic, such as snow days

School district CIOs recognize the potential benefits that cloud computing brings. However, they often struggle with many questions that hinder them from taking the next step. Whether or not you have worked with our consultants in an IBM K-12 Cloud Strategy and Planning engagement, you may be ready to begin with Cloud Computing.

Our K-12 Clients are evolving to Hybrid Cloud

Hybrid cloud is an holistic approach to the consumption of IT and allows for greater scalability, flexibility and optimization.

It is about matching the right solution to the right job. Public cloud, private cloud and your datacentre are combined and work together seamlessly as one platform.

Hybrid cloud is the most likely scenario for most school districts allowing them to maintain a datacentre and add cloud services to supplement and scale-out as required. It allows districts to provision servers in the cloud on demand in order to ramp up capacity for key times of the year, such as IEPs and Report Cards.

If you are ready to implement a hybrid cloud model, we will work with you to develop a plan, process and documentation, based on Microsoft Azure, that meets your unique needs.

Solution Offering

An IBM K-12 Technical Services specialist will assess your current datacentre servers and provide a migration path to move to a cloud hosted solution in Microsoft Azure. Activities that we will engage with you are:

Information Gathering

- review the Azure infrastructure requirements with IT staff
- create an Azure Migration instance to discover all virtual machines in the datacentre and monitor their performance both off-peak (during the summer) and on-peak (during the school year).

Azure Migration Assessment

IBM will perform an assessment of the information gathered to price and scope the Azure environment. This may include:

- Detailing the cost of each virtual machine
- Pricing overall storage costs and the storage disks for each VM
- Identifying servers which can be consolidated or optimized

Azure Migration Implementation

Working with your IT staff, IBM will:

- Provision the Azure subscription and build the Azure environment, configuring all required components and test to verify functionality during each stage
- Select and configure the Azure hosted firewall to establish an SD-WAN connection with each site and verify connectivity
- Create a migration plan, detailing the list and order of VMs to be migrated. We will implement this plan in a phased approach to ensure that each VM is operating properly once hosted in Azure
- Migrate virtual machines to Azure while documenting the process and providing skills transfer
- Deploy a domain controller Infrastructure-as-a-Service (IaaS) virtual machine in Azure to receive continuous updates and changes from the on-premise Active Directory (as part of native Active Directory domain controller replication)
- Implement Azure VPN as a site-to-site VPN
- Implement external DNS in Azure
- Test connectivity and functionality

Optional Services

As a **Microsoft Cloud Solution Provider (CSP)**, IBM K-12 can provide the complete lifecycle support ('order to bill' functions) for the solution including provisioning of Azure subscription, support, and monthly billing of Azure consumption.

Hybrid cloud backup: IBM will perform an analysis of the current backup environment and provide recommendations for optimization. In addition, IBM will implement an Azure backup solution to backup the Azure hosted environment. IBM will provide skills transfer for your IT staff and support for up to one week.

Optional Services (cont'd)

Hybrid cloud managed service: IBM will provide proactive patching, monitoring and reporting of the Azure hybrid cloud. We will:

- Monitor the Azure CSP subscription for events and notify the district of Azure alerts
- Apply Windows updates on a monthly or quarterly basis
- Provide quarterly report detailing tickets generated and issues summary
- Analyze Azure environment once per year and provide recommendations to optimize
- Provide block of support hours for "how to" questions and issue resolution

For more information

To learn more about the **Azure Hybrid Cloud: Planning and Implementation**, please contact your IBM Marketing Representative.

For more information on all our IBM K-12 Consulting and Professional Services, visit:

<https://www.ibm.com/industries/education/canada-k-12-service-briefs>

Why IBM?

Based on our extensive experience working with school districts and understanding cloud solutions, the IBM K-12 Education IT team is on standby, ready to work with you. Our Canadian infrastructure and extensive industry knowledge are designed to make IBM K-12 Education IT specialists your first choice.



IBM Corporation
3600 Steeles Ave. East
Markham, ON L3R 9Z7 Canada
May 2020 (Revised)

IBM, the IBM logo, ibm.com and IBM K-12 are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml



Please Recycle