

Server Optimization and Virtualization

Reduce server capital expenses and speed application deployment



Highlights

- Reduce capital costs through server consolidation
 - Reduce operational costs through a simplified server infrastructure
 - Deploy applications faster
-

As your technology requirements grow and diversify, you need a flexible and cost-effective server solution that supports your changing needs. Building more server facilities to accommodate increasing processing and application availability requirements can add to your capital costs, management complexity and risks. The escalating expenditure on power, space, cooling and resilience can increase your total cost of ownership and limit new opportunities. You need a strategic solution that streamlines your server infrastructure so that it cost-effectively supports your growing needs.

IBM K-12 uses time-tested tools and methods to identify opportunities – such as consolidation and virtualization – to help optimize application availability and server utilization while improving efficiency. Our IT specialists can help you develop an actionable road map with detailed steps to help reduce complexity, operational and capital costs and enable more flexibility within your server infrastructure. We will also provide you with a business case with a cost-benefit analysis to help you communicate the recommended priorities to key stakeholders.

Streamlined and cost-effective infrastructure

Virtualization technology is viable for any organization with more than five servers, or a need to perform preproduction development/testing. Virtualization and consolidation streamlines your server infrastructure so that it cost-effectively supports IT growth. Operating systems and/or applications are migrated from existing legacy servers to run on fewer, more powerful servers in isolated 'Virtual Machines'. Ratios of server reduction range from 5:1 to 40:1.



In addition, virtualization technology can significantly increase the speed of deploying new or upgraded applications. You can implement a new server - based on one of your organization's standardized OS images - in minutes rather than days for development, testing, or production use.

Increase operational efficiency

IBM K-12's server optimization and virtualization offering provides your business with a choice of predefined activities. Our consultant's first day includes:

- A presentation of virtualization products (VMWare)
- Identification of scenarios where virtualization can benefit IT
- Interviewing IT staff on what they hope to achieve during the engagement
- Assessing your hardware and software for performance
- Documenting a business case and an action plan

Days 2 - 5 (or 10) will build and demonstrate a Virtual Infrastructure. Speed of execution depends on Day 1's action plan, the hardware and software provided, the depth of skills transfer required, and the number of your IT personnel participating.

Sample activities for VMWare may include:

- **Configuring ESXi Server:** Install/Configure Hardware, ESXi Server, vSphere, Host Settings (NTP, Authentication, Security Profile, Network, AD integration), vCenter
- **Primary Virtual Infrastructure Tasks:** Overview of Web client and Virtual Networking: Create a Windows VM, Linux VM, and clone a VM: Monitoring and Managing VMs
- **Advanced Virtual Infrastructure Tasks:** Connecting ESXi to SAN using Fiber Channel or iSCSI: Configure ESXi in one of three ways for Microsoft Clustering: Introduction to vCenter, and vMotion: Using VMware vCenter Converter Standalone: Performing a V2P Migration: Introduction to performance monitoring and alerts

Why IBM?

Leveraging established methodologies, tools, and deep industry expertise, IBM K-12 can help you determine the optimal server strategy to support your growing infrastructure requirements.

Our best practices from many prior projects provide unparalleled experience to design and implement a robust, cost-effective server infrastructure.

For more information

To learn more about the IBM K-12 **Server Optimization and Virtualization Service**, please contact your IBM Marketing Representative. For more information on all our IBM K-12 Consulting and Professional Services, visit: www.ibm.com/industries/education/canada-k-12-service-briefs



IBM Corporation
3600 Steeles Ave. East
Markham, ON L3R 9Z7 Canada
December 2017 (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
