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### Highlights

- Increasing manageability of your infrastructure
  - Simplifying network management and increasing security
  - Helping you gain more value from your IT infrastructure
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# Active Directory Design Optimization

*Reducing complexity today while preparing for the future*

The need for an ever more powerful, transparent, and tightly integrated directory service is driven by the explosive growth of networked computing. As local area networks and wide area networks grow larger and more complex and are connected to the Internet, more is required from a directory service. A directory service is one of the most important but also most complex components of your technological infrastructure.

A properly designed and optimized directory service should simplify management, strengthen security and extend interoperability. Because of the scale and complexity found in most school districts, a directory service is a significant component of an educational institution's computing infrastructure. Whether you need a new design, an upgrade to a new version or a migration from a different directory to Microsoft's Active Directory, an updated design will lay the infrastructural foundation for existing and future applications and services required by your administrative staff, teachers and students in the district.

### Preparing for BYOD requirements and Cloud opportunities

An IBM K-12 Active Directory specialist will help you design a new Active Directory infrastructure that maps to your district's needs. We will meet with you and your staff to evaluate and analyze your environment including hardware, operating systems and applications. Through continuous collaboration, we would agree on the Active Directory design that best matches your current and future environment.

The K-12 Active Directory Design Optimization process is composed of six phases:

### **Step 1: Discovery of Existing Environment - Device / Functionality Needs Assessment**

This phase ensures that we completely understand the intricate details of the current infrastructure and associated support structures. In addition, a needs assessment will be conducted related to the various device platforms (servers, switches etc.) that currently exist or are planned to exist within the infrastructure.

### **Step 2: Information Completion and Validation Phase**

A series of meetings and interviews will be held to discuss and validate the information provided in the previous phase. These meetings are targeted at the key IT staff members.

### **Step 3: Round Table / White Board Sessions**

Based on all the information and feedback that is gathered, round table meetings are conducted with the goal of formulating up to three different design scenarios. The pros and cons of each design scenario are discussed along with the risks factors of implementation and a scoring system is used to assist you in deciding which solution is the optimum for the district's needs.

### **Step 4: Plan / Design**

This phase provides more specific details about the design requirements through sizing tools and simulations. Hardware specifications will be provided to allow the District to map them to its vendor product families. Areas of analysis include:

- AD Capacity Planning (server numbers, sizing, location)
- Storage sizing and configuration
- Backup sizing and configuration
- OU layout, Login Scripts, GPOs
- Users and Delegation

### **Step 5: Solution Assurance Review**

A final review of the design and the associated components is conducted internally at IBM, where several Architects review the design and provide final comments.

### **Step 6: A comprehensive report detailing:**

- ADS Design
- Forest Root Server Design
- Masters Operations Design
- DNS Design
- Naming Convention Scheme
- Site Topology Design
- Groups and Group Policy Design
- Server Capacity Planning
- ADS Backup strategy

Like any enterprise system, Active Directory warrants a considerable investment of time for planning and design. Because Active Directory forms such an important foundation for other technologies, you'll want to make sure it's right — the first time.

**Typical Length of Engagement:** 4-6 weeks

### **Why IBM?**

An Active Directory implementation for school districts is very different than deployments for corporate or other public sector institutions. The structure of a school district, the variety and nature of users, applications and workstation/mobile/printing devices in schools pose unique challenges and demand tested and proven K-12 design expertise. IBM K-12 AD specialists have the experience required to understand your environment and design your Active Directory configuration tailored to your specific needs, efficiently and competently.

### **For more information**

To learn more about IBM K-12 **Active Directory Design Optimization**, 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](http://www.ibm.com/industries/education/canada-k-12-service-briefs)



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