Gwinnett County Public Schools
Cloud Computing with IBM

Problem
Gwinnett County Public Schools needed a better way to manage and support email functions for over 160 remote locations.

Solution
Consolidated email services with Cloud

Goals
• Provide reliable and secure email
• Reduce equipment, support and maintenance costs
• Ensure dependable data back-up and recovery

Results
• Reduces server quantity and administration by two thirds
• Provides more accurate and immediate data recovery with continuous transaction logging
• Improves server utilization by offloading storage
• Delivers immediate and continuous support

Gwinnett County Public Schools
Gwinnett County Public Schools is nationally recognized, exemplifying the success students can achieve when educators are diligent and selfless. As the winner of the nation’s largest educational award, the 2010 Broad Prize, Gwinnett County will receive US$ 1 million in college scholarships for its high school students. The Broad Prize is an annual award that honors five large urban school districts that demonstrate the strongest student improvement, while narrowing achievement gaps between different income and ethnic groups. Thanks to exceptional educators, Gwinnett County seniors will gain the advantage of added scholarship funds — in addition to an excellent high school education.

The Gwinnett County Public Schools cloud initiative
As the largest school system in Georgia, Gwinnett County Public Schools serves a community spread over 430 square miles. Providing timely service to over 160 sites became increasingly challenging. Email servers had to be consolidated and centrally housed to better serve the staff. Currently, the internal cloud not only supports 20,000 email messages per day but also filters 80 percent of them identified as spam. Reliable back-up and delivery of business related information helps staff effectively focus on teaching and learning. Continuous monitoring, support and maintenance of this vital communication tool are now a reality for Gwinnett County Public Schools.

The challenge
At first, supporting over 160 remote sites presented many challenges for the Division of Information Management (IMD). The most vulnerable area was data backup for possible restoration. The department needed a way to confirm all 160 plus sites had reliable and accurate nightly backups. It was only when a restoration was needed could one determine how consistently this activity occurred.

Learn more at ibm.com/solutions/education/cloudacademy
For Gwinnett County students, tomorrow’s success starts today. Gwinnett County Public Schools is a high-performing school district that provides quality and effective education for every student. To sustain their record of success they must continuously review where they are and envision what the organization must become in the future. This is how Gwinnett County Public Schools will educate and prepare students for the demands of the 21st century. Its success depends upon the support of the people employed by the district and those served by it.

Another challenge in supporting so many sites was accessing servers when maintenance was needed. Technicians did not have after-hours access to individual sites. Requiring local staff to stay late for repairs or maintenance was not possible. So the immediate maintenance needs were delayed until a staff member could open a building for a technician.

The sheer number of servers to be supported and maintained posed more problems. Emergency repairs needed to remove a virus required deploying a great amount of resources to sites. Even standard upgrades and patches took a considerable length of time and coordination to be applied at all locations.

The Solution
Gwinnett County Public Schools uses a combination of IBM pSeries® model 615 servers along with the new IBM BladeCenter® H chassis with JS22™ pSeries Blades servers to support Gwinnett County Public Schools’ email system. The 615 pSeries are the primary email servers and the JS22 pSeries Blade servers are the secondary email servers. As the budget permits, Gwinnett County Public Schools moves the primary servers from the older 615 pSeries technology to the newer JS22 pSeries technology. They have a total of 36 servers that support their school clusters. Two servers, primary and secondary, support the central office and administrative sites.

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Building an internal cloud at the central office consisting of 33 primary and 33 secondary servers provides an effective solution to supporting email. The central location and failover structure lowers response time to emergencies and regular maintenance. Gwinnett County Public Schools can rest easy knowing that mission critical communication has continuous back up and reliable storage. In the absence of spam, school staff can keep their attention on the important function of teaching and learning for all students.
“Centralizing the servers has cut out travel to the school locations to do maintenance,” says Jeff Smith, Director of Information Solutions for Gwinnett County Public Schools. “Also, we have better control of the backups. Previously, there was no one during the summer to manage the backups at the local schools. We can restore mailboxes as needed in a more timely fashion.”

**Conclusion**

Gwinnett County Public Schools will meet the continuing and changing demand for essential information through technological systems and processes that support effective performance and desired results. By using IBM pSeries and BladeCenter servers along with a cloud computing environment, Gwinnett County Public Schools will continue to deliver the reliable email service many students and faculty depend on. It’s just one way IBM has helped Georgia schools make education delivery smarter. IBM technology helped Gwinnett County Public Schools get results; success can be repeated using our solutions at your campus, too.

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