

Mainline Boosts Processing Performance to Help School District Transform Education

Intel® Xeon® processor E7 family-based platforms help bring students learning tools



"The Intel Xeon processor E7 family is high end and offers what our customers need when it comes down to high performance and reliable capabilities at a competitive price."

*—Garland Galatas
Account Executive, Mainline*

CHALLENGES

- **Growing demands on infrastructure** from students, educators, and parents
- **Aging architecture** unable to meet needs for a new virtualized environment
- **High costs** for hardware, licenses, and maintenance

SOLUTIONS

- **Implemented HP ProLiant* DL980 G7 servers** based on the Intel® Xeon® processor E7-4870 for student database
- **Updated case management system** with HP ProLiant BL680c G7 servers based on the Intel Xeon processor E7-4860
- **Reduced costs** by consolidating databases and eliminating software licenses

Technology Revolutionizes Student Learning

Virtual learning is opening doors in education by connecting students from home, school, or anywhere else they happen to be. One major urban school district is using technology to reach more than 700,000 students, while also helping parents and teachers better engage and access critical information. However, faced with several years' worth of budget cuts, the district's IT department has limited spending power to implement its vision.

"If every student has a tablet and is accessing a learning management system, then we're looking at over a million users," said the district's deputy chief information officer. "But," he continued, "our hardware was getting old and we needed more processing power."

The district's aging infrastructure could no longer handle increasing demands

from students and staff, not to mention the virtualized environment that would reach across roughly 1,000 schools and other sites. The district turned to Mainline Information Systems for help finding and implementing the most cost-effective, high-performance server upgrade.

High Performance for Increasing Demands

Mainline led the school district through a proof of concept to test three platforms. The team ran its tests on the district's student data warehouse. The district ultimately chose HP ProLiant DL980 G7 servers based on the Intel Xeon processor E7-4870, along with Oracle Automatic Storage Management* (ASM*) and Oracle Advanced Compression*.

"In our previous environment, we had a job that used to run for 32 hours. When we did the testing, the job ran on the new hardware for five minutes," said the district's database administrator.



Infrastructure Upgrade Takes Processes from Hours to Minutes

For the district's case management and health records system, the team chose HP ProLiant BL680c G7 servers based on the Intel Xeon processor E7-4860 and an HP BladeSystem* c7000 Enclosure, plus VMware vSphere Enterprise Plus* software and Oracle ASM. Under the old infrastructure, users had complained about downtime and slow reports. After Mainline deployed the upgrade, the district experienced a 20-fold increase in performance in running batch processes and generating reports.¹

More Technology Per Dollar Spent

With an operational budget reduced to a bare minimum, the district wanted to get the most for its money. Migrating to x86 reduced not only the district's capital investments, but also licensing and management costs.

The school district estimates that with its new Intel Xeon processor-based solution, it will reduce costs by about 30 percent annually compared with its legacy architecture, based on hardware purchases, operating system support, and hardware maintenance. And with

more processing power, the district can now consolidate databases, saving on hardware and storage costs.

Scalable to Meet Future Needs

In the past, the district struggled with applications that did not scale to meet greater demand during peak usage. The district is making a move to virtualize its data center, which should help improve scalability. As a first step, it standardized the hardware platform. "This was the first time we took mission-critical applications and migrated the database into the x86 line," said the district's deputy chief information officer. "That gave us the confidence that we could simplify and standardize that hardware architecture into a uniform environment."

Now, he said, his team feels comfortable running their large database environments without any concern for resources.

Garland Galatas, account executive with Mainline, said that the solution has realized a tremendous performance increase for the school district, while extending the value of its dollars.

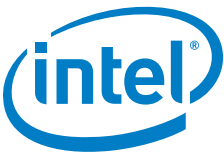
ABOUT MAINLINE INFORMATION SYSTEMS

Mainline is an industry-leading provider of Intel-based solutions and technology from HP, IBM, and VMware. Mainline's team of certified professionals offers the skills and product knowledge to help clients implement the right solutions to achieve their business goals.

"The Intel Xeon processor E7 family is high end and offers what our customers need when it comes down to high performance and reliable capabilities at a competitive price," said Galatas. "Intel Xeon processors were able to exceed the district's current requirements and will certainly meet its future workloads, as well."

For more information about how Intel® Xeon® processor-based solutions can improve the performance of your infrastructure while managing costs, visit www.mainline.com

SOLUTION PROVIDED BY:



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