

# Accelerating analysis and growth

Accelerated Technology Laboratories helps customers analyze scientific data faster and speeds business growth with end-to-end IT solutions



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*Mark Burke, CIO, Accelerated Technology Laboratories*

## Customer profile



<b>Company</b>	Accelerated Technology Laboratories, Inc
<b>Industry</b>	Information Technology
<b>Country</b>	United States
<b>Website</b>	<a href="http://www.atlab.com">www.atlab.com</a>

## Business need

Accelerated Technology Laboratories (ATL) wanted to increase the performance and availability of its Laboratory Information Management Systems (LIMS) and enable new business offerings

## Solution

ATL implemented Dell server, storage, security and networking technologies in its data center powered by Intel® technology to boost system performance and reduce its data center footprint.

## Benefits

- Increases software availability so laboratories can more reliably test, sequence and analyze scientific data
- Increases software performance by 40%
- Launches virtual servers in 90 minutes instead of several days
- Reduces rack space by 50%
- Enables rollout of new SaaS offering

## Solutions at a glance

- Converged Infrastructure
- Data Center
- Network Security

As a leading provider of Laboratory Information Management Systems (LIMS) software, Accelerated Technology Laboratories (ATL) must ensure its software is both fast and highly available. That's because the company's customers — Fortune 500 firms and laboratories — depend on the software to manage their day-to-day laboratory operations from analytical, and clinical environmental testing, genomic sequencing and other scientific analysis. "Our customers are conducting compute-intensive analysis every day, so they demand high performance and high availability from our solutions," says Mark Burke, CIO, Accelerated Technology Laboratories.

"We built and launched our SaaS on-demand Laboratory Information Management Systems solution faster and more easily because of the high-performance Dell infrastructure we have in place."

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However, as its business grew rapidly, ATL realized it needed to upgrade its existing hardware platform to support its VMware® virtualization environment. "Because we have been growing so fast, we needed to be able to quickly provide a flexible virtual environment for our support and implementation teams to work on custom environments," says Burke. "And we needed more storage capacity to support it all."

ATL also sought to create an infrastructure that would enable a software-as-a-service (SaaS) model for delivering software to customers. "An increasing number of our laboratory customers were asking for a SaaS solution, because they wanted more control over their software and they wanted to reduce operational costs," says Burke.

Additionally, ATL wanted to build on its commitment to environmental responsibility. "We wanted to consolidate our physical and storage technologies, while supporting more virtual servers," says Burke.

### Gaining performance and availability with Dell servers, storage and networking solutions

ATL has leveraged Dell servers, workstations and other technologies for over a decade and once again looked to Dell to assist with its new data center

solutions. "We have been very pleased with the performance and support we've received from Dell over the years," Burke says. ATL first implemented the Dell PowerEdge FX converged architecture to support its VMware environment. The company uses a Dell PowerEdge FX2

#### Products & Services

##### Services

Dell ProSupport

##### Hardware

Dell Networking N3048 and N4064 10GbE switches

Dell PowerEdge FX converged platforms with Intel® Xeon® processor E5 family

Dell PowerEdge M630 and M520 blade servers with Intel Xeon processor E5 family

Dell PowerEdge VRTX

SonicWall NSA 3600 firewalls

SonicWall TZ300 NSA firewalls

Dell Storage SC4020 iSCSI hybrid flash storage array

Dell Storage SC200 expansion enclosures

with Intel® Xeon® processor E5 family,

containing four PowerEdge FC630 server nodes. With the PowerEdge FX2, a modular 2U converged platform, servers and storage are able to share power, cooling and networking capabilities.

ATL also deployed a Dell Storage SC4020 10GbE iSCSI hybrid flash storage array and a Dell Storage SC200 expansion enclosure in its data center. "Moving to SAS drives with the Dell Storage SC4020 and SC200 arrays gave us more capacity and better performance," says Burke. The company implemented Dell Networking N4064 10GbE switches to support traffic from the storage arrays to the FX solution, and an additional N4064 switch as core switch technology. "Moving to a 10GbE network gave us a massive performance increase for our VMware environment," Burke says. ATL also standardized on Dell Networking N3048 switches as secondary switches.

Additionally, the organization used the Dell PowerEdge VRTX shared infrastructure platform to create a portable LIMS software solution that can be used in smaller customer laboratories. The solution is based on a PowerEdge VRTX solution, consisting of Dell PowerEdge M630 and M520 blade servers with Intel® Xeon® processor E5 family, running VMware in a clustered configuration. ATL also enhanced its network security by installing SonicWall Network Security Appliance (NSA) 3600 firewalls and SonicWall TZ300 firewalls. "We get better protection and performance and high availability with the SonicWall solution," says Burke.

### **Ensuring highly available laboratory management software**

Using its upgraded infrastructure, ATL can better meet its customers' needs for highly available LIMS software. "We can ensure higher software availability for our laboratory customers by relying

on the Dell PowerEdge FX and Dell Storage arrays," Burke says. "As a result, they can more reliably use our software to conduct and manage their testing, sequencing and analysis. Our whole business runs on the PowerEdge FX, and the Dell hardware is extremely reliable."

### **Offering portable LIMS solution**

ATL can also now offer an enterprise-class portable LIMS solution to its customers, thanks to Dell PowerEdge VRTX. "We can recommend our smaller laboratory customers deploy a scalable, always-available platform for our LIMS software by taking advantage of the compact Dell PowerEdge VRTX solution," says Burke.

### **Boosting software performance by 40 percent**

With more storage capacity and speed, combined with the strong performance of the Dell PowerEdge FX and the low latency in the Dell Networking N4064 10GbE switches, ATL has increased its LIMS software performance by 40 percent. "Our laboratory software is performing faster for our customers, so they can get more work done in a shorter time frame," Burke says. Internally, the company can also spin up virtual machines faster. "We can launch new virtual servers in 90 minutes, as opposed to the days it used to take, so we'll be able to keep pace with our growth and bring on new laboratories," says Burke.

### **Reducing rack space by 50 percent, saving thousands annually**

The company took advantage of the PowerEdge FX2 2U converged platform to significantly reduce its data center footprint. "We reduced our rack space by 50 percent using Dell PowerEdge FX. I was very pleased with how much space we were able to consolidate," says Burke. "In addition, that will help us save at least

\$10,000 in annual power and cooling costs.”

### Enabling new SaaS offering

ATL has also been able to create and launch a new SaaS offering (ATL LIMS on Demand) using its new infrastructure.

“We built and launched our SaaS on-demand Sample Master® and TITAN® LIMS solution faster and more easily because of the high-performance Dell infrastructure we have in place,” says Burke. “As a result, we can meet our customers’ demands for a cloud-based solution powered by Intel® technology. And there’s definitely enough capacity for growth. We have 170 virtual machines, and we could easily add another 50 on the FX.”

ATL is also experiencing faster deployment times for its cloud SaaS environment. “Our deployment times have decreased by months, because we are in control of the environment,”

says Burke. “And for our in-house SaaS solution, I expect we will reduce our time to access for customers from months to weeks or even days. This will encourage customers to keep the momentum of their LIMS project moving in a positive direction.”

### Speeding software implementations

“We can accelerate the deployment of our LIMS software solutions to customers,” says Chuck Hindbaugh, director of implementation, Accelerated Technology Laboratories. “The actual deployment process is faster, because of the performance and throughput we’re getting from the Dell PowerEdge servers and Dell Storage arrays. Going forward, that will help us onboard more laboratories and ultimately grow our company even faster.”

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*Chuck Hindbaugh, Director of Implementation, Accelerated Technology Laboratories*

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