Online learning in unprecedented times

Strengthening IT backbones during large-scale online learning

Life Is On | **APC**™
by **Schneider** Electric

A new era for online learning

Today, the vast majority of the 70 million K-12 and college students in the U.S. are learning through online platforms.[1] This unprecedented shift is putting a big strain on schools' **IT backbones.**

Fortunately, there are solutions for meeting the challenges posed by today's capacity surge and tomorrow's uncertain future. This brochure lays out a three-stage strategy to keep your IT infrastructure operating well in the short, medium, and long term.

1. Number of U.S. students based on projections from most recent data. "Digest of Education Statistics," National Center for Education Statistics. 2018.

70M

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The short term

How to expand capacity, right now

The first stage, happening today, is all about keeping up with the capacity crunch. And to do that requires an understanding of your new IT loads.

Many networks and their supporting IT infrastructures are not sized for this higher demand. You will need to take stock of your servers and networking gear, along with your **uninterruptible power supplies** (UPSs), **cooling units**, **racks**, and **power distribution units**. Determine whether your IT infrastructure can support your network and deploy more capacity if needed.

If you face issues with assessing capacity, you can reach out to your trusted partner and Schneider Electric for assistance.

UPS	Cooling

Smart-UPS Learn more

Uniflair Learn more

Racks	Power distribution

NetShelter CX / SX Learn more

NetShelter PDU Learn more

Discover how Bainbridge Island School District, located near Seattle, keeps its data center and 35 IT closets running smoothly with remote monitoring and DCIM solutions.

Watch video

The medium term

How to ensure your system remains in good health

Once you've met the rush for more capacity, it's time to make sure your overall system is fit for this unprecedented new normal. After all, a day of downtime is far more disruptive for 100% virtual learning than when students are sitting in classrooms.

This effort should begin with the low-hanging fruit of servicing and modernizing your equipment. Make sure to keep current on your service contracts and preventive maintenance, but also focus on preparing for future uncertainty. Plan to replace any UPS batteries approaching five years of use, and any UPS approaching 10 years of use. If you've increased density, is your cooling equipment ready for more heat?

Beyond the simple services, consider whether your mission — the big picture — has changed at all. There's a good chance you may want to revisit your system's design. Perhaps your older on-premise designed system should be hybridized for more rapid scalability. Or maybe it's better to exchange your aging IT equipment to new **rapidly scalable solutions**. Again, your trusted IT partner and Schneider Electric can help you figure this out.

The long term

How to adapt your system and staff to the new normal

Once the school year wraps up, it's time to focus more on preparing for future uncertainty. Online-based learning may continue into the fall, or ebb and flow indefinitely. The goal should be to respond to future capacity changes with agility, reliability, and efficiency.

Data center infrastructure management (**DCIM**) should be utilized or modernized if not in place currently. DCIM is a tool combining IoT-enabled products like UPSs and cooling units with software that monitors and manages the produce performance.

With a DCIM solution, you can remotely and securely:

- detect hotspots
- diagnose faults quickly
- keep watch over your IT spaces
- spot energy waste
- identify ideal locations for new IT capacity

This newfound visibility and control will become especially important during periods when your staff is working remotely, and IT loads are much larger.

DCIM can also rapidly speed mean time to repair. Without DCIM, your team would have to travel to a site, manually diagnose an issue, drive back to collect a needed replacement part, and return back to the site. That could take hours or days. A DCIM system can identify or even predict a fault, so team members only need to travel to the site once, with the replacement part in hand.

Adapting to a new normal

It's worth considering that the education system and their IT backbones may never be the same. It's no longer a given that students will return to brick-and-mortar schools for 100% of any given school year.

The big question is: Do you have the IT backbone to deliver remote learning reliably and efficiently? This takes thought, but it's wise to start considering the answer now.

DCIM drives results

From hyperscale data centers to small server closets, our DCIM solutions deliver. Our recent report details key benefits that our customers gained via digital DCIM solutions.[2]

Read the report

Benefit	Up to	Average
Energy consumption savings	38%	24%
Energy cost savings	30%	24%
Productivity (i.e., improved material density)	60%	35%
IT uptime	100%	99.9922%

2. "Global Data Center Digital Transformation Benefits Report," Schneider Electric. 2019.

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