A more intelligent way for schools to guard against cyberattacks

While a school district may not seem a likely target, the right cyber resiliency solution is critical to help safeguard students’ data.

Business needs
Schools today face unprecedented challenges defending against cyberattacks. Hit with not one, but two, ransomware attacks, San Felipe Del Rio school district in Del Rio, Texas, relied on a sophisticated cyber resiliency and data protection solution from Dell Technologies to safeguard its students and staff.

Business results
- Enables recovery from ransomware attacks in hours, rather than in weeks.
- Makes short work of daily backups, typically in 2 hours or less.
- Allows the team to quickly go back in time to recover lost files.

“With the PowerProtect Cyber Recovery vault, we were able to get back up and running in about four hours rather than weeks.”

Manuel Salinas
Director of Technology, San Felipe Del Rio CISD

Solutions at a glance
- Dell PowerProtect Cyber Recovery
- Dell Data Protection Suite – Avamar
- Dell PowerProtect DP series appliances
- Dell VxRail
“It used to be that all an IT director for a K–12 school district had to do was provide for the needs of students and staff. But over the past couple of years, we’ve seen an unprecedented uptick in ransomware attacks and other cyberthreats targeted at school districts,” says Ken Weatherford, enterprise architect at Weaver Technologies. The firm is a Dell Technologies partner that consults with a wide variety of organizations, including many city and state government agencies, corporate clients and schools such as the San Felipe Del Rio Consolidated Independent School District (CISD) in Del Rio, Texas.

“Bad actors figure schools may not have much money, but they do have insurance,” Weatherford remarks. “And they’ll use it to prevent student data from getting into the wrong hands.”

Working with Weaver Technologies, the IT team at San Felipe Del Rio CISD implemented a technology platform from Dell Technologies — including an innovative cyber resiliency solution — to safeguard the district’s 10,000 students and 1,500 employees across 17 campuses and administrative sites.

The district’s systems and data are protected by Dell PowerProtect Cyber Recovery, Dell PowerProtect DP series appliances and the Dell Data Protection Suite with Avamar. The IT environment also includes a Dell VxRail hyperconverged infrastructure appliance, VMware Horizon virtual desktop infrastructure (VDI) and other Dell Technologies solutions.

An early wake-up call

With sensitive student and family information subject to Family Educational Rights and Privacy Act (FERPA) standards — as well as key employee data — in its systems, the school district conducted a thorough review and chose PowerProtect Cyber Recovery, the DP series of PowerProtect appliances and the Data Protection Suite with Avamar for comprehensive backup and recovery.

Then, the city of Del Rio suffered a ransomware attack that took its systems down for months. “That was a wake-up call that hit close to home,” explains Weatherford. “The district recognized that it couldn’t afford to have its data held hostage. We put our heads together to devise an effective cyber hardening strategy and ensure that the district could get their data back.”

However, before the full Dell Technologies solution could be rolled out — including PowerProtect Cyber Recovery with its air-gapped vault to physically isolate critical data from the network — the school district suffered its own cyberattack. The ransomware encrypted all of the district’s databases, file sharing servers, videos and more.

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Ken Weatherford
Enterprise Architect, Weaver Technologies

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Dell Technologies
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Ken Weatherford
Enterprise Architect, Weaver Technologies

“Fortunately, we had backups, so we were able to recover a good chunk of data fairly quickly,” says Gilberto Vazquez, network administrator at San Felipe Del Rio CISD. “But before the vault, it still took weeks to rebuild the servers.”

Recovery from second attack in hours

Once the school district was back online, the IT team moved forward in deploying PowerProtect Cyber Recovery. The air-gapped vault requires separate security credentials and multi-factor authentication, so bad actors can’t access or encrypt protected data and demand payment to release it.

The timing was fortunate because it wasn’t long before the district was victimized by a second ransomware attack. “With the PowerProtect Cyber Recovery vault, we were able to get back up and running in about four hours rather than weeks,” says Manuel Salinas, director of technology at San Felipe Del Rio CISD.

“We work with a lot of school districts, and many now rely on the PowerProtect Cyber Recovery vault and the DP series,” Weatherford adds. “With the vault, we’re 100% confident we can get the data back if we’re attacked. We can sleep at night knowing the data is secure behind that curtain of protection with PowerProtect Cyber Recovery.”

Streamlining data backup

The DP series is an all-in-one backup appliance that replaced the district’s previous snapshot approach, reducing the complexity of backup, replication, recovery, deduplication, and instant access and restore for disaster recovery.

San Felipe Del Rio CISD uses the DP series with Avamar data protection software to back up approximately 65 virtual machines — including the entire VxRail production cluster, VDI suite, domain controllers, SQL servers, student information systems and more.

“Avamar is very user-friendly,” says Vazquez. “If an employee misplaces a file, we can quickly go back and recover it. Avamar is also very fast — most of our backup jobs today finish in under two hours.”

“We like the fact that the DP series is an all-in-one appliance with everything bundled together,” Salinas comments. “It had the right price point. Updating it has been simple. And ultimately, its ease of use was key.”

“Having that extra layer of security by severing the connection between the primary data and the vault data is the most important aspect of the whole solution,” notes Weatherford. “Because then it’s nearly impossible to infiltrate.”

True peace of mind

Weatherford speaks about the inevitability of cyberattacks in today’s environment. “We work with the city of Del Rio, the hospital, schools and many other clients, and they’re all prime targets,” Weatherford concludes. “We often hear, ‘We hope we don’t get attacked.’ We explain that ‘hope’ isn’t going to work, and your plan can’t be a Word document on a server that gets encrypted. In all our time working with PowerProtect solutions, we haven’t had a single backup infection where we couldn’t go back and do a recovery.”