



## Continuous replication for mission-critical systems

Rushmore Electric rests easy with any-point-in-time recovery of vital utility monitoring and management systems. An integrated data protection appliance protects double the data, days faster.



Utility

United States

## Business needs

Rushmore Electric Power Cooperative's old backup solution left 50% of their data unprotected and exceeded their 13-hour backup window, sometimes by days. To improve service to their members, they wanted faster, comprehensive data protection. To keep vital electrical grid and load-monitoring systems available, they needed point-in-time recovery.

## Solutions at a glance

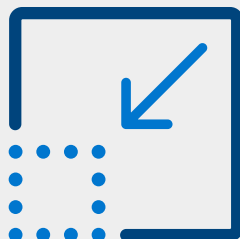
- [IDPA](#)
- [RP4VMs](#)
- [VMware](#)

## Business results

- Reduced nightly backup window from 2+ days to 6 hours
- Replicates mission-critical systems for any-point-in-time recovery
- Reduces daily admin time from 3 hours to 30 minutes or less
- Backs up ~2x as much data in the same amount of storage capacity

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Based in Rapid City, SD, Rushmore Electric Power Cooperative gives their eight member cooperatives greater buying power for affordable, bulk-rate electricity. Rushmore's mission is to provide the co-op members with the best possible services, in areas ranging from banking to engineering support, to IT. Protecting their data is vital, both to the co-ops and the communities they serve – so they recently modernized with Dell EMC Integrated Data Protection Appliances (IDPA) and Dell EMC RecoverPoint for Virtual Machines (RP4VMs).

*“Being able to recover critical systems to any point in time is a huge plus for us. I sleep a lot better now.”*

Sean Crooks,  
Systems Administrator,  
Rushmore Electric

## Amping Up

“Our old solution was clunky,” explains Sean Crooks, Systems Administrator for Rushmore Electric. “It didn’t do everything we needed it to, and it used up a lot of storage. We had to pick and choose the workloads we wanted to back up. And I didn’t sleep well at night knowing that over half of our assets were not being protected.”

Crooks got management approval to modernize and began a search for the best solution. “Rubrik and IDPA were the top two that I narrowed it down to,” says Crooks, “and it came down to what I was familiar

with.” A longtime Dell customer for other products, Crooks cites trust as a factor in his decision. “It was an existing relationship,” he says. “The reliability was there. Dell support has always been outstanding. They always get my cases resolved quickly, and everybody’s always professional. I just appreciate that. I’m not saying Rubrik didn’t have great support, but I had no experience with it. And I wasn’t willing to take that chance.”

Price was another factor. “One of the Rubrik appliances was over the cost of one of the IDPAs,” says Crooks, “so we would have gotten only half of the solution we got with Dell.” Rushmore chose two IDPA DP4400s, deploying one onsite at their main location and another at their DR site.

## No Plug-in

“We worked with a reseller to deploy it,” says Crooks, “and we were up and running in three days, set up with 100% of what we’re now backing up. With our previous solution, we had to dig into six different menus just to figure out what we were trying to do. To get the plug-in installed on the servers, you’d install them, you’d test it, you hoped it worked. If it didn’t work, you had to troubleshoot.”

*“Before some backups wouldn’t even finish in two days. But with IDPA and DD Boost, the longest I’ve seen is a little over six hours.”*

Sean Crooks,  
Systems Administrator,  
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“With IDPA, it just integrates through vCenter. I tell it what VMs I want to back up, and that’s it. There’s no plug-in, unless you’re doing file level, but even the file level agent is simple to deploy and configure.”

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## A Boost to Productivity

Because the co-op member companies straddle two time zones, Rushmore has a 6 p.m. to 7 a.m. backup window. “Before,” says Crooks, “some backups wouldn’t even finish in two days. When they were still running, the co-ops would open, and they’d go to try and use their internet, which is at the heart of their business for all their customers. They pretty much were at a standstill because the backups were using all their bandwidth. But with IDPA and using DD Boost, now I finish those backups. The longest I’ve seen is a little over six hours – half of our window.”

IDPA deduplication saves Rushmore on disk space, while protecting twice as much data. “With our previous solution,” says Crooks, “we only had a capacity of 18 terabytes, and with less than half the assets protected, we were using most of that. With the IDPA, we have a 36TB capacity. Thanks to great deduplication, we’re backing up 96% of our assets and we’re using just 19.8 of those 36TB. It’s a lot faster and more reliable. IDPA is just a better overall product. It just works.”

Crooks is particularly pleased with how the superior reporting capabilities of IDPA lighten his workload. He says, “The largest cost saving for me is the amount of time I spend. Before, the reporting was bad. I’d spend around three hours a day verifying backups, troubleshooting. With IDPA I get one report in the morning that says how many backups succeeded and how many failed. When I look at the failed, it’s usually something simple. I fix it and I’m back up and running. After the upgrade to IDPA, I consider half an hour a day spent on verifying and troubleshooting backups to be a long time. So, the savings there are well worth it.”

## Recovery at Any Point

Rushmore is 95% virtualized, with 170 VMs amounting to 59TB of data, which they back up nightly via snapshots. In addition, they use RecoverPoint for VMs (RP4VMs) to continually replicate their top six mission-critical systems. “It’s Exchange, our accounting software, our document management system,” Crooks says, “and our SolarWinds. In addition to our corporate network we’ve got a SCADA network, which is all the control systems for the electric grid. SolarWinds monitors both networks, so we need to keep it up.”

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RP4VMs also replicates Rushmore’s VoIP phone system, as well as a load management system that monitors how much electricity the co-op members are using. “We get some benefits, such as rate cuts, if we don’t exceed a certain amount of electrical use per day,” Crooks explains, “so that’s pretty critical. We keep an eye on it 24 hours a day.

“The RP4VMs replication runs continually, keeping all these mission-critical VMs backed up constantly through the day. Being able to recover critical systems to any point in time is a huge plus for us. I sleep a lot better now.”

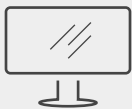
## Bigger and Better Things

“I’d definitely recommend an integrated appliance,” says Crooks. “We tried to build our own solution and it was a nightmare trying to get all the systems to talk to each other in the right manner, and de-dupe was non-existent. The amount of storage that we ended up settling on was just astronomical. Then we started looking at the IDPA, and wow! It was a no brainer for us.

“The greatest benefit to me with IDPA has been the ease of management. If I need to troubleshoot, it’s all right there. I can look at the logs to pinpoint the issue. IDPA made it so much easier to manage, the time I was spending on troubleshooting was cut by more than half. So, I can get onto bigger and better things.”

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