Executive summary

Dell EMC validates your virtualized Genetec video management system before it reaches your hands

The Dell EMC PowerEdge R740xd2 server powered by Intel Xeon processors handled a 240-camera workload without failure

Video surveillance is on the rise, with estimates of 180 million network and CCTV surveillance cameras shipped worldwide in 2019 alone.[1] For digital surveillance infrastructure to be effective, your cameras have to record around the clock without issue, and your servers must be able to process and store that data without disruption due to hardware issues such as disk failures.

Dell EMC™ offers software and hardware solutions validated by its Surveillance Validation Labs to attack this need. We worked with engineers at the Dell EMC Surveillance Validation Labs in Durham, NC, to validate the Dell EMC PowerEdge™ R740xd2 server, powered by Intel® Xeon® Gold 5120 processors, and a virtualized instance of Genetec™ Security Center 5.8, a software platform for managing video surveillance. The Dell EMC solution passed validation testing in a virtualized environment with 240 cameras recording continuously—first during normal operation and then during a simulated disk failure and rebuild—indicating that it's a reliable surveillance infrastructure solution for the Genetec platform.

If your organization is considering a virtualized Genetec Security Center video management solution (VMS), Dell EMC PowerEdge R740xd2 servers powered by Intel processors offer a validated surveillance infrastructure that could help protect your customers, employees, inventory, and more.

Different surveillance setups met stringent verification standards

Efficient recording under normal load

☑ 199 MB/s average disk throughput

☑ 16% average CPU utilization

Reliable performance during simulated disk failure and rebuild

☑ 192 MB/s average disk throughput

☑ 15% average CPU utilization

Why choose a validated solution?

Setting up a surveillance solution of any size requires research, planning, and implementation. This process can require significant trial and error before finding the correct fit for an organization's needs—which is expensive both in sunk time and labor costs. By choosing a solution that Dell EMC has already validated, you can shrink these costs and implement your surveillance solution in less time.

About Genetec Security Center 5.8

According to Genetec, the unified security platform of Genetec Security Center merges IP security systems within a single interface.[2] About Security Center, Genetec says: "From access control, video surveillance, and automatic license plate recognition to communications, intrusion detection, and analytics, Security Center empowers your organization through enhanced situational awareness, unified command and control, and connectivity to the cloud."[3] Learn more about Genetec Security Center.

We worked with Dell EMC engineers to validate the Intel Xeon processor-powered PowerEdge R740xd2 server running the Genetec Security Center VMS. We found that the solution comfortably supported 240 cameras recording continuously without dropping frames— first running normally, and then while experiencing a simulated server disk failure and rebuild. The ability to continue recording through disk failure showcases the reliability of the Dell EMC PowerEdge R740xd2 with Genetec Security Center, and low CPU utilization demonstrates the solution's efficiency at handling such a camera load and its capacity to support more work for those who require more cameras.

What is the Dell EMC Surveillance Validation Lab?

The Dell EMC Surveillance Validation Lab works with leading surveillance providers from the Dell EMC partner ecosystem to test their video management solutions on various server and storage solutions. Dell EMC then uses those findings to help organizations choose a tested and validated solution that meets the organizations' demands. In the Surveillance Lab, dedicated engineers test hardware and software solutions in what Dell EMC calls "extreme, real-world scenarios."[4] When your business implements a validated video management system, you do so knowing that Dell EMC has already tested and approved it for use.

The Dell EMC PowerEdge R740xd2

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1 IHS Markit, "Top Video Surveillance Trends for 2017," accessed December 19, 2019, https://cdn.ihs.com/www/pdf/1218/IHSMarkit-Security-Technologies-Trends-2019.pdf.

2 Genetec Security Center, accessed December 10, 2019, https://www.genetec.com/solutions/all-products/security-center.

3 Genetec Security Center, accessed December 10, 2019.

4 Dell EMC, "Protecting what matters to make the world safer," accessed December 10, 2019, https://www.dellemc.com/en-us/solutions/surveillance-security.htm#scroll=off.

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