

Clark Realty Capital Cloud Storage



CHALLENGE

Clark Realty Capital (CRC) is a national real estate company focused on serving military housing partners and jointly owned real estate investments with the Clark organization.

CRC had a unique need for making its file servers available for access by multiple regional offices spread across the nation. Data storage in regional offices was addressed by physical servers at each location with backups consolidated to a centralized data center using third party backup software over DMVPN connectivity. Data backups were replicated to a secondary data center for redundancy and long-term retention. Hardware refresh cycles for the physical equipment at each regional office and both data center SANs provided CRC an opportunity to rethink the existing storage strategy to significantly reduce the capital expenditure of each office and lower the storage footprint in each data center. They were looking for a solution that could provide high durability and availability of these servers.



SOLUTION

The primary goal of this project was to have Red River perform assessments of CRC's server infrastructure, decommission the ones not required and migrate the applicable ones to the AWS environment.

Red River implemented a backup solution using N2WS for servers in AWS. Additionally, to ease the site-to-site connections from all regional offices, an SD-WAN solution was implemented utilizing Meraki's vMX appliance in the AWS Cloud.

CRC's primary AWS storage solution consists of Elastic Block Storage (EBS) volumes that are attached to Elastic Cloud Compute (EC2) instances. The delivered solution mapped to the AWS Well Architected Framework (WAF) and provided secure data protection for the 15 TB of critical data for CRC. The solution delivered also included the newest technologies N2WS and AWS had to offer. Due to the cost and complexity of building a redundant Windows File Server to survive a VM or AZ outage, CRC opted to protect from an entire region outage by replicating data to a secondary AWS Region. The final solution offers protection for both AZ and Region outages, while still meeting Recovery Time Objectives.

Red River deployed the N2WS Cloud Protection Manager that provides a backup, recovery and disaster recovery solution which met the customer's storage needs currently and allowed for optimized elastic growth. N2WS uses EBS snapshots in accordance with Volume Shadow copy Service (VSS) to provide application-consistent backup and restore capabilities in AWS. The backup solution delivered in the AWS cloud far exceeded the customer's Service Level Agreements (SLAs) for data, as well as site restoration if needed.



RESULTS

Red River provided a secure storage solution that met CRC's requirements for centrally located file servers that are scalable and durable. CRC was able to decommission all regional office server hardware. Capital expenditures for the server hardware refresh cycles were eliminated and new office spin up IT cost dropped by roughly \$10,000 per site. The primary data center SAN was downsized, and the secondary data center SAN decommissioned. In total, CRC saved about \$200,000 and has a storage solution that is more durable, scalable and secure.

Red River Managed Services provides 24/7 ongoing support and maintenance of the environment. These services consist of optimization of the environment, applying patching, monitoring and alerts. When Red River Managed Services receives alerts the support team immediately responds to the issue to meet the SLAs required by CRC.