Cohesity Provides City of Hamilton Modern Backup and Recovery with Time Savings of 700%

Hamilton

INDUSTRY
Government

USE CASES
Backup and Recovery, File and Object Services, Security, Dev/Test

SOLUTION PARTNERS
HPE, Microsoft

CHANNEL PARTNER
Compugen

Key Benefits

- Combined CapEx and OpEx savings from licensing and staff efficiencies
- Over 50% reduction in total disk space thanks to 10:1 dedupe ratios and superior throughput
- Backup times for incremental backups reduced by 700%
- Flexible, hybrid solution for seamless integration on-premises and to public cloud

Hamilton is the fifth-largest municipality in Ontario and the tenth-largest municipality in Canada. As a global city with a population of more than 500K, Hamilton boasts a renowned education and health sector as well as a thriving arts scene. Industries in Hamilton include manufacturing, bioscience and medical, as well as agriculture, making the city ideal for business. The city's Information Technology (IT) division supports more than 75 different public services for Hamilton, including public health, emergency services, garbage and recycling, and social services.

Challenges

The existing primary storage at Hamilton was not adequate. To solve this, IT plans to deploy HPE's Nimble storage across its entire environment to replicate to both data centers. The city has virtualized approximately 90 percent of its environment, with fibre channel on the backend connected to its SAN and backing up approximately 600 servers and 300TB of production data. The city uses a VMware stretch cluster for replication and disaster recovery between the two datacenters and plans to extend that replication to all production servers in the coming year.

A few years ago, the IT team at the City of Hamilton found it difficult to achieve backups in a reasonable window and wanted to simplify its overly complex backup environment to resolve issues with frequent backup failures. The City of Hamilton deployed Veeam for backup across its infrastructure. The first deployment backing up approximately 50 servers went well, however, IT soon learned the Veeam solution could not scale. Because of poor throughput, dedupe and compression, the city easily hit maximum storage capacity on a frequent basis, missing the targeted backup window on a regular basis. As IT had to open increased support tickets and experienced slower backup times, it needed to make some decisions about how to resolve issues of inefficiency and rising cost.

> "Not only do we have a modern backup and recovery solution that works, Cohesity is also able to extend to native integration for cloud, file and objects, security, and dev/test. We deployed Cohesity Helios to manage our multi-cluster environment, giving us global management and ransomware protection from edge to cloud from a single, unified platform."
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> **Jonathon Mancini**, Supervisor, Datacenter Operations

The City of Hamilton aimed for the following capabilities in its next backup solution:

- Simplified backup and recovery platform with ease-of-management
- Global deduplication and compression capabilities
- Meet SLAs and reduce backup and recovery times
- Native cloud integration with ability to easily move data to the cloud and back on-premises

Solution

At the time when issues with Veeam were reaching a peak, the IT team was made aware of the recent OEM agreement with Hewlett Packard Enterprise. With HPE as an established vendor of record and seamless procurement path, the city opted to deploy Cohesity to use as a Veeam repository to try to overcome the myriad of issues with backups, including lack of performance and throughput. After continual issues, the IT team opted to not open yet another support ticket with Veeam, but to demo Cohesity's backup and recovery solution.

Hamilton deployed Cohesity DataProtect in each data center, similar to a VMware stretch cluster, allowing the city to leverage Cohesity between the two sites, and move data natively without running in VMware across both data centers. The City of Hamilton implemented Cohesity Helios for a single pane of glass to manage the cluster and automated infrastructure, as well as the ability to monitor backup data change rates to detect possible ransomware attacks. Cohesity is delivered through a validated HPE solution with HPE DL360 servers, allowing the city to consolidate secondary data and apps on-premises and to the cloud.

Results

The City of Hamilton stabilized its enterprise backup and recovery with Cohesity and is reaping even greater benefits with the additional capabilities and features of Cohesity Helios in its environment. Cohesity Helios allows Hamilton to manage a global environment, giving insight and protection for a unified view across both clusters. The city will also consider Cohesity MarketPlace down the road to easily download and use applications directly from Cohesity and third parties to extract insight and visibility from secondary data.

Cohesity brought great value with built-in features and applications, including SpanFS. "The underlying foundation of Cohesity is what I trust," explains Mancini. "Throughput and capacity are amazing, and leveraging technology like Change Block Tracking is giving us the performance we have never seen in our environment. The Cohesity solution is the secret sauce that makes our infrastructure better."

The city realized deduplication rates of two times with a full backup, and incremental backups have seen up to 15:1 ratios. The cost and time savings from backup and restore performance have allowed the city to save 20+ hours of staff time per week. IT staff is no longer spending hours troubleshooting or trying to accommodate growing data demands and can focus work efforts on other projects. Costs for licensing, third-party storage, and managing disparate hardware have been eliminated.

File server backups went from 12 hours to 10 minutes, and Hamilton's backup window has gone from up to five days to five hours. In the previous Veeam environment, two weeks of Exchange backups used more than 17TB of disk, but with Cohesity use only 5TB for an entire month.

The IT team is beginning to analyze costs for long-term retention in the public cloud versus the total cost of ownership of archiving to tape. Canada has strict regulations requiring data to be stored in-country and for this reason, the city is considering an Infrastructure-as-a-Service provider to host Cohesity for S3-compatible objects.

COHESITY

The City of Hamilton can offer Cohesity as a multi-tenant solution to other agencies within the city. The agencies run independent IT departments and can leverage the existing Cohesity implementation for a lower cost, easy-to-manage solution, allowing more usable capacity and performance with each additional Cohesity node.

The City of Hamilton gained many benefits with Cohesity including:

- Combined CapEx and OpEx savings from licensing and staff efficiencies

- Over 50% reduction in total disk space thanks to 10:1 dedupe ratios and superior throughput

- Backup times for incremental backups reduced by 700%

- Flexible, hybrid solution for seamless integration on-premises and to public cloud