LEONOVUS PROVES HIGH AVAILABILITY AND RESILIENCY OF THEIR DATA STORAGE SOLUTION

Leonovus 3.0 provides secure and encrypted solutions for organizations with large scale data storage needs. They recently completed a project on CENGN's next generation commercial-grade infrastructure to test the resiliency and high availability of their solution, Leonovus 3.0.

The team members at Leonovus are highly trained blockchain and software-defined object storage professionals. Customers of the publicly traded company (TSX-V: LTV) are able to distribute massive amounts of data across a diverse mix of on-premise and cloud-based storage. Cloud service providers, storage solution providers, and original equipment manufacturers (OEMs) are able to use Leonovus 3.0 and its patented algorithm to ensure maximum protection of their data.

LEONOVUS 3.0

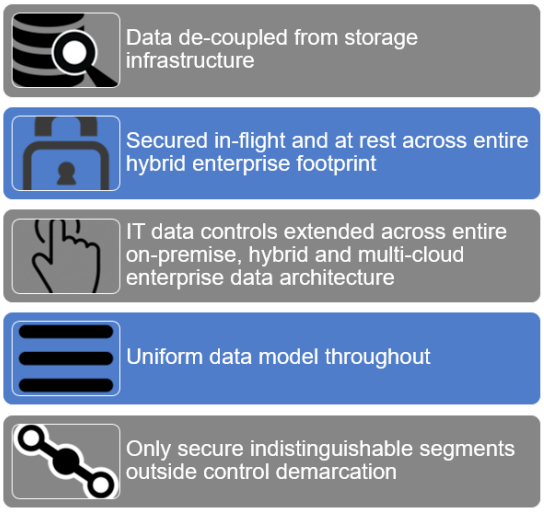
Leonovus 3.0 software-defined storage stores files by breaking them up into smaller fragments and using erasure coding to store them in a resilient fashion across an organization's entire infrastructure. All data is encrypted at rest and in transit. In addition, file fragmentation and dispersal across multiple storage nodes enhances security further by ensuring that, if one or more nodes are compromised, the attacker only has encrypted file fragments with no ability to reconstruct the entire file. Only authorized users are able to reconstruct the entire file from the encrypted fragments stored on individual storage nodes.

PROJECT CONTRIBUTIONS

Leonovus	• 1Admin Server • 2 Application Servers • 1 Database Server
CENGN	• Cloud Tenancy • Technical Support • Business Support

PRODUCT FEATURES

- Highly available and resilient
- Deploys in 30 minutes and has limitless scalability
- 99.9999% of data recovery probability and business continuity
- Runs on any storage platform including bare metal and is compatible with Amazon AWS S3, Amazon Glacier, Oracle, and other data management solutions and software-defined object storage protocols



Secure, object-based data protection and transport in managed services framework

PROJECT

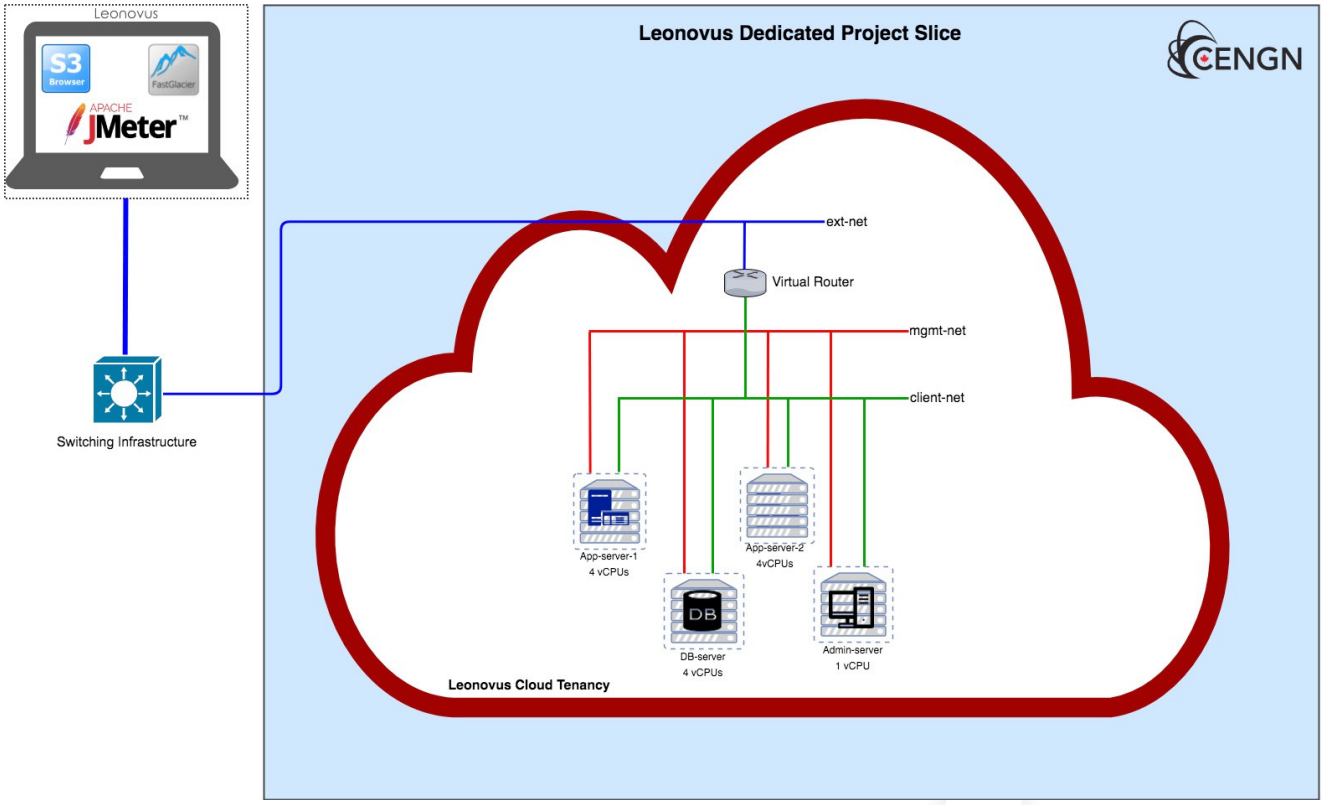
The project objective was to validate the resiliency and high availability of Leonovus 3.0. To do so, Leonovus was provided a secure cloud tenancy on the CENGN Testbed. The project included 2 application servers, which handled the operation of front-end user apps (S3, JMeter) and background business applications. A database server stored the web server data and metadata of files. An admin server displayed the admin dashboard to manage the components of the storage cluster.

CENGN MEMBERS

Bell · Cisco · EXFO · Huawei · Invest Ottawa | Investir Ottawa · Juniper Networks · Mitel Powering connections · Nokia · ribbon · Rogers · Telus · WIND AN INTEL COMPANY

THE RESULTS

After verifying the deployment and installation of the Leonovus storage cluster in their cloud tenancy on the CENGN Testbed, a series of tests were run to validate the resiliency and high availability of Leonovus 3.0:



High Availability Testing: Application servers 1 and 2 held a Web Application Resource (WAR) file, which is a set of files that make up a web application. The user uploaded and downloaded files while the application servers were sequentially shutdown. This test showed that the performance and functionality of one application server isn't dependent on the other. It also displayed that when both application servers in the same cluster are powered down in the midst of a file transmission, the process will resume and not restart when the application servers are powered back on.

Resiliency Testing: In this testing, only application server 1 held a WAR file. Application server 1 was powered down during both Leonovus 3.0's encryption and decryption process. The encryption and decryption process simultaneously paused with the shutdown of the application server. When power was restored to the application server, the encryption and decryption process resumed.

The same resiliency process was applied to the storage feature of their solution. For this test, the distribution and retrieval of files were paused and resumed with the powering down and powering on of the application server respectively. This validated the resiliency of their solution as Leonovus 3.0 breaks apart storage files, distributes them across infrastructure, and then amalgamates the storage blocks to retrieve the full file for customers.

CONCLUSION

Completing a project on the CENGN Testbed has allowed Leonovus to validate the high availability and resiliency features of their solution. CENGN was able to quickly customize the cloud tenancy to the needs of Leonovus to ensure they had a customer replicable environment to perform their testing in. Leonovus has proved their solution is compatible for production level cloud networks and can use the project results as a business development tool as validation of Leonovus 3.0 performing in a customer environment.

CENGN
CENTRE OF EXCELLENCE IN NEXT GENERATION NETWORKS

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