

► Challenge

To find an affordable way to store large binary files while providing real-time access to them at any given time

► Solution

A tiered storage approach based on the creation of an IP SAN using SANRAD's V-Switch 3000 iSCSI switch, in conjunction with the company's existing storage arrays

► Benefits

- IP a lot cheaper and easier to use than FC
- Secure and trusted access to logical volumes
- Flexibility to locate the servers anywhere they wanted
- Centralized storage management & virtualization
- Compatible with wide range of storage arrays and server operating systems

"We looked at other vendors in the last three months and did extensive testing. We'll need 24 TB of storage in the next year. The only company that can give that to us is SANRAD, unless we want to spend millions of dollars to accomplish the same thing. For midrange-sized data centers, the only company that gives us this ability today – and for the next six months – is SANRAD."

Yariv Glazer, IT Director
CONFIGATE



Configate Ltd. Puts its Trust in SANRAD

Biometric voice verification company adopts iSCSI IP SAN to secure vocal access to sensitive information

Overview

Voice recognition is becoming an increasingly popular method of authentication in customer-service arenas where sensitive information needs additional security protection. Instead of passwords and/or PINs, which are at risk of being forgotten or stolen, a person's unique vocal modulation makes biometric voice verification an important step in the development of access control methodology.

Configate Ltd. is among the leaders in providing biometric voice verification solutions to companies specializing in customer service transactions with highly confidential information. To enable these solutions, Configate has established a three-database system for authentication. The first database contains information about the user, such as login information, details about the user and user name. The second database contains the actual voiceprints of the user. Users record a pass-phrase, which serves as the basis of comparison for later transactions. The third – and largest database – is comprised of voiceprints recorded for each attempted vocal login. These voice logs are saved for a period of time stipulated by the company – usually from 7 months to a year – and can be examined to verify both successful access and potential "hack" attempts.

The Problem

The internal business problem that Configate needed to solve was to find an affordable way to store these large binary files while providing real-time access to them at any given time.



“We looked around about two years ago for a solution to our problem. We needed a SAN architecture that provided high availability via multi-pathing and database replication. Our services needed to be accessible around the clock so the SAN and the data needed robust failover capability. We also needed to be able to scale storage easily and efficiently. We had no way to predict how fast we were going to grow nor for how long customers wanted us to maintain their voiceprint verification history. Lastly, we wanted to use iSCSI instead of FC. An IP SAN solution gave us the flexibility to locate the servers anywhere we wanted – including another building, city or state. IP was also a lot cheaper and easier to use than FC.” said Yariv Glazer, IT Director for Configate. “The only company offering a complete solution that could also handle a high volume of customer interactions was SANRAD.”

The Solution

Configate’s evaluation led it to adopt an iSCSI IP SAN solution from SANRAD. The company’s V-Switches are high performance, network-centric storage connectivity and volume management solutions that Configate installed behind its remote voice verification systems and in front of storage systems located in the Configate data centers.

Solution's Architecture

Configate’s architecture is set-up to maximize the regionalism of requests. The assumption is that a person who enrolls in New York probably lives in the area; therefore that user’s authentication is done by a local server. But the actual database that the server uses is located remotely, away from the authentication server. The server communicates to its own remote storage volume and database using iSCSI over secured TCP/IP to the V-Switch. The V-Switch provides each server with its own set of virtual volumes and each volume contains the unique database for a company, organization or agency. Though they don’t control the database transactions themselves, the V-Switches create the virtual volumes and enable secure volume login so that each remote authentication server can securely read or write its own transaction files. Because it is important for Configate clients to know where transactions actually happen in order to minimize fraud and breaches of security, each transaction is recorded and the access location noted.

Configate authentication servers connect to the V-Switches using iSCSI over TCP/IP. V-Switch volume management and virtualization pools the attached storage systems and creates hundreds of virtual mirrored volumes to store the different databases used by a multitude of Configate authentication servers. Since the V-Switches are not limited to any maximum storage capacity and can support any popular SCSI, FC, iSCSI storage system or FC Fabric, it provided Configate with a flexible easy to scale storage solution that was highly available and very cost effective able to span to 100’s of TB’s. SANRAD’s V-Switches can be connected to hundreds of remote authentication servers and create over 65,000 virtual volumes for individual company, organization, agency or department databases.

To provide another margin of fault tolerance for Configate customers, V-Switches are configured in clustered pairs to provide multi-pathing and failover. Individual V-Switch active/active cluster members are located in two places, 40 miles apart, and replicate the databases across mirrored Fibre-channel links to individual storage systems. In the event of disaster where one V-Switch and associated storage becomes unavailable, the partner V-Switch will take over by securely connecting to the remote authentication servers and continue to authenticate users using its copy of the replicated volumes and associated databases.





Despite the fact that Glazer is happy with the performance of the SANRAD solution and despite the fact that the system has gone for nearly 12 months with zero downtime, Configate continues to evaluate products from other vendors to ensure that future equipment acquisitions are the best.

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