

The Villages Saves Time & Money with Replay™

As told by Ken Peakman, Supervisor of Server Operations, The Villages

Background

The Villages is a self-contained retirement community in Florida covering 36 square miles of land and is home to over 65,000 residents. Our Exchange environment supports roughly 2,500 clients who work in sales, cadd, administration, accounting, engineering, human resources and many other departments needed to support the development of the community including our own district government, radio station, television station, newspaper, golf course, ISP; and the list goes on and on.

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Bryan Williams, Chad Ritch and I are in charge of The Villages network infrastructure, data storage and security, as well as all the backend applications necessary to support our clients. Our mission statement is: “We design, maintain and enhance secure networks, storage, server applications and access to data valuable to our clients.”

Our Exchange environment is set up in a two-node active/passive Microsoft cluster. These servers are attached to an EMC CX300 series SAN through two Brocade 16 port 2 GB switches. The Exchange Virtual Server is running two storage groups with two stores in the first group and one store in the second. The stores are about 40 GB each.

We Have Had Some Data Issues

You always have concerns when you have mission-critical data. We’ve had some clients who have deleted important Exchange objects (e-mail messages, calendar items and public folder contents) by mistake. We have also experienced Exchange data store corruption and issues with corrupt operating systems.

Before we began using Replay for Exchange, we had to invest a lot of time and resources in recovering from store corruption. We relied on traditional methods of recovery that sometimes required Microsoft involvement, at the support level. Of course, when Exchange is down, our clients are affected and they really scream. (Think about the brakes for your car; as long as they work, you don’t even think about it; as soon as the pedal goes to the floor and the car keeps going, you freak out and want it fixed RIGHT NOW!) During some of these events, we didn’t really have an ETA for our clients as to when the service would

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be running again. Even a simple request to restore an Exchange object beyond the “deleted item retention period” was a big issue for us. We’d have to go to tape, find another non-production server that had space, drop the store on the server, configure Exchange and the drives, so that we could hopefully mount the stores from backup, search for the Exchange object, then write the object to a PST for import back to the production environment.

Obviously that takes a lot of time. So did conducting the backups. We used to backup to PSTs every Friday utilizing EXMERGE for a point in time recovery for each individual mailbox. One of us had to get up at 5:00 am and spend time getting the backup going. Once rolling, the PST backup took over 12 hours to complete. This backup took up bandwidth and processing power and put an extra load on the Exchange server. It also took up about 15 GB of disk space per instance of a weekly PST backup. Do the math and this adds up to an enormous amount off disk space just to be able to recover an object over the course of a year. We also do a full conventional backup of the server everyday for disaster recovery purposes.

Replay Saves Us Time & Storage Costs

With Replay, PST backups are no longer necessary, reducing the load on the Exchange server, our bandwidth and the storage necessary to retain the PSTs. We can now restore any Exchange object from any point in time with a few simple clicks of a mouse; and without disrupting the Exchange server or our clients. Although we still do disk/tape server backups every night, Replay is our first choice for restoring anything because it’s so simple and we’re confident in its abilities. The disk/tape backup is simply a secondary tier of protection. If we have a catastrophic failure, Replay enables us to recover to the same or different server in a short amount of time with just a few clicks of the mouse. This is peace of mind!

Replay’s biggest benefit is that it guarantees that snapshots are mountable and continually usable. In the event of a disaster, we can conduct a bare metal restore with just a few clicks and be up and running within minutes or hours instead of many hours or even days. We simulated a multi-drive failure (in our lab) just so we could see if the bare metal restore works as advertised. And it does! It’s a big stress reliever.

Replay Provides Confidence for Exchange De-Clustering

Now that we’re confident with Replay in production we’re going to take full advantage of our Exchange environment by de-clustering and running Exchange on multiple independent servers. Microsoft clustering requires an Enterprise class operating system and Exchange Enterprise license for each server. In Active/Passive mode, we have a completely idle Exchange Server standing by just in case we have a hardware failure. But, we have never actually had a hardware problem with our Exchange servers. Therefore, having an entire machine unutilized is a large capital expense for protection just for hardware

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issues. Microsoft Cluster also adds a degree of complexity to the Exchange environment and requires a higher level of support.

Clustered servers do serve a purpose but they don't protect you against software or data corruption. If data corruption causes Exchange to failover to the passive node and the corrupted data resides on the shared drives or registry, the system won't recover. It will just failover back and forth without Exchange ever recovering.

When we de-cluster we'll use the second Exchange and operating system licenses to support a second Exchange server. We're taking real advantage of that capital expense. We'll also increase performance by splitting the load between two servers and Replay will enable us to protect each one. Conventional backups will be faster due to smaller stores which will also speed recovery.

We're Protecting the Entire Environment

With Replay, we protect the OS, the data and the registry of our Exchange Servers. We also use Replay to protect two of our domain controllers. We host many domains, have lots of DNS zones and many redundant DHCP scopes. Replay shines in protection of these resources too.

Replay also provides the option to recover to a completely new server if the original cannot be repaired.

Replay & AppAssure Really Help

AppAssure support and development have been very helpful and very fast. When we first tested Replay it didn't support clustered environments. AppAssure engineers were able to repackage the software for us to provide this feature. They quickly came up with a working version that we could install and use. When we used features in a way the designers had not anticipated, AppAssure's tech support answered our questions quickly and professionally. Minor issues that we have discovered during testing were addressed by the development team very quickly as well. All of our concerns were dealt with efficiently and we never felt "out of the loop". Now the product works flawlessly.

If I were to recommend Replay to another system administrator, I'd tell them that it's a real stress reliever. Recoveries take just minutes with just a few mouse clicks and we don't need to rely on clustered servers anymore which is great because that is just another layer of complexity. If you want to be certain that Exchange services are highly available and fully protected, this is the product for you.

Replay really simplifies Exchange management and disaster recovery.

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