Helped the largest E-Commerce based metal trading site consolidate multiple backup across regions

DCM Infotech

Highlights

- *The reason the customer preferred DCM over any other partner was the deep capabilities that they had seen and referred with our customers.*

- *The number of Technical certifications and manpower that we had on IBM spectrum protect.*

- *The background of having executed backups for extremely critical production applications like SAP Oracle apps was a deciding factor for the customer.*

The Client:

Our customer is an E-Commerce based trading site for metals and nonmetals.

Being an E-Commerce site, they were heavily dependent on their applications and their networks for support of the business. The customer hand multiple environments running simultaneously and each environment had its own physical backups, some backups were on single tape drives attached to some physical servers. They also had a multitude of data bases ranging from IBM DB2 to Oracle and Microsoft SQL.

Customer wanted to consolidate all the backups from multiple locations and across multiple databases and operating systems on to a setup which was located at the Central data centre and replicated at the DR site.

Challenges:

The backups at individual locations were not policy based. They did not happen on a schedule automatically. They were initiated by the administrators and in case the administrator at a location was tied-up in other activities, the backup for that day was lost. In case some one wanted to recover data of a given day, they may realise, that it was not available.

There was no catalogue of the backup, so recovery of data was time consuming since each location maintained their own manual registers of the tapes.

All the backup was done on individual drives attached to the local servers. Recovery of data on another machine was a challenge since the drive would have to be physically removed, drivers loaded and then data recovered.

All this brought about a lot of skepticism on the ability of the company to recover from a data loss.
Since they operate in a global environment, one error due to loss could completely destroy the reputation of the company and result in massive business loss.

IT Envt Challenges:

Since this is an e Marketplace they had to be operational 24 hours of the day. Getting a shutdown to implement a policy based live application back-up became a key challenge. Since the policies that are implemented also need to be tested for their effectiveness.

Secondly, customer wanted to first consolidate their backups onto centralized setup and then replicate data to the DR site.

Customer did not have an automated library to do backup. So first we had to get them to identify the size of the library, the number of arms and bays so that the centralized backup strategy could be effectively implemented.

Bandwidth between locations and identifying load distribution on the leased lines, so that the business is least impacted. So dynamic backup windows for different application were needed.

Suggested Solution:

DCM broke down challenge into multiple small pieces of:
1. Sizing the data from each location
2. Amount of backup copies needed
3. Load patterns on the leased lines
4. Number of live backups and number of file level backups
5. RPO /RTO of each application based on the criticality of the business.

Since the customer already was an IBM enterprise account, we suggested IBM spectrum protect as a consolidation tool because Spectrum not only has live application database backup capabilities it also does live backup of SAP and has replication capabilities to replicate along across multiple sites.
- Backup of running / live database
- Live backup of SAP.
- Replication capabilities across multiple sites

For the library we suggested the use of a Tandberg 4 drive automated library with LTO 5 drives.

Since the customer had to backup 12 DB2 data bases, Microsoft SQL databases, 14 production Oracle database, and one lotus notes databases, we had to install agents for each of these applications on the remote servers. Each of these applications had to be backedup live.

Around 25 client servers with IBM AIX and Windows were configured for file level backup while the SAP was configured on three servers for online backup.

Next all the data was consolidated from multiple tables across locations and brought on to a single tape drive library. All the backups were automated and scheduled as per the customer's requirements. Customer wanted one copy to be kept onsite while another copy to be for offsite storage.

The backup policy was also designed to replicate data to a DR site with a similar library at the DR site also.

The Benefits:

- Unified view for the entire backup.
- Multiple copies created- one at the DC, one at the DR and one for offsite vaulting.
- Since the backup is catalogued on the DB2 database of the IBM spectrum protected, recovery can be granular and quicker.
- The whole project was executed within 3 months across the locations and today any recovery across multiple locations can happen within a matter of hours
- RTO are consistently being met.
- The cost of implementation was low as it was executed from DCM NOC. However, it was done faster as it can be scheduled at anytime of the day based on the server availability.