Classified DOD Customer

Customer Background

This United States Department of Defense (Customer) is part of the of the U.S. armed forces, under the operational control of the U.S. Secretary of Defense.

Customer Challenges

This Customer desired to implement replication between a U.S. military site in Florida to an unnamed site in the Middle East.

The implementation was challenging due to excessive network latency (200 ms) between the sites, abnormally high packet loss and out of order sequence issues of the traffic. The other major challenges stemmed from the fact the WAN network bandwidth was limited between the remote locations. A network assessment by EMC professional services determined the customer could not guarantee a minimum of 10 Mb/s of bandwidth which was also requirement of the SRDF application. Because of the sensitive nature of this customer and the associated data, DOD grade encryption was required.

Cisco MDS 9509 FCIP adapters were originally considered for this project but were dismissed by EMC engineering due to the complexity and cost. As an alternative EMC implemented native GigE from their storage systems which was easier to manage and were considered best practice versus a Fibre Channel over IP WAN configuration.

Customer Solution

EMC Technical Services brought in NetEx's HyperIP appliances to accelerate and optimize the SRDF and Celerra replication traffic for the Customer. The EMC DMX3000 used its native compression feature to a remote DMX1000 and the HyperIPs were used to additionally compress the Celerra traffic and to rate limit all the replication traffic to minimize bandwidth impacts to other shared traffic.

Prior to this implementation the HyperIPs were pre-qualified with the General Dynamics' Taclane (KG) encryption devices for interoperability purposes. The HyperIP acceleration appliances operated seamlessly with the Taclane devices which was expected.

HyperIP exceeded Customer's expectations for their replication requirement. Not only is HyperIP aggregating the transfer of these important applications, it also shields the applications from network issues that would normally degrade transfer performance and throughput. The customer has since expanded their WAN bandwidth to 20 Mb/s with a simple HyperIP key upgrade and has also implemented an active — active configuration for added redundancy.

Memorable Quote "The NetEx HyperIP solution allows our customer to replicate mission critical data over a network that is plagued by excessive latency and packet loss. HyperIP is doing a great job for a very important EMC customer." *Jay White, EMC Account Manager*

Customer Results/Benefits

- HyperIP enabled a successful BC / DR implementation using best-of-breed EMC replication applications, all in a very cost effective manner.

- Customer plans to add EMC Centera replication in the future.

Florida — HyperIP — DMX3000 Celerra — 20 Mb/s Encrypted DISA Circuit — SRDF/A Celerra Replicator — **Middle East** — HyperIP — DMX1000 Celerra

Hyper IP by netex