

With Superior Quality and Technical Services, AscenLink® Integrates CNOOC's Network Environment to Provide Non-stop Services

● Company Background

China National Offshore Oil Corporation (CNOOC) is one of the three largest national oil companies in China. Established in February, 1982, CNOOC is a state-owned corporation with a capital of 50 billion RMB and currently has 24,000 employees. Headquartered in Beijing, CNOOC assumes exclusive rights and overall responsibilities for the exploitation of oil and natural gas resources offshore China in co-operation with foreign partners. CNOOC is now the major shareholder/owner of an oil/natural gas resources exploration and production company, a research center, a chemical plant, two technical service companies, and an investment company, just to name a few. CNOOC also co-owns a petroleum chemical company with Shell. Over the past 20 years, CNOOC has become one of the leading oil and natural gas exploration and production corporations in the world. Moreover, it has been one of the top key state-owned enterprises in China in terms of operating results over the past few years.

● Challenges

In order to adapt to the trend of globalization and to increase its own pace of internationalization, CNOOC realizes that using the Internet is becoming absolutely essential for communication, resources sharing, and information exchange. However, this process proves to be a very challenging task for the corporate network infrastructure department. It is necessary to not only allow every employee in the company to communicate using the Internet, but also provide a stable and reliable network environment so that maximum benefits can be achieved from the network resources.

Challenge 1: How to integrate all the corporation's WAN connections without changing the existing network configuration?

CNOOC currently has two lines for WAN connections, one from China Network Communications (CNC) and the other from China Telecom (CT, CHINA TELCOM). How to increase and evenly allocate the usage of these two lines becomes an important task so that stability and reliability of the network connections can be achieved. Traditionally, human intervention is the only way to solve problems with network congestion and disconnection by manually adjusting the network connections. This is also the most troubling problem for network administrators.



Challenge 2: How to allow the many internal servers to provide services through CNC and CHINA TELCOM?

A new challenge arises while facing the challenge mentioned above. That is, existing servers in the corporation such as www and mail need to be able to continue their services through both WALN links after the integration process. Products currently available in the market rarely provide the functionality to do so. Moreover, in addition to purchasing expensive equipments, network administrators are required to be highly capable to handle a large amount of complex work. This is the second challenge that the network administrators have to deal with.

Challenge 3: How to quickly resolve an unexpected problem when network services are required 7 x 24?

The network is required to stay congestion-free at all time, providing non-stop services. Also, the network should not be affected when a single WAN link fails to function properly. In the event when the lines and equipments were both down at the same time, the recovery process should be simple and swift. To ensure non-stop services for both internal workforce as well as external partners and customers.

Challenge 4: How to analyze the huge amount of log files?

CNOOC has a lot of information exchange everyday. The company also provides various services. It is not difficult to see why there would be a huge amount of log files present. A top network administrator needs to be familiar with every detail of the network in order to have a grasp on the network condition at all time. Only so can the security and stability of the network be attained. To sort through and analyze this huge amount of log files is undoubtedly an overwhelming task.

● **Why AscenLink®**

A mega-size enterprise like CNOOC elects to use AscenLink from AscenVision due to its exceptional value proposition. With superior performance, price, stability, security, friendly UI design, technical support and services, to name just a few, there's no surprise that AscenLink stands out in a crowd of international and domestic brands.

Below are some of the reasons why CNOOC selects to use AscenLink for this particular project:

- 1 Integrating multiple WAN links (including ISDN, ADSL, Cable, etc.) without altering the existing network infrastructure.
- 2 The Multihoming function of AscenLink that provides multiple connections to the Internet to achieve stability and lower the risk of disconnection.
- 3 The Auto Routing function is capable of balancing loads between different outbound traffic based on various policies, so that WAN bandwidth utilization can be maximized.



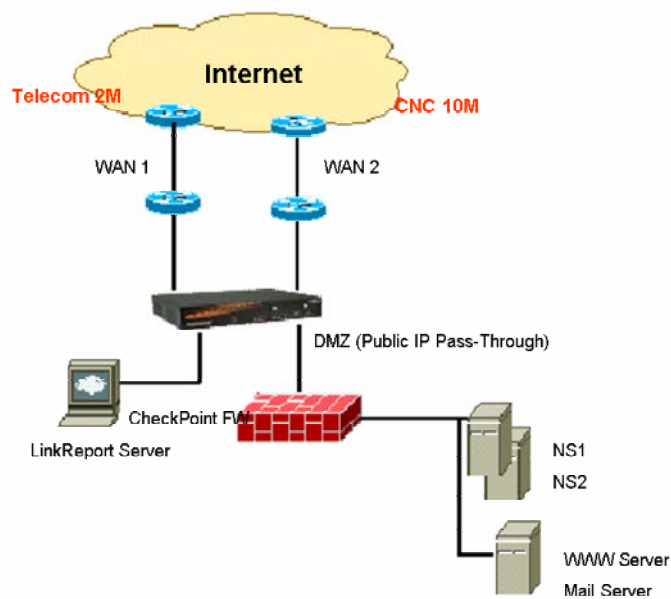
- 4 AscenLink's Virtual Server function enables internal servers can be accessed through a single IP address from the outside.
- 5 AscenLink provides a powerful function called LinkReport, which monitors and records all the data transmissions on the network.
- 6 Based on the client's need and the requirements given, AscenVision and its partners' professional engineers will provide complete pre and post sale services.

● **Solution**

The goal of providing non-stop services for CNOOC is accomplished by implementing the following resolutions through the use of AscenLink.

- 1 With AscenLink, integration is performed on the two outbound connections, CNC and CT, so that the network bandwidth can reach up to 12Mb, utilizing available network resources efficiently.
- 2 Combining AscenLink's unique Multihoming function and the Virtual Server function, servers are able to provide services to external partners and customers (such as www and mails) through the use of two WAN links.
- 3 If problems occur to both the network and equipments at the same time, AscenLink's DMZ port is utilized so that continuous services are guaranteed without changing the firewall settings.
- 4 LinkReport is used to thoroughly monitor and report on the network data transmission information. Real-time monitoring on the status of every WAN connection, bandwidth usage, and load analysis can be achieved. These reports can also be sent to a user via e-mail at a specific time through automatic task settings.

Implementation Topology for CNOOC





● **Return on Investment**

- 1 AscenLink easily integrates existing network resources, improving the utilization rate of current bandwidth by a whopping 70%!
- 2 AscenLink's stability and powerful features, such as a user-friendly UI and LinkReport, bring great relief to the network administrators. They no longer need to perform manual configuration or stand by when network problems occur, reducing the Total Cost of Ownership (TCO).
- 3 CNOOC's servers can now provide more reliable services using both ISPs, CNC and TC. This improvement in service brings CNOOC a reputation of trustworthiness, recognition, and approval, the kind of intangible assets that will elevate the company to be the leader of the industry!