

C-BID hosts all customers at XO Communication's (www.xo.com) Data Center (a leading provider of IP services to businesses and service providers).

XO® Collocation provides secure, controlled carrier-class space and network access for carriers, which facilitates faster interconnection. XO Collocation provides:

- Switched and dedicated access to transport facilities via cost-effective, high-capacity metropolitan and long-haul XO network facilities
- Great performance and reliability while reducing total operating costs
- XO® provides and installs the physical cage structure, complete with locking door and ladder racking above.

Features:

- Carrier-class hosting facilities with customized design, expedient implementation, power and back-up power supplies, temperature and humidity controls and fire suppression systems
- Large nationwide footprint with locations in prime metropolitan areas
- 24x7 Technical Services available on a time-used basis to support our equipment
- 24x7 onsite physical security, including security guards, motion detectors, security cameras, individually locking cabinets and cages and card-key access
- 24x7 monitoring of systems and services
- 24-hour access (with security escort where necessary)
- Access to the XO OC-192 IP network, built on self-healing SONET fiber-ring technology
- Provides high-performance Internet connectivity based on bandwidth requirements (100 Mbps).



Additional double layer security for all customers is standard. The network topology and the infrastructure are as follows:

(A) Perimeter router - connects to Internet Connectivity provided by XO

Perimeter router connects Hosting network infrastructure to the Internet Connectivity provided by XO in the Data Center. Perimeter router is also first layer of defense against intrusions. Filtering is done via basic packet Access Control List from the Internet.

(B) Pix firewall - connects to perimeter router and internal networks

Pix router's role is to protect C-BID's Hosted network. This is second and main layer of defense.

(C) Hosting servers - to serve customer projects

Hosting is done on dedicated powerful database and web servers.

Apart from the configuration above C-BID has also implemented the following on all hosted servers:

- Symantec Anti-virus corporate client for virus protection.
- Security Certificates are installed in all the Web Servers for data encryption.

## OPERATIONS

- System drive - no customer projects on any system drive. All data is located on RAID array.
- Backup procedure - SQL server databases are backed up continuously every 15 minutes to local NAS and Tape device as well as two remote locations in the east coast and the mid-west of USA. In addition, nightly and weekly full backups are taken and kept for the entire system and application for faster disaster recovery.
- Controlling the operations - Network program management check server's condition on a regular basis. In case of alert/warning it sends e-mail/pager/SMS to the administrator 24x7. In addition, XO has its own port monitoring system round the clock.

### Disaster Recovery Procedure:

A) System drive failure: In this the case drive can be quickly replaced. An Image of the installed and configured OS is stored over the network as a Norton Ghost image file. Disaster recovery in this situation includes two stages - restoring OS from image and configuring IIS and SQL servers for customers' projects.

B) Failure of one hard drive in RAID array: In this case the drive can be quickly replaced (hot swappable) and RAID rebuild performed. This does not affect operations.

C) Failure of two or more hard drives in RAID array: In this case defective hard drives are replaced and array is rebuilt. Using backup located over the network or from tape drive. Customers' databases are restored to most recent stage.

## Complete Network Assets : XO Communications

