

Regional Geospatial Service Center Equipment

The regional geospatial service centers were established to advance, update and distribute geospatial data both imagery in raster format or vector data between UTEP, SFA, Texas Natural Resource Information system (TNRIS) the state hub for geospatial data, NGA (National Geospatial Agency) and the USGS (United States Geological Survey). The two prototype centers are located at the University of Texas at El Paso and Stephen F. Austin State University (SFA). These centers will be connected over a high bandwidth network like the LEARN network to update and backup critical data that will sustain operations related to emergency response by the Texas National Guard and local emergency responders in any natural or human induced disaster. Geospatial data will be published over the internet as web services in secure internet mapping servers.

The centers will also support and advance research and develop applications related to security, health and economic development. For operation we have purchased the following equipment:

The servers will be clustered to run ArcGIS server, Spatial Database Engine (SDE), SQL server or/and Oracle, ArcIMS mapping services, Developer ArcObjects, web services. The HPC cluster will be used to run parallel processing software related to GIS, developing applications, running transportation models, finite difference and finite element models. This will be the first windows cluster at UTEP running Microsoft Windows Compute Cluster Server 2003.

1. 10 blade servers(1855), dual 3.6 GHz processors, 8GB memory, FC HBA, Dual 146GB hard disk drives, Server 2003 enterprise(32 Bit).
2. 10 blade servers(1855), dual 3.6 GHz processors, 8GB memory, FC HBA, Dual 146GB hard disk drives, Server 2003 enterprise(64 Bit).
3. 40 HPC 1425 servers with dual 3.8 GHz, 8GB memory and 160GB HDD. This will run MS windows compute cluster server 2003 OS.
4. Storage solution with over 10TB of storage capacity scalable to over 72TB or more with the availability of high capacity SCSI or SATA drives.
5. 1 server for the backup solution (2850) with Power Vault 132T tape library, dual drives LTO-3, 400/800GB capacity on each tape.

