

# NOTICE TO BIDDERS

The Grand Prairie Independent School District will receive sealed bids and proposals until:

**10:00 A.M. – April 23, 2009**  
at which time all responses will be publicly opened

FOR:

**GPISD Novell eDirectory/GroupWise to Microsoft Active Directory/Exchange Migration and Implementation**

***Detailed specifications will be available on Tuesday April 7, 2009***

at

[http://www.gpisd.org/departments/business/purchasing/current\\_bids.html](http://www.gpisd.org/departments/business/purchasing/current_bids.html)

or

2602 South Belt Line Road

The school district reserves the right to reject any and/or all bids and to waive all formalities and irregularities in bidding.

## **BID ENVELOPE MUST BE ADDRESSED TO:**

Grand Prairie ISD  
Purchasing Department  
2602 South Belt Line Road  
Grand Prairie, TX 75052

*and*

**PLAINLY MARKED:**

**BID NO. 09 - 38**

Any bid received later than the specified time, whether delivered in person or mailed, shall be disqualified and will remain unopened. Failure to respond to this invitation will remove your name from the bid list. If you cannot bid at this time and desire to remain on the bid list, please submit a **NO BID** on the bid form and return.

# GRAND PRAIRIE INDEPENDENT SCHOOL DISTRICT

## PROCEDURES FOR SEALED BIDS OR PROPOSALS

### 1.0.0 GENERAL CONDITIONS

- 1.1.0 APPLICABILITY - These conditions are applicable and form a part of the contract documents in each equipment and/or service contract and a part of the terms of each purchase order for items of equipment and/or service included in the specifications and bid forms issued herewith.
- 1.2.0 WITHDRAWAL OF BIDS - Any bid may be withdrawn by the bidder prior to the scheduled time for opening. Any request by a bidder to withdraw a bid must be in person or in writing and submitted to the Director of Purchasing prior to the scheduled time for opening bids. Any bid that is received after the time specified shall not be considered and may be returned unopened to the bidder.
- 1.3.0 BIDS SHALL BE SUBMITTED ON THESE FORMS - Deviations to the General Conditions and/or Specifications shall be **conspicuously noted in writing** by the bidder and shall be included in the bid.
- 1.4.0 BIDDERS WHO DO NOT BID are requested to notify the Grand Prairie Independent School District (GPISD) Purchasing Department in writing if they wish to receive future bids. Failure to do so **will** result in their being deleted from our bidder list.
- 1.5.0 GPISD reserves the right to waive any or all bid irregularities, formalities, or other technicalities; to be the sole and independent judge of quality and suitability of any products offered; and may accept or reject any bid in its entirety, or may reject any part of any bid without affecting the remainder of that bid, and may award the individual items on this bid in any combination or in any way to best serve the interests of GPISD as it perceived those interests to be in its sole discretion.
- 1.6.0 GPISD will enter into contractual relationships only with those bidders who have, through word and action, affirmed that they comply with all applicable existing laws or executive orders to insure equal employment opportunities, without regard to race, creed, color, sex, or national origin. Minority owned or HUB companies are encouraged to compete in providing goods and services to the district. GPISD does not operate under a set-aside program.
- 1.7.0 Quantities shown are estimates only, based on prior usage. GPISD reserves the right to increase or decrease quantities with the selected supplier, both at the time of acceptance of this quotation offer as so modified, and subsequent thereto. GPISD will purchase

supplies and materials during the bid period as-needed.

1.8.0 DELIVERIES required in this bid shall be freight prepaid, F.O.B. actual destination detailed in specifications, between 7:00 a.m. and 2:00 p.m., inside delivery. Bid prices shall include all freight and delivery charges. Delivery requirements will make it mandatory that the successful bidder schedule an appointment with the Director of Purchasing, or their designee, prior to the shipping any materials.

2.0.0 SPECIFICATIONS may be those developed by the Using Department or by the Manufacturer to represent items of regularly manufactured products, materials, or equipment.

2.1.0 DISTRICT SPECIFICATIONS have been developed by the Using Department to show minimal standards as to the usage, materials, and contents based on their needs.

2.2.0 MANUFACTURER'S SPECIFICATIONS (Design Guide), when used by the District, are to give the bidder information as to the type and kind requested. Proposals on any reputable manufacturer's regularly produced product of such items similar and substantially equivalent will be considered.

2.3.0 Whenever an article or material is defined by describing a proprietary product or by using the name of a manufacturer or brand name, the term "*or equal*" if not inserted *shall be implied*. The specified article or material shall be understood as indicating the type, function; minimum standard of design, efficiency and quality desired and shall not be construed as to exclude other manufactured products of comparable quality, design and efficiency. GPISD reserves the right to make final decisions as comparable items. Be very certain that items upon which you bid and deliver are equal to items listed. Materials, which are not equal, will be returned to the bidder, transportation charges collect. Bidder will reimburse GPISD for items returned at invoice cost within 30 days.

2.4.0 WARRANTY CONDITIONS for all supplies and/or equipment shall be considered manufacturer's minimum standard warranty unless otherwise agreed to in writing. Bidder shall be an authorized dealer, distributor or manufacturer for the product. Seller shall not limit or exclude any implied warranties, any attempt to do so shall render this contract void at the option of the Buyer.

2.5.0 GPISD, any of its departments, divisions or campus, is one user and reserves the right to select products and/or supplies from any bid, cooperative agreement such as the General Services Administration or the Department of Information Resources.

3.0.0 EVALUATION OF BIDS, in accordance with Article 2368a.3, Section 5, takes into account the following considerations:

3.0.1 Project Price – 20%

3.0.2 Completeness of Solution – 25%

3.0.3 Previous Experience/References – 25%

3.0.4 Project Management Approach – 15%

3.0.5 Completion Time – 15%

3.1.0 PREFERENTIAL REQUIREMENT - GPISD, as a governmental agency of the State of Texas, may not award a contract for general construction, improvements, services or public works projects or purchases of supplies, materials, or equipment to a nonresident bidder unless the nonresident's bid is lower than the lowest bid submitted by a responsible Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located (Article 601g V.T.C.S.).

3.2.0 IDENTICAL BIDS - In cases where bidding is required for proposed contracts, and more than one bidder submitted the lowest and best bids (identical bids), the bidder who is a resident of the district shall be selected by the governing body. If two or more bidders submitting the lowest and best bids are residents of the district, one of the resident bidders shall be selected by the casting of lots.

3.3.0 AWARD of BID; BID SUMMARY: The GPISD reserves the right to award a separate contract to more than one bidder for each item/group/service or to award on contract for the entire bid. All bidders will receive a statement of bid award. Tabulations will be posted on the district Purchasing webpage.

[http://www.gpisd.org/departments/business/purchasing/bids\\_proposals.htm](http://www.gpisd.org/departments/business/purchasing/bids_proposals.htm)

#### 4.0.0 CONTRACTS

4.1.0 CONTRACTS FOR PURCHASE will be put into effect by means of a purchase order(s) executed by the Purchasing Department after bids have been awarded.

4.2.0 ALL CONTRACTS AND AGREEMENTS between bidders and the GPISD shall strictly adhere to the statutes as set forth in the Uniform Commercial Code as last amended in 1977 by the American Law Institute in the National Conference of Commissioners on uniform state laws.

4.3.0 Buyer's obligation is payable only and solely from the funds available for the purpose of this purchase. Lack of funds shall render this contract null and void to the extent funds are not available and any delivered but unpaid for goods will be returned to the Seller by the Buyer. Do not include Federal Excise, State or City Sales Tax. Entity shall furnish exemption certificate.

5.0.0 DISCLOSURES - By signing this bid, a bidder affirms that he/she has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with the bid submitted, and

5.1.0 affirms that, to the best of his/her knowledge, the bid has been arrived at independently, and is submitted without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give them an unfair advantage over other bidders in the award of this bid. (See NON-COLLUSION STATEMENT)

5.2.0 Upon notification of potential selections for award, the person or entity submitting this bid must give notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in this conviction of a felony (See FELONY CONVICTION NOTICE).

5.3.0 BIDDER SHALL NOTE any and all relationships that might be a conflict of interest and include such information with the bid. A list of current board members and the superintendent may be reviewed at

<http://www.gpisd.org/gpisd/trustees/index.htm>

5.4.0 The price to be paid by the Buyer shall be that contained in Seller's bid which Seller warrants to be no higher than Seller's current prices on orders by others for products of the kind and specification covered by this agreement for similar quantities under similar or like conditions and methods of purchase. In the event Seller breaches this warranty, the prices of the items shall be reduced to the Seller's current prices on orders by others and overpricing refunded within 30 days to GPISD, or in the alternative, Buyer may cancel this contract without liability to Seller for breach or Seller's actual expense.

5.5.0 In the event of a price decrease to the general trade during the full term of the contract, such decrease must be allowed the District for all configurations and components included in this contract.

#### 6.0.0 CONDUCT WHILE ON DISTRICT PREMISES

6.1.0 Successful bidder or contractor, and all employees, will be required to comply with the same standards applicable to the employees of the GPISD with regard to procedure 18 of the Auxiliary Employee Handbook.

6.1.1 Language: The use of profanity while on duty is unacceptable.

6.1.2 Smoking: All premises are tobacco free.

6.1.3 Additionally, workers must adhere to a dress code conducive to promoting a positive learning environment in or on GPISD property. Specifically, GPISD prohibits pictures, emblems, bumper stickers, or writings on clothing that are lewd, offensive, vulgar, or obscene or depict or advertise tobacco products, alcoholic beverages of any kind, drugs, or any other substance.

6.1.4 Finally, no person shall possess firearms or possess, hold, consume, sell or be under the influence of any chemical substance such as alcohol, marijuana, inhalants, stimulants, narcotics, depressants or any compound not prescribed by a licensed physician in accordance with Article 4476-14 and 15 of V.T.C.S.

7.0.0 STATEMENT OF QUALIFICATIONS, when required, must include a description of organizational experience, references and capabilities.

7.1.0 *Organizational Experience*: Bidder must describe their qualifications and experience to perform the work described in this invitation.

7.2.0 *References*: Proposals must include at least three references,

preferably state and local government organizations where the bidder currently provides the type of services and/or products requested. Reference listings must include organization names, addresses, and contact person and telephone number.

SECTION 8.0.0 – 10.0.0 (SECURITY; BID SECURITY; PAYMENT BONDS; AND INSURANCE) do not apply to this bid.

11.0.0 PRESENTATION OF BIDS: All bids/proposals must be received at the Purchasing Office in a sealed document. No oral, telegraphic, telephonic, or facsimile bids will be accepted. ALL correspondence, including freight bills, packing slips, invoices and statements must reference the district purchase order assigned as a result of this bid.

#### 12.0.0 INTERLOCAL AGREEMENT

The Grand Prairie ISD participates in the Educational Purchasing Cooperative of North Texas (EPCNT) There are several governmental entities which utilize this organization for potential purchases. A complete list may be viewed at

[http://www.epcnt.com/Current\\_members.htm](http://www.epcnt.com/Current_members.htm)

Governmental entities utilizing Internal Governmental contracts with the EPCNT will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than Grand Prairie ISD will be billed directly to that governmental entity and paid by that governmental entity. Grand Prairie ISD will not be responsible for another governmental entity's debts. Each governmental entity will order material/service as needed and issue the appropriate purchasing documents/contracts.

## BIDDER'S CERTIFICATE

This bidder, the below named firm, hereby submits bid prices as shown for furnishing the items listed herein, delivered in the quality and dimensions specified, and subject to the conditions listed under "Bid Specifications and Conditions." Bid prices shown are net and include all charges. Descriptive and illustrative material, including specifications and data sheets, and all other proposals accompanying this bid are considered to be an integral part of this bid offer.

FIRM'S NAME
-------------

ADDRESS
---------

CITY & STATE
--------------

ZIP CODE
----------

EMAIL
-------

TELEPHONE
-----------

FAX
-----

AUTHORIZED SIGNATURE
----------------------

DATE
------

POSITION WITH COMPANY
-----------------------

### INTERLOCAL AGREEMENT

Should the governmental, referenced above, elect to participate in this contract, would you, (the contractor) agree that all terms, conditions, specifications, and pricing would apply?     Yes     No

**RETURN THIS PAGE**

### **Non-Collusion Statement**

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.

It is agreed by the undersigned bidder that the signed delivery of this bid/proposal represents the bidder's acceptance of the terms and conditions of this invitation to bid/offer a proposal including all specifications and special provisions.

**Note:** Signature of the authorized representative **MUST** be of an individual who legally may enter his/her organization into a formal contract with the Grand Prairie Independent School District.

FIRM'S NAME

NAME OF AUTHORIZED INDIVIDUAL (printed or typed)

AUTHORIZED SIGNATURE

DATE

POSITION WITH COMPANY

**RETURN THIS PAGE**

## Felony Conviction Notification

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states “a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony.”

Subsection (b) states “a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination contract.”

This Notice Is Not Required of a Publicly Held Corporation

(I) (We), the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

**COMPANY NAME:** \_\_\_\_\_

**Check the appropriate box and sign the form.**

- My firm is a publicly held corporation; therefore, this reporting requirement is not applicable.

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

- My firm is not owned nor operated by anyone who has been convicted of a felony.

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

- My firm is owned or operated by the following individual(s) who has/have been convicted of a felony.

*Name of Felony:* \_\_\_\_\_

Details of Conviction(s):

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

**RETURN THIS PAGE**

**CONFLICT OF INTEREST QUESTIONNAIRE**

**FORM CIQ**

For vendor or other person doing business with local governmental entity

**OFFICE USE ONLY**

Date Received

This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity. By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code. A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

1 Name of person doing business with local governmental entity.

2  Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.

4 Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.

**RETURN THIS PAGE**

**CONFLICT OF INTEREST QUESTIONNAIRE FORM**  
For vendor or other person doing business with local governmental entity

**CIQ** Page 2

**5 Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)**

This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or business relationship. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire?

Yes     No

B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity?

Yes     No

C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

Yes     No

D. Describe each affiliation or business relationship.

**6 Describe any other affiliation or business relationship that might cause a conflict of interest.**

7

\_\_\_\_\_  
Signature of person doing business with the governmental entity

\_\_\_\_\_  
Date

## Project Overview:

Grand Prairie Independent School district is seeking to migrate from its Novell eDirectory and GroupWise environment to Microsoft Active Directory (AD) and Exchange. As part of this project, GPISD seeks to have the following functions performed:

- Deploy and implement Microsoft Windows 2008 Active Directory services as specified.
- Migrate current Novell eDirectory Services to Microsoft Windows 2008 Active Directory platform as specified
- Migrate and implement required infrastructure technologies and services including DNS, WINS, DHCP, and others to Microsoft Windows 2008 Active Directory as specified
- Deploy and implement Microsoft Exchange 2007 Service pack 1 in a clustered environment as specified.
- Migrate GroupWise messaging services to Microsoft Exchange 2007 service pack 1 as specified.

## Background:

Grand Prairie Independent School District is located within the Dallas-Fort Worth area. Currently, GPISD has approximately 40 sites, including 24 elementary campuses, 7 middle schools, 5 high schools, 2 alternative education locations, 1 service center, and 1 administrative center. These sites house approximately 27,000 students and 3,500 staff members.

## Current GPISD Infrastructure:

- **WAN Infrastructure:** GPISD owns its dark fiber network. The campuses are inter-connected in a hub-and-spoke model. GPISD currently uses a Gigabit Ethernet to connect all sites. At various locations, the Gigabit Ethernet network is run on top of a SONET infrastructure. The minimum WAN bandwidth available is 466Mbps (OC9). The sites are inter-connected as shown in Project Diagrams.
- **Campus Infrastructure:** Each classroom, library, lab, and administrative area network drop is connected to the campus network with a minimum 100Mb connection. Campus servers are connected at 1Gbps.
- **Internet Infrastructure and Connections:** GPISD has 100Mbps connection to the Internet. This connection is split between two separate providers. GPISD owns the gpisd.org domain.
- **Network OS** – Approximately 70 servers are Novell Netware 6.5sp7. There are approximately 10 OES2sp1 Linux servers. In addition, there are large pockets of application servers running Windows 2000/2003. Virtualization is also in use running Virtual Iron.
- **Network Services:**
  - **Internal DNS:** Three Netware 6.5sp7 boxes provide internal DNS functions for the domain gpisd.org and all sub-domains. Each campus has its own sub-domain, <campus>.gpisd.org in which all workstations, printers and other DHCP based devices register via Dynamic DNS. These DNS use root name servers for non-GPISD domains. External and Internal DNS is not integrated.
  - **External DNS:** Two Netware 6.5sp7 servers provide external DNS for gpisd.org. These servers provide name services for GPISD on the

internet.

- **DHCP:** Each campus server provides DHCP for its respective campus. Each campus can have anywhere from 8 to 50 scopes.
- **Printing:** Each campus server provides printing via NDPS and/or iPrint.
- **Zenworks:** Each campus server serves as the imaging, application, and policy management server for the campus. All applications and imaging is provided via Zenworks.
- **Campus File Servers:** Servers are Dell/HP mix running Netware 6.5 sp7. Servers provide DHCP, Printing, and Zenworks. In addition, the servers provide local file storage for student work.
- **Data Storage:** All staff user data is stored with in a virtualized Linux OES2sp1 cluster. Six 1TB volumes are used to store all home directories and shared folders. These folders are mapped at login via container and profile scripts. The actual file storage is located on a Xiotech Magnitude 4000 SAN. The servers and storage array are connected to the SAN fabric with 4Gbp connections to a Cisco 9509 switch. The data is mirrored via Xiotech's software to another SAN. User data storage is broken out in the following manner:
  - **Data001** – Home Directories for usernames beginning with A-C.
  - **Data002** -- Home Directories for usernames beginning with D-J.
  - **Data003** – Home Directories for usernames beginning with K-M.
  - **Data004** -- Home Directories for usernames beginning with N-R.
  - **Data005** -- Home Directories for usernames beginning with S-Z.
  - **Shares001** – All shared folders and directories.
- **Mail:** There are 5 mail servers that provide access to GroupWise mailboxes. The servers are running in a Novell cluster environment. There are 5 Post Office running inside the cluster. The post office users are broken out in the following manner:
  - **Mail001** – usernames that begin with A-C.
  - **Mail002** – usernames that begin with D-J.
  - **Mail003** – usernames that begin with K-M.
  - **Mail004** – usernames that begin with N-R.
  - **Mail005** – usernames that begin with S-Z.

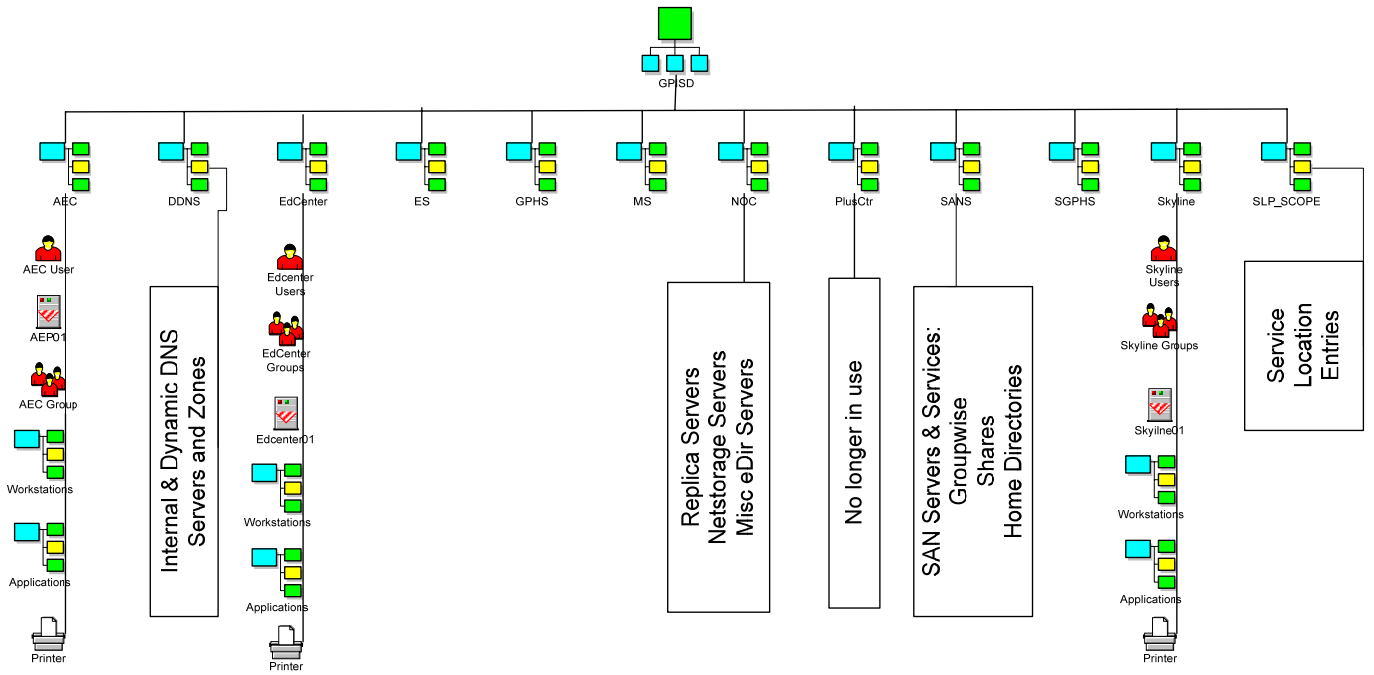
The 5 post offices route mail to a single domain server which is also clustered. The domain server is connected to a single GroupWise 7 server that provides SMTP services. The SMTP server sends and receives outbound email from an IronPort mail appliance. The appliance performs all spam, malware, and virus detections for the gpisd.org domain.
- **Replica Servers:** Three Netware 6.5sp7 servers provide all replication and authentication services.
- **LDAP:** The three replica servers provide all LDAP functions for GPISD. Both LDAP and LDAPS are used. Various external applications use LDAP authentication to provide single user account authentication. There are 5 to 7 of these applications that use LDAP.
- **Network Management and Monitoring:** GPISD uses a mix of Novell's ConsoleOne and iManager utilities to manage its Novell GroupWise and eDirectory environment. Whatsup Gold is used to monitor server and network device uptime and status.

- **Backups & Restores:** GPISD uses Syncsort's Backup Express to back up all data and email daily to a SAN attached SpectraLogic Python tape library. The tape library uses 4 LTO4 drives and has 100 tapes available.
  - **Disaster Recovery:** GPISD has a Disaster recovery site located at Reagan Middle School. This site is approximately 10km from the primary data center located at the GPISD Education Center. The sites are inter-connected via 12 strands of GPISD owned fiber.
  - **Workstations:** GPISD has approximately 10000 workstations. 6500 of these workstations are less than 18 months old and are currently running Windows XP sp3, Novell client and Microsoft Office 2007. These stations are teacher machines, lab machines, library machines and administrative workstations. The additional 3500 machines are older (3-5) machines running windows XP, Novell Client and Microsoft Office 2000. These 3500 machines are serving as student workstations. All machines are connected at minimum of 100Mbps. Workstations are named by service tag.
  - **User Accounts:** GPISD provides user accounts to nearly all staff members. The user account is used to access file storage, email, and 3<sup>rd</sup> party products that support LDAP authentication.
    - **Naming:** GPISD uses the first initial and full last name to generate user accounts. Additional letters from the first and middle names are inserted as needed to generate unique accounts.
    - **Drive mappings:** Each user maps 4 drives to access data via a profile login script called from the container login script. The profile login script:
      - *NO\_DEFAULT*
      - *MAP ROOT INS*  
*S1:=.%<Campus>01\_SYS.%<Campus>.GPISD:PUBLIC\*
      - *MAP ROOT*  
*F:=.%<Campus>01\_DATA.%<Campus>.GPISD:NALAPPS\*
      - *MAP ROOT H:="%HOME DIRECTORY"*
      - *MAP ROOT S:=.CXCL01\_SHARES01.SANS.GPISD:*
- The drive letters are used for
- **F:** is used for ZenWorks application deployment
  - **H:** is the user's home directory.
  - **S:** is mapped to the shared file server.
  - **Z:** is mapped to the authenticating server (search drive 1).
- **Student Accounts:** Student accounts are not provided globally for students. Accounts are created as needed by campus staff for lab and student usage.

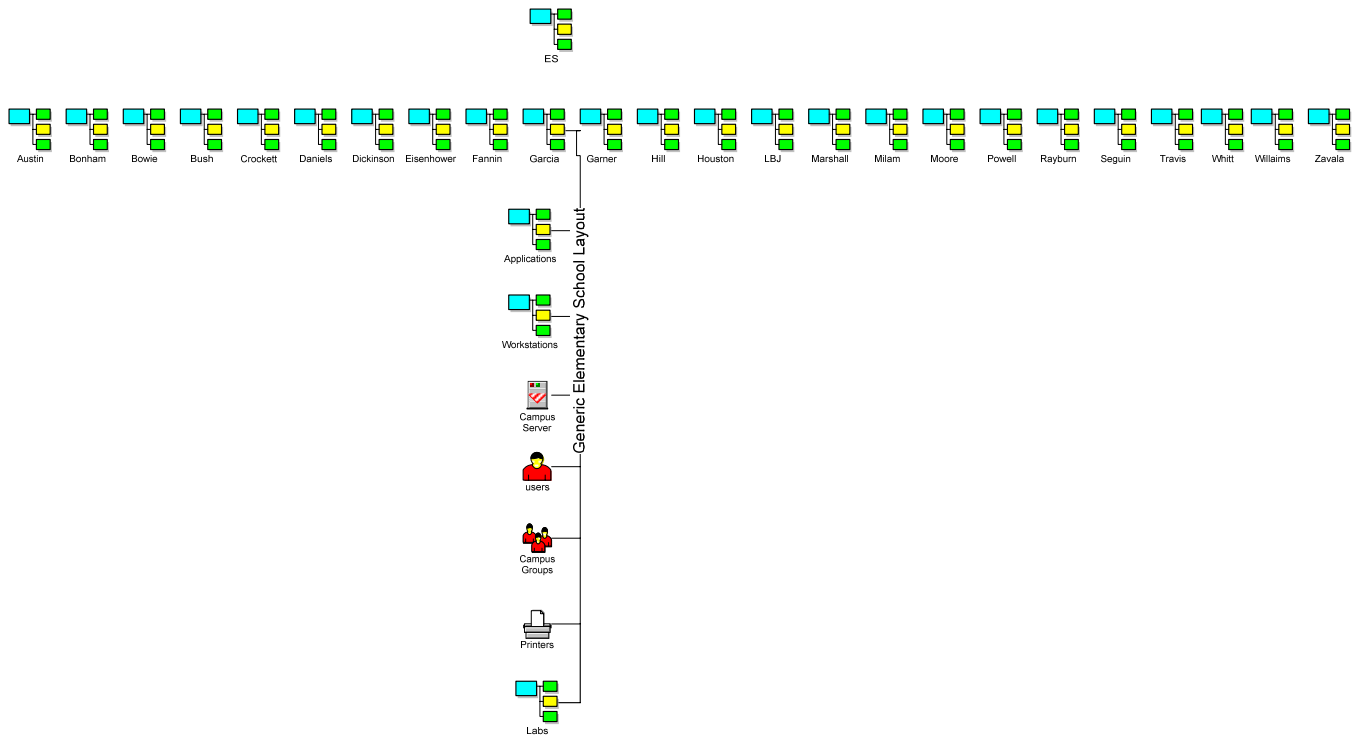
### Current GPISD Directory Information:

GPISD currently uses Novell's eDirectory. GPISD is running version 8.8sp2. The tree structure is broken out by location due to bandwidth limitations at the time of original implementation. The current directory structure is listed below.

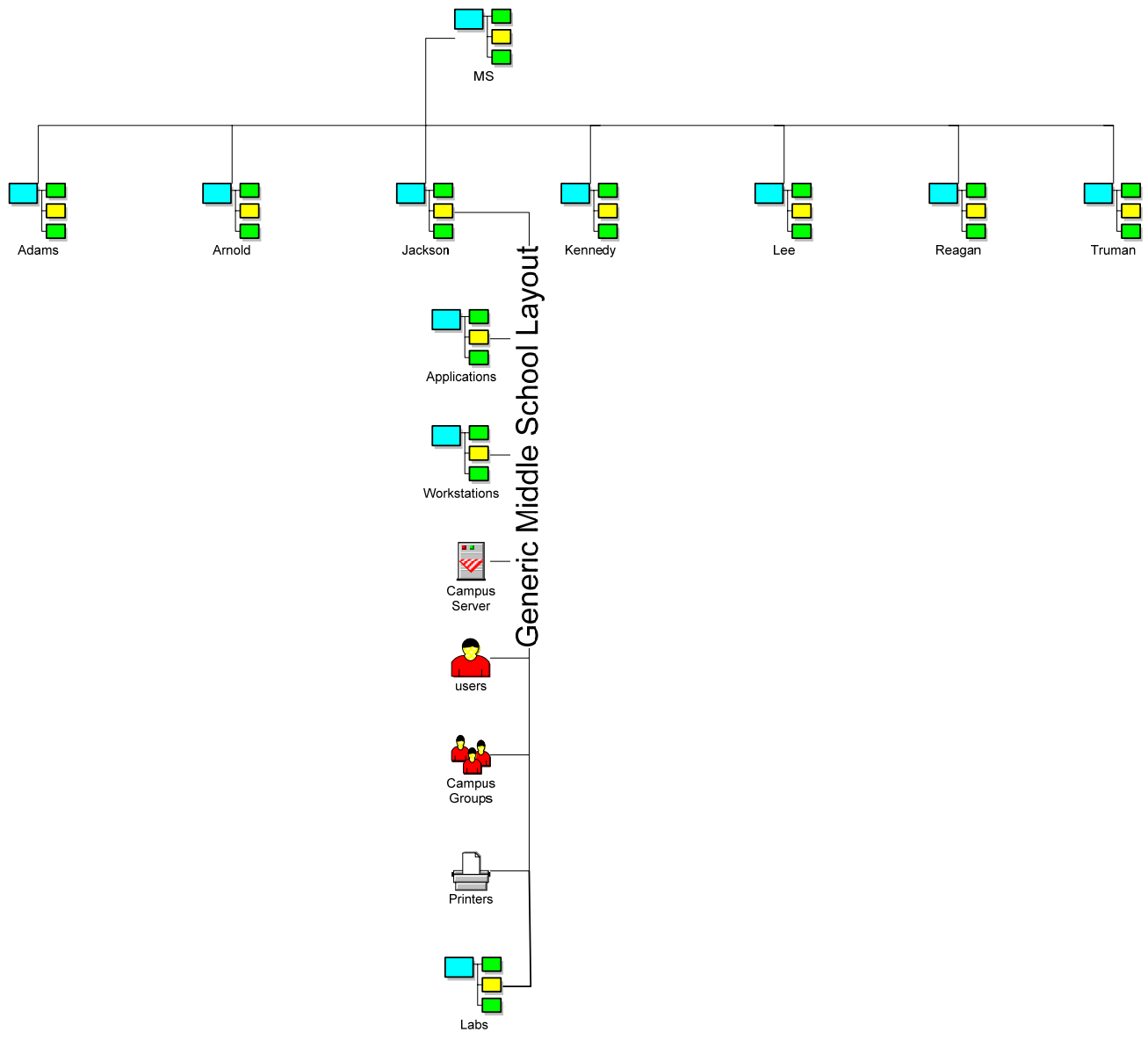
# Root Partitions:



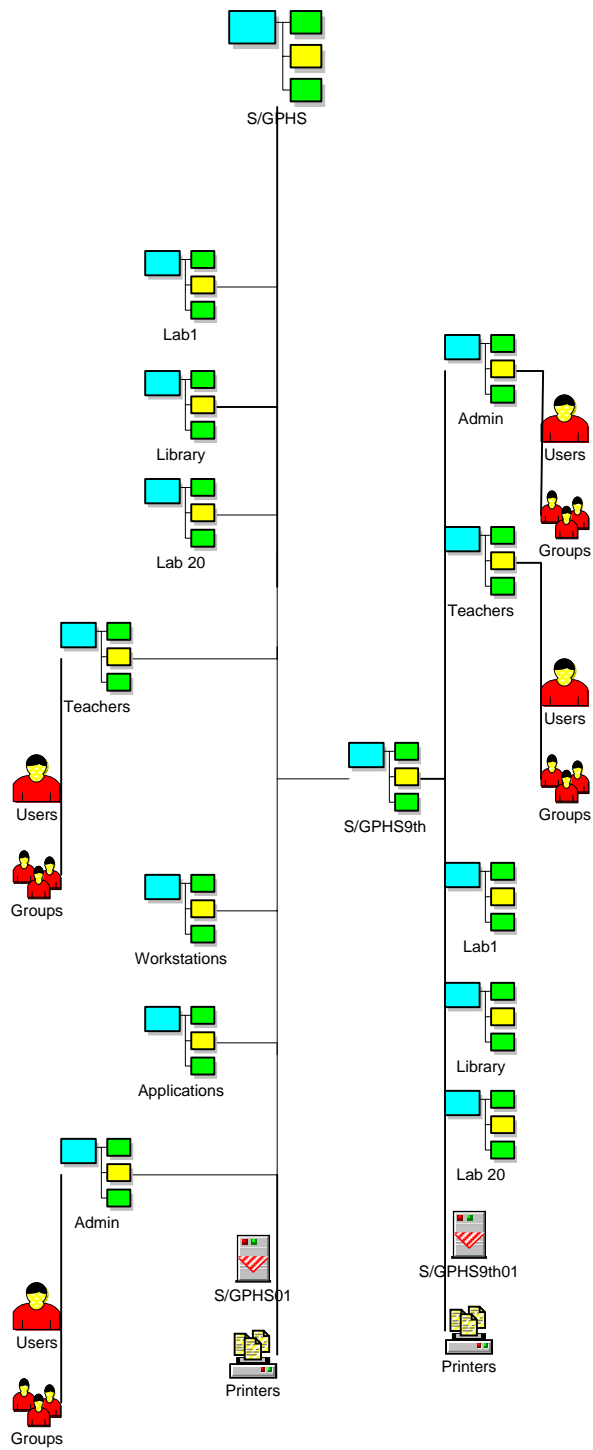
# The ES Organization Unit is further broken out as:



# The MS Organization Unit is broken out as:



The GPHS and SGPHS Organizational Units have the following structure:



# GPISD Design and Implementation Requirements

**Hardware & Software:** GPISD will purchase the required server hardware for both Active Directory and Exchange. GPISD will purchase the required disks for the SAN to implement the CCR/SCR cluster solution listed later. GPISD will rack, stack, cable, and provide IP addressing to all GPISD purchased equipment. Lastly, GPISD will acquire the proper licenses for Windows Server 2008 and Exchange 2007 Service pack 1. Bidder is responsible for any additional hardware, software, labor, or other resources required for the selected vendor to perform the task. The chart below lists hardware and software GPISD will provide for the core Active Directory and Exchange Servers.

Server Role	Qty	Hardware	NICs, Drives, HBAs	Internal Disk Configuration	Server OS
Exchange CAS	3	2.0 GHZ 2x Quad Core Intel Zeon processors 16GB ram 6MB cache	Dual internal Gig Nics 3-146GB hard drives	Raid 1 configuration 1 Hot Spare	Windows 2008 STD, 64 bit
Exchange Mail-MBX	3	2.0 GHZ 2x Quad Core Intel Zeon processors 32GB ram 6MB cache	Dual internal Gig Nics 3-146GB hard drives, 2 Single port 4GB HBA.	Raid 1 configuration 1 Hot Spare	Windows 2008 ENT, 64 bit
Exchange HUB	3	2.0 GHZ 2x Quad Core Intel Zeon processors 16GB ram 6MB cache	Dual internal Gig Nics 3 -146GB hard drives	Raid 1 configuration 1 Hot Spare	Windows 2008 STD, 64 bit
Domain Controller	4	2.0 GHZ 2x Quad Core Intel Zeon processors 32GB ram 6MB cache	Dual internal Gig Nics 3 -146GB hard drives	Raid 1 configuration 1 Hot Spare	
Quest Migration Console	1	2.0 GHZ 2x Quad Core Intel Zeon processors 16GB ram 6MB cache	Dual internal Gig Nics 3 -146GB hard drives	Raid 1 configuration 1 Hot Spare	Windows 2008 STD, 64 bit
Exchange 2003 Staging Server	1	2.0 GHZ 2x Quad Core Intel Zeon processors 16GB ram 6MB cache	Dual internal Gig Nics 3 -146GB hard drives	Raid 1 configuration 1 Hot Spare	Windows 2008 STD, 64 bit
CCR Disks	44		400G 10K RPM Disks for Xiotech SAN	Raid 10	NA
SCR Disks	22		400G 10K RPM Disks for Xiotech SAN	Raid 10	

The selected vendor will be responsible for purchasing/leasing the appropriate Quest Software migration tools including Quest Reporter, NDS Migrator, and Groupwise Migrator to Exchange.

**Work Areas and Locations:** GPISD will provide space at the GPISD Education Center at 2602 South Beltline Rd for 2 onsite migration team members. Access to network resources, building resources, servers, and other items will be provided in a timely manner. GPISD will provide a single point of contact for the project. Also, GPISD has 40 sites, each of which may require site visits. Bidders are responsible for all travel costs including costs to these sites. Bidders will need to complete criminal history checks on team members that will be at any GPISD location.

**General:** GPISD will use the opportunity during the migration to move the minimum items necessary while creating new objects when necessary. GPISD will “move what we must, recreate what we can.”

GPISD expects all Microsoft, Novell, Quest Software and other standard best practices to be implemented. If a deviation occurs, GPISD will have the final approval.

## Naming Conventions

- **Servers:**
  - Campus Servers: Campus servers will be named after the full campus name followed by 001. As an example, Rayburn Elementary’s server will be named, Rayburn001.
  - Directory Servers: Directory Servers will be named ADx0y. “x” will be the OSPF area the server resides, while the “y” will be a counter for that site. An example would be the first Active Directory Domain Controller at the Education Center would be AD201.
  - Exchange Servers: Exchange server will be named EX<3 Letter Exchange function>x0y. The 3 letter function will be CAS, HTS, or MBX for the respective roles. The “x” will again represent the OSPF area and the “y” will be a counter. An example would be the Hub/Transport Server located at Reagan would have the name EXHTS501.
  - Other Servers: Will be named after their functionx0y. “x” will be the OSPF area again. The y will be a counter. So, the Network monitor server at the Education Center would be named NetMon201. Edge and special cases will be handled individually.
- **Workstations** will be named by Service tag only.
- **User accounts** will be the first initial of the first name followed by the full last name. To ensure uniqueness, additional letters of the first and middle names will be added. Special cases will be handled on a case by case basis.
- **Groups**
  - Security Groups will be named after their function followed by –grp.
  - Distribution Lists will be named after their function followed by –dl.

## Active Directory Design Requirements

GPISD will use a “green field” approach to this Active Directory Design. No current domains, trees, or other instances of AD within GPISD will be incorporated into this project.

**Forest:** GPISD will use a single forest in the new Active Directory structure. The forest functional level will be Windows 2008.

**Domain:** GPISD will use a single domain, gpisd.org. The domain functional level will be Windows 2008.

**Site:** GPISD will use a single site. All campus are connected by GPISD owned fiber and interconnect at LAN speeds (>100Mbps).

**Server:** GPISD will use Windows Server 2008 for all servers. The necessary version of the OS will be purchased by GPISD (Standard, Enterprise, or DataCenter). Appropriate services packs will be applied. All servers will use the full OS installation, not just Server Core. GPISD will work with selected vendor to ensure that correct optional software is installed such as IIS.

**Domain Controllers:** GPISD will have 4 writable domain controllers, 2 at the GPISD Education Center, 2 at the Reagan DR site. The servers will be named DC201 and DC202 at the Education, while the servers at Reagan will be named DC501 and DC502.

**Global Catalog Servers:** All 4 domain controllers will be global catalog servers.

**Flexible Single Master Operations Services:**

- Domain Naming Master will be hosted on DC202 at the Education Center.
- Schema Master will be hosted on DC202.
- Infrastructure Master will be DC202.
- PDC Emulator Master will be DC201.
- RID Master will be DC201.

**Time:** GPISD will use DC201 as its primary and authoritative time server. The server DC201 will point to 0.pool.ntp.org to obtain its time from an external ntp source.

**DNS:**

- GPISD will use Active Directed Integrated DNS.
- All domain controllers will be DNS servers. All DC's will have forwarders set to the Internet root servers to resolve non-gpisd.org entries.
- The root name space will be gpisd.org.
- Each campus will have it own sub-name space from the root. The domain name for the campus will be <campus>.gpisd.org, so Truman Middle School will have the domain name of Truman.gpisd.org.
- Dynamic DNS will be used. The dynamic entries will update to the campus domain such as Truman.gpisd.org. Workstations will be set via policy and/or DHCP to perform this.
- The primary internal DNS resolvers for workstation and other clients will be DC201, DC202, and DC501.

**DHCP:**

- Each campus server will provide DHCP services for the campus.
- DHCP will be set to update Dynamic DNS for the campus DNS zone.

**WINS:** GPISD will use the campus servers as the primary WINS server for the respective campus. One of the core DC's will be selected as the secondary WINS server as necessary.

**Directory Service Structure:** GPISD will use the following skeleton for the Organizational Unit structure. The design structure is subject to change per discussion with selected vendor and Microsoft practices.

#### GPISD.org

- Administration
  - Skyline
  - Edcenter
    - Applications
    - Workstations
    - Lab<x>
      - Applications
      - Workstations
- ES
  - Austin
  - Bonham
  - Bowie
  - Bush
  - Crockett
  - Daniels
  - Dickinson
  - Eisenhower
  - Fannin
  - Garcia
  - Garner
  - Hill
  - Houston
  - LBJ
  - Marshall
  - Milam
  - Moore
  - Moseley
  - Powell
  - Rayburn
  - Seguin
  - Travis
  - Whitt
  - Williams (Typical MS Campus Example Listed Below)
    - Applications
    - Workstations
    - Lab<x>
      - Applications
      - Workstations
- MS
  - Adams
  - Arnold
  - Jackson
  - Kennedy

- Lee
- Reagan
- Truman (Typical MS Campus Example Listed Below)
  - Applications
  - Workstations
  - Lab<x>
    - Applications
    - Workstations
- HS
  - AEP
  - Crosswinds
  - Dubiski
  - GPHS
  - GPHS9th
  - SGPHS
  - SGPHS9th (Typical HS Campus Example Listed Below)
    - Applications
    - Workstations
    - Lab<x>
      - Applications
      - Workstations

**Group Policy Settings:** GPISD will work with selected bidder to create group policy objects and assignments. The GPO's will include but are not limited to, Domain Controller GPO, Default User Policy which will include logon script information, and default security group policy.

# Exchange 2007 Service Pack 1 Design Information

**General Information:** GPISD will use Microsoft Exchange 2007 Service Pack 1. There will be 3 CAS servers, 3 Hub/Transport Servers, and 3 Mailbox servers as listed in the Hardware & Software chart. GPISD chose the design based on results generated from Microsoft's Exchange Sizing Tool. GPISD will use a CCR/SCR solution. The CCR will be located at the Education Center while the SCR will be located at Reagan Middle School, GPISD's Disaster Recovery site. GPISD has two Xiotech Magnitudes in production for this project.

**Design Input:** GPISD currently has approximately 3000 user accounts with mailboxes. GPISD has averaged about 3-5% user account growth. GPISD characterized these user accounts average to above average. GPISD will perform full backups on the CCR backup node. Syncsort's Backup Express will be the backup software used and will back up to a SpectraLogic Python Tape Library. All backup hardware will be SAN attached at 4Gbps.

## Server Drive Design:

- C: will be the Windows Server 2008 file
- D: will be the Exchange Application
- E: will be the CD-Rom
- K: will be the start of the SAN Drive mappings

**Hub Transport Server Design:** GPISD will use 3 Hub/Transport servers. 2 will be located at the Education Center and the third will be at Reagan MS.

**CAS Server Design:** GPISD will use 3 Client Access Servers. Again, 2 will be located at the Education Center, and one will be located at the Reagan MS site.

**Mailbox Servers:** GPISD will use 3 Mailbox Servers. The two at the Education Center will be set up as a CCR cluster using the Xiotech Storage Array. The remote SCR cluster server will be located at the Reagan site.

**Mail Flow Information:** The Hub Transport Servers will be responsible for internal message routing. The Hub Transport will point to a GPISD owned IronPort Mail Security gateway for external mail routing. GPISD will want to use load balancing between the multiple Hub Transport Servers for in and outbound load balancing.

**Mail Client Information:** GPISD will support the following methods for client mail access.

- Outlook 2007 client
- Outlook Web Access

## Solution Implementation Information

GPISD will expect the selected vendor to follow all Microsoft, Novell and other best practices as part of the migration phase. GPISD will expect the above specifications to be followed. GPISD plans on implementing the Design solution in 5 phases. Phase 5 will be an optional phase. Please include this phase as an option on bid submittals.

### Phase 1:

Implement green field Active Directory and Exchange 2007 solution as listed in the design. This includes but is not limited to:

- The installation of Windows 2008 Server for the core Active Directory Servers and Exchange Server.
- Installation of Quest tools and servers.
- Implementing, configuring and testing core Active Directory requirements:
  - AD forest, site and tree structure
  - DNS
  - WINS
  - LDAP
  - Security Configuration
  - GPO Creation
    - For Servers
    - Users
    - Others as needed
  - Basic OU Skeleton
  - Group Creation
  - User Templates
  - Certificate server for GPISD domain
- Implementing and configuring core Exchange 2007 requirements:
  - Install Exchange 2007 and appropriate service packs
  - CCR and SCR clustering
  - Mailbox servers
  - HTS Servers with load balancing
  - CAS Servers with load balancing
  - Mail routing to both Exchange and GW using the Exchange mail routing features

### Phase 2:

Test and migrate a small subset of users to new Active Directory and Exchange 2007 system. GPISD expects the appropriate Quest tools (quest.com) will be used to perform these tasks.

This process will include but is not limited to:

- Move test users into Exchange 2007 environment
- Move test users into Active Directory
- Verify users can send and receive email
- Verify users can access home directories and shared files
- Test intra-directory synchronization between eDirectory and Exchange (if necessary).
- Verify users can access service via LDAP
- Verify both Exchange and Groupwise users are able to send and receive email from both systems and outside of GPISD
- Verify calendaring functions work between Exchange and Groupwise.
- Develop Outlook installation and client settings
- Develop method of removal of Novell client via script or GPO.
- Develop installation and configuration method of Microsoft Network Client.
- Develop method of workstation import into the domain

### Phase 3:

Migrate remaining user base. GPISD will work with the vendor based on results obtained in Phase 2 to determine time and method needed to perform this function. GPISD wishes to minimize the window to complete this task as much as possible. This will eliminate the need to have a password and user account synchronization solution beyond the options that are provided by Quest tools. GPISD will work with selected vendor to determine best method and timing of migrating user files and shares. Options include:

- Quest tools to migrate all home directories and GroupWise information at this time. GPISD will provide the storage location (LUNs) within its SAN
- Implementing a SAMBA solution on current OES Linux servers as a temporary solution until all users are moved. This will ensure all users can access data either using NFP or SMB. After all users and workstations are in AD and the users can access file via SMB, data will be migrated to Windows 2008 Servers

### Phase 4:

Provide documentation and knowledge transfer.

- Active Directory Documentation
  - Design of actual AD structure used including IP address, location, hardware used, machine service tag, roles, and other relevant information.
  - GPO configuration
- Exchange 2007 Documentation
  - Design of actual Exchange structure used IP address, location, hardware used, machine service tag, Exchange roles, and other relevant information.
  - Visio documents with CCR and SCR failover information
  - Visio documents with mail routing information.
- Knowledge Transfer
  - Work with selected GPISD employees during phases 1, 2, 3, and 5.

### Phase 5: (Option 1)

Migrate all campus servers to Windows Server 2008

- Campus Server 2008 installation will need to include
  - Campus DHCP scopes and dynamic DNS registration
  - Campus printers or campus server.
  - File storage location and/or share for ZenWorks applications
  - File storage location and/or share for student work.

Implementation Timing: GPISD currently has the tentative schedule listed below. This is subject to change due to project scale, scope and other timing issues. GPISD will work with selected vendor throughout the project to determine a reasonable completion time.

Schedule Item	Start Date	End Date
Bid Award	May 15	NA
Project Kick Off	Week of May 18	
Phase 1	May 25	June 5
Phase 2	June 8	June 19
Phase 2 Evaluation	June 22	June 26
Phase 3	June 29	TBD – Prefer July 17
Phase 4	June 8	Project Completion

Phase 5	June 8	Project Completion
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## **Bid Requirements:**

The selected vendor will provide a project manager for the project. The Project Manager will submit weekly reports regarding status, outstanding issues, and action items for GPISD staff members.

The bidder will maintain project continuity by minimizing changing of engineers assigned to the project.

The selected vendor is responsible for all travel costs. Please remember there are nearly 40 sites and there may be a need to visit all of them.

Bidders will submit three reference accounts, preferably K-12, higher education, or government that the bidder has performed a similar or larger migration in scope and scale.

Bidders must supply methodology and software that will be used during the time that GPISD will exist in a dual environment of eDirectory/GroupWise and Active Directory/Exchange. Again, GPISD wishes to minimize the window for this portion of the project.

Bidders must pay costs for all additional software used. GPISD will provide software licenses for Microsoft Exchange 2007, Microsoft Windows Server 2008, Microsoft workstation client licenses such as client OS (Windows XP) and Office 2007 including Outlook 2007.

Bid proposals shall have pricing for each phase. Phase 5 shall be included as an option.

**Bidder Question Form:**

Should a Bidder question any section(s) of this document as unclear or as reasonably susceptible to more than one (1) interpretation; discover any significant ambiguity, error, conflict, discrepancy, omission, or other deficiency in this request for proposal, the Bidders must fax or email their questions regarding the specifications by April 14, 2009 at 12:00 Noon, Local Time, on this form. Responses to the questions will be provided no later than 5:00 p.m. April 20, 2009 on the GPISD website and via email.

BID #: 09-38  
Attn: Jason Bowerman

Company Name:  
Voice: (\_\_\_\_) \_\_\_\_\_ Fax Number: (\_\_\_\_) \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Response Should Be Directed To: \_\_\_\_\_

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Please fax or email questions to Jason Bowerman at [TechRFP@gpisd.org](mailto:TechRFP@gpisd.org) or 972-237-5435 no later than 04/14/2009 12:00 Noon, Local Time.

**Instructions:** Fill in the **blue variables**. Choose the appropriate drop-downs for the **red variables**.

**Important:** This tool should only be used for storage modeling purposes. Please consult with the storage vendor regarding storage design and follow recommended storage design testing processes. The example configuration provided within this calculator is just that, an example, and as such, each input option needs to be evaluated as to how it will affect your design.

**Note1:** This calculator only recommends a disk configuration based on the least number of disks needed to satisfy the performance and capacity requirements. It does not take into account cost or power consumption.

**Note2:** The term RAID-1/0 assumes that the enclosure can either create RAID-0+1 or RAID-1+0 arrays. RAID-1+0 is recommended over RAID-0+1.

**Note3:** Disk Capacity and RPM have a significant impact on design, the choice of disk should be directly related to the size of mailboxes and the mailbox IOPS

**Note4:** SATA disk random I/O (measured at the controller) will vary between vendors. This calculator uses the lowest measured random I/O throughput.

**Note5:** Contact your storage vendor for recommended configuration guidance.

### Storage Design Input Factors - RAID Configuration

**Step 1 -** Please enter in the appropriate information for cells that are **blue** and choose the appropriate drop-downs for cells that are **red** concerning your RAID configuration.

RAID Parity Configuration	
RAID-1/0 Parity Grouping	1+1
RAID-5 Parity Grouping	4+1
RAID-6 Parity Grouping	6+2

RAID Configuration	
Override RAID Configuration	No
Desired RAID Configuration	RAID-0
Restore LUN RAID Configuration	RAID-5

RAID Rebuild Overhead	
RAID-1/0 Rebuild Overhead	35%
RAID-5 Rebuild Overhead	100%
RAID-6 Rebuild Overhead	100%

### Storage Design Input Factors - Disk Selection

**Step 2 -** Please select the appropriate disk capacities and disk types that you will be using for your database, transaction logs, and restore LUNs. If you want to compare different configurations, you can enter up to three different configurations as each table below represents a single deployment configuration.

Configuration 1	Database Disk Type	Log Disk Type	Restore LUN Disk Type
Disk Capacity	146 GB	146 GB	750 GB
Disk Type	15K RPM FC/SCSI/SAS 3.5"	15K RPM FC/SCSI/SAS 3.5"	7.2K RPM SATA

Configuration 2	Database Disk Type	Log Disk Type	Restore LUN Disk Type
Disk Capacity	400 GB	146 GB	750 GB
Disk Type	10K RPM FC/SCSI/SAS 3.5"	15K RPM FC/SCSI/SAS 3.5"	7.2K RPM SATA

Configuration 3	Database Disk Type	Log Disk Type	Restore LUN Disk Type
Disk Capacity	750 GB	750 GB	750 GB
Disk Type	7.2K RPM SATA	7.2K RPM SATA	7.2K RPM SATA

### Storage Design Calculations Pane

### Storage Design Results Pane

RAID Configurations / Server	Configuration 1	Configuration 2	Configuration 3
Database RAID	RAID-5	RAID-1/0	RAID-1/0
Database Number of Disks	30	18	44
Database Number of CR Replica Disks	30	18	44
Log RAID	RAID-1/0	RAID-1/0	RAID-1/0
Log Number of Disks	4	4	4
Log Number of CR Replica Disks	4	4	4
Restore LUN RAID	RAID-5	RAID-5	RAID-5
Restore LUN Number of Disks	5	5	5

Recommended RAID Configuration / Server	Database	Log	Restore LUN
Disk Capacity/Type	Configuration 2	Configuration 2	Configuration 2
Optimum RAID	RAID-1/0	RAID-1/0	RAID-5
Optimum Number of Disks (Source)	18	4	5
Optimum Number of Disks (Replica)	18	4	5

Storage Configuration	Single Mailbox Server
Total Number of Disks Required (Source)	27
Total Number of Disks Required (Replica)	27
Total Number of SCR Disks Required / SCR Target	27
Total Number of Disks Required for the Environment	81

Campus	Campus IP range	OSPF Area	Server Name	Server IP	Windows OS Version (64 bit)	Server Hardware -- Supplied by GPISD
Austin	10.50.0.0	3	Austin001	10.50.2.11	Windows 2008 Standard	To Be Determined (TBD)
Bonham	10.34.0.0	2	Bonham001	10.34.2.11	Windows 2008 Standard	TBD
Bowie	10.16.0.0	1	Bowie001	10.16.2.11	Windows 2008 Standard	TBD
Bush	10.38.0.0	2	Bush001	10.38.2.11	Windows 2008 Standard	TBD
Crockett	10.18.0.0	1	Crockett001	10.18.2.11	Windows 2008 Standard	TBD
Daniels	10.54.0.0	3	Daniels001	10.54.2.11	Windows 2008 Standard	TBD
Dickinson	10.80.0.0	5	Dickinson001	10.80.2.11	Windows 2008 Standard	TBD
Eisenhower	10.52.0.0	3	Eisenhower001	10.52.2.11	Windows 2008 Standard	TBD
Fannin	10.20.0.0	1	Fannin001	10.20.2.11	Windows 2008 Standard	TBD
Garcia	10.22.0.0	1	Garcia001	10.22.2.11	Windows 2008 Standard	TBD
Garner	10.81.0.0	5	Garner001	10.81.2.11	Windows 2008 Standard	TBD
Hill	10.82.0.0	5	Hill001	10.82.2.11	Windows 2008 Standard	TBD
Houston	10.48.0.0	3	Houston001	10.48.2.11	Windows 2008 Standard	TBD
LBJ	10.71.0.0	4	LBJ001	10.71.2.11	Windows 2008 Standard	TBD
Marshall	10.66.0.0	4	Marshall001	10.66.2.11	Windows 2008 Standard	TBD
Milam	10.32.0.0	2	Milam001	10.32.2.11	Windows 2008 Standard	TBD
Moore	10.69.0.0	4	Moore001	10.69.2.11	Windows 2008 Standard	TBD
Moseley	10.85.0.0	5	Moseley001	10.85.2.11	Windows 2008 Standard	TBD
Powell	10.84.0.0	5	Powell001	10.84.2.11	Windows 2008 Standard	TBD
Rayburn	10.36.0.0	2	Rayburn001	10.36.2.11	Windows 2008 Standard	TBD
Seguin	10.40.0.0	2	Seguin001	10.40.2.11	Windows 2008 Standard	TBD
Travis	10.19.0.0	1	Travis001	10.19.2.11	Windows 2008 Standard	TBD
Whitt	10.37.0.0	2	Whitt001	10.37.2.11	Windows 2008 Standard	TBD
Williams	10.39.0.0	2	Williams001	10.39.2.11	Windows 2008 Standard	TBD
Zavala	10.65.0.0	4	Zavala001	10.65.2.11	Windows 2008 Standard	TBD
Adams	10.53.0.0	3	Adams001	10.53.2.11	Windows 2008 Standard	TBD
Arnold	10.33.0.0	2	Arnold001	10.33.2.11	Windows 2008 Standard	TBD
Jackson	10.64.0.0	4	Jackson001	10.64.2.11	Windows 2008 Standard	TBD
Kennedy	10.35.0.0	2	Kennedy001	10.35.2.11	Windows 2008 Standard	TBD
Lee	10.17.0.0	1	Lee001	10.17.2.11	Windows 2008 Standard	TBD
Reagan	10.95.0.0	5	Reagan001	10.95.2.11	Windows 2008 Standard	TBD
Truman	10.84.0.0	4	Truman001	10.84.2.11	Windows 2008 Standard	TBD
AEP	10.21.0.0	1	aep001	10.21.2.11	Windows 2008 Standard	TBD
Crosswinds	10.55.0.0	3	Crosswinds001	10.55.2.11	Windows 2008 Standard	TBD
Dubiski	10.67.0.0	4	Dubiski001	10.67.2.11	Windows 2008 Standard	TBD
GPHS	10.63.0.0	3	GPHS001	10.63.2.11	Windows 2008 Standard	TBD
GPHS9th	10.49.0.0	3	GPHS9th001	10.49.2.11	Windows 2008 Standard	TBD
SGPHS	10.79.0.0	4	SGPHS001	10.79.2.11	Windows 2008 Standard	TBD
SGPHS9th	10.70.0.0	4	SGPHS9th001	10.70.2.11	Windows 2008 Standard	TBD
Education Center	10.46.0.0	2	EdCenter001	10.46.2.11	Windows 2008 Standard	TBD
Skyline	10.31.0.0	1	Skyline001	10.31.2.11	Windows 2008 Standard	TBD
GPISD DataCenter	10.47.0.0	2	Multiple		Multiple	Multiple
Reagan DataCenter	10.94.0.0	5	Multiple		Multiple	Multiple

FSMO Roles

Location	Server OS	Minimum Hardware Provided by GPISD	Server Name	Server IP Address	Global Catalog	Naming Master	Infrastructure Master	Schema Master	PDC Emulator	RID Master	DNS Server	WINS Secondary (OSPF Areas)	Authoritative NTP Server
GPISD DataCenter	Windows 2008 Standard 64 Bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKs, Dual NICs	DC201	10.47.2.201	Yes				Yes	Yes	Yes	1	Yes
	Windows 2008 Standard 64 Bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKs, Dual NICs	DC202	10.47.2.202	Yes	Yes	Yes	Yes			Yes	2	
Reagan DataCenter	Windows 2008 Standard 64 Bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKs, Dual NICs	DC501	10.94.2.201	Yes						Yes	3,4	
	Windows 2008 Standard 64 Bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKs, Dual NICs	DC502	10.94.2.202	Yes						Yes	5	

Server Type	OS Type	Minimum Server Hardware Provided by GPISD	Location	Name	IP
Hub Transport Server	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Education Center	EXHTS201	TBD
	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Education Center	EXHTS202	TBD
	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Reagan	EXHTS501	TBD
Client Access Server	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Education Center	EXCAS201	TBD
	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Education Center	EXCAS202	TBD
	Windows 2008 Standard 64 bit	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Reagan	EXCAS501	TBD
Mailbox Server	Windows 2008 Enterprise 64 bit	2 X QUAD-CORE CPUs, 32 GB RAM, 3 X 143 GB 10K SAS local DISKS, 4 NICs	Education Center	EXMBX201	TBD
	Windows 2008 Enterprise 64 bit	2 X QUAD-CORE CPUs, 32 GB RAM, 3 X 143 GB 10K SAS local DISKS, 4 NICs	Education Center	EXMBX202	TBD
	Windows 2008 Enterprise 64 bit	2 X QUAD-CORE CPUs, 32 GB RAM, 3 X 143 GB 10K SAS local DISKS, 4 NICs	Reagan	EXMBX501	TBD
Question Migration Console	Windows 2003 Server 32 bit Standard Edition SP1	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 10K SAS local DISKS, DUAL NICs	Education Center	TBD	TBD
Exchange 2003 Staging Server	Windows 2003 Server 32 bit Standard Edition SP1	2 X QUAD-CORE CPUs, 16 GB RAM, 3 X 143 GB 15K SAS local DISKS, DUAL NICs	Education Center	TBD	TBD

Notes

Bidder Must Supply Quest Tools!