

**The Houston Public Library and
the Houston Area Library Automated Network
Technology Plan
Completed November 27, 2008
Coverage Dates: July 1, 2009 to June 30, 2012**

The Information Technology goals of the Houston Public Library (HPL) and the Houston Area Library Automated Network (HALAN) are to provide access to innovative technology, find creative solutions to information needs and provide extraordinary customer service. Through HALAN, the Houston Public Library has been able to reach its goals with the provision of an integrated library system, access to online resources, a sophisticated web environment and a recently upgraded wide area network. Houston Public Library and the other HALAN member libraries have come to expect excellence when initiating new services such as distance learning, videoconferencing, eCommerce, remote access to online databases, and wireless access. In the past two years the HALAN libraries have placed special emphasis on providing enhanced technology to digital natives—younger audiences who have not known life without technology.

HALAN and HPL recognize that technology plays an increasingly integral role in marketing to customer, process improvement and energy conservation. Electronic data exchange projects and RFID are ongoing efforts to conserve resources and better utilize staff.

HALAN plans to continue initiatives in the areas of catalog enrichment and digitization to improve users' access to the Internet and other web and online resources available through the library. HALAN actively seeks opportunities to leverage consortium purchasing power to meet the technology goals of its member libraries.

CURRENT TECHNOLOGY

HOUSTON AREA LIBRARY AUTOMATED NETWORK (HALAN) - The Houston Public Library operates HALAN, a computer network that serves public and community college libraries in the Houston area. In addition to Houston Public Library, the current members are the Pasadena Public Library, the Bellaire City Library, the Sterling Municipal Library (Baytown), Lee College Library (Baytown), the Port Arthur Public Library, the Hebert Public Library (Port Neches), and the Hughes Public Library (Nederland). Each library signs an agreement for computerized library services with the City of Houston and the network is governed by the Houston Public Library according to the terms of the agreement. Recommendations are made by the HALAN staff and approved by the HALAN Advisory Board. The Director of HALAN is the Director of the Houston Public Library. HALAN offers all members the use of an online

integrated library system (Innovative Interfaces Inc), Internet access, videoconferencing, training and support.

INNOVATIVE INTERFACES, INC. (III) - The Houston Public Library and HALAN use the III online integrated library system. Software modules available to all libraries include circulation, online public access catalog, bibliographic maintenance, serials and acquisitions, and cataloging. Additional services libraries can choose include patron placed holds, self-check, digital signature capture, eCommerce (online fee collection), online patron registration, customer reviews, wireless workstations for inventory control or remote system functions, media management for reserve book rooms or digital collections, and telephone renewal in English or Spanish. The III WebBridge product was installed to enhance access to the Internet and other online resources within the online catalog. Ongoing development is planned to enhance the product to offer more resources to users. Future plans include adding the Encore product, a user search environment that features tag clouds, faceted searching and integration of database products. III provides a suite of software to support RFID implementation, another HALAN goal.

ONLINE RESOURCES - HALAN provides additional services for its members from other vendors including catalog enrichment data (book reviews, cover images, author notes, etc.) and readers' advisory tools. HALAN manages access to e-books, audiobooks, online databases and other online resources for its members. HALAN recently purchased downloadable media collections for its member libraries, expanding its product further into the content area.

The Houston Public Library uses *info 24/7* to better serve its community with a live, interactive, chat reference service. This tool allows customers to chat with librarians about reference questions they may have. The public workstations in all HPL locations now provide access to various types of application software: word processing, spreadsheets and email capabilities.

In January 2008 Houston Public Library began creating the infrastructure for a comprehensive digitization program for its special collections. By the end of FY09, equipment will be in place to create digitized photo and architectural drawing collections as well as audio and video oral history interviews. Several photograph and oral history collections will be available to the public as part of this goal.

HPL EXPRESS AND MOBILE EXPRESS - The HPL Express concept transforms the traditional library into a multi-purpose facility providing service to its neighborhood community with books, computers, multimedia resources, Internet access, information literacy training materials, and interactive distance learning classes.

The HPL Express concept has been implemented in three unique environments. It exists alongside city health services in the Southwest Multiservice Center; it complements the services provided at Discovery Green, the new downtown green space adjacent to the Convention Center; and it supplements library services all over the city in the form of a mobile unit that provides computer access and training. Future Express locations are part of upcoming renovations of the Frank and Vinson neighborhood libraries.

In all HPL Express locations, technology is the key component to success, with public WiFi extending beyond the walls of the libraries into the neighboring communities.

SERVER FARM – The UNIX server farm provides variable services both inside and outside the library system. A Web server provides Internet and Intranet services for the Houston Public Library. Two DNS servers are authoritative domain servers for hpl.lib.tx.us, HALAN.lib.tx.us, and houstonlibrary.org as well as all the domains of member libraries. The HALAN web server provides virtual host sites for member libraries, and library affiliated non-profit groups. The Email server provides email and or mailing list services for HALAN libraries and affiliated groups. Filter servers using Smartfilter provide six different categories of filtering services for public PCs.

INTERNET - The Library has a 60 mb fiber connection to the internet. All HALAN library locations utilize this connection through their T1's back to HPL central location. At locations where fiber is available, these T1's will be upgraded to 10 mb fiber in 2009.

WIDE AREA NETWORK - Currently the network consists of T1 lines to each HPL site that are consolidated into a single T3 at the provider's Central Office. The T3 connects to the HPL computer room where it is broken out into separate lines once again before connecting to the HPL network. A Virtual Private Network (VPN) provides more flexible IT support to staff and support to some vendors. A network upgrade with Cisco 2821 routers with gigabit interfaces to accommodate higher speeds will be completed in 2009.

LOCAL AREA NETWORKS –All HPL locations have a staff and public VLAN, and an additional VLAN for IP telephony. Separate Cisco switches are used at the Central Library for the public VLAN. The staff and IP telephony VLAN uplink to the distribution switch on a 1-gigabit multimode fiber connection. Administrative PC's at the Central Library have access to a single HPL domain server. Access to most other services is available to all remote locations. A typical HPL branch has a Cisco router and a Cisco switch for the public VLAN. Ethernet LANs are installed at all Houston Public Library Locations.

SEE ATTACHED APPENDICES OF NETWORK DIAGRAMS AND EQUIPMENT LISTS

MICROCOMPUTERS - Since 2007 HALAN and HPL have maintained a standard microcomputer replacement schedule of three years. Training center PC's acquired from various grants are also maintained on this schedule. Most staff and administrative computers have access to a printer. Network printing is replacing individual printers on most staff workstations. An outside vendor provides turnkey cost recovery systems for public printing. All public access terminals throughout HPL have the capability to print through this network printing solution. A typical branch library has one print release station and a network printer. Jobs are queued at the release station until the patron prints using their Copy & Print Services Card. The vendor is responsible for management of these systems. HPL provides network connectivity for the printers, release stations and a centrally located server.

Specialized applications involving staff and public graphic and multimedia projects such as digitization, computer aided design, and video production have resulted in the purchase of about twenty Apple Mac computers recently. While the library has standardized to the PC environment, small purchases of Mac will continue to be necessary. A Mac in the HPL IT department allows Helpdesk staff to assist Mac users having difficulty with library applications. However, additional workflow to provide IT support for Macs needs to be established.

MICROCOMPUTER SOFTWARE - Administrative and staff workstations are being upgraded to Windows XP Professional with Office 3.0 suite. The City of Houston provides E-mail access through Exchange servers and Outlook profiles are setup on each user's PC. Outlook Web Access is available for staff members who do not have access to an Outlook setup, or who want to access their E-mail remotely.

HPL uses Internet Explorer as its standard for public terminals. Microsoft Office is available on all public workstations at the Houston Public Library. USB ports are available to support flash storage solutions. Web solutions to office products are used when customers need storage solutions for their files.

CABLING AND ELECTRICAL - Many of the buildings in the HPL system represent special challenges when installing additional networked PC's because of the difficulty running additional LAN drops. Older buildings are near electrical capacity as there was no reason to anticipate the amount of equipment that is now in each building at the time of its construction. All LAN connections and newer cable installations utilize Category 5 cabling. Category 6 will be used in all new renovations. Houston Public Library's aggressive building renovation plan with IT upgrades is slowly alleviating the problems. Most recently the renovation of the Central Library's 500 McKinney building included a state of the art server room and re-cabling the entire building.

MAINTENANCE - The Houston Public Library has maintenance contracts for some hardware. Equipment not covered by a warranty or equipment whose warranty has expired are maintained by the Information Technology staff:

Cisco Routers:	Maintenance contract with Cisco
Public Microcomputers:	Covered by Manufacturer's 3-year warranty (older models maintained by IT staff)
Staff Microcomputers:	Covered by Manufacturer's 3-year warranty (older models maintained by IT staff)
Printers:	Maintained by IT staff
Barcode Scanners:	Warranty covers 3 years from date of purchase, spares kept for those whose warranty has expired
Servers:	HALHP, HALOS and HALIR are turnkey systems with maintenance contracts from III and various hardware vendors.
Wiring:	All wiring closets and LAN drops are maintained by HPL/HALAN staff

STAFFING - The staff of the Houston Area Library Automated Network and the staff of the Houston Public Library Information Technology Division are combined into one Information Technology Office under the direction of HPL's Assistant Director for Information Technology:

HALAN staff includes:

- HALAN Chief
- Administrative Associate
- Network Manager
- Technical Hardware Analyst
- Staff Analyst – System Support
- 5 Microcomputer Analysts
- System Support Analyst
- Telecommunications Specialist
- Web Designer
- 2 Database Administrators/Librarians

HPL Information Technology staff include:

- Assistant Director for Information Technology
- Division Manager - Training Coordinator
- Administration Manager
- 4 Technical Hardware Analysts
- 4 Microcomputer Analysts
- Webmaster /Programmer Analyst
- 5 IT Help Desk Coordinators

PROFESSIONAL DEVELOPMENT - HALAN previously implemented IP/TV through a grant. Recording equipment was purchased for the participating members and HALAN libraries are now able to create and show videos for training and professional development purposes. The Houston Area Library System (HALS) provides funding for training to the HALAN members through the use of TANG and other types of grants available. HALAN, HALS and the Houston Public Library have partnered with database vendors to provide training on various online databases and resources used by the member libraries. HALAN provides training and updates to the ILL software via group meetings with the HALAN members. These bi-monthly meetings are held for catalogers, circulation staff and public service staff.

HALAN staff and Houston Public Library staff attend conferences and workshops pertinent to their job responsibilities. Many are active in the library organizations such as the Texas Library Association (TLA) and the American Library Association (ALA). Some of the HALAN staff participates in the Library and Information Technology Association (LITA) activities and conference. Staff is encouraged to attend the user group meeting for the integrated library system provided by Innovative Interfaces, Inc. (ILL). The meeting provides better understanding of system upgrades and new products as well as networking with other users.

The Houston Public Library staffs and maintains a Training and Development office. The Manager communicates with all staff regarding training opportunities and manages an up-to-date calendar of classes and workshops. The Manager tracks the number of hours library staff participates in training and professional development initiatives. The Houston Public Library Information Technology Division also staffs a Training Coordinator who works closely with the Training and Development Office in providing technology-related opportunities for both public and staff. The Training Coordinator supervises several volunteers who assist with public training. The IP/TV server will be used for continued training needs. The Houston Public Library provides monthly training in the use of the Millennium Circulation module for new and current staff. HALAN has installed videoconferencing at six HPL locations and two other HALAN libraries. The equipment provides training opportunities in HALAN libraries and remote meeting attendance. Computer training labs were installed with Gates Grants and are maintained for both public and staff training. With the demand for public and staff training, additional training centers will be implemented.

ASSESSMENT - Training assessment is done at the end of each training session with each participant filling out a written evaluation. Other training can be requested on these forms as well. The Training and Development Manager creates and coordinates training opportunities in accordance with requests from supervisors and staff. HPL conducts an annual customer service survey to determine satisfaction with services offered to the public. A system assessment is performed by the HALAN telecommunications staff that monitors the network

daily using a variety of system management tools. Also on a daily basis, the System Administrator monitors the web servers and the UNIX servers used for our integrated library system (ILS). The vendor of our ILS has direct telnet access to our servers and monitors them continually for interruptions in service. The HALAN Office manages and maintains a HelpDesk and tracking system of call tickets that allows IT to manage and assess our resources more efficiently. HALAN Helpdesk uses FrontRange's "HEAT" application to track incidents more easily and provide a knowledge base to better assess our needs. HALAN Helpdesk also manages a database of the trouble calls reported to the ILS vendor. The vendor maintains a website of outstanding calls; however, our database provides us with a history of the problems as well as the supporting documentation. This helps us to ensure that the vendor adheres to defined service levels.

BUDGET - Growing public computing demands in public libraries require strategic management of resources to meet the majority of needs. The funding for the Houston Public Library is from the city IT budget, and for HALAN, from member library fees. The advantage of belonging to a consortium such as HALAN is that the members are able to justify and budget for technology services that they could not normally afford on their own. HALAN aggregates the buying power of the individual libraries allowing for greater discounts on goods and services. Other strategies that the Houston Public Library and HALAN use to stretch resources include taking advantage of beta-testing opportunities in order to reduce costs and have direct input into new products. In this way we can be better assured that we are investing in a product that best meets our needs. As a consortium, HALAN has greater opportunities to receive grants in order to continue and improve the services and resources of its member libraries.

Annual income for HALAN consists entirely of fees from its member libraries. Income in FY09 was just under \$2 million and is projected to increase by 2% each year through 2012. HALAN contributes annually to an interest bearing reserve fund for capital projects and/or migrations. Currently the fund contains over \$3 million. HALAN expenditures are approved by an advisory board.

The IT budget of the Houston Public Library was \$3,554,936 in FY09. Currently the library budget is projected to remain flat in FY10. In addition, the library has been allocated \$882,486 in additional equipment acquisition funding over the last two years from the City of Houston IT budget.

FUTURE TECHNOLOGY

INTERNET - HALAN recently subscribed to a fiber based internet service provider to provide optimum capacity for members with fiber availability.

WIDE AREA NETWORK – The WAN network is currently reaching capacity. HALAN is looking at upgrading from 1.5 mb T1s to 10 mb fiber optic connections where available to facilitate new bandwidth demands. The goal is to make the network as secure as possible. By spring 2009 the entire HALAN network will be upgraded with new routers and switches including removing all Hubs from the network. We are using tools to monitor and detect problems before they occur on the network.

MICROCOMPUTERS – Having successfully maintained a three year replacement schedule for microcomputers at the library, the goal for microcomputers is continued maintenance of the schedule for staff, public and training computers.

GOALS FOR FY 2009-2012 - Goals for the next three years include:

- Developing a system for online payment for document delivery
- Providing more services to mobile communication devices
- Implementing RFID solutions throughout HPL and at other HALAN libraries
- Expanding digital collection and services
- Implementing Encore, a III suite of customer discovery tools
- Increasing implementation of self service equipment
- Providing access to the latest web-based tools and technologies
- Evaluating the use of discovery technologies such as federated searches and Open URL
- Developing labs to allow customers of all ages to experiment with new multimedia technologies such as audio and video content creation, digital storytelling, etc.
- Increasing availability of tools such as RSS feeds and electronic newsletters
- Reviewing PC reservation, networking printing solutions and browser standards
- Reviewing disaster management plans regularly
- Developing a schedule for upgrading and replacing gaming equipment

- Making the digital access management component of the HPL digitization program a HALAN product in order to offer digitization services to HALAN and other interested libraries
- Developing reciprocal borrowing solutions among HALAN member libraries with the purchase and implementation of the agency model of III's INN-Reach product

EDUCATION AND TRAINING

Currently within the Houston Public Library System there are 12 computer training centers. IP/TV and videoconferencing is available to all HALAN members for staff training

Courses being offered to the public include:

- Windows Basics
- MS OFFICE including PowerPoint, Access, Excel, Word
- Computer Basics Internet Basics, Internet Search Tools, and Web Browser Basics Database Searching, Full-text databases, directories and indexes Genealogy Online, Job Searching on the Internet web-based library catalog.

Courses being offered to the public in Spanish include:

- Introducción al Internet en español
- Computadora Básica en español
- Word Básico en español
- Introducción a PowerPoint en español
- Excel Básica en español
- Windows Básica en español

Ongoing courses being offered to the library staff include:

- Online Databases - updates, new interfaces, etc. (provided primarily by vendors)
- Millennium (III) Circulation and Serials

TECHNICAL TRAINING – Technical training opportunities for IT staff include:

- CCNA (Cisco Certified Network Association) Certification training is planned for at least one member of the WAN Support Staff
- SANS Security Training
- General Purpose SQL Database Training
- A+ Certification training for remaining technicians

- Microsoft Certification training
- III workshops : INN-Reach, and System Administration, Advanced System Access and Administration (ASAA), Loader Profile training
- HTML, CSS, and PERL for HALAN database administrators
- Disaster Recovery preparedness

Staff from the Houston Public Library, the IT Division and from HALAN regularly attends conferences and workshops to learn about new developments in Technology. Librarians on the staff of HALAN attend the annual user group meetings for the use of the integrated library system (III). They subscribe to and participate on the IUG list as a means to network with other users. HALAN staff also attends the Library and Information Technology Association annual forum to learn more about library-specific technologies. The IT staff attends technical conferences and workshops, i.e. as related to Perl programming, UNIX, IP telephony, Windows XP, telecommunications, network security, and wireless technology etc. Through these types of networking opportunities, as well as through publications staff is exposed to new technologies and are better able to determine their usability within our environment

TECHNOLOGY COMMITTEE - A HALAN technology committee has been formed to provide advice and assistance to members. Technology ideas are presented at the quarterly HALAN Planning Meetings.

TECHNOLOGY INTEGRATION - The Houston Public Library evaluates services, including technology implementations, through user surveys several times each year and the ongoing analysis of statistical and narrative reports. This plan will be adjusted as the evaluation process or changes in funding indicate.

In the last ten years, the Houston Area Library Automated Network participated in HPL's strategic planning process and led the development of a Strategic Information Plan for both HPL and HALAN. The HALAN Chief with the HALAN Advisory Board reviews ongoing progress to ensure that HALAN meets the recommended target of these plans. As HPL and HALAN near the end of the years covered by strategic planning processes, new strategic planning phases will begin.

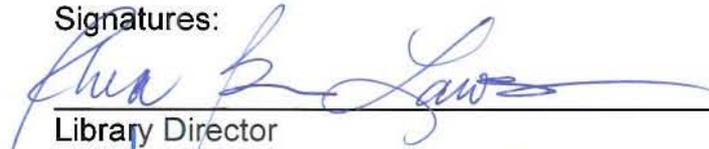
TECHNOLOGY PLAN EVALUATION PROCESS - The Technology Plan is evaluated annually and updated to include technologies implemented as well as new projects and grant initiatives planned for the following years. The Plan is evaluated by the Assistant Director for Information Technology of the Houston Public Library, the HALAN Coordinator and the HPL Information Technology supervisors in the area of telecommunications, web and desktop support. Finally, the Plan is reviewed and approved by the Director of the Houston Public Library. At the time of evaluation, it is determined which objectives have been met. Those objectives that have not been met are re-evaluated for the next year and either added again or deleted so that we do not maintain irrelevant goals and

objectives. The Plan is then submitted (every 3-5 years) to the Texas State Library for approval. These plans assist us in the determination of new developments in technology and needs that have emerged.

The IT staff meets weekly to discuss ongoing projects as well as new initiatives. The HALAN Planning Committee meets quarterly to discuss projects and the direction in which HALAN is moving. In this way, we are able to assess our failures and successes in a timely manner and determine the next steps.

This technology Plan has been reviewed and submitted on behalf of this library.

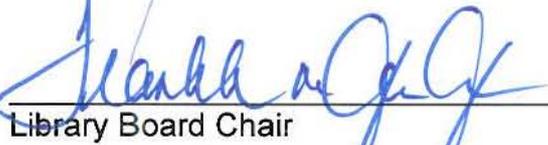
Signatures:



Library Director



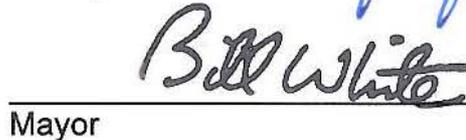
Date



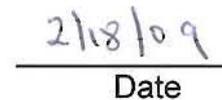
Library Board Chair



Date



Mayor



Date

APPENDICES

- I. HALAN Network Chart
- II. HALAN Distribution
- III. Central Library Distribution
- IV. HALAN Branch Library
- V. Equipment List

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To Lib_Cen_6506Sw

Fa0/0/0

halan07
Cisco 7606

PasadenaMain
Cisco 2821

Fairmont
Cisco 2821

Bellaire
Cisco 2821

ScenicWoods
Cisco 2821

Alief
Cisco 2821

ParkPlace
Cisco 2821

Jungman
Cisco 2821

Collier
Cisco 2821

Carnegie
Cisco 2821

JOHNSON
Cisco 2821

Smith
Cisco 2821

Stanaker
Cisco 2821

Hillendahl
Cisco 2821

Moody
Cisco 2821

Young
Cisco 2821

LeeCollege
Cisco 2821

Lakewood
Cisco 2821

FifthWard
Cisco 2821

Pleasantville
Cisco 2821

Discovery Green
Cisco 2821

Children_Museum
Cisco 2509

Baytown
Cisco 2821

Mancuso
Cisco 2821

Flores
Cisco 2821

Dixon
Cisco 2821

AcresHomes
Cisco 2821

Walter
Cisco 2821

OakForest
Cisco 2821

Ring
Cisco 2821

Tuttle
Cisco 2821

Melcher
Cisco 2821

BlueRidge
Cisco 2821

PortNeches
Cisco 2821

Nederland
Cisco 2821

PortArthur
Cisco 2821

Kendall
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Frank
Cisco 2821

Bracewell
Cisco 2821

Heights
Cisco 2821

Meyer
Cisco 2821

Montrose
Cisco 2821

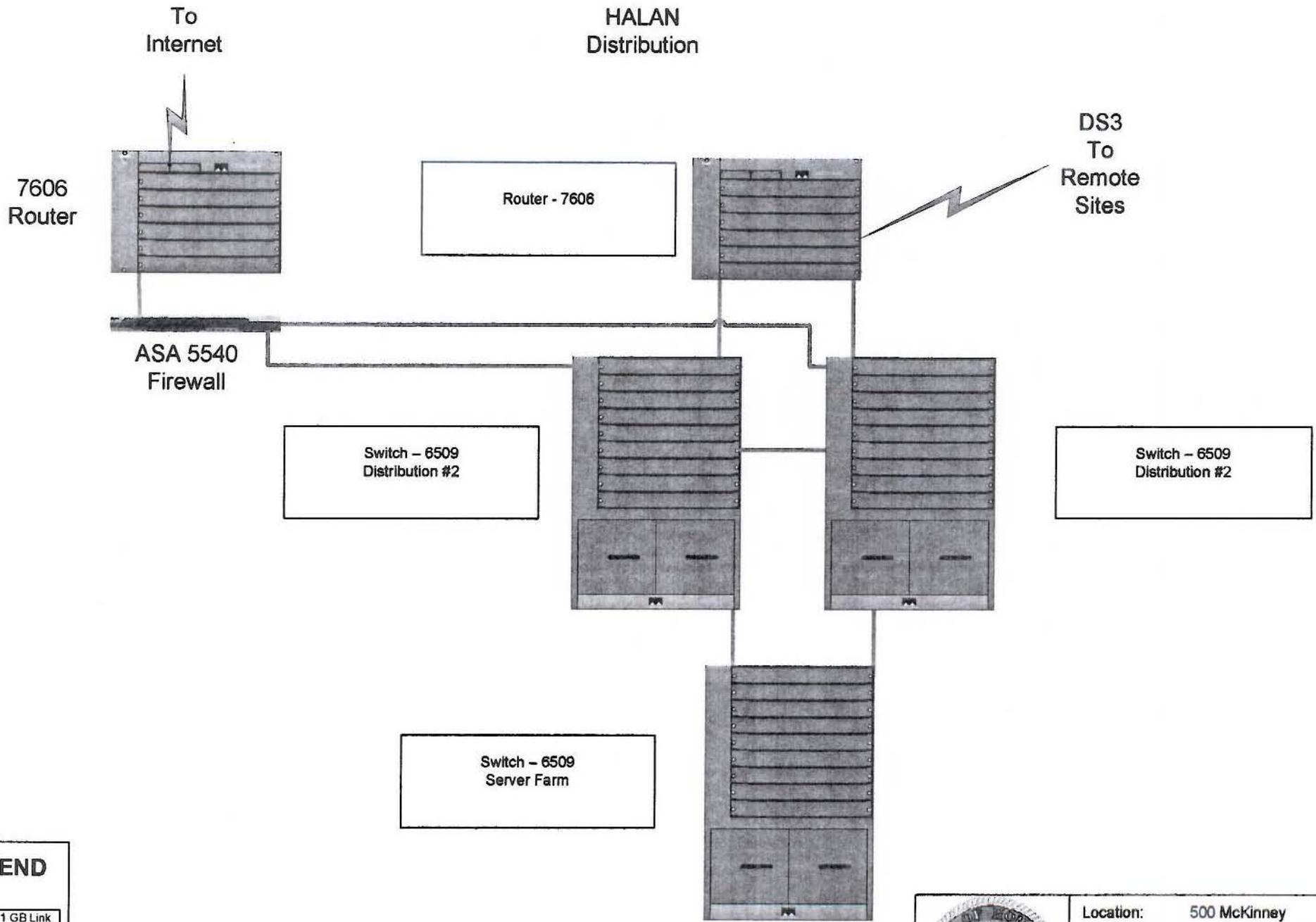
Robinson-Westchase
Cisco 2821

Vinson
Cisco 2821

Clayton
Cisco 2821

Kashmere_Gardens
Cisco 2821

Looscan
Cisco 2821



LEGEND

-  1 GB Link
-  DS-3
-  T1
-  100Mb Link

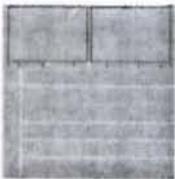


Location:	500 McKinney
Create Date:	
Revision Date:	
Revision:	

Signature:

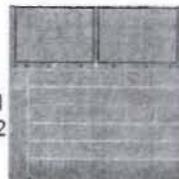
Central Access

Switch - 4506
Location: Concourse #1



Dis#1 via G1/1
Dis#2 via G1/2

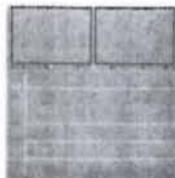
Switch - 6509
Distribution #2



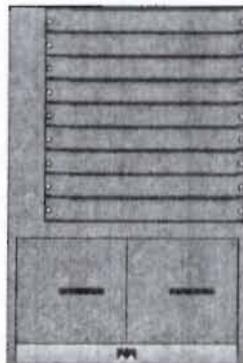
Dis#1 via G1/1
Dis#2 via G1/2

Switch - 4506
Location: 4th Floor #4-3

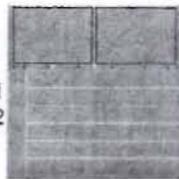
Switch - 4506
Location: Concourse #2



Dis#1 via G1/1
Dis#2 via G1/2



Dis#1 via G1/1
Dis#2 via G1/2



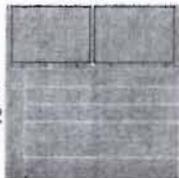
Switch - 4506
Location: 5th Floor

Switch - 4506
Location: 1st Floor



Dis#1 via G1/1
Dis#2 via G1/2

Dis#1 via G1/1
Dis#2 via G1/2

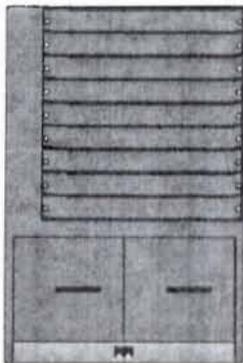


Switch - 4506
Location: 6th Floor

Switch - 4506
Location: 2nd Floor



Dis#1 via G1/1
Dis#2 via G1/2



Dis#1 via G1/1
Dis#2 via G1/2



Switch - 4506
Location: JIB

Switch - 4506
Location: 3rd Floor



Dis#1 via G1/1
Dis#2 via G1/2

Switch - 6509
Distribution #2

LEGEND

1 GB Link

DS-3

T1



Location: 500 McKinney

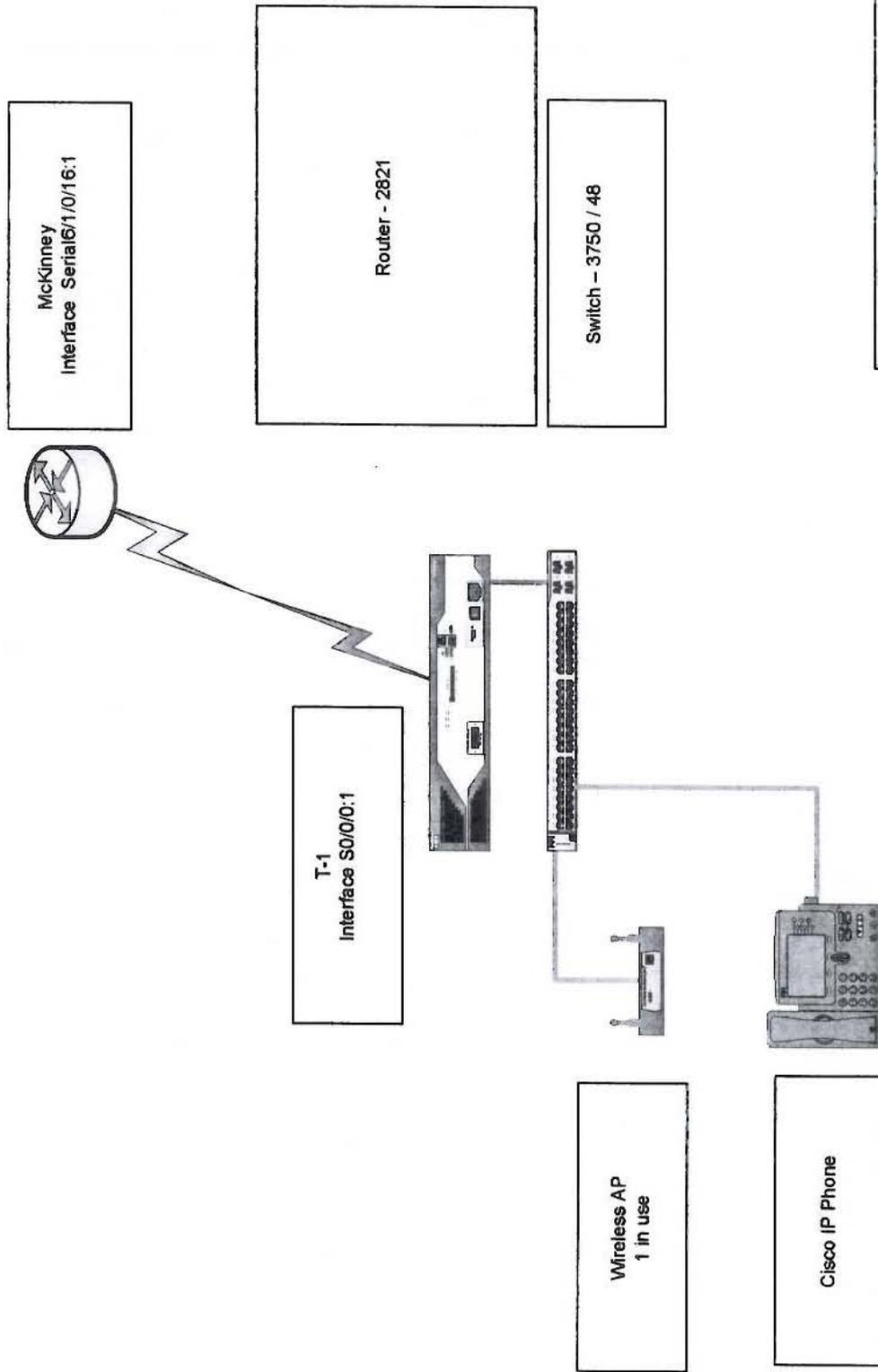
Create Date: 10/09/2008

Revision Date:

Revision:

Signature:

Halalan Branch Library



LEGEND

	1 GB Link
	DS-3
	T1
	100Mb Link

	Location
	Create Date:
	Revision Date:
	Revision:

Signature: _____

Entity	FSCS #	Site
	141270	TX0248-002
		Bellaire
Product Number	Product Description	Qty
Cisco 3750 24 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-24PS-S	Catalyst 3750 24 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle PVD2M2-32.SP Serv.64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVD2M2-32U64	PVD2M2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM-CD		
	Device manager for routers	1
S28NUIAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
	141378	TX0231-002
		Port Arthur
Product Number	Product Description	Qty
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle PVD2M2-32.SP Serv.64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVD2M2-32U64	PVD2M2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM-CD		
	Device manager for routers	1
S28NUIAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
	141321	TX0204-002
	16042188	TX0099-043
	16042194	TX0099-044
		Baytown (Sterling)
		SW multiservice ctr
		Express - Discovery Park
Product Number	Product Description	Qty
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	3
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	3
CAB-16AWG-AC	AC Power cord, 16AWG	3
Cisco 3750 24 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-24PS-S	Catalyst 3750 24 10/100/1000T PoE + 4 SFP Standard Image	3
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	3
CAB-16AWG-AC	AC Power cord, 16AWG	3
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	3
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle PVD2M2-32.SP Serv.64F/256D	3
CAB-AC	Power Cord,110V	3
PWR-2821-51-AC	Cisco 2821/51 AC power supply	3
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	3
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	3
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	3
PVD2M2-32U64	PVD2M2 32-channel to 64-channel factory upgrade	3
VIC-4FXS/DID	4 port FXS or DID VIC	3
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	3
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	3
ROUTER-SDM-CD		
	Device manager for routers	3
S28NUIAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	3

Entity	FSCS #	Site
	88982 TX0099-003	Acres Homes
	88880 TX0099-005	Bracewell
	88545 TX0099-010	Fifth ward
	88915 TX0099-018	Kendall
	88784 TX0099-029	Ring
	88471 TX0099-022	Melcher
	88670 TX0099-023	Meyer
	88893 TX0099-025	Moody
	88526 TX0099-026	Oak Forest
	88743 TX0099-034	Vinson
Product Number	Product Description	Qty
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	10
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	10
CAB-16AWG-AC	AC Power cord, 16AWG	10
APC	Battery backup for the switches	
SUA1000RM1U	APC Smart-UPS 1000VA USB & Serial 120V	10
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	10
CAB-AC	Power Cord,110V	10
PWR-2821-51-AC	Cisco 2821/51 AC power supply	10
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	10
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	10
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	10
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	10
VIC-4FXS/DID	4 port FXS or DID VIC	10
VIC2-4FXO	Four-port Voice interface Card - FXO (Universal)	10
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	10
ROUTER-SDM-CD	Device manager for routers	10
S28NUAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	10
Entity	FSCS #	Site
	88508 TX0099-009	Dixon
	88630 TX0099-019	Lakewood
	88969 TX0099-021	Mancuso
	88413 TX0099-024	Montrose
	88391 TX0099-011	Flores
	16020528 TX0099-046	Gregory School
	88641 TX0099-028	Pleasantville
Product Number	Product Description	Qty
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	7
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	7
CAB-16AWG-AC	AC Power cord, 16AWG	7
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	7
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	7
CAB-AC	Power Cord,110V	7
PWR-2821-51-AC	Cisco 2821/51 AC power supply	7
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	7
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	7
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	7
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	7
VIC-4FXS/DID	4 port FXS or DID VIC	7
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	7
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	7
ROUTER-SDM-CD	Device manager for routers	7
S28NUAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	7
Entity	FSCS #	Site
	88407 TX0099-007	Clayton
Product Number	Product Description	Qty
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
Cisco 3750 24 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-24PS-S	Catalyst 3750 24 10/100/1000T PoE + 4 SFP Standard Image	2
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	2
CAB-16AWG-AC	AC Power cord, 16AWG	2
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	1

MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM-CD	Device manager for routers	1
S28NUIASK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
	89011 TX0099-008	Collier
<i>Product Number</i>	<i>Product Description</i>	<i>Qty</i>
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	2
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	2
CAB-16AWG-AC	AC Power cord, 16AWG	2
APC	Battery backup for the switches	
SUA1000RM1U	APC Smart-UPS 1000VA USB & Serial 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM-CD	Device manager for routers	1
S28NUIASK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
	88436 TX0099-013	Heights
	88925 TX0099-014	Hillendahl
	88769 TX0099-015	Johnson
	88618 TX0099-017	Kashmere
	88401 TX0099-031	Smith
	88456 TX0099-032	Stanaker
	88547 TX0099-033	Tuttle
	88678 TX0099-035	Walter
<i>Product Number</i>	<i>Product Description</i>	<i>Qty</i>
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	8
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	8
CAB-16AWG-AC	AC Power cord, 16AWG	8
Cisco 3750 24 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-24PS-S	Catalyst 3750 24 10/100/1000T PoE + 4 SFP Standard Image	8
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	8
CAB-16AWG-AC	AC Power cord, 16AWG	8
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	8
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	8
CAB-AC	Power Cord,110V	8
PWR-2821-51-AC	Cisco 2821/51 AC power supply	8
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	8
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	8
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	8
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	8
VIC-4FXS/DID	4 port FXS or DID VIC	8
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	8
VWIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	8
ROUTER-SDM-CD	Device manager for routers	8
S28NUIASK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	8
Entity	FSCS #	Site
	88865 TX0099-004	Atief
	88668 TX0099-012	Frank
	88799 TX0099-016	Jungman
	88627 TX0099-020	Looscan
	88514 TX0099-027	Park Place
	88565 TX0099-036	Young
	88501 TX0099-030	Scenic Woods
	88726 TX0099-037	Robinson-Westchase
<i>Product Number</i>	<i>Product Description</i>	<i>Qty</i>
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	16
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	16

CAB-16AWG-AC	AC Power cord, 16AWG	16
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	8
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	8
CAB-AC	Power Cord,110V	8
PWR-2821-51-AC	Cisco 2821/51 AC power supply	8
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	8
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	8
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	8
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	8
VIC-4FXS/DID	4 port FXS or DID VIC	8
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	8
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	8
ROUTER-SDM-CD	Device manager for routers	8
S28NUAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	8
Entity	FSCS #	Site
	88449	TX0099-006
		Carnegie
<i>Product Number</i>	<i>Product Description</i>	<i>Qty</i>
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	3
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	3
CAB-16AWG-AC	AC Power cord, 16AWG	3
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle,PVDM2-32,SP Serv.64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM-CD	Device manager for routers	1
S28NUAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
141211	TX0099-002	Central
<i>Product Number</i>	<i>Product Description</i>	<i>Qty</i>
Cisco 7600	Core router for DS3's from SBC to each HALAN site's T1	
CISCO7606	Cisco 7606 Chassis	1
FAN-MOD-6HS	High Speed Fan Module for CISCO7606 Chassis	1
7606-SUP720XL-PS	Cisco 7606 6-slot, SUP720-3BXL and PS	1
SUP720-3BXL	Supervisor Engine 720-3BXL	1
CF-ADAPTER-SP	SP adapter with compact flash for SUP720	1
MEM-C6K-CPTFL512M	Catalyst 6500 Sup720/Sup32 Compact Flash Mem 512MB	1
2700W-AC/6	2700 W AC Power Supply for 7606	1
GLC-SX-MM	GE SFP, LC connector SX transceiver	1
CAB-7513AC	AC POWER CORD NORTH AMERICA (110V)	1
S763ISK9-12218SXF	Cisco 7600-SUP720 IOS IP SERVICES SSH	1
WS-X6582-2PA	Enhanced Fabric-enabled FlexWAN	1
MEM-CC-WAN-512M	Two 512 MB Memory modules for the two Enhanced FlexWAN Bays	1
WS-X6582-2PA	Enhanced Fabric-enabled FlexWAN	1
WS-SVC-CMM	COMMUNICATION MEDIA MODULE	1
WS-SVC-CMM-6T1	6-PORT T1 INTERFACE PORT ADAPTER	1
WS-SVC-CMM-ACT	Adhoc Conferencing and Transcoding PA	1
S76VGMS-12406T	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO	1
WS-SUP720-3BXL	Catalyst 6500/Cisco 7600 Sup 720 Fabric MSFC3 PFC3BXL	1
MEM-C6K-CPTFL512M	Catalyst 6500 Sup720/Sup32 Compact Flash Mem 512MB	1
BF-S720-64MB-RP	Bootflash for SUP720-64MB-RP	1
PWR-2700-AC	2700W AC power supply for CISCO7606	1
MEM-CC-WAN-512M	Two 512 MB Memory modules for the two Enhanced FlexWAN Bays	1
MEM-CC-WAN-256M	256 MB Memory for Enhanced FlexWAN Module	1
7606-PEM-CVR	Cisco 7606 PEM Cover	2
Cisco 6530 - ServerFarm	Server Farm Switch and Fiber distribution to the 4500 switches	
WS-C6506-E	Catalyst 6500 Enhanced 6-slot chassis,12RU,no PS,no Fan Tray	1
SC6K-S7K8-8.5	Catalyst 6000 Sup 720 Flash Image, Rel 8.5	1
WS-SUP720-3B	Catalyst 6500 / Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B	1
MEM-C6K-CPTFL256M	Cat6500 Sup720/Sup32 Compact Flash Mem 256MB	1
WS-X6748-GE-TX	Cat6500 48-port 10/100/1000 GE Mod. fabric enabled, RJ-45	2
MEM-XCEF720-512M	Cat 6500 512MB DDR, xCEF720 (67xx interface, DFC3A/DFC3B)	1
WS-X6724-SFP	Catalyst 6500 24-port Gige Mod. fabric-enabled (Req. SFPs)	1
WS-C6506-E-FAN	Catalyst 6506-E Chassis Fan Tray	1
WS-CAC-3000W	Catalyst 6500 3000W AC power supply	2
CAB-AC-C6K-TWLK	Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US	2
CF-ADAPTER-SP	SP adapter for SUP720 and SUP720-10G	1
BF-S720-64MB-RP	Bootflash for SUP720-64MB-RP	1

S6M3Z-12217SXB	Cisco CAT6000-MSFC3 IOS IP	1
MEM-S2-512MB	Catalyst 6500 512MB DRAM on the Supervisor (SUP2 or SUP720)	1
MEM-MSFC2-512MB	Catalyst 6500 512MB DRAM on the MSFC2 or SUP720 MSFC3	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
MEM-XCEF720-256M	Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
MEM-XCEF720-256M	Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
SFP-GE-S#	1000BASE-SX SFP (DOM)	24
Cisco 4500 Core	Internal routing of information from the 4500 switches to 7600 router	
WS-C6506-E	Catalyst 6500 Enhanced 6-slot chassis, 12RU no PS, no Fan Tray	1
SC6K-S7K8-8.5	Catalyst 6000 Sup 720 Flash Image, Rel 8.5	1
WS-SUP720-3B	Catalyst 6500 / Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B	1
MEM-C6K-CPTFL256M	Cat6500 Sup720/Sup32 Compact Flash Mem 256MB	1
WS-X6748-GE-TX	Cat6500 48-port 10/100/1000 GE Mod: fabric enabled, RJ-45	2
MEM-XCEF720-512M	Cat 6500 512MB DDR, xCEF720 (67xx interface, DFC3A/DFC3B)	1
WS-X6724-SFP	Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)	1
WS-C6506-E-FAN	Catalyst 6506-E Chassis Fan Tray	1
WS-CAC-3000W	Catalyst 6500 3000W AC power supply	2
CAB-AC-C6K-TWLK	Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US	2
CF-ADAPTER-SP	SP adapter for SUP720 and SUP720-10G	1
BF-S720-64MB-RP	Bootflash for SUP720-64MB-RP	1
S6M3Z-12217SXB	Cisco CAT6000-MSFC3 IOS IP	1
MEM-S2-512MB	Catalyst 6500 512MB DRAM on the Supervisor (SUP2 or SUP720)	1
MEM-MSFC2-512MB	Catalyst 6500 512MB DRAM on the MSFC2 or SUP720 MSFC3	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
MEM-XCEF720-256M	Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
MEM-XCEF720-256M	Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)	1
WS-F6700-CFC	Catalyst 6500 Central Fwd Card for WS-X67xx modules	1
Cisco 4500	Allows site computers on each floor to connect to the HALAN network	
WS-X4013+	Supervisor Engine II-Plus	9
PWR-C45-2800ACV	Catalyst 4500 2800W AC Power Supply (Data and PoE)	9
MEM-C4K-FLD128M	Cat 4500 IOS-based Supervisor, Compact Flash, 128MB Option	9
WS-X4548-GB-RJ45V	Catalyst 4500 PoE 802.3af 10/100/1000, 48-Ports (RJ45)	18
WS-C4506	Cisco Catalyst 4506 Chassis	9
S45IPB-12231SG	Cisco IOS Software for the Cisco Catalyst 4500 Series (IP Base image with EIGRP)	9
WS-G5484	Cisco 1000BASE-SX Short-Wavelength GBIC (multimode only)	9
CAB-AC-2800W-TWLK	U.S. Power Cord, Twist Lock, NEMA 6-20 Plug	
Cisco 3750	DMZ Switch -- Allows Web/database servers to connect to HALAN network	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
Cisco 3750	Allows computers to connect to the HALAN network	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
APC	Battery backup for the 4500 switches	
SURTD5000RMLT-1TF5	APC Smart-UPS RTD 5000VA RM	9
ASA Firewall	Primary Firewall to protect the HALAN network -- All sites will be behind this device	
ASA5540-BUN-K9	ASA 5540 Appliance with SW, HA, 4GE+1FE, 3DES/AES	1
CAB-AC	Power Cord, 110V	1
SF-ASA-7,1-K8	ASA 5500 Series Software v7.1	1
ASA5540-VPN-PR	ASA 5540 VPN Premium 5000 Peer License	1
ASA5500-ENCR-K9	ASA 5500 Strong Encryption License (3DES/AES)	1
ASA-VPN-CLNT-K9	Cisco VPN Client Software (Windows, Solaris, Linux, Mac)	1
SSM-BLANK	ASA/IPS SSM Slot Cover	1
Entity	FSCS #	Site
		Pasadena
Cisco 3750 48 Port	Allows LAN and WAN connection for each site computer	
WS-C3750G-48PS-S	Catalyst 3750 48 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
APC	Battery backup for the switches	
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router	Allows WAN connection for each site to HALAN network	
CISCO2821-V/K9	2821 Voice Bundle, PVDM2-32, SP Serv, 64F/256D	1
CAB-AC	Power Cord, 110V	1
FWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPH-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM	Device manager for routers	1
S28NJAISK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1
Entity	FSCS #	Site
		Pasadena- Fairmont

		Children's museum
APC		
SUA1000RM1U	APC Smart-UPS 1000VA USB & Serial 120V	1
1861 Router		
C1861-SRST-C-F/K9	1861,8-user SRST or CME,CUE,4FXS,4FXO,8POE,SP Svcs,HWIC slot 1	1
CAB-AC	Power Cord,110V 1	1
S186SPSK9-12411XW	Cisco 1861 IOS SP SERVICES 1	1
MEM1860-128CF	128MB CF for 1861 1	1
PWR-1860-220W	1861 Desk Top Power Adapter 100-240VAC	1
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
		Lee College
Cisco 3750 24 Port		
WS-C3750G-24PS-S	Catalyst 3750 24 10/100/1000T PoE + 4 SFP Standard Image	1
CAB-STACK-1M	Cisco StackWise 1M Stacking Cable	1
CAB-16AWG-AC	AC Power cord, 16AWG	1
APC		
SUA2200RM2U	APC Smart-UPS 2200VA USB & Serial RM 2U 120V	1
2821 Router		
CISCO2821-VK9	2821 Voice Bundle,PVDM2-32,SP Serv,64F/256D	1
CAB-AC	Power Cord,110V	1
PWR-2821-51-AC	Cisco 2821/51 AC power supply	1
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN Encryption/Compression	1
MEM2800-64U256CF	64 to 256 MB CF Factory Upgrade for Cisco 2800 Series	1
MEM2821-256U768D	256 to 768MB DDR DRAM factory upgrade for the Cisco 2821	1
PVDM2-32U64	PVDM2 32-channel to 64-channel factory upgrade	1
VIC-4FXS/DID	4 port FXS or DID VIC	1
VIC2-4FXO	Four-port Voice Interface Card - FXO (Universal)	1
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert	1
ROUTER-SDM	Device manager for routers	1
S28NUIASK9-12408	Cisco 2800 SPSK9-AISK9 FEAT SET FACTORY UPG FOR BUNDLES	1