Attachment K
Current Planning Applications and IT Environment

Technology, Services, Processes Overview

The Office of Analysis and Information Systems (OASIS) within the San Francisco Planning Department develops and implements departmental office automation. OASIS provides staff with the electronic capabilities needed to help do their jobs, as well as make available departmental data and information to staff, the public and assist with problems related to office automation.

The following is a list of OASIS work programs:

- Administer, monitor and manage the local area network and ensure continuous operation.
- Monitor the Department's wide area network connection to DTIS and other City and County departments for access to the City & County's Intranet, electronic mail (Lotus Notes) and the World Wide Web (Internet).
- Create and maintain the departments computerized management information reports such as Time Accounting, SF-Stat Performance Measures and Case Tracking.
- Plan, install, maintain and inventory the Departments Servers, Workstation, Printers, Plotters, Cisco Switches, Backup Tape storage devices, Antivirus definitions, Security updates and Storage Area Network.
- Maintain and Update the departments Oracle Databases: Planning Code, Case Tracking, Parcel Information, Planner Table DB, Case Editing and Intake, Pipeline Tracking, Permit Tracking.
- Develop and maintain departments Intranet Web pages, time accounting program, IT budget, staff training, procedure manual and GIS support.
- The OASIS Help Desk has instituted policies to ensure high quality, rapid technical service to all staff with regards to User IT equipment and applications. Support is available from 7am to 6pm 5 days a week with a full-time Helpdesk administrator 8am to 5pm. Monday through Friday. Users can contact the Helpdesk by phone, E-mail or Web Portal Helpdesk On-line and create their own ticket. Each ticket is assigned a priority of high, medium or low. High = 1 to 3 hours, Medium = 3 to 5 hours, Low = up to 8 hours of response and troubleshooting time.

Technology Applications Portfolio

All client applications were built using Borland’s Delphi connecting to an Oracle RAC11g clustered Linux Server using commodity hardware. Web applications are hosted on a commodity server running IIS and Coldfusion MX 8 and Sharepoint MOSS 2010.

The Planning Department maintains four broad categories of databases, most of them in Oracle:

1. Parcel-related information for case and permit processing is the largest set of data we maintain. Included in this category are data about ownership, physical dimensions and address from the Assessor's Office, zoning and height limit information maintained in

house, our Case Tracking database, Historic Resources database, and permit tracking data downloaded from the Department of Building Inspection.
2. Land Use data developed for use in long-range planning. This database is derived from the City's GIS base map, residential data from the Department of Building Inspection and the Assessor, and business data from Dun & Bradstreet.
3. Time Accounting and Work Program data is organized by employee, program area and accounts to which employees bill their time.
4. Other Administrative, such as our Master Mailing List, are also important to the operation of the department.
5. Global Imaging Desktop Software (ArcGIS 9.3) from ESRI is available to all Planners for Land Use Manipulation and layering. An ArcSDE Enterprise Server for managed Geo-database repository and file versioning system is configured and continually updated and enhanced by our GIS analyst.
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Technology Infrastructure and Telecommunications

The Planning Department is located at 1650 Mission St. on the 4th and 5th floor. The OASIS Enterprise Server room is located at 1660 Mission St. 4th floor Room 420, with a key punch access entry lock (Planning's old location now occupied by DBI). The Planning Enterprise Server location connects to the DTIS Fiber WAN via a Fiber cable from the 4th floor to DBI's Fiber WAN Router on the 6th floor.
The LAN connection from 1660 to 1650 is connected via two Single-Mode 10GB Fiber cables to the 1650 Mission 5th floor OASIS 5.1 and bound by ether-channel for maximum band-width and failover.
The Switch room OASIS 5.1 at 1650 Mission has a rack mounted 4507 Cisco Switch that feeds two other 4507 Cisco
Switch closets both with redundant 1GB Fiber connections.
The OASIS 5.1 Switch room also contains the DTIS PBX Avaya phone system. All offices and cubicles have two Network and phone jacks and all computer devices are connected with CAT 5 or 6 cables.

Technology Information and Data Management

Planning Data currently resides on Microsoft Clustered NTFS File Servers Fiber attached to a Xiotech SAN for disk quota growth. Data is stored and shared with a flat file folder naming convention with Active Directory as the Security access system for user accounts. Planners are responsible for managing, deleting and saving individual and group data.
Backups of all user Data is done on a nightly basis and retrievable within 1 to 3 hours of request. Off-site backups are rotated once a month.
All user information is gathered and stored by Josie Lee our Personnel Clerk and distributed to OASIS for E-mail (Lotus
Notes) and account log-on creation (Microsoft active directory for file access and workstation security.
The user is provided a secure Home directory with User and Administrator rights only and security assigned to any Network share that their manager requests.

All Permit Tracking client applications were built using Borland's Delphi connecting to an Oracle10g Linux Server using commodity hardware. The Oracle data is backed up nightly with RMAN for complete Data recovery.

Technology Security and Business Continuity
The Planning Departments secure Wide Area Network connection to DTIS provides access to E-mail, Internet and other City Departments. This connection provides a built in Security layer to the out side world, limiting our security needs to Local Area Networks devices. All Network devices and Servers are monitored 24X 7 with IPMonitor software and E-mail notification is sent via SMTP to applicable IT staff.
The Sophos Antivirus Parent Server checks for new Virus definitions hourly and pushes them to clients within 30 minutes.
The Windows OS SUS server downloads Windows security patches and pushes out these patches daily to all 170 XP Workstations and Servers.
The Xiotech SAN maintenance contract specifies 4 hour on-site support and is fully redundant should hardware fail. All alerts are E-mailed to IT staff and Xiotech support directly.
All Data Files are backed up nightly with Comm-Vault Software on an LTO Tape Library.
The planning Department is not a 24X7 Department so Server down time for upgrades and maintenance can be easily scheduled, with at least 3 days department notification, after hours or on Weekends.

Highlights:

SharePoint Services Web Portal is configured for department collaboration, document and case management. http://planportal

Team Collaboration on Long-Range Planning projects--A Sharepoint team site can centrally manage tasks, shared documents and announcements for major planning efforts, such as all the work of the City Design Group and the planning of the Southeast areas. This is something regular email cannot do. Using a team site also helps prevent the proliferation of different versions of the same documents.

Team Collaboration for managing major development projects--The Single-Intake/Case Manager Process Improvement Group has been struggling to figure out how to better coordinate the different reviews and entitlements associated with major projects. Until we implement a case management procedure in the new permitting system, it may be advantageous to establish team sites for major development projects, such as Park Merced and Visitacion Valley. Team sites for managing tasks, shared documents and announcements can also be useful for monitoring how major plan areas, such as Market Octavia and Eastern Neighborhoods, are actually developing. Rather than pull together all the information about a plan area from various sources from scratch, imagine getting that from a SharePoint team site.

Document Repository for forms, templates and condition language--Another Process Improvement Group is trying to improve how the department manages

mitigation measures and conditions of approval. To that end, the department is piloting a SharePoint site for organizing and managing this content. As the agency charged with implementing and enforcing the Planning Code, the Planning Department produces notices, case reports, environmental review reports, motions and decision letters. Document generation is a big part of our work, so any tool that makes document creation easier and more efficient is desirable. The department is copying the growing number of standard forms and templates on our current intranet site, and organizing them into folders on the SharePoint Document Center. The dozens of frequently used clauses in conditions of approval and environmental review mitigation measures are also being uploaded into a list on the Document Center, each classified in ways that make them readily searchable. The goal is help planners assemble decision documents largely by retrieving content from the Document Center. To a certain degree, this facility will eventually be provided in the new permitting system, but it will still be useful to collect and organize this content for future use on that system.

Historic Preservation's (CHRID) California Historic Resource and Information Database is on-line http://sanfran.cfwebtools.com/
The CHRID is a publicly accessible repository of information on thousands of buildings, structures, and objects in San Francisco. Records in CHRID reflect over 40 years of historic, cultural, and architectural survey documentation and evaluation ranging from the 1968 Junior League Here Today survey to recent Planning Department Area Plan surveys.

CHRID was developed to provide convenient historic and cultural information to individual property owners, historic preservation advocates, historians, students, and interested community members. It contains property information from the Planning Department's Parcel Information Database related to the identification or evaluation of historic and cultural resources. In addition, the Planning Department has begun adding scanned historic documents related to specific buildings, including case reports for local Article 10 Landmarks, National Register applications, Historic Resource Evaluations, photographs, and related documents from the Department's archives.

CHRID was developed through the California State Office of Historic Preservation's Certified Local Government (CLG) Grant Program. This site is maintained and hosted by the City and County of San Francisco Planning Department and contains information on historic resources and surveys within the local jurisdiction.

IT Parcel Information Applications:
We successfully migrated the department's database to a Linux Oracle clustered server environment to ensure continuous service in case one server fails. Testing and performance tuning is being conducted on this new installation.

In preparation for migrating to the new integrated permit tracking system we completed a first phase of data cleanup to improve the integrity and completeness of six major Oracle Parcel Information datasets. We have enhanced computerized intake to ensure completeness of newly created entitlement case records.

GIS Developments:

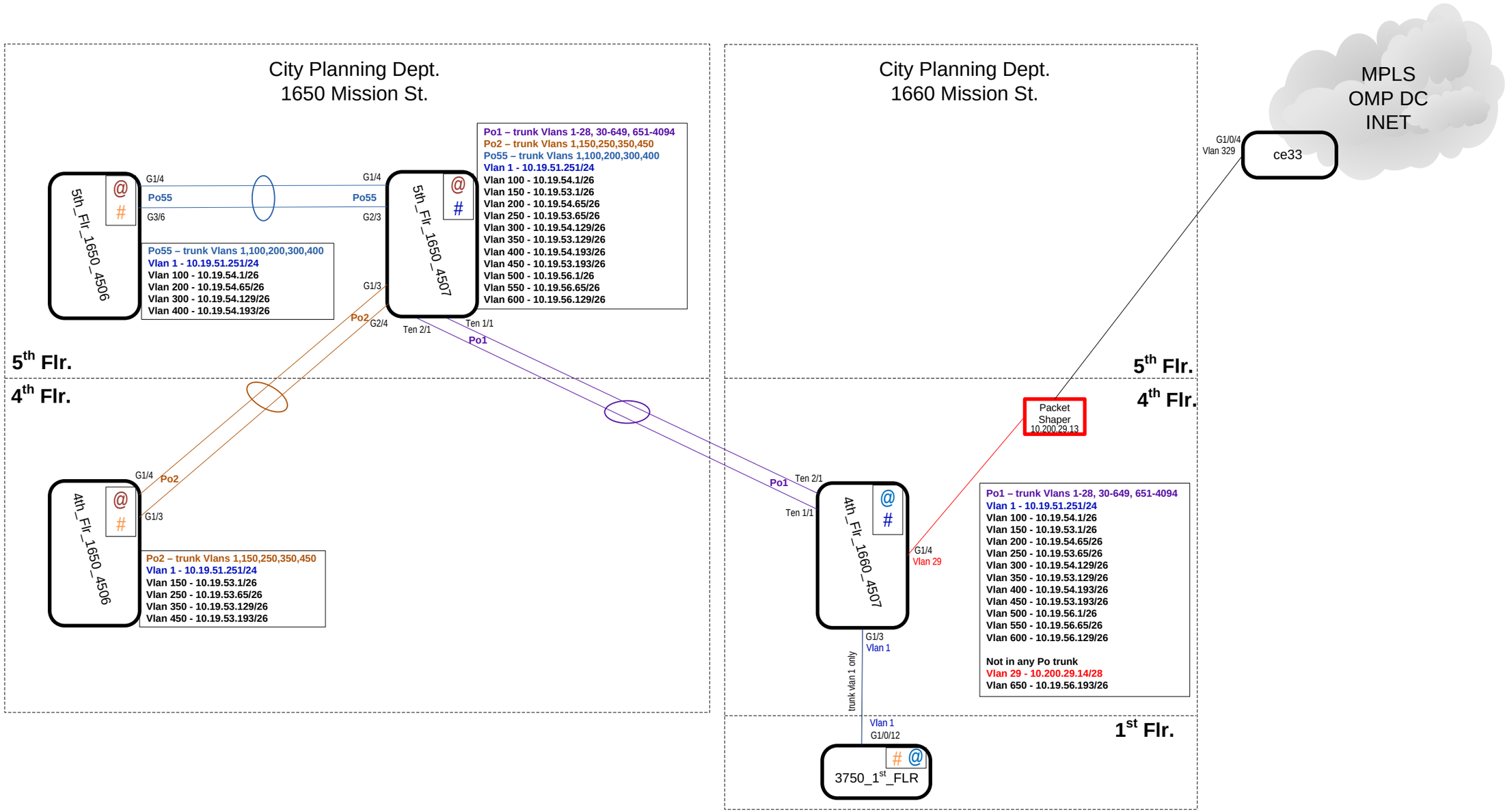
- A centralized GIS database (ArcSDE) for the Planning Department has been set up. This has produced a secure, managed repository for GIS data in the department. The database hosts 250 GIS datasets.
- The 'ArcMap Template' has been created. This is a customized ArcGIS project which is available to all staff. This project has mapping and data pre-loaded and a range of tools available to simplify the use of GIS. These tools include simple searching and mapping of GIS data from a wide range of sources. Seamless access is provided to data from the Planning Department's GIS database, the City's shared GIS database, the I drive and various online sources.
- A web version of the ArcMap Template now exists which provides quick, simplified access to key GIS datasets without the need to use or have knowledge of full-blown GIS software. (http://cityplan-03sde/WebGIS/)
- Staff has been trained in use of GIS in the Planning Department.
- Written instructions have been produced and circulated for using GIS in the department.
- Various non-GIS data has been linked into the GIS to enable the mapping, reporting and GIS analysis of these datasets (planning cases, building permits, historic resources, Assessors data, parcel ownership data, planning complaints, Miscellaneous Permits, lot events & instructions, etc)
- The Planning Department GIS user group has been set up and now meets once a month.
- A GIS intranet site has been created (http://plannet/Resources/GIS.html) as a single point of access for GIS information and tools in the department.
- An online library of cartography has been set up (http://plannet/Resources/GIS/Library.html)
- The ZoneFinder tool has been created. (http://gis03v1.sfgov.org/phoenix/phoenix.html?context=zoning). This is a web application prototype used to check zoning at any parcel or address and to print zoning reports for that parcel or address. This has been integrated with the Parcel Information tool.
- The Shadow Tool has been created to produce shadow fans for proposed developments simplifying the processing of 'K' cases.
- The General Advertising Sign Program GIS tool which is used to manage sign data has been extended to also manage sign related Notices of Violation and penalty tracking.
- ArcGIS Server has been set up. This provides the framework for the creation of web sites accessing our GIS data and quicker access to GIS data through standard desktop GIS tools (e.g ArcMap).
- A customized Google Maps based web site has been created to produce location maps for cases, parcels or addresses. (http://cityplan-03sde/locationmap/locationmap.html).
- A Google Maps based web site has been set up to display maps of Massage Establishment permits from the Miscellaneous Permits database. (http://cityplan-

03sde/massage/mpermits_massage.html). This tool also displays 1000ft limits around existing massage establishments to help in the processing of massage permits.

- A Google Maps based web site has been set up to provide simple access to the department's GIS data. (http://cityplan-03sde/googlemaps/planningwebgis.html) This is still a work in progress.

Also attached are the following presentations:

- Network Diagrams
- List of Current Applications
- High-Level Model of Current Databases


City Planning Dept.
1650 Mission St.
City Planning Dept.
1660 Mission St.
MPLS
OMP DC
INET
ce33
G1/0/4
Vlan 329
5th_Flr_1650_4506
5th_Flr_1650_4507
G1/4
Po55
G3/6
G2/3
Po1 – trunk Vlans 1-28, 30-649, 651-4094
Po2 – trunk Vlans 1,150,250,350,450
Po55 – trunk Vlans 1,100,200,300,400
Vlan 1 - 10.19.51.251/24
Vlan 100 - 10.19.54.1/26
Vlan 150 - 10.19.53.1/26
Vlan 200 - 10.19.54.65/26
Vlan 250 - 10.19.53.65/26
Vlan 300 - 10.19.54.129/26
Vlan 350 - 10.19.53.129/26
Vlan 400 - 10.19.54.193/26
Vlan 450 - 10.19.53.193/26
Vlan 500 - 10.19.56.1/26
Vlan 550 - 10.19.56.65/26
Vlan 600 - 10.19.56.129/26
Po55 – trunk Vlans 1,100,200,300,400
Vlan 1 - 10.19.51.251/24
Vlan 100 - 10.19.54.1/26
Vlan 200 - 10.19.54.65/26
Vlan 300 - 10.19.54.129/26
Vlan 400 - 10.19.54.193/26
G1/3
Po2
G2/4
Ten 2/1
Ten 1/1
Po1
5th Flr.
4th Flr.
4th_Flr_1650_4506
4th_Flr_1660_4507
Packet
Shaper
10.200.29.13
Ten 2/1
Po1
Ten 1/1
G1/4
Vlan 29
Po2 – trunk Vlans 1,150,250,350,450
Vlan 1 - 10.19.51.251/24
Vlan 150 - 10.19.53.1/26
Vlan 250 - 10.19.53.65/26
Vlan 350 - 10.19.53.129/26
Vlan 450 - 10.19.53.193/26
Po1 – trunk Vlans 1-28, 30-649, 651-4094
Vlan 1 - 10.19.51.251/24
Vlan 100 - 10.19.54.1/26
Vlan 150 - 10.19.53.1/26
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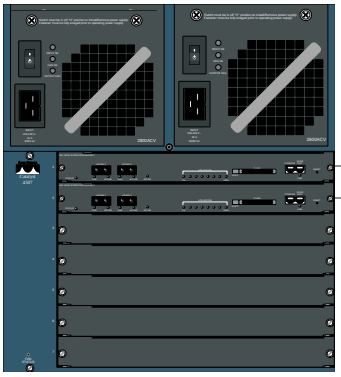
Vlan 250 - 10.19.53.65/26
Vlan 300 - 10.19.54.129/26
Vlan 350 - 10.19.53.129/26
Vlan 400 - 10.19.54.193/26
Vlan 450 - 10.19.53.193/26
Vlan 500 - 10.19.56.1/26
Vlan 550 - 10.19.56.65/26
Vlan 600 - 10.19.56.129/26
Not in any Po trunk
Vlan 29 - 10.200.29.14/28
Vlan 650 - 10.19.56.193/26
G1/3
Vlan 1
trunk vlan 1 only
Vlan 1
G1/0/12
1st Flr.
3750_1st_FLR
@ - VTP Server
@ - VTP Client
# - VTP v1
# - VTP v2
Network Engineering
City Planning
Carl Sian
12-23-2009
Router
Firewall
Switch

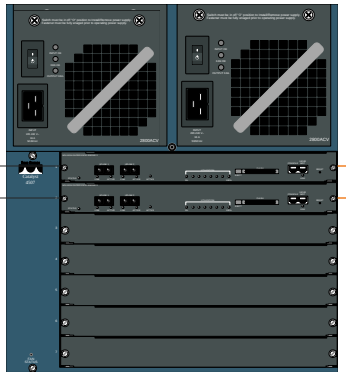
1660 Mission

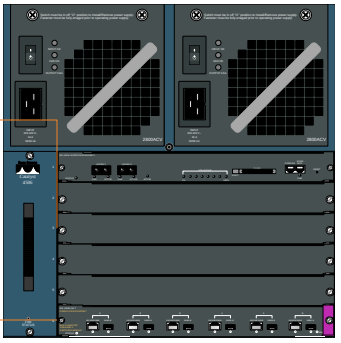
1650 Mission

1650 Mission – 5.1

1650 Mission – 5.2







10G-X2

10G-X2

1GB-SFP

1GB-SFP

1GB-SFP

1GB-SFP

4507 w/ 2 SUP-V
10GB & 2 10GB X2

4507 w/ 2 SUP-V
10GB & 2 10GB X2 w/
2 SFPs per SUP-V
(4 total)

4506 w/ 1 SUP-V w/ 1
SFP and 1 X4506 with
1 SFP

1650 Mission – 4.1

4506 w/ 1 SUP-V w/ 1
SFP and 1 X4506 with
1 SFP

Current Planning Department Applications

Key Applications

All client applications were built using Borland's Delphi connecting to an Oracle 10.2.3 Linux Server using Dell Blade hardware and Xiotech SAN Storage Area Network. Web applications are hosted on a Windows Clustered server running IIS and Coldfusion MX 8.

DATABASE	PRODUCT	NAME	Average Usage	DESCRIPTION
Administration	Client--Master Mailing List	MML.EXE	4	Departmentwide mailing list for multiple mailings, such as planning studies, neighborhood organization notifications and commission calendar distribution
Admin istration	ColdFusionWeb based Billing Application	http://plannet/Port	2	Comprehensive Billing Application
Administration	Client--Time Accounting Queries	TAQ.EXE	1	Users can query multiple time accounts and multiple planners for time billed.
Administration	Client--Work Program Manager	WPM.EXE	1	Manages all time accounts
Legislative Tracking	Web Legislation Tracking App	http://plannet/Port	2	Track legislation before and after they have been transmitted to San Francisco Planning Departmen
Case Tracking	Client--Case Editing & Intake	CEI.EXE	4	Data-entry and update program for Planning cases. Also allows planners to list their cases or the cases of their team.
Case Tracking	Client--Case Tracking Queries	CTQ.EXE	1	Users may query the Case Tracking database by various parameters. Used mainly to find previous examples of a particular case type.
Case Tracking	Client--Old Case Editing	OCE.EXE	1	Data updating program for Planning cases from before 1980.
Case Tracking	Client--Workload Manager	WLM.EXE	1	Similar to Case Editing but it retrieves case lists based on the team affiliation of the assigned planners--not the location of the project sites.
Parcel	Client--Assessor Parcel Editing	APE.EXE	1	Edits our Planning table (which lists zoning and height limits by APN) and our copy of the Assessor's table.
Parcel	Client--Block Book Notations	BBN.EXE	2	Users add Block Book Notations to Parcel Information
Parcel	Client--Miscellaneous Permits	MP2.EXE	2	Users track Police, Health and other special permits.
Parcel	Client--Parcel Event Tracking	PET.EXE	3	Users add and update special instructions, project review meetings and zoning letters of determination tied to parcels
Parcel	Client--Parcel Information Database	PID.EXE	40	Main application for viewing all parcel-related information; searchable by APN or street address.
Parcel	Client--Planning Complaint Tracking	PCT.EXE	2	Users track Planning Code Enforcement cases
Parcel	Web app--Board of Appeals	Appeals.cfm	1	Coldfusion application for tracking appeal cases that involve Planning.
Parcel	Web app--Notices of Special Restrictions	Restrictions.cfm	2	Coldfusion application for entering and updating Notices of Special Restrictions
Time Accounting	Client--Time Accounting 3	TA3.EXE	All users	Users enter time for payroll and tracking daily activity per permit application and Planning case.
Time Accounting	Client--Time Accounting Initialization	T3I.EXE	All users	Abbreviated program for signing in to Time Accounting in the morning.
Case Reporting	Crystal Reports Web Server 2008	IIS .Net	6	Case Report Management tool

Productivity Software

1. MS Office 2003 suite

Planning Department Databases

Parcel Information

(keyed on block and lot numbers, as well as ID)

- Property address, square footage, ownership, zoning
- **Case Tracking**
- Permit Tracking (from DBI)
- Block Book Notations
- Parcel Event Tracking
- Notices of Special Restriction (NSR)
- Historic Resources ratings
- Non-conforming Uses (NCU)
- Miscellaneous Permits
- Sanborn maps
- GIS Basemap (from DPW)

Time Accounting and Work Program

(keyed on employee, work date and account number)

- Payroll Signin Records
- Daily billings to accounts
- List of accounts
- List of program areas
- List of divisions
- Employee table
- Payrate history by employee

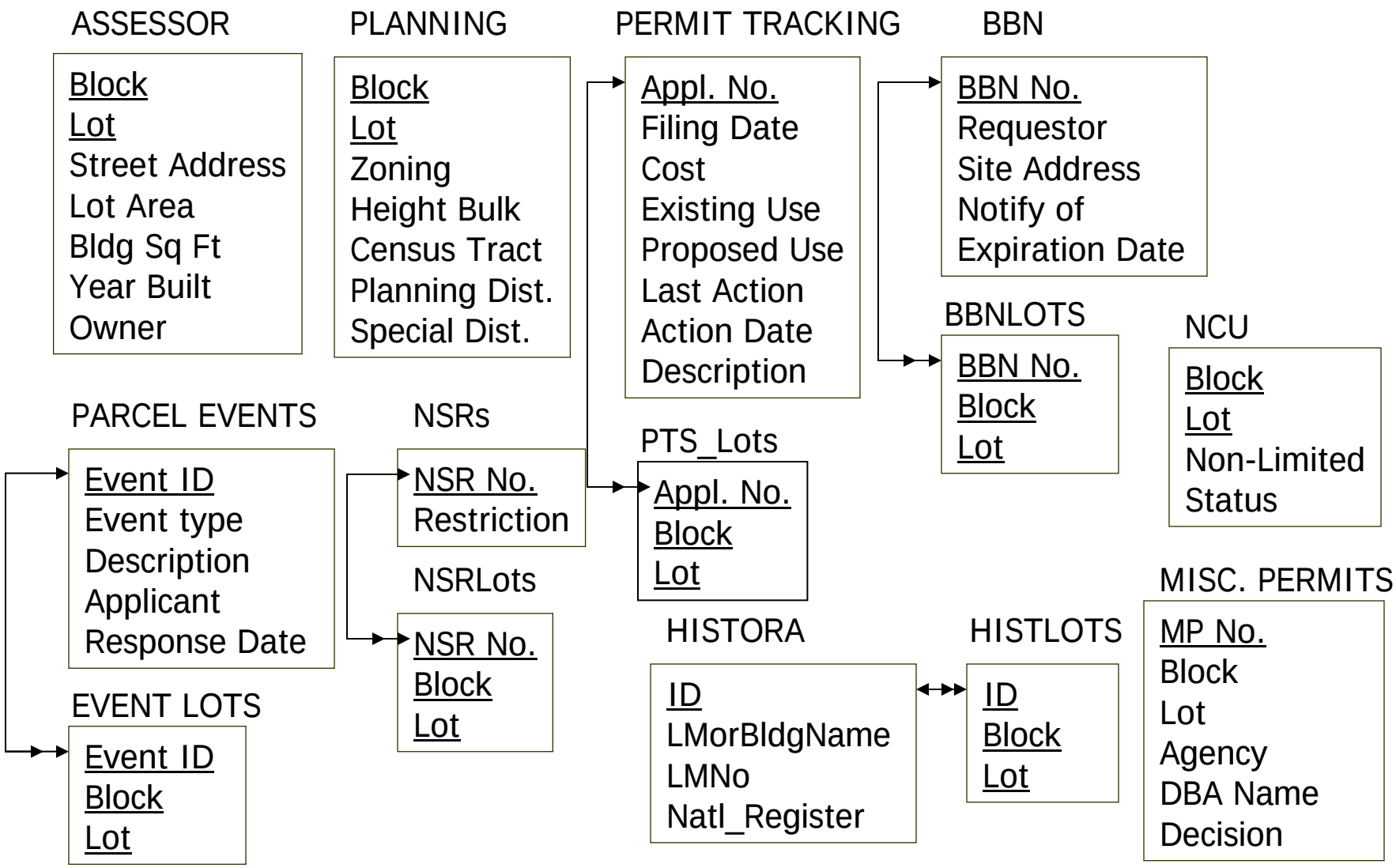
Land Use Database

- List of businesses by address (from Dun & Bradstreet)
- Land Use table (based on Business table)

Other Administrative

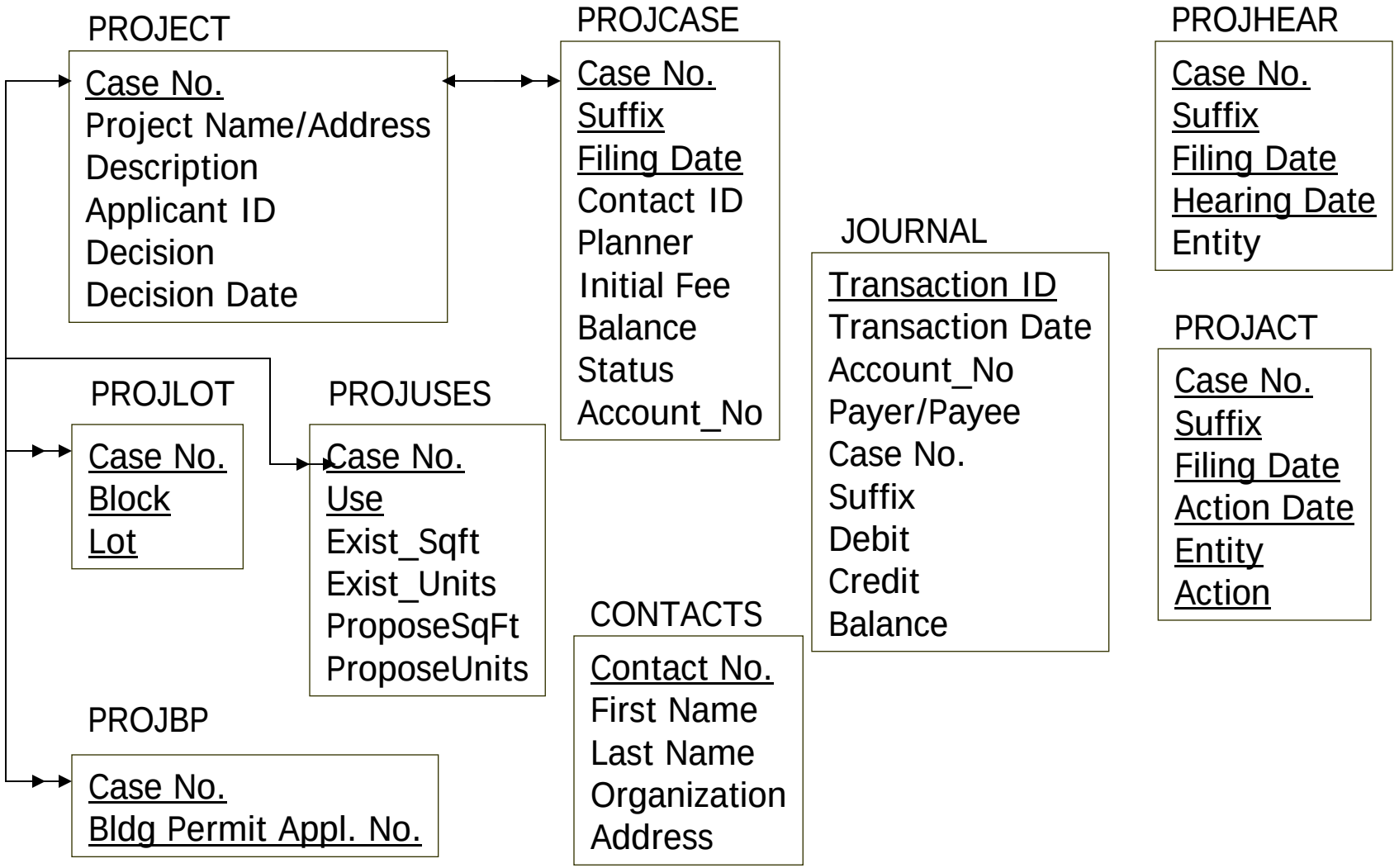
- Departmentwide Mailing List
- Vehicle, room and equipment reservations

Parcel Information



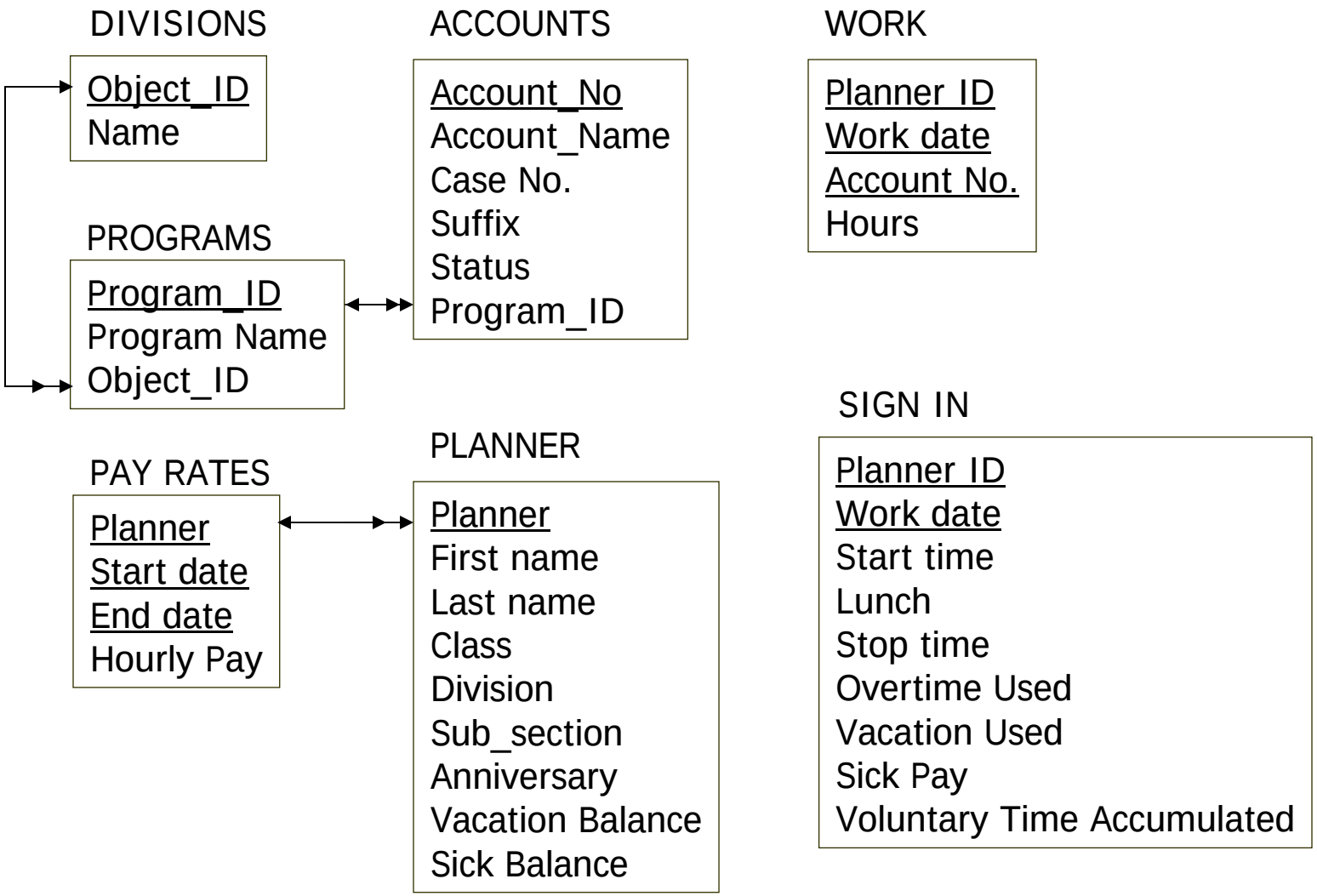
Partial listing of attributes

Case Tracking



Partial listing of attributes

Time Accounting and Work Program



Partial listing of attributes

GIS Citylots

Citylots

Mapblklot
Blklot
Lot_num
Block_num
From_St
To_St
Street
Type
Shape_Area

Lotchanges

Oldblklot
OldBlock
OldLot
Blklot
Block
Lot
Recorded

Partial listing of attributes

Land Use Database

LAND USE

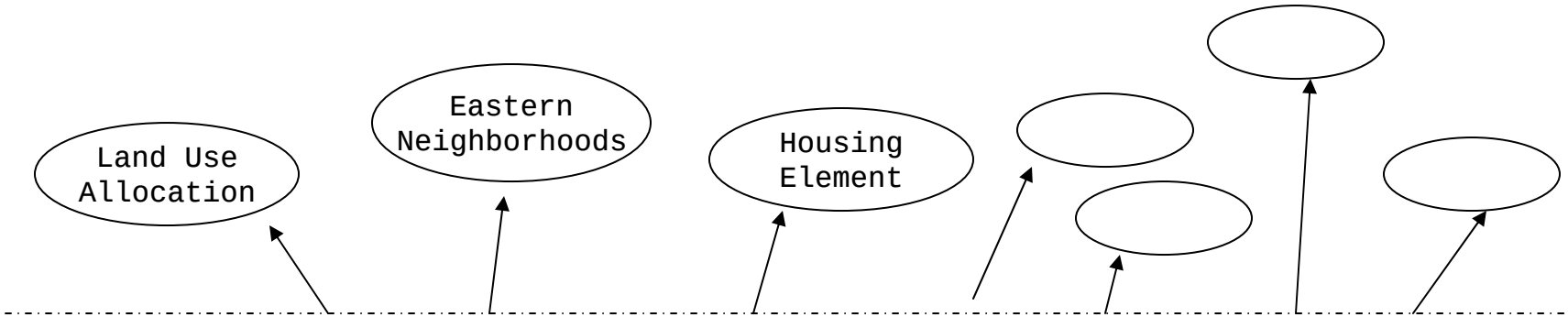
Map block lot
CIE Sq ft
MED Sq ft
MIPS Sq ft
PDR Sq ft
Retail Sq ft
Visitor Sq ft
Predominant land use
Total Sq ft
Residential type
Residential Units
Block
Lot
Land use district

BUSINESS

D & B No.
Company Name
Trade Name
Address
Employees
SIC Code
Sq Ft
Business Sector
Block
Lot
Land use district

Partial listing of attributes

Building Blocks



Regular Products

Housing.mdb -annual-	Chapter6.mdb -annual-	Pipeline.mdb -monthly?-	Buildout.mdb

PTS.mdb -monthly-	Parcel.mdb -quarterly-	Resident.mdb -annual-	Landuse.mdb -annual-

Land Use Foundation

Citylots.mdb
(includes Lotchanges table)
-updated annually-

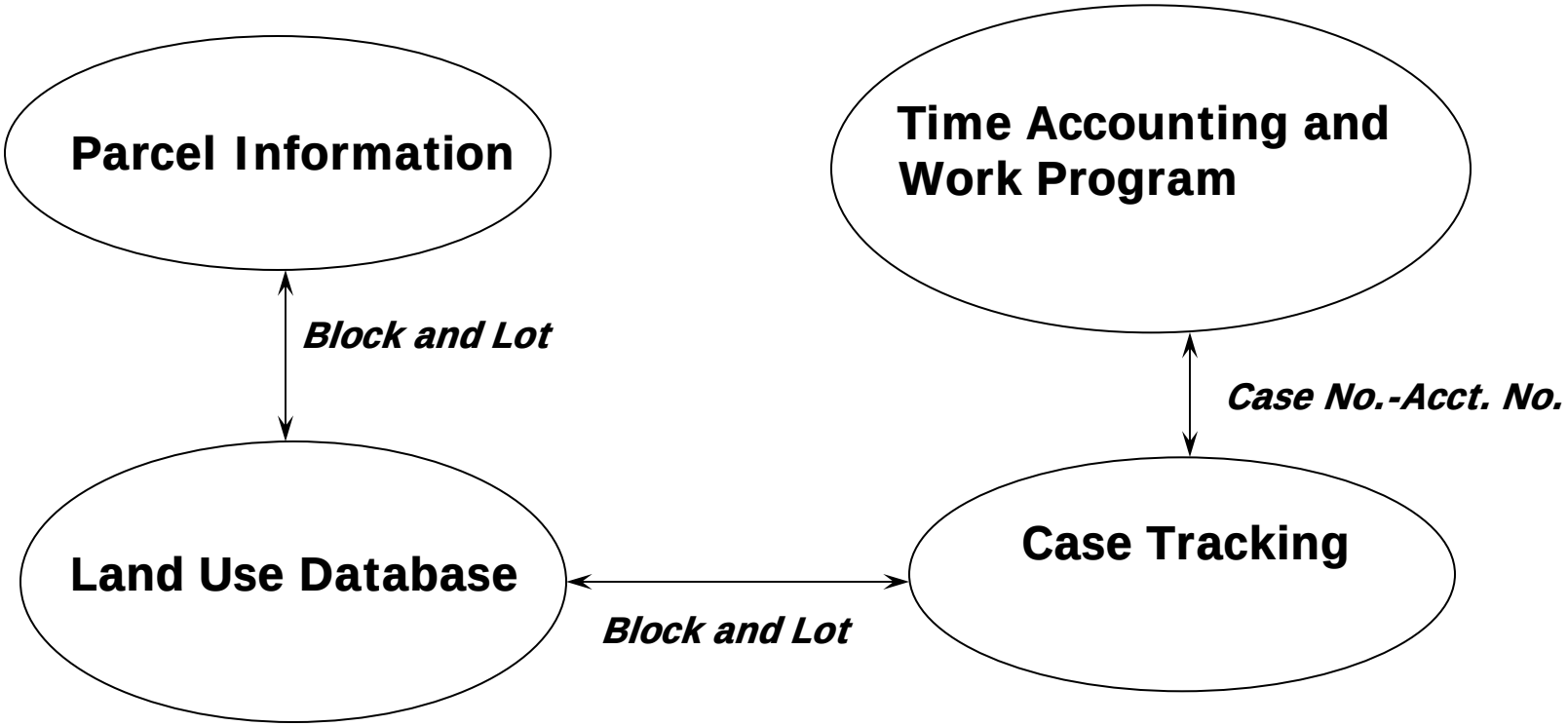
Other Administrative

MAILING LIST

Sequence No.
Last name
First name
Title
Organization
Address
City
State
Zip
Email
Officer 2
Date entered

MEMBERSHIP

Sequence No.
Category

Partial listing of attributes

Linkages Between Databases