City and County of San Francisco
Department of Building Inspection
IT Infrastructure Summary

BUSINESS APPLICATIONS

Permit Tracking System (PTS) – Developed In-house

Description: The Department of Building Inspection (DBI) uses the Permit Tracking System as its primary business application suite. The suite contains multiple applications that support one or more aspects of DBI's business processes as related to the enforcement of the City and County of San Francisco's building, electrical, plumbing, mechanical, and housing codes. PTS was implemented in January 2000.

PTS is a relational database system that acts as a data warehouse for multiple applications. PTS provides for the core functions of permit application intake, plan review and approval, permit issuance, inspection management, Certificate of Final completion and Occupancy issuance, complaint tracking, and code enforcement management. Many of these functions are tied together by a property's street address and/or block/lot. Of all the applications (or modules) for PTS, only the core modules have complex communications between them. The other applications have minimal relationships or are standalone applications accessible through PTS's user interface. Listed below are all of the applications in PTS with a brief description of their purpose.

Core Modules:

- **Address Validation System** – manages address assignment and provides address and block/lot information for all applications in the system
- **Permit Tracking System** – facilitates intake of all permit applications (except for electrical and plumbing permits); tracks permit application and plans through review process, and issues permits; provides for fee calculations and management
- **Complaint Tracking System** – manages and tracks any complaints regarding code violations reported against a property
- **Inspector District Lookup** – assign blocks and census tracks to districts for divisions (Building, Electrical, Plumbing, Mechanical, etc.)
- **Inspector Scheduling System** – schedules inspections; tracks inspection history, accounting, inspector availability and daily schedules
- **Inspector Management System** – management tool for inspectors (i.e. maintains inspector division, start date, end date, division transfers, etc)
- **Electrical Inspection Division** – facilitates intake of all electrical permit applications; tracks permit application and issues permits; provides for fee calculations and inspection tracking

- **Plumbing Inspection Division** – facilitates intake of all plumbing permit applications; tracks permit application and issues permits; provides for fee calculations and inspection tracking
- **Employee Management System** – manages employee information for all DBI staff (i.e. phone, position, job status, job history, evaluations, employee information, etc.); provides information for the system's user profiles
- **Contractor Information System** – Maintain construction contractor license information
- **Property Profile** – displays property information (majority of the information is provided by the City and County of San Francisco Office of the Assessor-Recorder

Other Applications/Report Modules:
- **Notices** – Issues DBI/CPB notices for demolitions, 50% demolitions, cancellations, structural changes, etc.
- **Construction Tracking** – tracks construction details from permit issuance to completion of construction
- **Restricted Addresses** – maintains information on addresses where permit issuance is restricted
- **Plancheck Activity** – tracks various activities during the plan review process
- **HIS Inputs** – maintains Housing Inspection information such as routine inspections (including residential hotels, condominiums, etc.), Housing Abatement information, and franchise tax cases
- **Lien Program** – generates Code Enforcement Division Lien reports
- **Residential Energy** – maintains residential energy compliance information
- **Document Index** – maintains Records Management Division's microfilm reel information
- **3R** – manages Report of Residential records for Records Management Division
- **Boiler Permits** – issues permits for Boiler installations
- **Contractor Violations** – maintains Plumbing penalties
- **Party Wall** – maintains party wall information
- **Seismic database** – maintains information regarding Un-reinforced Masonry Buildings (i.e. building compliance, building retrofitting due dates, etc.)
- **Soil Reports** – information repository for soil reports
- **Custom Reports**
  - **DIR Reports** (Director's hearing letters, abatement letters, etc.)
  - **Director's Emergency Orders**
  - **Management Reports for all Divisions**

Applications Used by Other City Departments:

- City and County of San Francisco Department of Public Works
  Bureau of Street Use and Mapping

  Street Space Info – application used to query/view street space related permit information

- City and County of San Francisco Department of City Planning
  - o Fire Zones – application used to query/view information regarding fire zones
  - o Zoning – application used for zoning descriptions

Operating System: Microsoft Windows Server 2003 SP2

Database Software: Oracle 10g Database
Oracle 10g Application Server

Hardware: Database - HP ProLiant BL45p Blade Server – Two (2) servers configured as a cluster using Oracle Real Application Cluster

Applications - HP ProLiant BL20p G3 CTO Blade Server – Two (2) servers configured as Microsoft Windows Server 2003 Cluster

Number of Users: <600 users

Accessibility: PTS is accessed primarily via a thick client installed on each user desktop. The core applications are currently being migrated to a web-based thin client format. External application access is required via the City's Intranet (WAN) by other City Departments and Internet applications (online permitting).

Comments: PTS development is ongoing which could result in the addition of features, functions, and/or enhancements that would affect the description provided above.

PaperVision Enterprise – by Digitech Systems, Inc.

Description: DBI uses PaperVision as its electronic document management system. PaperVision manages documents such as permit applications (and related paperwork), images, pictures, letters/correspondence, and potentially architectural drawings. Scanned images of documents are linked to permit/property address information and provide DBI with an efficient method to convert documents into a digital medium ease of storage and retrieval.

Operating System: Microsoft Windows Server 2003

Database Software: Microsoft SQL Server 2005

Hardware: HP ProLiant DL380 Server

Number of Users: <75 users

Accessibility: Papervision is accessed primarily via a web client. Specific Document scanning and indexing services are purchased by DBI on a monthly basis. A CD/DVD is provided and all images are imported into PaperVision. Scanning is also done internally stored into the same database.

Interactive Voice Response Inspection Scheduling – by Selectron

Description: This IVR system is integrated with the Oracle database to provide customers with secured 24/7 real-time phone access to schedule inspections and obtain inspection results. This system will also allow inspectors to post inspection results via a telephone, and enable two-way voice messaging between inspectors and customers.

Operating System: Microsoft Windows Server 2003

Database Software: Microsoft SQL Server 2005

Hardware: HP ProLiant ML350 G6 Server

Number of Users: <50 users

Customer Flow and Queue Management – by Q-Matic, Inc.

Description: The queue management system guides customers through the Building Permit process, such as Intake, Permit submittal, Plan Review, and Records request processes with greater efficiency. The system involves various departments like Planning,

Public Utility Commission, Department of Public Works, Municipal Transit Authority, Fire, and will provide management with performance reports on work flow checkpoints. The system offers self-help kiosks for customer convenience.

Operating System: Microsoft Windows Server 2003

Database Software: Microsoft SQL Server 2005

Hardware: HP ProLiant DL380 G6 Server

Number of Users: <200 users

INFRASTRUCTURE & PRODUCTIVITY SOFTWARE

Infrastructure Software:
- Microsoft Windows Server 2003
- Microsoft System Management Server 2003
- Microsoft Terminal Server 2003
- HP Openview Management
- HP Openview Data Protector
- Numara TrackIT Enterprise
- Websense
- Symantec Antivirus
- Symantec Ghost

Productivity Software:

- Microsoft Windows XP Professional SP2
- Microsoft Office 2003 Professional
- Microsoft Visio
- Microsoft Project
- Internet Explorer
- Lotus Notes 7 *(NOTE: Server Maintained by Department of Telecommunications & Information Systems)*
- Real Player
- Symantec Antivirus
- Adobe Reader 7.0
- Adobe Acrobat
- Adobe Illustrator
- Adobe Photoshop
- Adobe Premier

Custom Applications:

- ADPICS/FAMIS
- TESS
- Sanborn Maps

PERIPHERALS AND ACCESSORIES

347 – HP DC 7600 Desktop
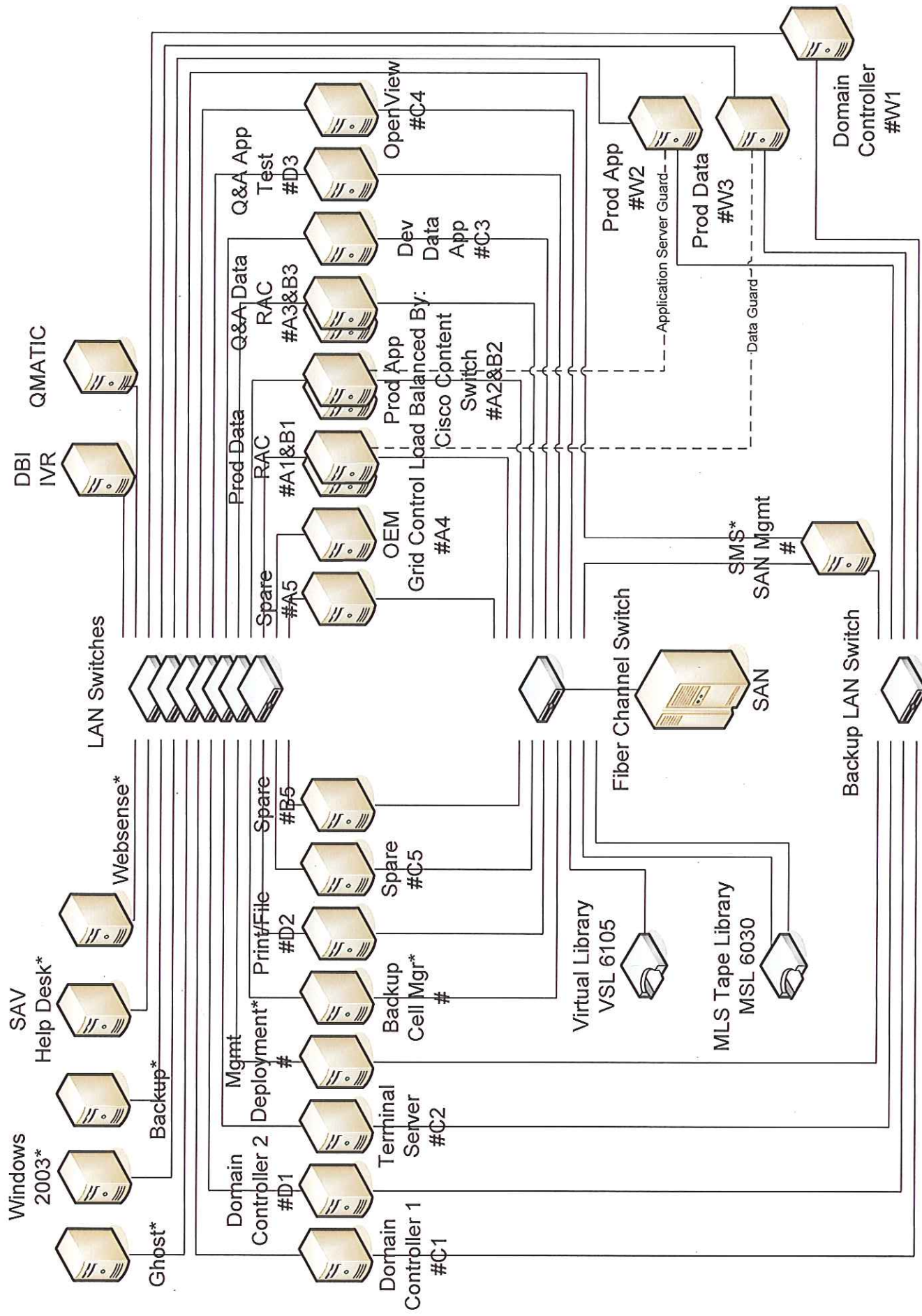10 – HP DC 7700 Desktop
30 – HP DC 7800 Desktop

1 – Xerox N40
2 – HP LaserJet 9050dn
12 – HP LaserJet 4350dtn
7 – HP Color LaserJet 4650dtn
4 – HP LaserJet 1320n
1 – HP LaserJet 5100dtn
1 – HP LaserJet 5200dtn
1 – HP Color LaserJet 2605n
2 – HP Color LaserJet 9500hdn
5 – HP Color LaserJet 4700dn
10 – HP LaserJet 3015

LAN AND WAN CONNECTIVITY

Network Infrastructure Equipment:
1 – Cisco Catalyst 2621 router
2 – Cisco Catalyst 4506 switches
19 – Cisco Catalyst 3750 switches

Cabling – Cat 5e cabling/1GB speed to the desktops

QMATIC

DBI
IVR

Windows
2003*

SAV
Help Desk*

Websense*

Backup*

Ghost*

LAN Switches

Domain
Controller 2
#D1

Terminal
Server
#C2

Domain
Controller 1
#C1

Mgmt
Deployment*
#

Print/File
#D2

Backup
Cell Mgr*
#

Spare
#C5

Spare
#B5

OpenView
#C4

Q&A App
Test
#D3

Dev
Data
App
#C3

Q&A Data
RAC
#A3&B3

Prod App
Load Balanced By:
Cisco Content
Switch
#A2&B2

Prod Data
RAC
#A1&B1

OEM
Grid Control
#A4

Spare
#A5

Prod App
#W2

Prod Data
#W3

Domain
Controller
#W1

--Application Server Guard--

--Data Guard--

SMS*
SAN Mgmt
#

Fiber Channel Switch

SAN

Virtual Library
VSL 6105

MLS Tape Library
MSL 6030

Backup LAN Switch

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Department of Building Inspection
Server Assignments

W = War Room Rack Mount Proliant - War Computers to be contained in rack system with UPS in War Room

A B or C = Blade Enclosure - Blade Enclosures to be contained in rack system in Data Center

* = Data Center Rack Mount Proliant - Data Center Computers to be contained in a rack system in Data Center