

COMMITTEE ON INFORMATION TECHNOLOGY

Budget and Performance Subcommittee

October 2, 2015

1 Dr. Carlton B. Goodlett Place, City Hall, Room 305
San Francisco, CA 94102

Agenda

1. Call to Order by Chair
2. Roll Call
3. Approval of Minutes
4. Discussion: Review of COIT Budget Forms & SharePoint
5. Project Update: Fix the Network (Technology)
6. Discussion: Overview of Asset Management Systems
7. Project Update: ServiceNow IT Asset Management (Technology)
8. Project Update: Infor Capital Asset Management (Public Works)
9. Public Comment
10. Adjournment

3. Approval of Minutes

Action Item

4. Discussion: Review of COIT Budget Forms & SharePoint

Matthias Jaime, COIT

COIT BUDGET FORMS & SHAREPOINT

The screenshot shows a SharePoint interface for the COIT (Committee on Information Technology) Project Request form. The top navigation bar includes 'Office 365' and 'Sites'. The left sidebar contains a navigation menu with links to 'Home', 'All Project Requests Since FY14', 'Historical Project Requests Prior to FY14', 'Budget Source', 'Site Contents', 'Recent', 'Budget Feedback Responses', 'Mailbox', 'Test lists', 'OLD FY16 and FY17 Project Requests', '1) Department Details', '2) Project Request', 'Backlog', 'Documents', 'Recycle Bin', and 'EDIT LINKS'. The main content area displays the 'Project Request' form, which features the COIT logo at the top. The form includes fields for 'Department' (set to 'ADP - Adult Probation'), 'Major Service Area' (set to 'Public Protection'), 'Project Title' (set to 'PROBSTAT'), 'Executive Sponsor', 'Budget Phase' (set to 'APPROVED'), and 'PROJECT ID'. A section titled 'PART 1: PROJECT OVERVIEW' contains fields for 'Project Manager' (set to 'Bella Fudym'), 'FY Start', 'FY Finish' (set to 'FY 15-16'), 'Duration (Years)', 'Primary goal supported', and 'Project Type'.

Office 365 Sites

EDIT

Save Close Paste Copy Cut Delete Item

Commit Clipboard Actions

Home

All Project Requests Since FY14

Historical Project Requests Prior to FY14

Budget Source

Site Contents

Recent

Budget Feedback Responses

Mailbox

Test lists

OLD FY16 and FY17 Project Requests

1) Department Details

2) Project Request

Backlog

Documents

Recycle Bin

EDIT LINKS

Project Request

Department ADP - Adult Probation

Major Service Area Public Protection

Project Title PROBSTAT

Executive Sponsor

Budget Phase APPROVED

PROJECT ID Click here to attach a file

PART 1: PROJECT OVERVIEW

Project Manager Bella Fudym

FY Start FY Finish FY 15-16

Duration (Years)

Primary goal supported

Project Type

5. Project Update: Fix the Network

Department of Technology

Ashley Amjad

Bryant Bailess

Eddie Eriksson

What Problems are Being Fixed?

Three Real Examples

This is a problem now.

Old firewalls are slowing down network performance for remote users (who use VPN) and limiting capacity for internet use.

This is a problem now.

The data centers are not currently redundant – there is no true real-time failover (resilience) capability to another data center if one is made unavailable.

This is a problem now.

Access to the internet has a single point of failure – there is no true redundancy here.

Fix the Network

Critical network upgrades & maintenance exist as a foundational project in order to address problems business and technical users are facing today

Fix the Network

Summary

The goal is to have a secure, resilient, high-availability network that can scale to accommodate future client applications and to support the growing base of mobile and remote users.

Objectives

- Update legacy network equipment (e.g. routers)
- Optimize network routing (choose best paths)
- Standardize network protocols* (fewer rules)
- Simplify network topology (neater design)
- Enhance security (less intrusion)
- Enable internet failover (no interruption)
- Eliminate single points of failure (no weakest link)

* Routing protocols are instructions to city network infrastructure on how to send information around the network.

Outcomes

- More resilient and secure network (enables re-routing)
- Higher network availability (less downtime)
- Easier maintenance (lower support costs)
- Greater network throughput (e.g. better streaming)
- Standardized network (more plug-and-play)
- Greater capacity for growth (to meet demand)
- Enhanced data & voice quality (clearer phone calls)

Accomplishments Since June 2015

Accomplishments	Related Project or Initiative	Resource
Collapsed 2 public WiFi switches into 1 switch	Simplify Network Topology	Sr. Network Engineer
Created documentation for data centers and several city agencies	Documentation	Data Center Team
Procured 2 ASR routers to support multiple 10 Gb links	Router upgrades	Procurement
Migrated 60% of WAN networks to simplified routing environment	Optimize Routing	Sr. Network Engineer
Substantial progress migrating off of AT&T external IP addresses	Internet Failover	Project Manager
Kick-off meeting with Cisco to implement firewalls and wireless LAN controllers	Simplify Security, Expand Wireless	Network Team

Activities Over Next Quarter

Activities Over Next Quarter	Related Project or Initiative	Resource
Create to-be WAN network protocol roadmap	Simplify Routing	Sr. Network Engineer
Implement new firewalls	Simplify Security	Cisco
Implement new wireless controllers	Expand Wireless	Cisco
Migrate off of AT&T external IP addresses	Internet Failover	Network Engineers
Continue documentation efforts with NetBrain and 46 customer sites	Documentation	Data Center Team
Install Secure Access Control Servers and New Routers	Upgrade Security and Network Equipment	Sr. Network Engineer

2015-16 Key Performance Indicators

KPI #	Project Component	Key Performance Indicator	Measurement Target
1	Update Hardware/Software	Increased throughput	25% faster routing performance
2	Eliminate SPOF	Reduction in SPOFs	50% reduction in SPOFs
3	Simplify Security	Reduction in Access Control Lists	15% reduction of ACLs
4	Optimize Routing	Reduction in Routing Distribution Points	25% reduction in distribution points
5	Remote Access	Faster, simpler, secure connection	25% faster VPN connection
6	Expand Wireless	Greater WiFi capacity	25% increase in WiFi capacity

Fix the Network

Spend (Actuals) – which has been sourced mostly from COIT funding

Equipment, Tools and Services	Cost	FY Spend	Origin of Funds
NetBrain <i>(Tool for network discovery, mapping and diagnostics)</i>	\$242,840	2014	COIT
SmartNet <i>(Cisco maintenance)</i>	\$221,369	2014	COIT
ASR 1002 Upgrade <i>Aggregation services router enabling multiple WAN connections, encryption & traffic management. (Upgrade of card from 1Gb to 10 Gb)</i>	\$64,871	2014	COIT
Firewalls <i>(Total of six)</i>	\$1,089,838	2014	13% from DT Project funds
Firewall Design Services <i>Cisco consulting services</i>	\$270,710	2014	100% from DT Project funds
ACS 5.6 (2) <i>Access control server platform supporting an identity-based networking solution for Cisco intelligent information networks (replacing ACS 4.2)</i>	\$60,746	2014	COIT
Wireless Controllers <i>Provides visibility, scalability, and reliability needed for highly secure, enterprise-scale wireless networks</i>	\$895,659	2014	33% from DT Project funds
Cisco Prime <i>Network management strategy and product portfolio that simplifies management operations</i>	\$148,836	2014	COIT
New ASR 1002 (2) <i>Replacing 1002s at Rancho to support multiple 10 Gb links</i>	\$177,753	2015	COIT - 8/15
Network Switches <i>Replacing old Juniper switches and support 10 Gb at 200 Paul Avenue and Rancho Cordova facilities</i>	\$290,000	2015	COIT - estimate 10/15
Salaries & Benefits <i>Network Engineer</i>	\$273,000	2015	COIT – 9/15
TOTAL Through 2015:	\$3,735,622		\$712,951 from DT Project funds
Total Program Budget:	\$6,895,022		
Program Budget Remaining:	\$3,159,400	Amount is expected to meet planned FTN purchasing requirements	

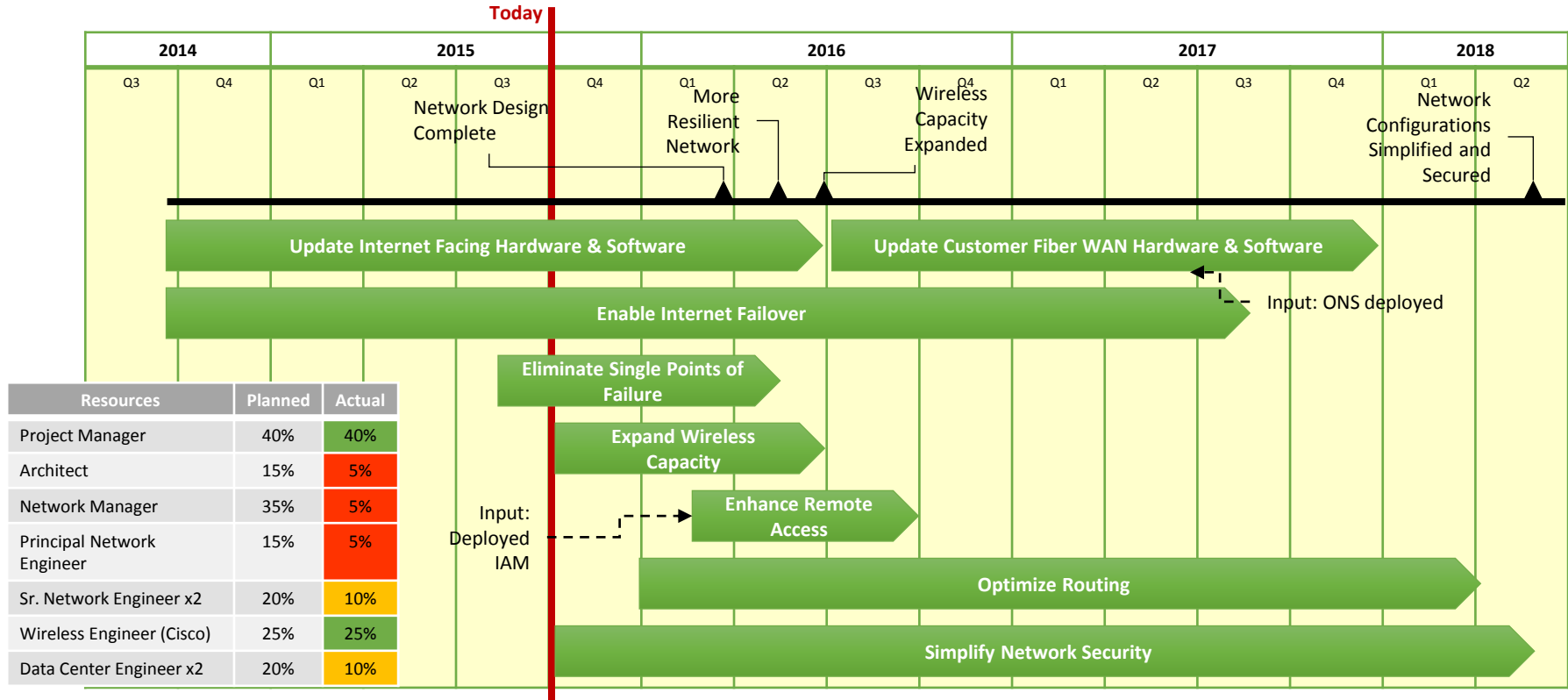
Fix the Network

Forecast for Remainder of 2015-16

Equipment, Tools and Services	Cost	FY Spend	Origin of Funds
TOTAL Through 2015:	\$3,735,622		
Total Program Budget:	\$6,895,022		
Program Budget Remaining:	\$3,159,400		
2015-16 Remaining Budget	\$1,555,913		

City Hall and Fox Plaza Network Upgrade <i>20 wiring closets + core switches (Q3 FY16)</i>	~\$975,000	15-16	COIT
Extranet Re-Configuration <i>Switch and router replacements (Q3 FY16)</i>	~\$135,000	15-16	COIT
Physical Fiber & WAN Augmentation <i>Multi-Plexing Switches (Q3 FY16)</i>	~\$400,000	15-16	COIT
Forecast Total	~\$1,510,000		

Fix the Network



Risks and Issues

Risks	Proposed Mitigation or Resolution	Responsible Team
May require senior network design skills from professional services instead of City employees. Skillset in high demand in tight labor market	Identify funding source, hire professional services	DT Management

Issues	Proposed Mitigation or Resolution	Responsible Team
Network Services team is under staffed, impacting time spent on network protocol redesign and to-be protocol roadmap	Two principal network engineers - under review by Mayor's office. Three principal network engineers under review by DHR.	DT Network Team
Absence of Chief Information Security Officer security manager will delay Remote Access improvements	1 st round interviews begin next week.	DT Leadership

6. Theme: An Overview of Asset Management Systems

Matthias Jaime, COIT

OVERVIEW OF CITY ASSET CLASSES

Class of Asset	Examples
Land & Land Improvements	Land, betterments, site improvements (not buildings)
Infrastructure	Roadways, overhead lines, fiber, conduit
Buildings & Building Improvements	Materially extend useful life – roofing, renovations, etc...
Construction-in-Progress	The accumulation of costs on uncompleted buildings
Equipment	Furniture, department inventories
Intangible	Software, easements

DATA COLLECTION – CITY ASSETS

Controller

- Fixed assets reports annually to City's Comprehensive Annual Financial Report (CAFR)
- City Services Auditor conducts inventory audits
 - 2015: REC, Library
 - 2014: SFGH, Laguna Honda, PRT
- Upcoming Project: F\$M Module

DATA COLLECTION – IT ASSETS

COIT

- Collects department IT information for ICT Plan
- Information collected:
 - Department IT standards & policies
 - Software inventory
 - Security Standards
 - Anti-virus software
 - Network infrastructure equipment
 - Number of physical/virtual servers
 - Uninterrupted Power Supply
 - Wi-Fi Networks
 - Internet Service Provider information
- COIT's PC Refresh cycle another source of inventory

DATA COLLECTION – IT ASSETS

Open Data Office

- Collect information on department database systems
- Information collected:

- Department	- Vendor
- Division	- Description
- System Name	- Key Contacts
- Currently tracking 42 depts, 519 systems

7. Project Update: ServiceNow IT Asset Management

Department of Technology

Bryant Bailess

Eddie Parsa

Payal Desai

Current sample of DT's managed assets in ServiceNow

Current sample of DT's managed assets in ServiceNow

Current sample of DT's managed assets in ServiceNow

DT ServiceNow Configuration Management

The IT Asset Management database is tied to the Configuration Management DataBase so that relevant information about assets gathered in the CMDB can be leveraged by Asset Management and vice versa. Existing ServiceNow CMDB is populated with the following classes of Configuration Items;

- Applications
- Application Servers
- VMware
- Database Servers
- Database Instances
- Infrastructure Services

DT's near term plan is to;

- Populate City Data Center, Network and Storage assets to allow visibility into core infrastructure status & health
- Integrate existing system management tools, including NetBrain, SolarWinds, Nlyte and others to provide near real-time updates & alerts

Applications

New

Go to

Name

Current sample of DT Inventory in ServiceNow

<<

<

1

to 79 of 79

>

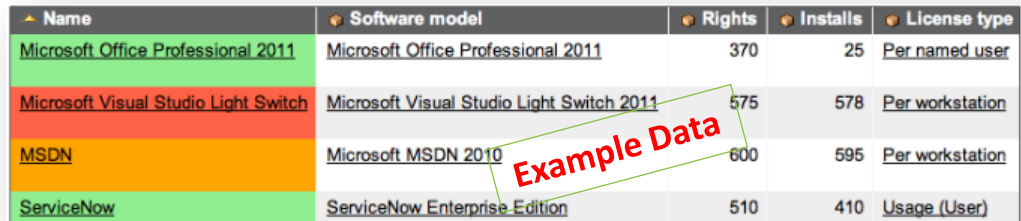
>>

	Name	Description	Class	Used for	Category	Operational status	Support group	Department	Owned by
	311 Lagan Virtual Office	311 Lagan Virtual Office in-house applic...	Application	Production	Lagan	Operational		311	Andy Maimoni
	Active Directory Login App	Login app for user to AD	Application	Production	.Net App	Operational	DT-Application Development	Department of Technology	Matt Reeves
	AD	City Wide Active Directory Sign In	Application Server	Production	Resource	Operational			
	ADP daily report to Dept of Justice DB	PHP script and database to be run on dai...	Application	Development	PHP; MYSQL	Non-Operational	DT-Application Development	Adult Probation	Bella Fudym
	ALL-VW-APP001	Server hosting Symantec Endpoint Protect...	Application Server	Production	Resource	Operational	Data Center Operations		
	AMI Tracks -- Inventory software, licens...	Equipment consists of 3 handheld Motorol...	Application	Production	Equipment/Software	Operational	DT-Application Support Team	Department of Technology	Charles Thompson
	Appeals Management System	Administration and management of all app...	Application	Production	.Net, C#; Silverlight 4.0	Operational	DT-Application Development	Permit Appeals Board (BOA)	Cynthia Goldstein
	APTrack	Administration and integration of data f...	Application	Production	Resource	Non-Operational	DT-Application Support Team	Department of Technology	Elaine Benvenuti
	Asset Manager	HP Asset Manager is used for Telephony A...	Application	Production	Resource	Operational	DT-Application Support Team	Department of Technology	Kim Thompson
	Bail Search Website	Administration and management of all app...	Application	Development	Drupal/Angular	Non-Operational	DT-Application Development	Sheriff Department (SFSd)	DAVE HARDY

ServiceNow Asset Management

Additional Features include:

- A wide variety of license types, including those based on location, named users, & subscriptions
- The inventory details, physical, financial, and service attributes of departments' hardware, software, and virtual assets throughout their entire lifecycle
- Notifications can be added to workflows that alert users and managers to software that may be unauthorized or is in need of maintenance, i.e., renewal & patching, etc.
- Once an asset is deployed, ServiceNow records all maintenance activity and can enable DT to perform audits at any time



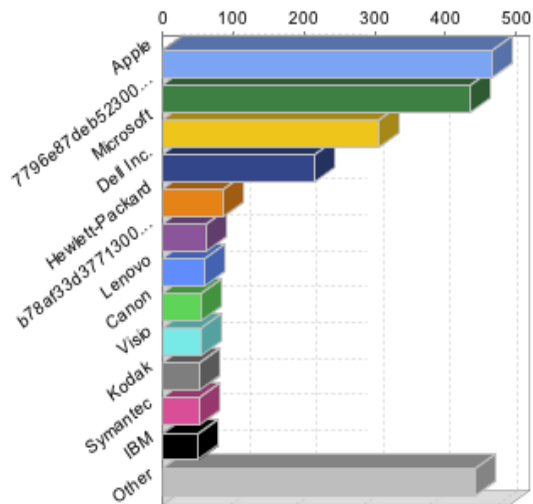
The image shows a screenshot of a ServiceNow Asset Management table. The table has five columns: Name, Software model, Rights, Installs, and License type. There are four rows of data. A red diagonal stamp with the text 'Example Data' is overlaid on the table.

Name	Software model	Rights	Installs	License type
Microsoft Office Professional 2011	Microsoft Office Professional 2011	370	25	Per named user
Microsoft Visual Studio Light Switch	Microsoft Visual Studio Light Switch 2011	575	578	Per workstation
MSDN	Microsoft MSDN 2010	600	595	Per workstation
ServiceNow	ServiceNow Enterprise Edition	510	410	Usage (User)

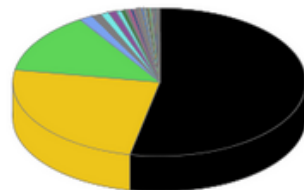
Example Dashboard

With ServiceNow Asset Management Overview module you can display various asset management gauges showing information by manufacturer, lifecycle, cost, etc.

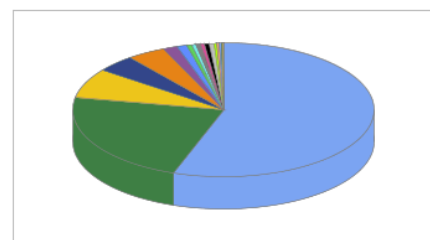
Configuration Items by Manufacturer



Configuration Items by Class/Type



Computers by Manufacturer



Pending Asset Retirements

End of this week

Assets that are expiring before the end of this week

4

End of this month

Assets that are expiring before the end of this month

3

End of this year

Assets that are expiring before the end of this year

9

Other City Asset Management Tools (Non IT Focused)

HP Asset Manager - [INVENTORY USAGE, Inventory Use '25883938']

File Edit Filtering Asset lifecycle Organization management Portfolio management Tools Administration Window Help

Date of Use	JMR No.	User	Quantity	Item Number (Inv...)	Item Desc (Inventory Used)	Unit Price	Tax per Unit	Order Total
10/29/2014	9995	KELLY, COLIN	20	00365	BOLT, CARRIAGE 3/8 x 4-1/2"	0.38	0.03	8.27
10/21/2014	9290	KELLY, COLIN	5	0361	SCREW, LAG, 5/8 HEAD 1/2" x 3"	0.38	0.03	2.07
10/21/2014	9290	KELLY, COLIN	3	00365	BOLT, CARRIAGE 3/8 x 4-1/2"	0.38	0.03	1.24
10/9/2014	9263	VASUDEVAN, SHOME	8	00095	BATTERY, AA CELL	0.42	0.04	3.55
10/10/2014	9265	KELLY, COLIN	10	00362	SCREW, LAG, 5/8 HEAD 1/4" x 2-1/2"	0.44	0.04	4.75
10/9/2014	9263	VASUDEVAN, SHOME	8	00008	BATTERIES, AAA	0.46	0.04	4.00
10/14/2014	9270	STEELE, CLIFF	4	00836	COUPLING, PVC 1-1/2"	0.46	0.04	2.00
10/29/2014	9996	MOLINARI, JOSEPH	4	03917	SC TCR3A 3/4 EMT STL W/IT CONN	0.53	0.05	2.31
10/21/2014	9290	KELLY, COLIN	14	00687	WASHER, SQUARE 2-1/4"	0.72	0.06	10.09
10/8/2014	9259	DE LA PARRA, CESAR	6	03470	PANDUIT 5M W/AT OUTSIDE CORNER	0.88	0.08	5.74
10/20/2014	9981	DONNELLY, KEITH	6	00004	BATTERY, D CELL	0.94	0.08	6.13
10/6/2014	9256	LANE, ALAN	1	06193	1/2"x1/8" CONT THREAD	1.00	0.09	1.09
10/21/2014	9290	KELLY, COLIN	15	06162	BRACE W/ARM FLAG 24"	1.00	0.09	16.31
10/8/2014	9259	DE LA PARRA, CESAR	6	03486	PANDUIT COUPLING FITTING	1.02	0.09	6.66
10/14/2014	9269	CASTILLO, SILVIO	4	03419	FACEPLATE, 6 HOLE 4H/6-262 W/IT	1.14	0.10	4.96
10/3/2014	9253	RYAN, ELIZABETH	10	00272	CORD, MOUNTING AT&T D8W 87'14"	1.15	0.10	12.51
10/10/2014	9265	KELLY, COLIN	1	00300	STRAP, PLUMBERS	1.24	0.11	1.35
10/15/2014	9279	DE LA PARRA, CESAR	2	03482	FLEX TUFF GLV, LG	1.26	0.11	2.74
10/27/2014	9986	TURNER, CLINT	5	03483	FLEX TUFF GLV, XLG	1.26	0.11	6.89
10/28/2014	9991	DINWIDDIE, MICHAEL	1	03482	FLEX TUFF GLV, LG	1.26	0.11	1.37
10/28/2014	9992	SOTO ROMANO, JUAN ROB...	1	00282	CORD, MOUNTING ANALOG 14"	1.50	0.13	1.63
10/21/2014	9293	LARSEN, ANDREW	10	00282	CORD, MOUNTING ANALOG 14"	1.50	0.13	16.31
10/21/2014	9293	LARSEN, ANDREW	1	00052	CABLE TIES, PANDUIT 7-11/2", 100 COUNT	1.55	0.14	1.69
10/15/2014	9277	ATENCIO, REYNALDO	12	00349	CORD, HANDSET 12 BLACK	1.75	0.15	22.84
10/14/2014	9270	STEELE, CLIFF	2	00843	ELBOW, PVC 90 2"	2.01	0.19	4.37
10/6/2014	9301	ARENAS, PETER	2	00578	DESIGNATION STRIPS, AT&T 110	2.20	0.19	4.79
10/10/2014	9980	WATSON, BOB	14	00014	STANDARD 10FT, BLU CAT5 PATCH CORD	2.20	0.19	33.50
10/10/2014	9264	LA SANT, DARRON	1	03452	GLASSES SAFETY CLEAR 5200X	2.25	0.20	2.45
10/15/2014	9275	STEELE, CLIFF	2	00737	LUMBER, DOUGLAS FIR 2 x 4 x 10'	2.35	0.21	5.10

General History Documents

Date of Use: 10/29/2014

JMR Number: 9995

Service Request Number:

Inventory Use: 00365 BOLT, CARRIAGE 3/8 x 4-1/2"

User: KELLY, COLIN

Month Billed Due: OCT 14

Quantity: 20

Unit Price: US\$0.38

Tax per Unit: US\$0.03

Order Total: US\$8.27

Project Code: 810DPT-15

Location of Inventory: ☐ Billed Out

HP Asset Manager:

- Used to track Project Inventory, Wifi and Telecom Inventory
- Fiber & Radio Inventory will be loaded into HP Asset Manager in preparation for the move from Jerrold and Parisian facilities
- Data will feed into ServiceNow

HP Asset Manager - [INVENTORY USAGE, Inventory Use '25883938']

File Edit Filtering Asset lifecycle Organization management Portfolio management Tools Administration Window Help

Item Number	Item Desc	Average Price	Quantity	Location, Shelf	Item Desc, Item Type, UOM	Date of Price	Inactive (If Box...)	Minimum Order...	Pre-Order Level	Last Purchase...	Minimum Order...	Pre-Order Level	Date of Last In...
00002	BATTERY, 6VOLT, LANTERN	12.00 0		C14-C2	BATTERY	EA	No	0	0	12.00	0	0	5/23/2014
00277	CABLE TIES 9-1/2" #P040R8K	217.12		D01-4A	CABLE TIE	EA	No	5	1	1.99	5	1	5/23/2014
00278	CABLE TIES 9" #P050R8K	235.7		D01-4A	CABLE TIE	EA	No	20	5	2.35	20	5	5/23/2014
00279	CABLE TIES 11-3/4" #P050R8K	418.3		C16-2A	CABLE TIE	EA	No	20	5	4.18	20	5	5/23/2014
00280	CABLE TIES 13" #P050R8K	17.05 100		C16-2C	CABLE TIE	EA	No	0	1	17.00	0	1	5/23/2014
00282	LOOM 30P	34.00 200		B23-3A	LOOM	FT	No	500	1	34.00	500	1	5/23/2014
00283	CABLE TIE MOUNT	0.33 0		D01-4A	CABLE TIE	EA	No	300	1	0.33	300	1	
00284	CONNECTOR, BUTT, CRIMP, 6 GAUGE	0.28 0		D03-5A	CONNECTOR, CRIMP	EA	No	300	2	0.28	300	2	
00285	CONNECTOR, BUTT, CRIMP, 12/10	0.14 0		D03-5A	CONNECTOR, CRIMP	EA	No	300	2	0.14	300	2	
00286	CONNECTOR, BUTT, CRIMP, 16/14	0.11 0		D03-5A	CONNECTOR, CRIMP	EA	No	300	2	0.11	300	2	
00289	MICROPHONE, MOBILE, SPECTRA	59.75 0		C16-3A	MICROPHONES	EA	No	5	5	59.75	5	5	
00290	MICROPHONE, MOBILE, MASTRAC	20.85 0		C16-4C	BLANK	EA	No	0	1	20.85	0	1	
00292	W/ACH 00MOD FURN AP0 BLK	3.90 23		C18-5C	TELEPHONE	EA	No	0	1	3.95	0	1	5/23/2014
00293	MICROPHONE, DESKTOP	126.95 0		A14-2A	HANDSET	EA	No	0	1	126.95	0	1	4/25/2014
00294	WIRELESS RECDR	97.95 4		C06-4B	TELEPHONE	EA	No	0	1	97.95	0	1	5/23/2014
00295	LOOM 14" (500)	29.95 10		B21-2A	LOOM	FT	No	0	0	29.95	0	0	5/23/2014
00296	1/2 LOOM	40.00 0			BLANK	EA	No	0	0	40.00	0	0	
00297	LOOM 1"	17.50 10		B-21-2B	LOOM	EA	No	0	0	35.00	0	0	
00298	TUBING, HEAT SHRINK, 1.8" (12/80)	0.00 0			BLANK	EA	No	0	0	0.00	0	0	
00300	TUBING, HEAT SHRINK, 1.2" (12/80)	0.00 0			DISCONTINUED	EA	No	0	0	0.00	0	0	
00301	TUBING, HEAT SHRINK, 3/4"	0.00 0			BLANK	EA	No	0	0	0.00	0	0	
00303	WASH, ELECTRO	0.00 0			BLANK	EA	No	0	0	0.00	0	0	

General History Documents

Item Number: 00002

Item Desc: BATTERY, 6VOLT, LANTERN

Quantity: 3

Last Purchase Price: US\$12.00

Date of Last Inventory: 5/23/2014

Inactive (If Box is checked item is inactive)

Item Desc, Item Type, UOM: BATTERY

Location, Shelf Location: C14-C2

Stock Loc: JERROLD

Minimum Order Level: 0

Pre-Order Level: 0

Vendors:

Adpco PO Number:

Quote Number:

Manufacturers Part Number:

Item Desc, Brand: S700X

(Data Added to Inventory)

INFOR:

- Used by DPW, Real Estate, Library
- Planned for roll out to MTA, PUC next
- Leveraged for bridges, city streets, real estate assets

ARCFM:

- Used to track deployed City fiber, connections and conduit

Other City Asset Management Tools (Non IT Focused)

Envista:

- Used by DPW, MTA, DT for the DigOnce project.

Welcome Dig Once

Admin Help Log Out

Projects Events Tickets Documents Tasks Mailbox

Projects Moratoriums Opportunities

Filters

Select or Save Current... Save

Text Search

Settings

Location

Select All

Daly City, CA

San Francisco, CA

Invalid Location

Type

Date Range

Owner

More...

Conflict Status

Search in the Map...

Map Controls

Table

Id	Name	Owner	City	Street	Location	Location Size	Location Are...	Location Len...	Alert!	Facility Type	Start Date	End Date	Contact
DPW0474_PR_32	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.785964, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_33	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.786339, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_34	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.786779, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_35	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.787203, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_36	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.787579, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_37	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.788007, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_38	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.788442, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_39	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.788815, ...	0	0		⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...
DPW0474_PR_4	1064J - 2nd Street Improvement Pr...	SF DPW IDC - Co...	San Francisco		37.787978, ...	191 ft	0	191	⚠	Roadway	09/05/2016	09/05/2017	Richard Chir...

8. Project Update: Infor Capital Asset Management

Ephrem Naizghi, Department of Public Works

Update: Computerized Maintenance Management System

Overview

CMMS is an enterprise-level commercial off the shelf system (INFOR EAM) capable of managing a variety of asset types.

GOAL: To implement and support a single asset and work management system for the Department of Public Works, Real Estate and the Library.

1. CMMS is used to:
 - Track assets (e.g. Facilities, Streets, Curb ramps, Trees, Bridges, Tunnels, etc)
 - Manage and plan all work against these assets in a standardized manner (work originates from internal city staff and the public).
2. CMMS is currently used by Real Estate, Library, and three of four bureaus within DPW's Operations.
3. CMMS is integrated to several major systems (311, Address, GIS, DPW Financials, PUC Maximo)
4. Upcoming projects include: Work Management for DPW-SES (fourth and final bureau in DPW Operations), migration to the Cloud, mobile work management for Real Estate, Work Management for the DPW Engineering divisions, expanded functionality for the Library
5. MTA is currently implementing use of this software for managing their departmental assets

Update: Computerized Maintenance Management System

INFOR Functionality

Module	DPW	RED	LIB
Asset	X	X	X
Work	X	X (limited)	X (limited)
Materials			
Procurement			
Fleet			
Sustainability			
Integrations	X		
Mobile	X		

Update: Computerized Maintenance Management System

Current Configuration – Two Models

Module	DPW	RED	LIB
Asset	<ul style="list-style-type: none">• Facilities• ROW	<ul style="list-style-type: none">• Facilities	<ul style="list-style-type: none">• Facilities
Work	<ul style="list-style-type: none">• Corrective/ Planned/ Events/ Projects• Start/ Stop Time• Measures/ Materials• Cost – Estimate and Actuals	<ul style="list-style-type: none">• Corrective	<ul style="list-style-type: none">• Corrective
Integrations	<ul style="list-style-type: none">• 311• PUC• GIS• Address• DPW Financials (may be replaced)• DPW Custom Systems		
Mobile	<ul style="list-style-type: none">• Work dispatch and closure		

Update: Computerized Maintenance Management System

Assets

Asset	AssetTypes	
Addresses	City Addresses <ul style="list-style-type: none">• Virtual• Real	
Facilities	Buildings Floors Systems	
Right of Way	Tree Roadway Structures <ul style="list-style-type: none">• Bridges• Tunnels• Retaining Walls and Staircases Roadway Network <ul style="list-style-type: none">• Segments and Intersections• Curb ramps• Medians	Public Spaces <ul style="list-style-type: none">• Landscape Areas• Plazas• Parking lot• Street Park• Water Meter• Irrigation System• Landscape Plot

Update: Computerized Maintenance Management System

Work Management

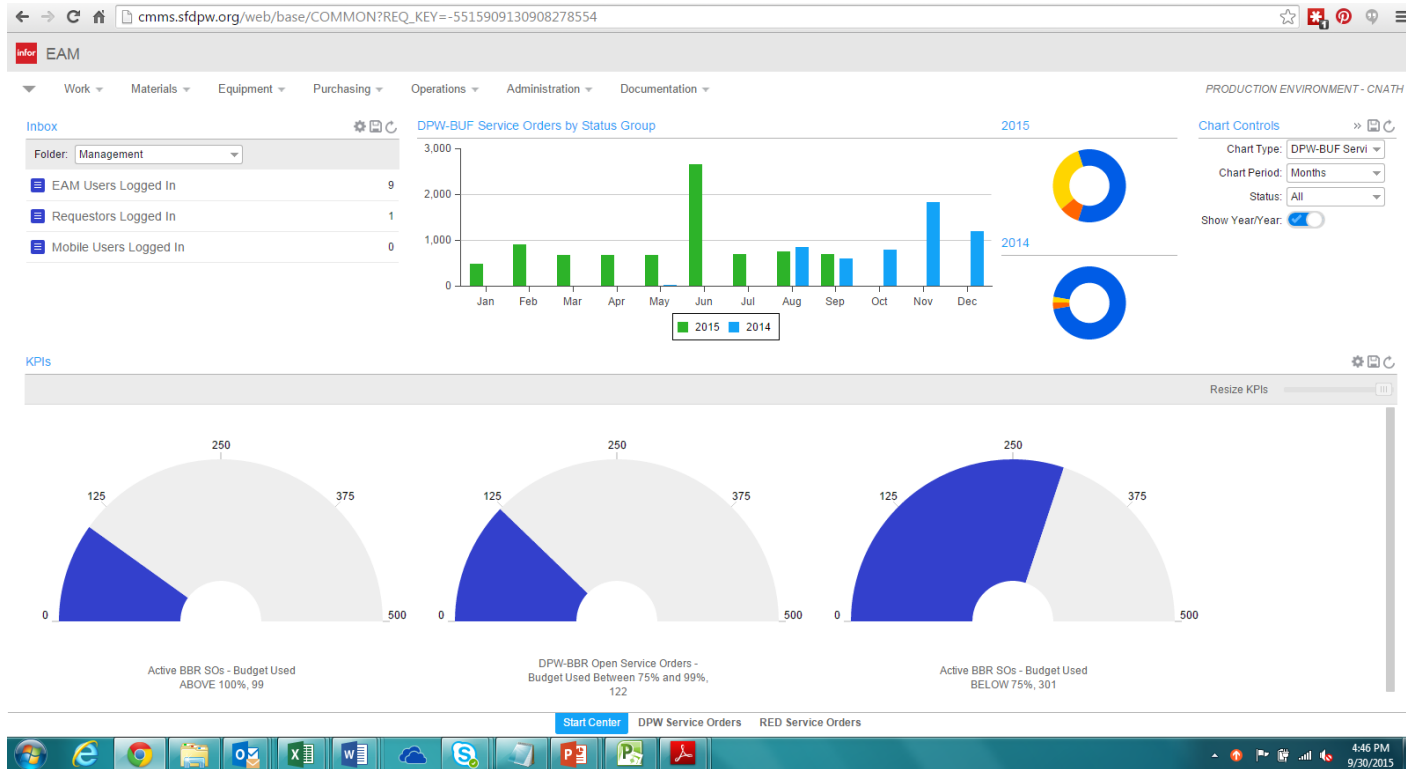
1. Types of Work

- Corrective
- Estimate → Project
- Event
- Planned

2. Capture information about work

- Basic info e.g. Issue Description, Date Submitted, Assigned To, Status
- Detailed info e.g. Labor and Non Labor Costs, Crew / Staff Hours, Materials and Measures, Action and Completion Codes, etc

Update: Computerized Maintenance Management System Start Center



Update: Computerized Maintenance Management System

Service Order Screen

cmms.sfdpw.org/web/base/COMMON?REQ_KEY=-7247838571039289456

EAM

Work Materials Equipment Purchasing Operations Administration Documentation PRODUCTION ENVIRONMENT - CNATH

DPW Service Orders 485808 SFPD, 6TH ST. SUBSTATION, MAIN SEWER STOPPAGE

Search within All DPW Service Orders

Asset: 12247

485811 - SF CITY COLLEGE; ASSIST C...
Status: Work Assigned
Asset: 12362

485809 - Street Or Sidewalk Repair Issue...
Status: SUBMITTED via IN...
Asset: ADD-3792651

485808 - SFPD, 6TH ST. SUBSTATION,...
Status: In Progress
Asset: 12351

485807 - URGENT REPORTED
Status: In Progress
Asset: ADD-3432922

485806 - Street Or Sidewalk Repair Issue...
Status: SUBMITTED via IN...
Asset: RWY-27842000

485805 - Plant Tree - 203 WILLOW ST; ...
Status: Accepted
Asset: TRE-113508

485804 - Street Or Sidewalk Repair Issue...
Status: Reassigned
Asset: ADD-3656939

485803 - SewerIssues - Flooding - On str...
Status: SUBMITTED via IN...
Asset: ADD-3792651

Record View Comments Documents Activities Non-Labor Schedule Tools Permits Book Labor Additional Costs Children Project Scope

Service Order Template: DPW-BBR-PL-CORR

Service Order: 485808 SFPD, 6TH ST. SUBSTATION, MAIN SEWER STOPPAGE

Asset: 12351 72 06th St. San Francisco, 94103

Asset Owner:

Location: 72-06TH-ST-SF

Asset Common Name: 6th Street Police Substati

On Street: 06TH ST

District: 06

SO Maintenance: DPW-BBR

Department:

Type: Corrective

FISO: ☐

Roadway ID: 00328000

Service Order Class: FACILITY

From Street: JESSIE ST

Source System:

Source Department SO:

HUB SO:

Status: In Progress

Reported By: ISEQUEIRA

Requested By Phone: (415) 553-1076

Requested By Email: ivan.sequeira@sfgov.org

Requester's Department: POL

Date Reported: 10/01/2015 07:14

Created By: JDUBOIS2066

Date Created: 10/01/2015

Source: CMMS

SERVICE ORDER DETAILS

Safety: ☐

Priority: 4 - Non Urgent

Problem Code: PLUMBING

Block:

Lot:

Call Back Request: ☐

Duplicate SO:

Parent SO:

Related SO:

Scheduling

Assigned By: JDUBOIS2066

Service Order Lead: WLEE1321

SO Lead's Phone No.:

Vehicle:

Sort:

Site Contact:

COMPLETION

Start Center DPW Service Orders RED Service Orders

Update: Computerized Maintenance Management System

Asset Hierarchy


The screenshot displays the CMMS interface for the facility "12000 - 1200 15th St, San Francisco, 94103". The interface is divided into several sections:

- Facility List (Left):** A list of facilities with their addresses and maintenance departments. The selected facility is "12000 - 1200 15th St, San Francisco, 94103" with Maintenance Department "RED" and Status "Active".
- Structure Details (Center):** A tree view showing the asset hierarchy. The root is "PHYS-CCSF-City and County of San Francisco", followed by "PHYS-PROPERTY-Property", "PHYS-RW-Right of Way", "PHYS-RS-Roadway Structure", "PHYS-RN-Roadway Network", "PHYS-PS-Public Spaces", and "RN-TREE-TREE". The selected asset is "PHYS-ADDR-ADDRESS".
- Equipment (Right):** A form for adding or editing equipment. It includes fields for "Unlinked Equipment", "Type", "Code", and "Run". The "Run" button is visible.

The interface also includes a search bar, navigation tabs (Record View, Comments, Events, Costs, PM Schedules, Structure), and a status bar at the bottom showing the current facility and service orders.

Update: Computerized Maintenance Management System

Mobile

<  Work Order

4 - Non Urgent

450884 Adjust Stake - 2655 Pine St;
Tree 1; Sidewalk, Curb side
: Cutout

CORR
TRE-17998

4 - Non Urgent

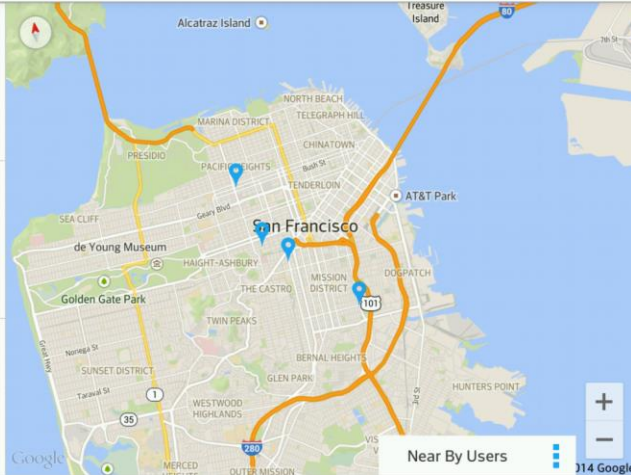
450549 Back Fill And Adjust Tree
Basin - 1200X Potrero Ave;
Tree 2; Sidewalk, Curb s

CORR
TRE-18469

4 - Non Urgent

449844 Plant Tree - 737 Haight St;
Tree 1; Sidewalk, Curb side
: Cutout

CORR
TRE-10317



Near By Users


Work Order

450884

Adjust Stake - 2655
Pine St; Tree 1;
Sidewalk, Curb side :
Cutout

Address

Latitude : 37.787141
Longitude : -122.439482



WORK ORDER	
Work Order	450884
* Description	Adjust Stake - 2655 Pine St; Tree 1; Sidewalk, Curb side : Cutout
* Equipment	TRE-17998 2655 Pine St Tree 1

Update: Computerized Maintenance Management System

What is data used for?

1. Coordination, communication, and visibility with internal staff and clients
2. Informed decision making - determine trends in order to be proactive in response
3. Used in DPW Stat in order to review performance – duration, cost, and quality

Update: Computerized Maintenance Management System

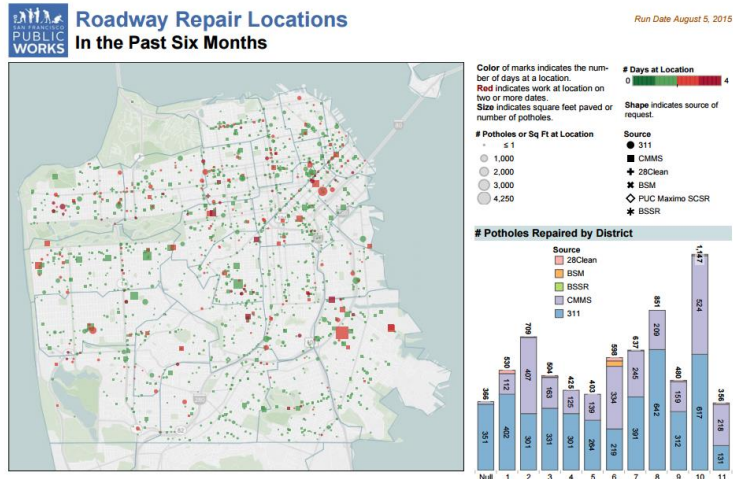
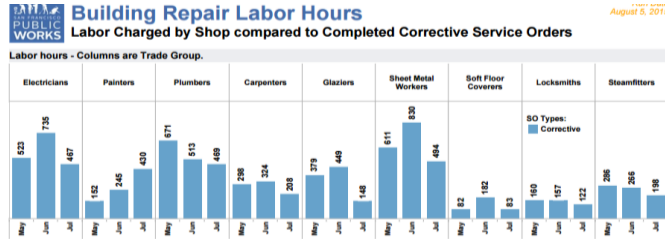
How data is evaluated

1. Counts – Number of Service Orders related to All types of work (e.g. Trees, Potholes, Hot/Cold calls for buildings)
2. Duration – Response time during the lifecycle of work completion
3. Cost/ Hours – Compare Estimates against Actuals per Service Order
4. Forecasting – Determine resource needs

Tied to Asset so can review data by Asset Type, Attribute, Location, etc

Update: Computerized Maintenance Management System

How data is evaluated (Examples)

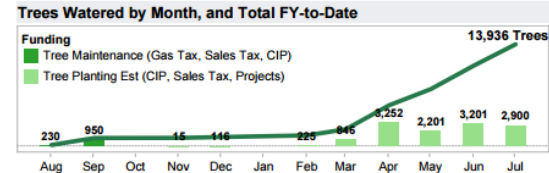
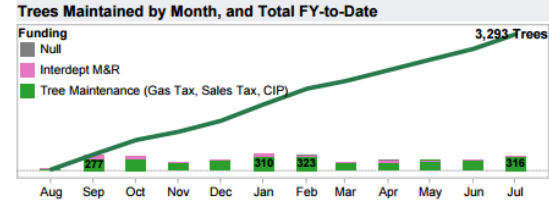
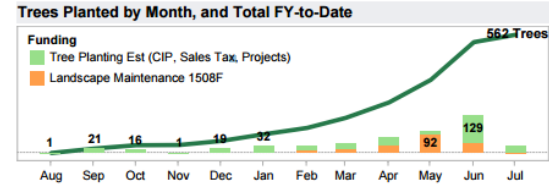


Urban Forestry: Tree Work,

Number of Trees Planted and Maintained

A single service order may include one or multiple trees. Counts below are grouped by funding source to separate planting from maintenance of existing trees.

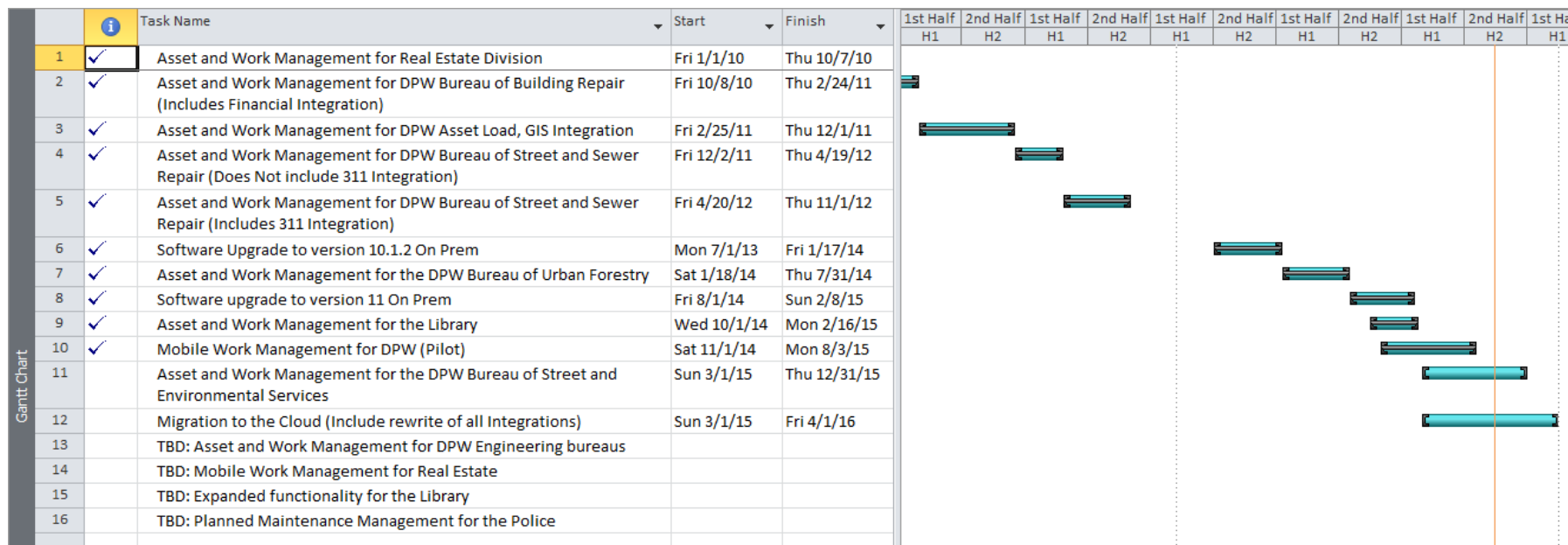
Funds for tree planting have been used for 562 Trees to date.



Update: Computerized Maintenance Management System

Overview

- **Scope & Schedule**



Update: Computerized Maintenance Management System

Collaboration

- DPW, RED and LIB currently using CMMS to manage maintenance work assigned to department staff
- CMMS used by majority of City Departments as Requestors of work assigned to RED and DPW
- Library interested in expanding currently functionality
- Police interested in implementing Planned Maintenance and Inspections program

Update: Computerized Maintenance Management System

Current Configuration - Scaleability

- Departments that manage facilities or ROW assets
- Departments that have a workforce that supports these asset types
- Departments that receive/manage 311 requests

Update: Computerized Maintenance Management System

Details

- Budget

Proposed Uses	Non-General Fund FY14-15	Non-General Fund FY15-16
Salary & Fringe	\$475,000	\$475,000
Professional Services	\$200,000	\$100,000
Total Project Cost	\$675,000	\$575,000

- Staffing

- 1070 Project Manager (Program Lead)
- 1053 Business Analyst (Technical Lead)
- 1053 Business Analyst (Implementation Lead)

- Key Performance Indicator(s)

- Percentage of Tasks Delayed
- Number of Milestones Missed
- Deviation from Planned Budget
- Percentage off Budget

Update: Computerized Maintenance Management System

Questions / Comments

Thank you

San Francisco Public Works

Computerized Maintenance Management System (CMMS)
Using Infor EAM (Enterprise Asset Management)

March 19, 2015

www.sfcoit.org

9. Public Comment
