



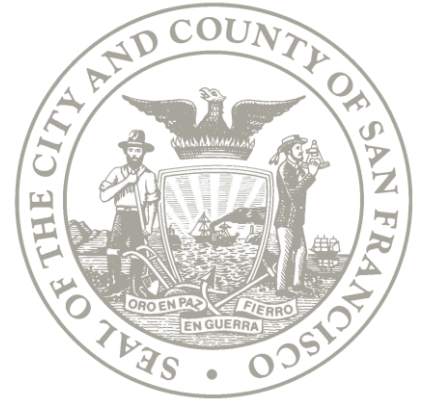
Committee on Information Technology

Regular Meeting
April 18, 2019

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

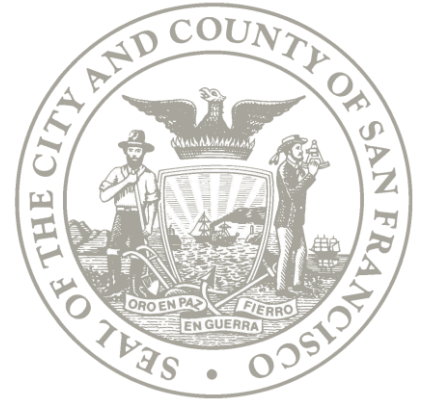
Agenda

- Call to Order by Chair
- Roll Call
- Approval of Meeting Minutes from March 21, 2019
- Chair Update
- CIO Update
- Update: Major IT Projects
- FY 2019-20 & FY 2020-21 Budget Recommendations
- Public Comment
- Adjournment

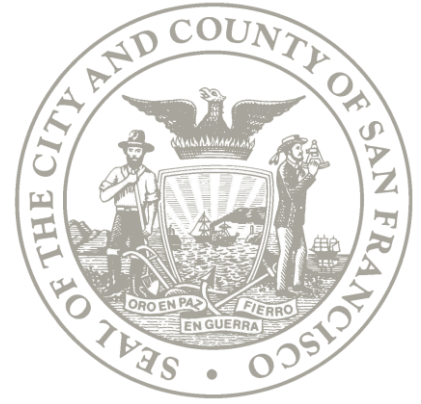


3. Approval of Minutes

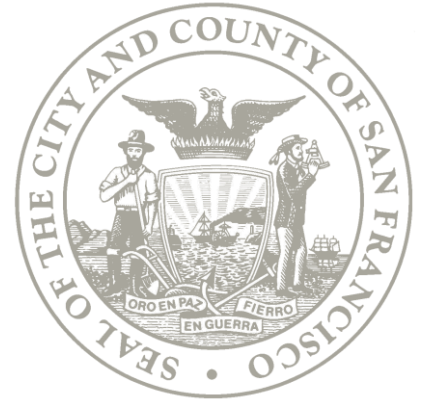
Action Item



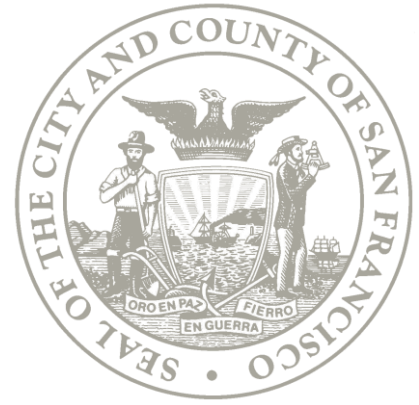
4. Chair Update



5. CIO Update



6. Update: Major IT Projects



Public Safety and Public Service 800MHz Citywide Radio Replacement Project

COIT
Major IT Project Updates
April 18, 2019

Project Accomplishments in FY18-19

- Radio Equipment Installations

- › Shipped, programmed and installed \$21.5M Radios and Accessories

- 6,900 Portable Radios ordered & distributed for 30 City departments and outside agencies
 - 1,400 Mobile Radios ordered – install complete for DPW, SFFD, REC, DEM – working on SFPD, SFSD, DT, PUC, PRT, SFMTA, HÓT
 - Qty. 112 Control Station Radios installed throughout City Buildings
 - Working with MBO on a Portable Radio Upgrade Plan (RUP)
 - Developing plan to upgrade all radios to work on the new system infrastructure (2nd touch programming)



St. Francis Hospital

Emergency Room Ring-down



DPW Dash Mount

Mobile Radio Installation



Project Accomplishments in FY18-19

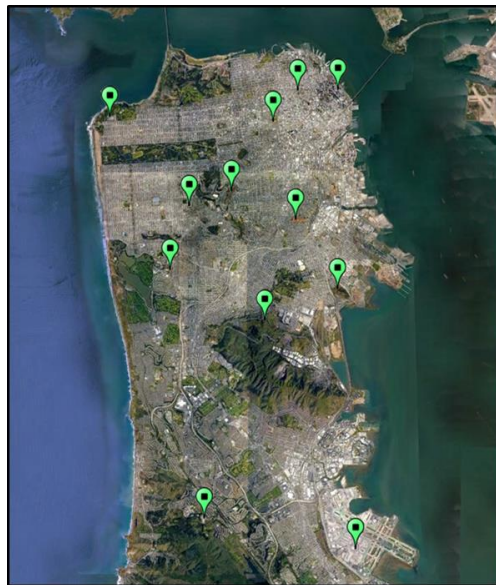
Radio Site Installation Progress



Nearing completion of \$4.2M in Capital Projects

Remaining projects:

- Forest Hill Generator
- Clay Jones Generator
- Twin Peaks Change Orders



Radio Site	DC System Installed	RF Rack Equipment Installed	MPLS Fiber Backhaul Installed	Antenna Systems Installed	Estimated % Complete
CLAY JONES	Yes	Yes*	Cold Install Complete	No	65%
OMP	Yes	Yes*	Cold Install Complete	No	65%
BAY VIEW	Yes	Yes	Cold Install Complete	Yes	95%
SFSU	Yes	Yes	Cold Install Complete	Yes	95%
VA HOSPITAL	Yes	Yes	Fiber Needed	No	60%
CRS/TWIN PEAKS	Yes	Yes	Cold Install Complete	No	70%
BERNAL HEIGHTS	Yes	Yes	Cold Install Complete	Yes	95%
FOREST HILL	Yes	Yes*	Cold Install Complete	Yes	90%
SOUTH HILL	Yes	Yes	Cold Install Complete	Yes	95%
SAN BRUNO JAIL	Yes	Yes	Fiber Needed	No	70%
1011 TURK	N/A	Yes	Cold Install Complete	Yes	93%
SFO	N/A	In Progress	In Progress	Yes	71%

*Temporary Install until legacy equipment removed after cutover




Project Anticipated Cutover

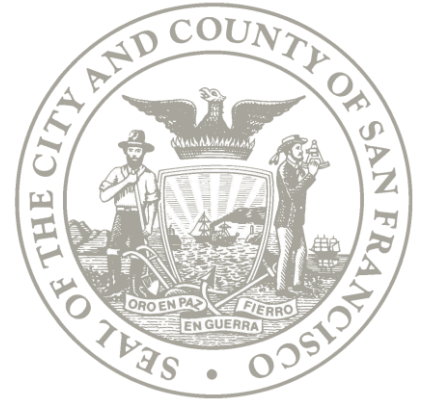
Phase	Departments	Date	Notes/Issues
1	DT, DPW, PUC, PORT, DBI, USD, RED, GSA, ME, ACC, WETA, CAS, PUC-CDD Console, DPW Console	Aug 2019	VA Hospital may not be online, No coverage in Muni and BART underground for these agencies
1.5	DEM Consoles SFSU PD Consoles SFMTA/DPT Consoles Smart-X Cutover	Oct 2019	This will allow for a gradual transition of remaining departments
2	DEM, DA, JUV, ADP LIB, HSA, SFO	Jan 2020	
3	FD, DPH, HOT, PUC-CDD, PRI AMB	Mar 2020	Need Muni and BART underground complete, Need BDA/DAS Systems complete
4	PD, SD, REC, SFSU PD, CCSF PD, UCSF PD & UCSF PD Consoles, SFMTA/DPT	May 2020	AES Encryption upgrade to occur after cutover

COIT KPI: 25% of radios will be operating on new system with the first department cutover scheduled in Summer 2019.

Project Dashboard

Total Project Cost Estimate	Total COIT Funding FY14-19	Total Capital Plan Funding FY16-19	Total Financed Funding	FY19-20 Request (COIT Only)
\$77.1M* <small>*Does not include \$3.1M in interest payments</small>	\$31.2M	\$7.5M	\$34.1M	\$3.8M* <small>*Does not include \$3.7M finance payments</small>

Status		Comments
Schedule Scope Budget Risks		Begin Date End Date % Complete Project Implementation with Motorola Solutions began Nov 2017 Estimated Completion Aug 2020 Approx. 60% complete
		Next major project activities are site installation and optimization completion Coverage Testing to occur in June-July 2019 Department training and cutover to being late 2019
		<ul style="list-style-type: none"> • COIT request for FY20 is \$3.8M and FY21 is \$.5M • Yearly finance payments of \$3.7M until FY27 required –requested out of COIT Major IT budget • Current Encumbered and Spent Funds (FY14-19) are \$ 56.8M
		Radio sites and leases Interference from external sources (BDAs/DAS, high noise floor environment in the City) BART/SFMTA tunnel radio coverage and in-building operations Encryption and PII information; Running radio system on City fiber vs. microwave



Computer-Aided Dispatch (CAD) Replacement Project

COIT
Major IT Project Updates
April 18, 2019

Project Overview

- **CHALLENGE**

- › Current CAD product line is end of life
 - 2014 upgrade was with a 2008-2010 technology for budget savings
 - Mobile CAD for first responders, field personnel very antiquated

- **ANTICIPATED SCOPE**

- › CAD
 - “Core CAD” + 2-3 environments (Development, Test, Training)
 - Remote CAD Terminals (PD, FD, SFMTA, Sheriff, other)
- › Disaster Recovery (DR) CAD and DR Solution
- › Dispatch and Response Operations Processes (Organizational Change Management)
- › Mobile CAD and mobile hardware
- › 30+ Custom Interfaces
- › Fire Station Alerting
- › Sheriff’s Department: new “full-time” user/stakeholder
- › SFMTA improved functionality
- › Business Intelligence/Analytics



Stakeholders: Critical to Success

- Dispatchers, FD, PD, Sheriff, SFMTA
 - › Actively Engaged
 - › Project Management and SME Personnel & Support
 - › End user support
 - Ex. Vendor Demonstrations; Mobile CAD Requirements
- DT
 - › City IT requirements; GIS; DR; Cyber
- COIT; MBO; GSA
 - › Executive support
 - › Budget
- Executive Steering Committee (first meeting held April 3rd)



CAD Replacement Schedule

Initiating

Planning

Implementing

Closing

MILESTONE	DATES	DESCRIPTION
1) Staffing & Project Team	Nov '18–Feb '19	Hired PM and PM Analyst; formed Project Team
2) CAD Market Survey; Project & Lifecycle Budgets	Dec '18–March '19	Conducted CAD market survey Prepared CAD Replacement Budget; Developed 5 & 10-year Total Cost of Ownership costs
3) Stakeholder Engagement	Dec '18 - ongoing	DEM-DEC; FD; PD; Sheriff; DPH; SFMTA Executive Steering Committee formed
4) CAD Vendor RFI & Demos	April-May 2019	CAD Vendors' status of technology solutions Vendor demonstrations (8)
5) CAD Consultant RFP	April-Sept. 2019	RFP for CAD SME Consultant. RFP release on/before April 15; contract in/before September '19
6) Consultant engagement; vendor RFP development	Sept. 2019-August 2020	Consultant engagement with DEM and stakeholders Needs analysis; organizational change management Vendor RFP



CAD Replacement Program Budget

- › Estimated Project Budget for FY 19 – FY 23:
\$32,290,000 (primary project timeframe)
 - FY 20 – 24 budget and estimates will be refined with Consultant
 - FY 24: included due to scale of project, esp. mobile

Phase	Scoping	Scoping & Pre-Implementation		Implementation		Implementation Schedule and Scope Contingency
Fiscal Year	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Computer Aided Dispatch Replacement (\$ millions)	.85	1.19 approved 1.41 requested	2.05 draft approved 2.05 requested	16.0	12.2	5.4





Property Assessment and Tax System Replacement Project (PATs)

Assessor, Treasurer and Tax Collector, and Controller's Office

Rachel Cukierman, Tajel Shah, and Michelle Allersma

PATS

Project Objective

- Modernize and secure the property assessment and tax systems that enable assessment and collection of approximately \$3.2 billion in annual tax revenues that fund our local neighborhood services and public schools
- Sunset the existing systems, since they have exceeded their useful life
- Improve service and transparency to taxpayers
- Provide financial forecasts and analysis to policy makers

PATS Program Summary

- ASR Property Assessment System
 - › Sapient / Salesforce Solution
 - › Hosted
 - › Phased Implementation, final phase (3) goes live in FY21-22
- TTX/CON Tax System
 - › Grant Street Solutions
 - › Hosted
 - › Go live FY20-21

ASR Project Status Update

Property Assessment Solution

- November 2018 - Board and Mayor approval of Sapient and Salesforce contracts
- December 2018 - City project team mobilization
- January 2019 - kicked off Definition Phase (Phase 0)
 - › Review and prioritization of over 2,800 business requirements and 15 interfaces
 - › Strategy for interfacing the Property Assessment Solution with the Tax System
 - › Data mapping and cleansing
 - › Project schedule validation



TTX/CON Project Status Update

TaxSys Implementation

- November 2018 - Board and Mayor approval of Grant Street Group contract
- March 2019 - Completed Milestone 1 on schedule
- 14 Key Business Processes
 - › Commenced initial business process walkthroughs ahead of schedule
- Interfaces – ~100 integrations with 11 systems
 - › Finalized integration approach to eliminate dependency of ASR & TTX/CON systems going live at the same time
 - › Initial development of the refunds export for non-vendors & Wausau interfaces for exporting bill balances and importing bill payments is complete
- Data Conversion - 12 years of historical data plus any unpaid bill
 - › Administrative files converted and ready for April onsite data verification

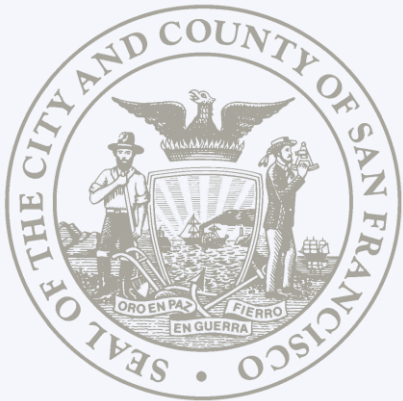


PATS Budget Projections

Budget Assumptions:

- TTX/CON system will go live in FY21
- ASR's final phase will go live in FY22

SOURCES	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	TOTAL
COIT	\$ 2,720,000	\$ 10,274,600	\$ 11,867,218	\$ 11,745,900	\$ 15,053,493	\$ 8,604,237	\$ 60,265,448
Other Sources	\$ 1,607,553	\$ 5,011,795	\$ 5,687,738				\$ 12,307,086
Total Sources	4,327,553	15,286,395	17,554,956	11,745,900	15,053,493	8,604,237	72,572,534
USES	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	TOTAL
Cross Department	\$ 1,306,800	\$ 1,401,444	\$ -	\$ -	\$ -	\$ -	\$ 2,708,244
ASR Project	\$ 154,700	\$ 232,703	\$ 5,965,688	\$ 13,761,083	\$ 13,031,582	\$ 8,604,237	\$ 41,749,992
TTX/CON Project	\$ -	\$ 412,473	\$ 7,870,074	\$ 11,589,805	\$ 8,241,946	\$ -	\$ 28,114,297
Total Uses	\$ 1,461,500	\$ 2,046,620	\$ 13,835,762	\$ 25,350,887	\$ 21,273,528	\$ 8,604,237	\$ 72,572,534



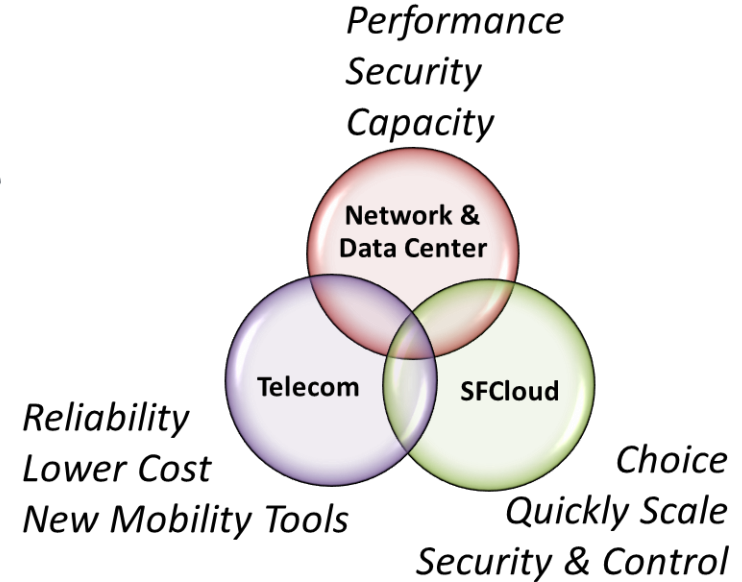
Citywide Telecom Modernization

Department Of Technology

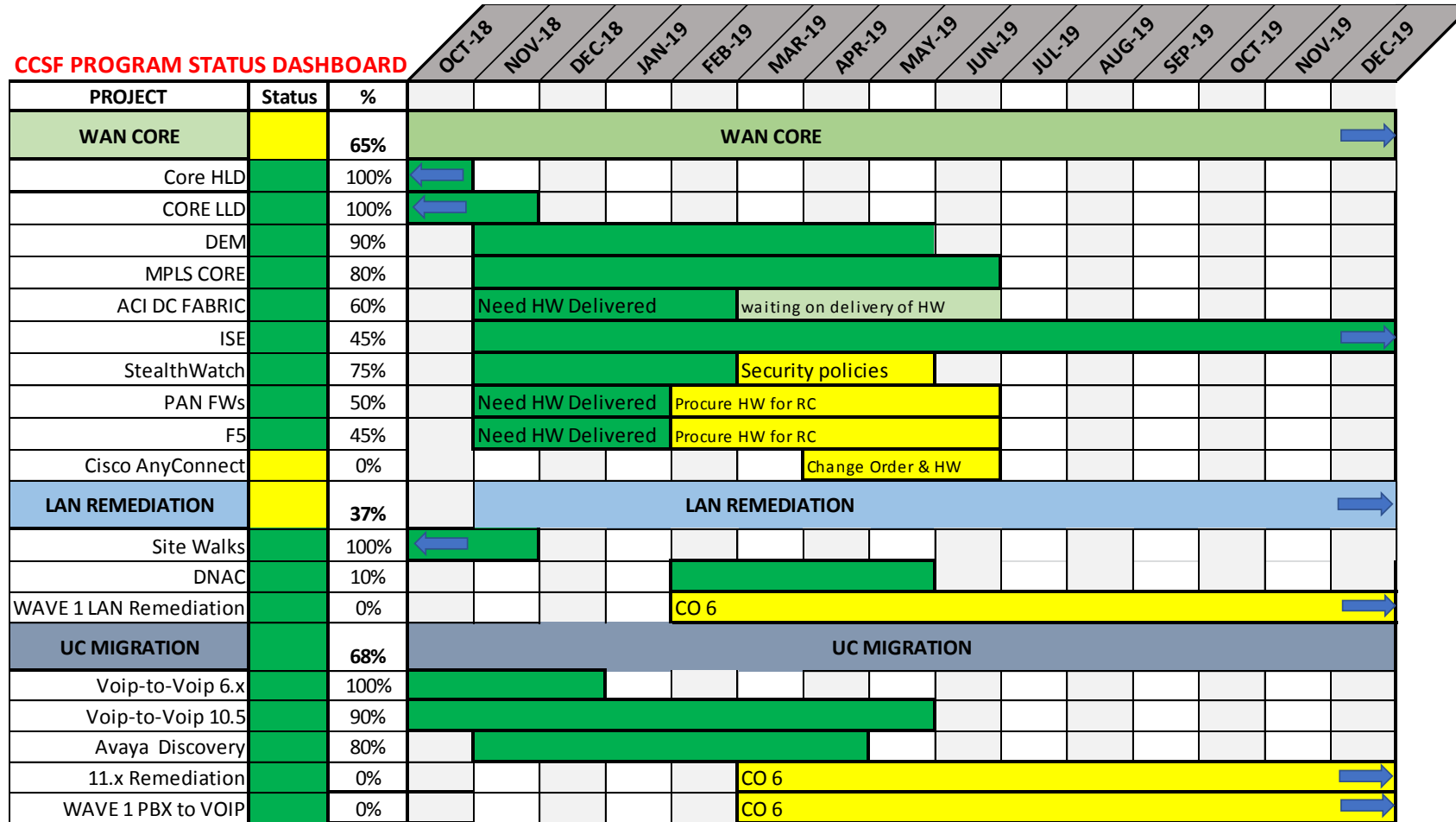
City Infrastructure Modernization

DT Initiatives to Meet the Changing World of IT Infrastructure

- Choice of on-premise or commercial cloud environment
- Expandable capacity & ability to scale
- Ability to define levels for workloads, services and storage
- Disaster recovery data center with high speed connection
- Comparable (or lower) cost than commercial providers
- Managed environment with visibility (users, traffic, cyber threats, and devices)
- Improved security and vulnerability management
- Network Operations Center (NOC) and Helpdesk – 24x7x365 support
- Compliance – HIPAA, CJIS, PCI



CCSF PROGRAM STATUS DASHBOARD



City Telecom Modernization

Project Objective

- Convert 35,000+ phone lines from 100+ telephone systems to VoIP (Voice over Internet Protocol)
- Enterprise Contact Center capabilities
- High availability and reliability

Primary Users & Major Stakeholders

- Citywide



City Telecom Modernization

Problem Definition

Current State	<ol style="list-style-type: none"> 1. Failing PBXs 2. PBXs that are no longer manufacturer-supported 3. Single points of failure throughout the City 4. Costly maintenance
Future State	<ol style="list-style-type: none"> 1. VoIP (Voice over Internet Protocol) technology 2. Co-location of data and voice: <ol style="list-style-type: none"> a. Simplified connectivity technology -fewer wires! b. Improved portability 3. Two call manager hardware/software sites, and highly redundant network to ensure availability 4. Central telecom management (not 100's of PBXs)



City Telecom Modernization

Primary Performance Measure

Percentage of legacy telephony equipment that are retired and upgraded every year.

Year	2019	2020	2021	2022	2023	2024	2025
Retired	5%	20%	35%	50%	65%	80%	100%

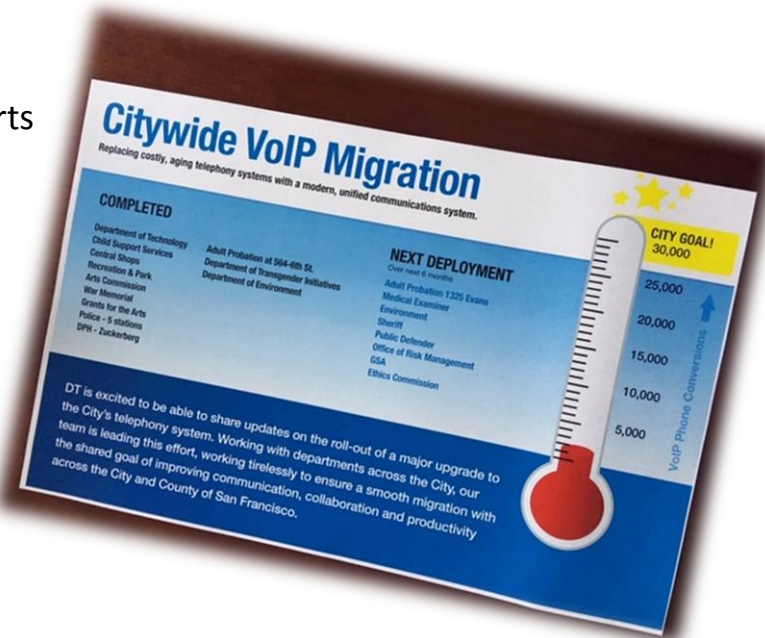
Note at this time the following are not in the DT VoIP plan: SFPD, MTA, DPH, PUC, AIR, HSA, and 311.



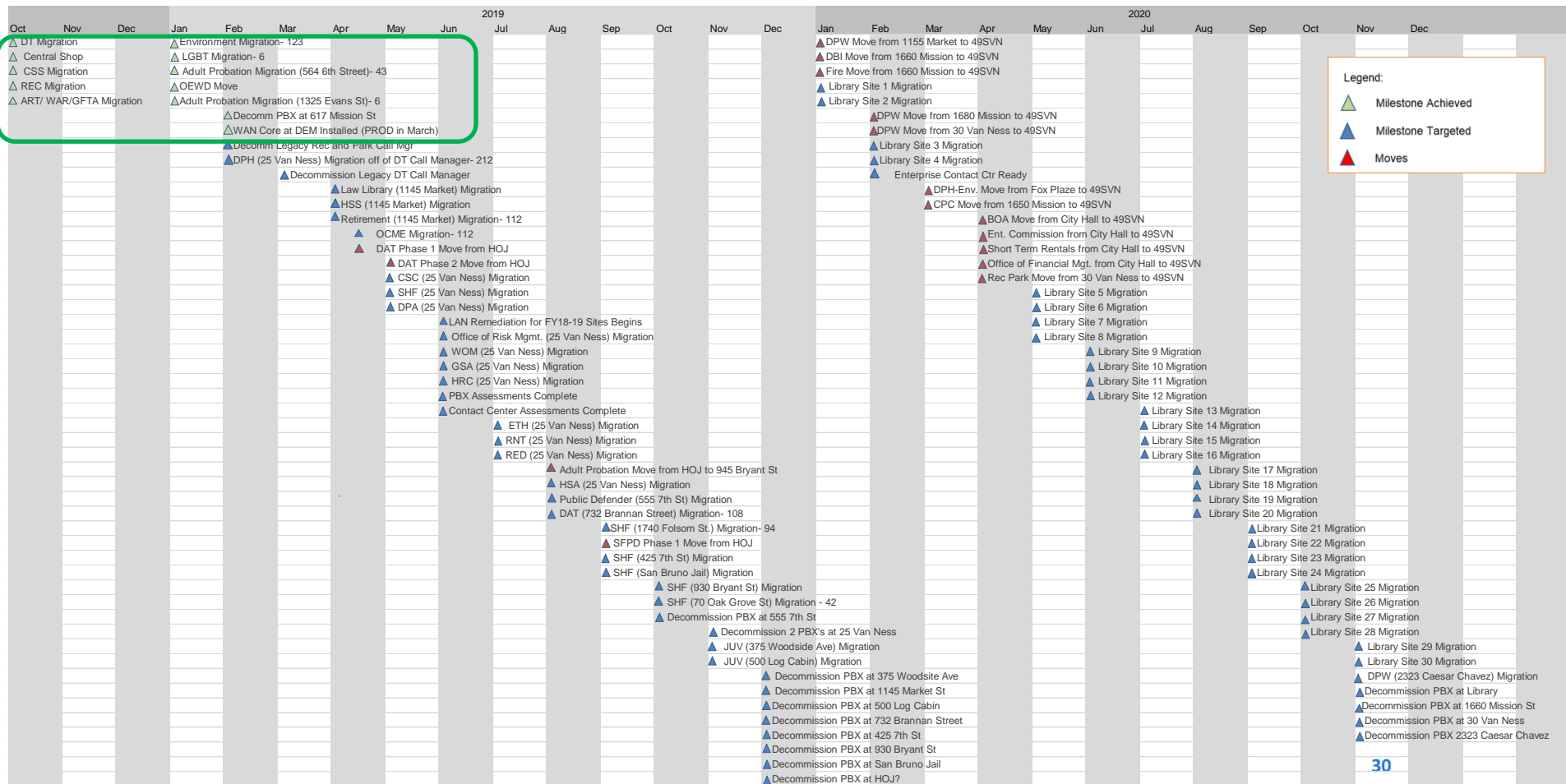
City Telecom Modernization

Recent Accomplishments

- Ten departments moved to City VoIP
 - › Rec Park – 12 sites, 2 Sites
 - › DT – 2 sites
 - › Central Shops
 - › Child Support Services
 - › OEWD
 - › Arts and Grants for the Arts
 - › War Memorial
 - › Environment
 - › Adult Probation – 2 sites
 - › Transgender Initiatives
- Decommissioned 4 PBX: consolidated legacy call managers to Citywide VoIP call manager
- Decommissioning 15 legacy circuits/telephony systems for above departments underway (\$28K / year)
- Department of Health Services, Retirement and Law Library scheduled to migrate to City VoIP in April - May
- Circuit and service audit & PBX and Contact Center Discovery underway
- Planning for 49SVN, ~1900 users retiring AT&T connections and old PBXs



City Telecom Modernization FY19/20 – project milestones






City Telecom Modernization

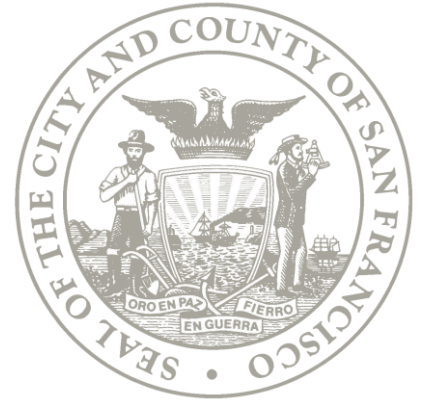
PROJECT BUDGET	FY 2019-20	FY 2020-21
FTEs (for buildout – 3, 1043's)	\$750,000	\$750,000
FTEs (Telcom Team – 6 FTE in DT Budget)		
Professional Services	\$500,000	\$500,000
HW/SW for Contact Center	\$1,750,000	\$1,750,000
Revolving Fund – DT Budget	\$1,000,000	\$1,000,000
Total Project Cost	\$3.0M	\$3.0M

City Telecom Modernization - Financials

(Ongoing projects only)

Total Project Cost	Total COIT Funding To Date (18-19)	Total Other GF Funding	Total NGF Funding	Total NGF + GF Funding	Total Spent
\$21.8M	\$2.41M	\$2.55M		\$4.96M	\$4.5M

Status		Comment	
Schedule		Begin Date: July 2016 End Date: June 2024 % Complete: 50%	Note: % complete is for this FY's work only.
Scope			
Budget		<ul style="list-style-type: none">• Total Project Cost includes estimate for contact center replacement and staffing for deployment• "Total Spent" includes actuals, encumbered funds, and PO's which are presently being processed	



7. FY 2019-20 & FY 2020-21 Budget Recommendations

Budget Overview

Mayor's Budget Office:

All technology projects with a projected cost over \$100,000 must be reviewed & approved by COIT



COIT Budget Process

1

Project
Sourcing



December

2

Budget
Intake



January

3

Dept
Interviews



February

4

Budget
Hearings



March/April

5

Final
Approval



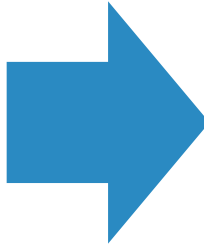
May

Scoring Criteria

- **Strategic Value** (Goals, Impact)
- **Project Benefits** (User Research, Outcome Measures)
- **Financial Benefits** (Savings, Fund Match)
- **Regulatory Compliance & Risk** (Policy, Security)
- **Architecture & Development Plan** (Data Sharing)
- **Department Capacity** (Planning, Staffing)

Subcommittee Recommendations

97 projects reviewed overall



- **38** Request COIT approval with no funding support requested
- **36** Recommend approval without funding
- **23** Recommend approval with General Fund support

Budget Recommendations

	FY 2019-20	FY 2020-21
Annual Allocation	14.1	10.5
Major IT Allocation	22.5	23.4
Total	36.6	33.8

Note: All figures in \$ millions.

ICT Plan Goals

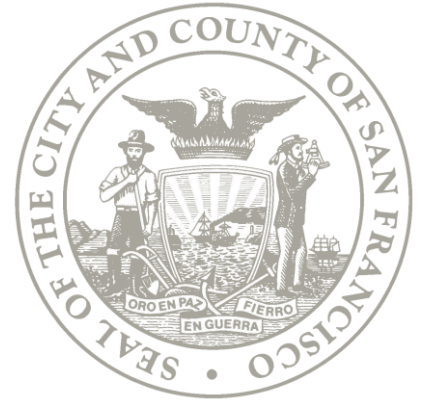
- Goal 1: Support & Maintain Critical Infrastructure
- Goal 2: Prepare and Protect City Systems
- Goal 3: Make City Operations More Efficient and Effective
- Goal 4: Improve the Customer Service Experience

Annual Allocation Recommendations

ICT Goal	Number of Projects	FY 2018-19		FY 2019-20	
		Request	Recommend	Request	Recommend
Goal 1	24	40.1	8.7	40.0	6.1
Goal 2	11	2.6	-	2.1	-
Goal 3	50	13.5	2.9	14.8	3.1
Goal 4	12	2.5	1.4	3.8	1.2
Total	97	58.6	36.6	60.7	33.8

Note: Funding figures are shown in \$ millions.





8. Public Comment