



Committee on Information Technology

Regular Meeting
February 15, 2018

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 Meeting Minutes from November 16, 2017
4. Chair Update
5. CIO Update
6. FY 2018-19 & FY 2019-20 COIT Budget Overview & Update
7. Major IT Update: Public Safety and Public Service 800MHz Citywide Radio Replacement Project (DEM)
8. Major IT Update: Electronic Health Records (DPH)
9. Public Comment
10. Adjournment

3. Approval of Minutes

Action Item

4. Chair Update

CIO UPDATE - COIT



Linda Gerull

Executive Director of DT &
City Chief Information Officer

AGENDA

City Telecom Modernization Project

Moves and New Builds

Fiber for San Francisco

Cyber Security

Performance & Dashboards

CITY TELECOM MODERNIZATION

Recent Project Accomplishments:

- Network assessment 40% complete
- Deployed VoIP core system at 1011 Turk and Rancho Cordova

Upcoming Milestones (Feb-March 2018):

- Network Assessment Results
- Network Business Requirement Workshop Results
- Network Design Finalization
- VoIP Core System Readiness



Moves and New Builds for 2018

1. 49 South Van Ness (20 departments)
2. HOJ demolition and rebuild (1/2 dozen departments)
3. GSA
4. Animal Care
5. DA
6. Central Shop
7. Assessor
8. Ambulance Facility
9. TCFSD
10. MOEWD
11. 311
12. Controllers
13. Ethics
14. OSB
15. TTX
16. Police Accountability
17. Adult Probation



FIBER FOR SAN FRANCISCO

Project Scope

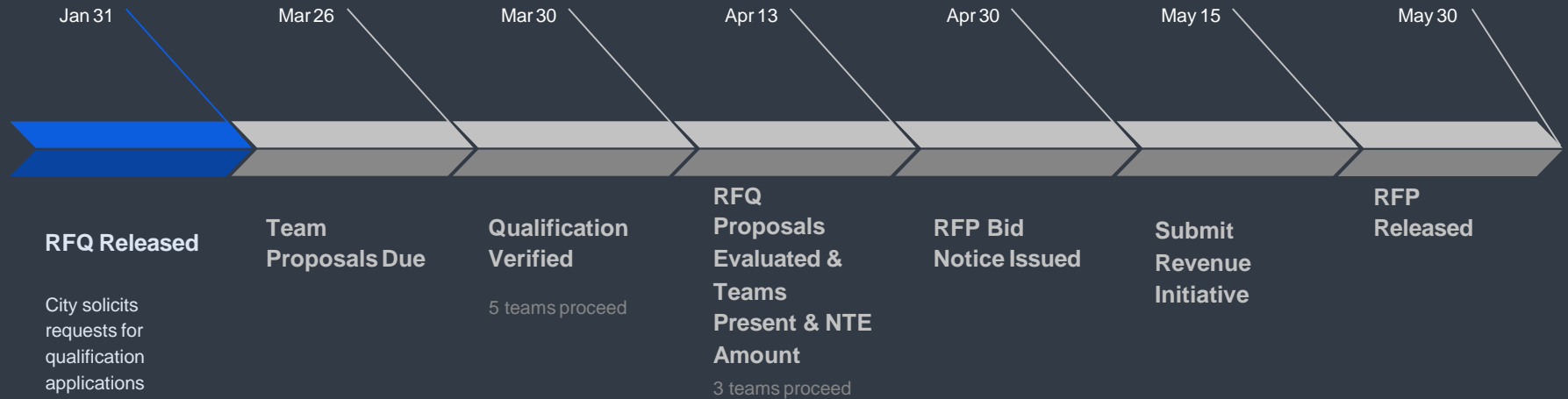
- ❑ Partner to design, build, finance, operate and maintain citywide fiber to the premise network and wi-fi in key areas
- ❑ Public Private Partnership – P3 model, 15 year term
- ❑ Lease use by Internet Service Providers (ISPs)
- ❑ City “owns” the network

Project Values

- ❑ Net Neutrality – no paid prioritization, transparency, no blocking
- ❑ Closing the Digital Divide – universal service at 1GB internet speed
- ❑ Privacy – Opt-in consent, no selling of personal use data
- ❑ Security – manage service to reduce risk



FIBER FOR SAN FRANCISCO



Residents will vote on the ballot initiative November 6

Cyber Security



Welcome Mike Makstman -- CISO

Early Objectives:

- Incident Management and Response
- Risk Assessment by Department to Inform Security Investments
- Privileged Access Management
- Continuous Cybersecurity Training

| 2017 Annual Data

42,000

Service Requests

3,183

Incidents

64 Projects

closed 17



THANK YOU
Q&A

6. FY 2018-19 & FY 2019-20 COIT Budget Overview & Update

COIT Allocations

	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Major IT	20.5	22.5	24.7	27.2	29.9
Annual	12.8	14.1	15.5	17.1	18.8
Total	33.3	36.6	40.3	44.3	48.7

* All figures shown in \$ million.

FY 2017-18 Recommendations

FY 18-19	
Major IT Allocation	20.5
Radio Replacement	8.3
Property Assessment & Tax System (PATs)	10.7
Remainder	1.4

* All figures shown in \$ million.

Major IT – Funding Requests

	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Major IT Allocation	20.5	22.5	24.7	27.2	29.9
Radio Replacement	8.3	7.5	3.7	3.7	3.7
Property Assessment	12.0	10.8	10.1	5.4	
EHR	-	-	-	-	-
Difference	0.1	4.0	10.7	18.0	26.1

* All figures shown in \$ million.

Upcoming Major IT

- Upgrade the Network
- VOIP
- Municipal Fiber
- CAD Replacement
- Voting Replacement
- Hiring Modernization
- Mainframe Retirement
- CalWIN Replacement



FY 2018-19 General Fund Requests

Total Requests	Year One Project Cost	General Fund Request	Remaining Allocation	Difference
68	45.4	22.4	11.5	(10.8)

* Financial figures shown in \$ million.

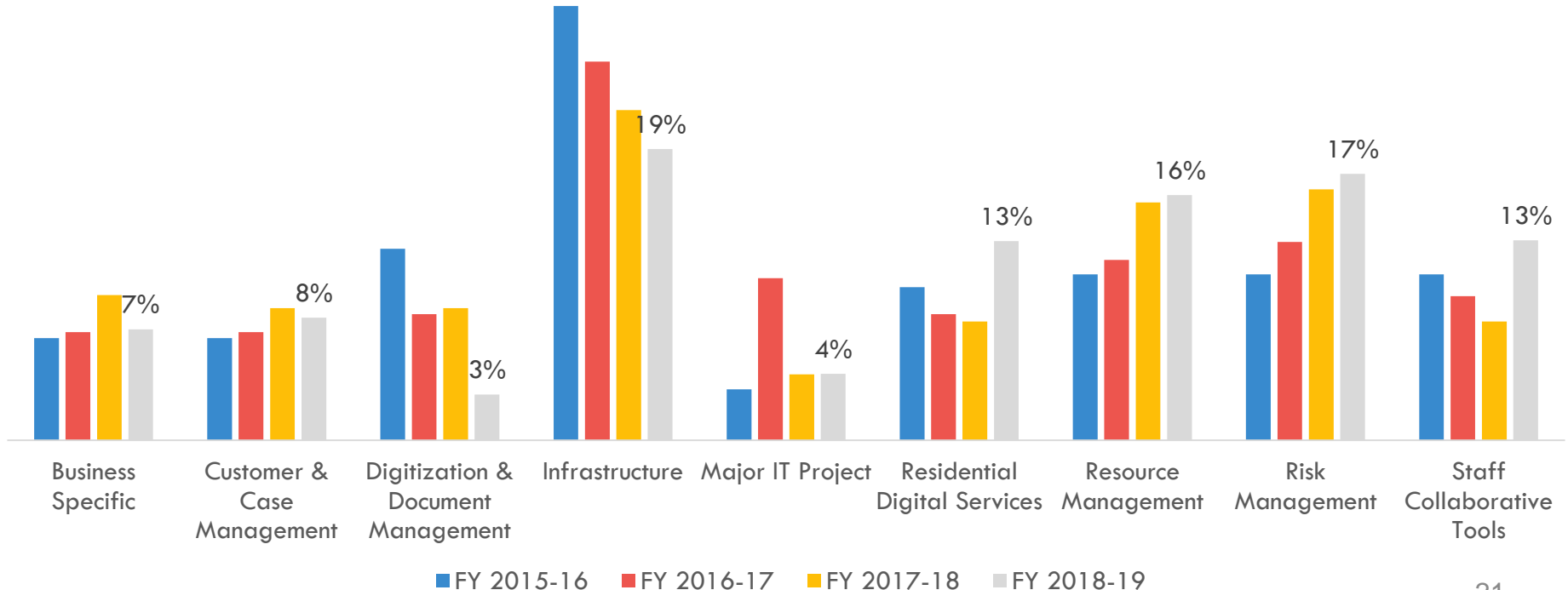
Historical Summary

Fiscal Year (FY)	Total Requests	Year One Project Cost	General Fund Request	Annual Allocation	Difference
FY 2015-16	116	102.9	31.9	9.8	(22.1)
FY 2016-17	76	66.6	27.0	10.4	(16.6)
FY 2017-18	111	80.8	29.3	12.3	(17.0)
FY 2018-19	68	45.4	22.4	11.5	(10.8)

* Financial figures shown in \$ million.

Budget Request Themes

Request Trends (%)



Department Interviews Criteria

- **Strategic Value** (Goals, Impact)
- **Project Benefits** (Users, Measures)
- **Financial Benefits** (Savings, Department Fund Contribution)
- **Regulatory Compliance & Risk Management** (Policy, Security)
- **Architecture & Development Plan** (Dev Methods, Data Sharing)
- **Department Capacity** (Planning, Staffing)

Criteria scored on a scale from 1 - 4



Annual January Survey

Purpose:

- Identify citywide opportunities
- Capture **Long-Term Savings** by encouraging coordination

Survey Areas:

- Open Source
- Web Hosting
- Security Cameras
- CRM
- LMS
- Electronic/Digital Signatures

Deadline: February 16

Budget Calendar

February 16	Deadline for Annual Budget Survey
March 2	B&P – Enterprise & General Fund Departments
April 6	B&P – General Fund Departments
April 13	B&P – General Fund Departments (if needed)
April 19	COIT
May 4	COIT – Final Review & Approval

7. Public Safety and Public Service 800MHz Citywide Radio Replacement Project

Department of Emergency Management

800MHz Citywide Emergency Radio System Replacement Project

SAN FRANCISCO DEPARTMENT OF EMERGENCY MANAGEMENT

Project Accomplishments in FY17-18

- Shipped over 5000 Radios with accessories (\$15.3M) for SFPD, SFFD, SFSD, DEM, DT, DPW, ADP, JUV, DPH, DA, SFO, ME, ACC, PUC, HOT, HSA, LIB, REC, PRT, DRE, GSA, CON, DBI, PRI AMB
 - 175 Control Stations have been ordered and are currently being installed in City Facilities
 - Installation beginning on 250 DPW Mobile (Vehicle) Radios
 - Radio Management Software being implemented for ease of radio programming
- Issued NTP on \$4.2M in Civil/Construction Contracts with DPW for Radio Site Improvements
 - Includes a new tower at Twin Peaks Radio Site
 - Electrical, HVAC, Mechanical upgrades at 8 Radio Sites
 - New Radio Shelter at VA Hospital

800MHz Citywide Emergency Radio System Replacement Project

SAN FRANCISCO DEPARTMENT OF EMERGENCY MANAGEMENT

Project Accomplishments in FY17-18

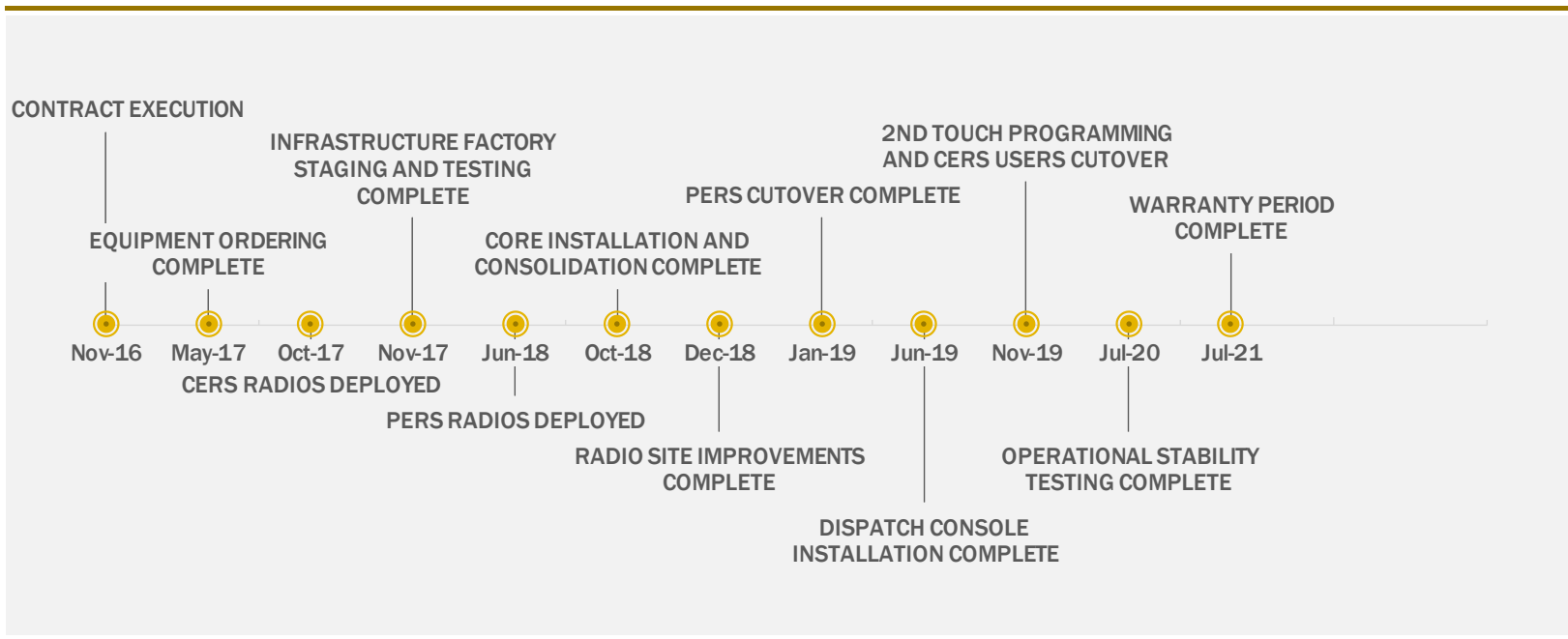
- Ordered, assembled and tested all infrastructure equipment. Ran over 150 Acceptance Tests in the factory before shipping equipment to the City



800MHz Citywide Emergency Radio System Replacement Project

SAN FRANCISCO DEPARTMENT OF EMERGENCY MANAGEMENT

PROJECT TIMELINE






800MHz Citywide Emergency Radio System Replacement Project

SAN FRANCISCO DEPARTMENT OF EMERGENCY MANAGEMENT

Total Project Cost Estimate	Total COIT Funding FY14-18	Total Capital Plan Funding FY16-18	Total Financed Funding	FY19-20 Request (COIT and Capital Plan)
\$76.7M* <small>*Does not include \$3.1M in interest payments</small>	\$26.7M	\$6.8M	\$34.1M	\$9.1M

Status

Comment

Schedule		Begin Date	Project Implementation with Motorola Solutions began Nov 2017
		End Date	Estimated Completion July 2020
		% Complete	Approx. 40% complete
Scope		Ordered & delivered portable and control station radios to majority of City Departments. Mobile Radios will be ordered next Trending: Departments want more portable radios	
Budget		<ul style="list-style-type: none">• COIT request for FY19 is \$4.6M and FY20 is \$3.8M• Yearly finance payments of \$3.7M until FY27 required –requested out of COIT Major IT budget• Capital Plan request for FY19 is \$.7M• Current Encumbered and Spent Funds (FY14-17) are \$44.3M	
Risks	Construction Delays and Radio Site Leases Interference from external sources (BDAs/DAS, high noise floor environment in the City) BART/SFMTA Tunnel Radio Coverage and Operations Interoperability with Regional Partners		

29

8. Update: Electronic Health Records

Department of Public Health



What is the EHR System

- What is an EHR System?
 - An Electronic Health Record (EHR) system is used to digitally capture all clinical and diagnostic information allowing for coordinated patient care and efficient billing.
- The EHR system allows SFDPH to:
 - Track patient data for over ~550,000 patient encounters per year at DPH
 - Support patient billing for the ~\$650 Million + in annual revenues for DPH
 - Comply with regulatory and reporting requirements necessary to keep accreditations



EHR Procurement Ordinance

- DPH currently has a patchwork of multiple systems (many outdated). Current health care industry standards require a modern EHR system that unifies all hospitals and clinics.
- DPH's current primary EHR system is end-of-life and will likely no longer be supported by the vendor after 2020.
- DPH is requested approval from the Board of Supervisors to enter into a contract with Epic City Government, LLC (Epic) for the delivery of software, support and implementation services, maintenance services, and hosting
- Epic City Government, LLC was selected using competitive bid (RFP # 3-2017)

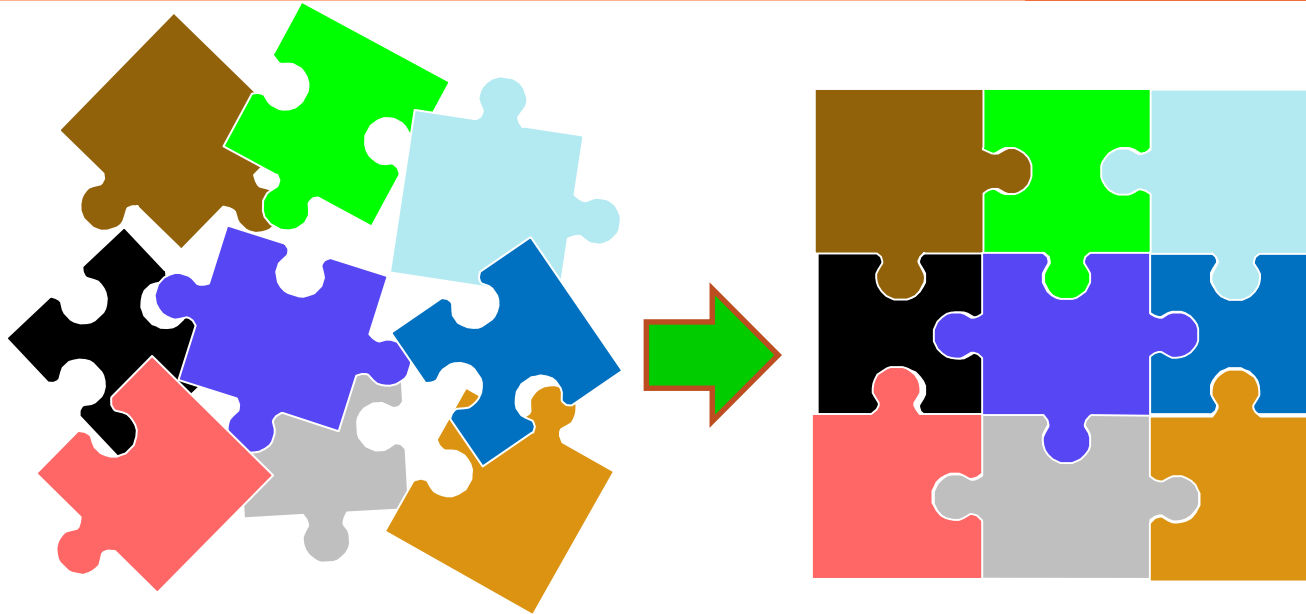


Why does DPH need an Unified EHR now?

- Patient Care Outcomes
 - A modern, unified EHR system will improve safety and coordination of care department-wide
 - Our patients deserve the same modern tool that supports optimal care at Kaiser Permanente, UCSF, and Stanford
- Financial and Regulatory Risk
 - Approximately \$650 million annual at risk if clinical documentation and legacy billing system is allowed to go unsupported
 - A single unified EHR will improve DPH's ability to draw reimbursement from Medi-Cal, Medicare, and commercial insurance
 - Consolidate multiple legacy systems into a single platform to reduce licensing, maintenance, and compliance costs



Why does DPH need an unified EHR?



■ Jail Health

■ ZFGH Intensive Care Unit

■ Laguna Honda Hospital

■ Specialty Care

■ Home Health

■ ZFGH Emergency Dept

■ ZFGH Med/Surg

■ Primary Care

■ Behavioral Health

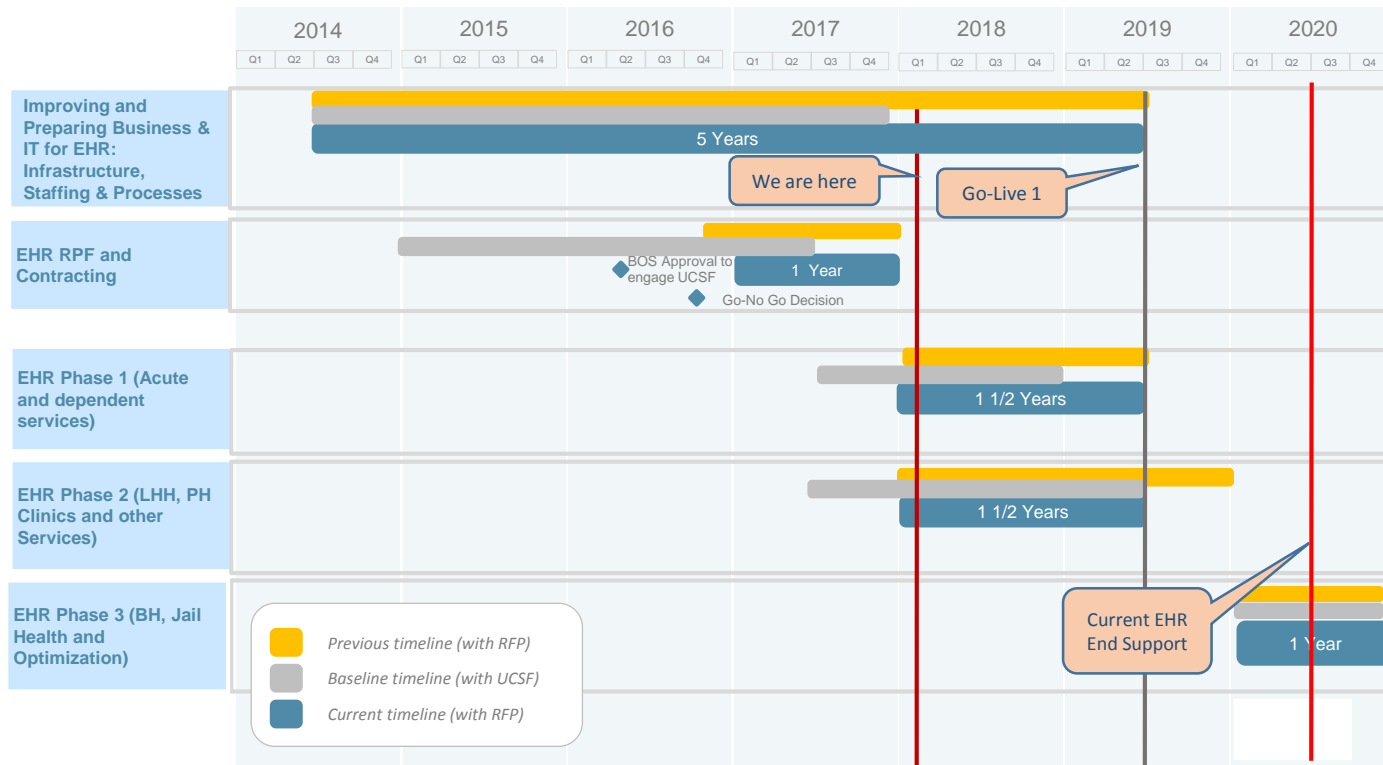


Anticipated Scale of Unified EHR Project

- Overhaul of EHR clinical and billing systems into a single, consolidated platform
- Major, multi-year effort that will impact almost all DPH patients
- Top strategic priority for DPH and Health Commission
- Project is included in the adopted COIT Information and Communication Technology (ICT) Plan and 5-Year Financial Plan (~\$223.4 million 5 year cost; ~\$20.0 million per year operating expenses)
 - 10 year Total cost of ownership is estimated at ~\$377m with contingency

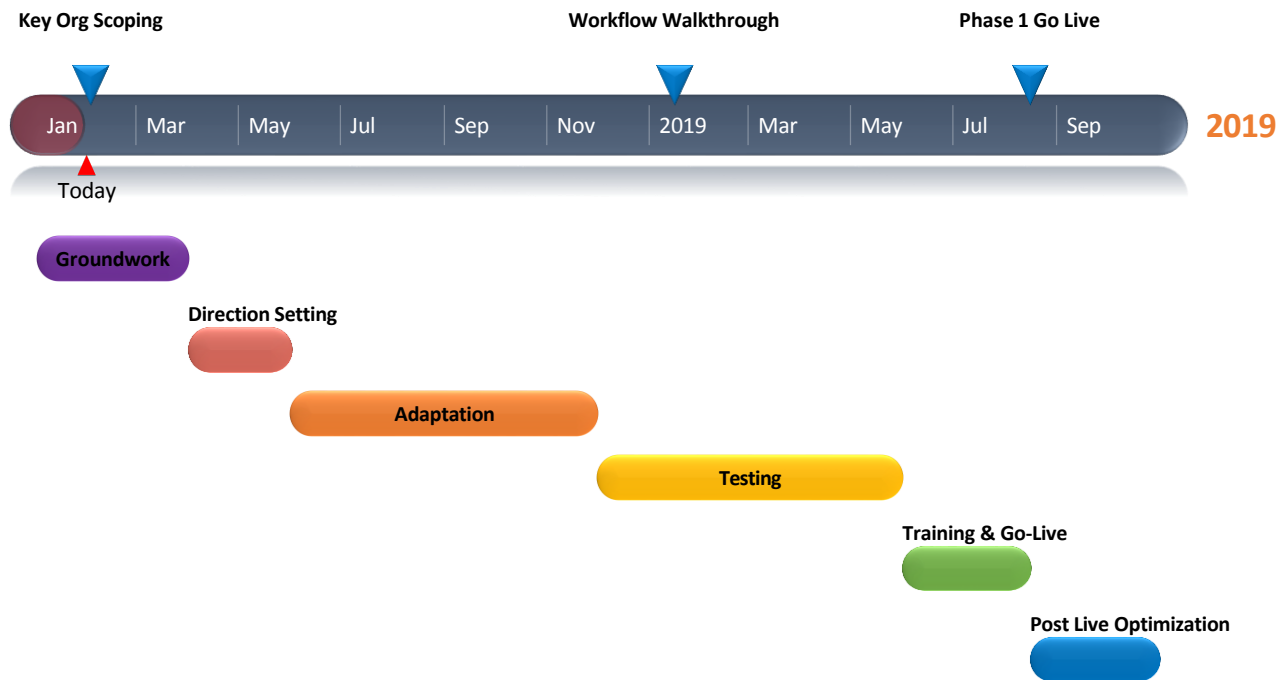


DPH-EHR Timeline: Overall





DPH-EHR Timeline: Epic





Project Phases for Initial Epic Go-Live

Task Name	Start	Finish
Phase 0 – Groundwork and Project Scope (Initiate Project)	Tues 1/2/18	Fri 3/30/18
Phase 1 – Direction	Mon 4/2/18	Fri 5/25/18
Phase 2 – Adoption and System Configuration	Mon 5/28/18	Fri 11/30/18
Phase 3 – Testing	Mon 12/3/18	Fri 5/31/19
Phase 4 – Training, Deployment and Go-Live	Mon 6/3/18	Fri 8/2/19
Go Live (Go-Live Day will be Saturday, August 3)	Mon 8/5/19	Fri 8/23/19
Phase 5 – Post-Live Support and Optimization	Mon 8/26/19	Fri 10/18/19

Current Project Budget

(in 1000s)	Y1 FY17-18	Y2 FY 18-19	Y3 FY 19-20	Y4 FY 20-21	Y5 FY 21-22	Y6 FY 22-23	Y7 FY 23-24	Y8 FY 24-25	Y9 FY 25-26	Y10 FY 26-27	Total
Project Management & Facilities	\$ 14,031	\$ 10,594	\$ 3,786	\$ 873	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29,284
Epic Software Implementation	\$ 9,540	\$ 13,388	\$ 15,569	\$ 1,724	\$ 2,336	\$ 1,168	\$ -	\$ -	\$ -	\$ -	\$ 43,726
Core Implementation Support	\$ 13,124	\$ 47,528	\$ 20,195	\$ 196	\$ 99	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,142
Go Forward Initiatives	\$ 13,377	\$ 11,819	\$ 6,611	\$ 3,087	\$ 466	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,361
Ongoing Hosting & Support	\$ 1,845	\$ 3,845	\$ 9,750	\$ 13,613	\$ 14,321	\$ 14,883	\$ 15,383	\$ 15,880	\$ 16,334	\$ 16,802	\$ 122,654
Total	\$ 51,917	\$ 87,175	\$ 55,911	\$ 19,494	\$ 17,222	\$ 16,051	\$ 15,383	\$ 15,880	\$ 16,334	\$ 16,802	\$ 312,168
COIT Estimate	\$ 13,235	\$ 95,810	\$ 86,274	\$ 20,778	\$ 21,184	\$ 21,597	\$ 22,246	\$ 22,915	\$ 23,606	\$ 24,320	\$ 377,022
Over/(Under) COIT Approved Estimate	\$ 38,681	\$ (8,635)	\$ (30,363)	\$ (1,284)	\$ (3,962)	\$ (5,546)	\$ (6,863)	\$ (7,035)	\$ (7,272)	\$ (7,518)	\$ (64,854)*
Wave 3 Initiatives	\$ -	\$ -	\$ -	\$ 3,637	\$ 5,422	\$ 1,838	\$ 1,841	\$ 2,106	\$ 2,169	\$ 2,456	\$ 19,471
Over/(Under) COIT Approved Estimate	\$ 38,681	\$ (8,635)	\$ (30,363)	\$ 2,354	\$ 1,461	\$ (3,707)	\$ (5,022)	\$ (4,929)	\$ (5,103)	\$ (5,062)	\$ (45,383)**

*20.8% Contingency without Wave 3

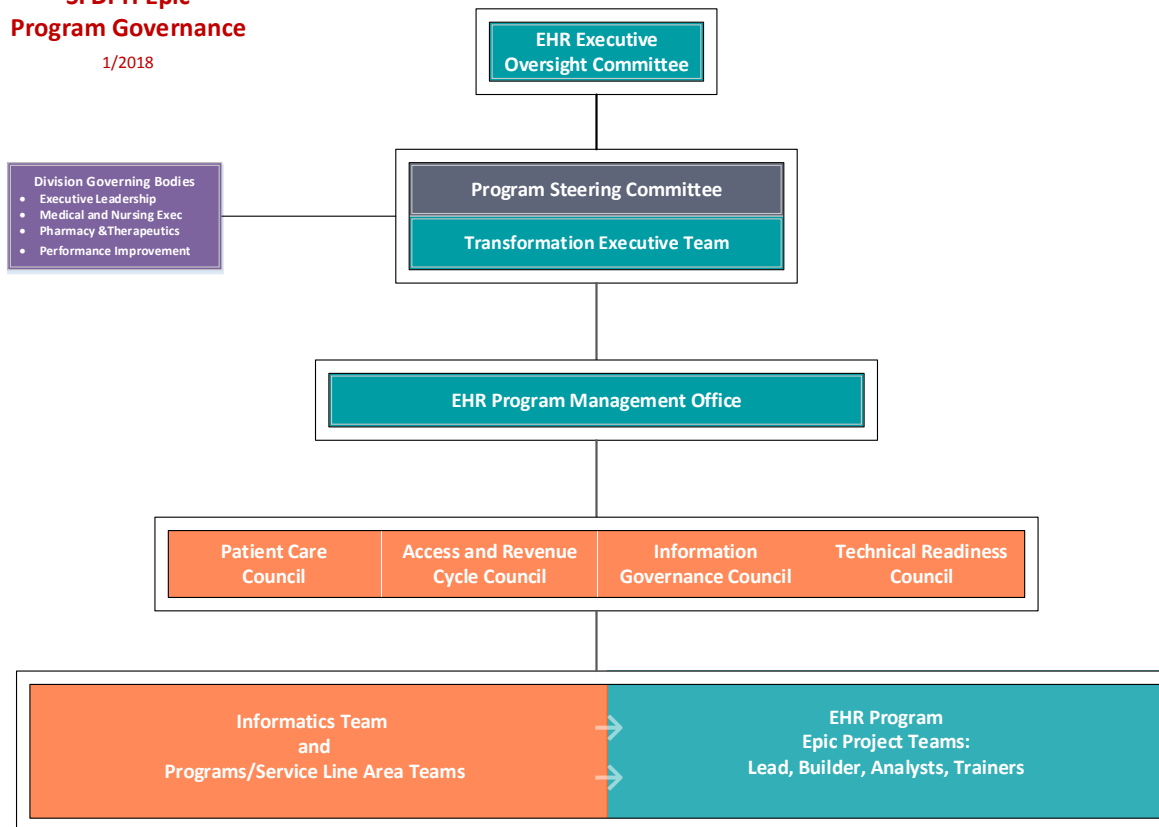
**14.7% Contingency with Wave 3 scope changes



DPH EHR Governance Structure

SFDPH Epic Program Governance

1/2018





Accomplishments

PMO Accomplishments

- ✓ Phase Zero, Groundwork, began January 2nd
- ✓ Project Management Contracts signed
 - ✓ KPMG, Deloitte & Nordic
- ✓ 3rd Party Contracts are on schedule
- ✓ Hired 15 SFDPH new Epic Certified employees
- ✓ Approximately 70 internal candidates identified to fill 56 project positions
 - ✓ Final decisions to be made February 6th
- ✓ Administrative Program Management Office has launched tools and processes for tracking project status

Epic Accomplishments

- ✓ Epic EHR System Contract Signed
- ✓ Assigned their Project Leadership
- ✓ Hosted Epic Overview for SFDPH Leadership at corporate headquarters
- ✓ Delivered Project Plan
- ✓ Delivered Direction Setting Schedule
- ✓ Provided Guidance on Governance Structure



Next Steps and Risks

Next Steps

- Kick-off with full project team scheduled for February 27, 2018
- Onboarding of SFDPH employee transfers
- Groundwork & Key Organization scoping questions answered
- Preparing for “Direction Setting” (detailed review of Epic Foundation system and facilitation of key design decisions) to occur in April and May

Risks

- Upcoming Direction Setting sessions will require significant time commitment from Subject Matter Experts
- Complete Timely hiring for new implementation team



Questions



9. Public Comment
