



COMMITTEE ON INFORMATION TECHNOLOGY

Regular Meeting

April 7, 2017

**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 March 31, 2017 (Action Item)
4. Department Updates and Announcements
5. FY 2017-18 and FY 2018-19 Budget Update
6. FY 2017-18 and FY 2018-19 Budget Presentations
7. Public Comment
8. Adjournment

3. Approval of Minutes

Action Item

4. Department Updates & Announcements

5. FY 2017-18 and FY 2018-19 Budget Update

COIT BUDGET UPDATE

Projected COIT Allocation

\$ millions	FY 17-18	FY 18-19	Total
Annual Project Allocation	11.7	12.8	24.5
Major IT Projects	18.6	20.5	39.1
Total	30.3	33.3	63.6

Note: All figures in \$ millions.

TOTAL NUMBER OF SUBMISSIONS

	January 13 Number of Projects	April 7 Number of Projects
Enterprise Departments	19	9
General Fund Departments	109	93
Total	136	102

ANNUAL PROJECT ALLOCATION

	FY 2017-18
Annual Project Allocation	11.7
FY 2017-18 Approved Funding	5.1
ADM - Electronic Signatures	0.9
COIT - PC Refresh	0.9
ETH – E-Filing	0.2
POL – Police Vehicle Upgrades	0.4
TIS – Citywide AD	0.3
TIS – Upgrade the Network	1.4
TIS – IAM	1.0
DIFFERENCE	6.6

Note: All figures in \$ millions.

ANNUAL PROJECT ALLOCATION

➤ **88 projects requesting General Fund support**

	FY 17-18	FY 18-19
Remaining Annual Allocation	6.6	12.8
General Fund Requests	28.6	25.6
DIFFERENCE	(22.0)	(12.8)

Note: All figures in \$ millions.

DEPARTMENT INTERVIEWS

Interview Structure

- Highest Priority Project (rank)
- Project Plan
- Coordination with Other Departments
- Funding Sources
- Performance update on existing COIT projects

Theme	Number of Projects	FY18 GF Request	FY19 GF Request
Asset Management	3	-	-
Case, Customer, Contract Management	11	1.1	0.8
Collaborative Tools – Data Sharing	6	0.3	0.0
Cybersecurity	10	4.5	3.4
Disaster Recovery & Business Continuity	3	0.9	-
General Operations – Workforce Tools	10	2.1	2.4
IT Hardware Refresh	6	1.9	1.6
Major IT Projects & Support	8	19.1	24.1
Mobile Technology	2	0.6	0.6
Network & Telecommunications	13	12.3	11.4
Public Safety & Security Infrastructure	10	2.7	2.4
Records Management & Digitization	3	-	1.0
Website	9	1.6	0.3

Note: All budget figures in \$ millions.

6. FY 2017-18 and FY 2018-19 Budget Presentations

Calendar – April 7

Time	Dept	Project	FY18 GF Request	FY19 GF Request
9:15	DT	City Cloud Enhancements	\$841,800	\$841,800
9:30	ADM	County Clerk - City ID System	\$1,000,000	
9:45	DT	IT Service Management & CMDB	\$90,000	\$153,750
10:00	PDR	Gideon	\$125,000	\$125,000
10:15	ART	Salesforce Database	\$120,000	\$10,000
10:30	DT	Citywide Cloud VoIP	-	\$3,721,683
10:45	DT	Drupal 8 Migration		
11:00		-- Cybersecurity Requests Overview --		
11:15		-- COIT General Discussion --		
11:30				

Calendar – April 14

Major IT Projects

Time	Dept	Project	FY18 GF Request	FY19 GF Request
9:15				
9:45				
10:15	ASR	Property Assessment & Tax System	TBD	TBD
10:30	DPH	Electronic Health Records	-	-
10:45		-- COIT General Discussion --		
11:00		-- Final Review & Vote --		
11:15				
11:30				

DT – CITY CLOUD ENHANCEMENT

Project Objective:

The objective is to enhance the provisioning and functionality of Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) for City departments, through the optimization of data center space and on-premises cloud infrastructure, plus the adoption of a public cloud provider

Problem Definition:

- Aging VBlock at DEM and SFO
- City Departments' Requirement for CJIS and HIPAA Compliance
- City Departments' Request for Self Service Provisioning of VM's
- Drive to reduce on premise Virtualization footprint/ cost
- Increasing demand for External Cloud Services
- Drive to move from capital expenditure to operational expenditure

DT - CITY CLOUD ENHANCEMENT

Project Background:

- ✓ DT has invested in First Class Virtualization and Backup Infrastructure at two out of four of its Data Centers
- ✓ DT has engaged VMware to support the implementation of software environment that will deliver self-service provisioning of virtual machines to the City
- ✓ DT has engaged Microsoft Azure to test External Cloud capabilities
- ✓ DT has developed a consumption based rate model that will be implemented in FY18-19

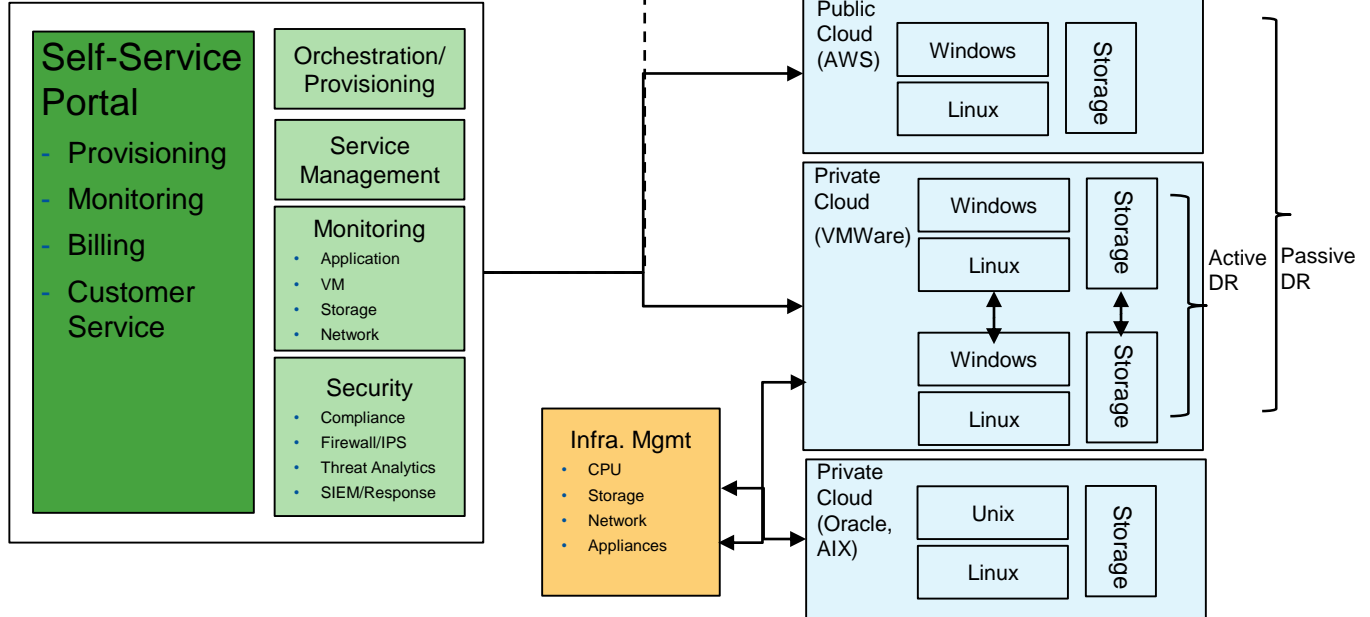
DT - CITY CLOUD ENHANCEMENT

LONGER TERM TRANSFORMATION

DT plans to provide a seamlessly integrated set of cloud offerings with consistent monitoring and security features across them.

Dept IT Staff

Single Pane of Glass



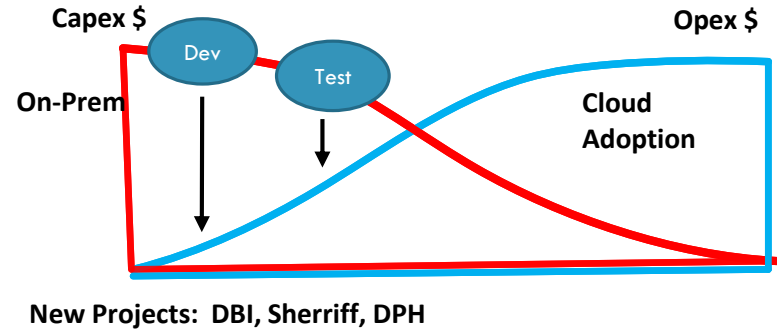
DT - CITY CLOUD ENHANCEMENT

Project Implementation Stages

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Dates:	FY15-16	FY16-17	FY17-18	FY18-19	FY19-20 & Beyond
Description:	<ul style="list-style-type: none"> Virtualization and Backup Infrastructure Upgrade (On Premise) VMware Engagement to implement the software environment that will deliver self-service provisioning of virtual machines to the City. 		<ul style="list-style-type: none"> Implement Secure Connection (1G-10G) to External Cloud Deploy Cloud Exchange Platform Right Size Capacity (Trending/Analysis) Initiate migration of Test Workloads to External Cloud 	<ul style="list-style-type: none"> Continue to migrate Test/Dev workloads to External Cloud. Develop Backup/Archive Strategy Activate Consumption Based Rate Model 	<ul style="list-style-type: none"> Identify and address new project requests from client departments. Enhance Features based on Survey Architect Single Pane of Glass Integrate with ITSM

DT - CITY CLOUD ENHANCEMENT

Project Budget	FY 17-18	FY 18-19
Number of FTE		1
FTE Classifications		1043
Salary & Fringe		\$155,000
Software	\$597,770	\$597,770
Hardware	\$622,230	\$467,230
Professional Services	-	-
Materials & Supplies	-	-
Total Project Cost	\$1,220,000	\$1,220,000



QUESTIONS?

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Project Objective:

In 2009, under the authority granted by the Board of Supervisors, the County Clerk introduced the San Francisco City ID Program, providing a means of identification to city residents. An updated City ID System is needed in order to continue this valuable service available to all city residents. Only 1 machine is available to produce the IDs which is no longer reliable and will not be supported by the manufacturer after this year. Purchasing new City ID Hardware will ensure the continued success of San Francisco's Municipal ID Program.

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Major Stakeholders: **The City ID card provides a valuable means of identification to residents who encounter barriers to accessing other government issued IDs. The City ID Program benefits underserved populations including residents who are elderly, young, LGBT, undocumented, homeless or recently incarcerated. The County Clerk's Office is working with other City Agencies including the Library and the Recreation and Parks Department with the goal of offering access to a range of city services with the City ID. Discounts to cultural institutions and businesses are planned for the re-introduction of the City ID Card that will benefit all San Franciscans.**

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Problem Definition:

The City ID System (hardware and software) is nearly a decade old and well past its useful life. Three separate malfunctions have forced the postponement of many appointments and cost nearly \$15,000 to repair. Failure to upgrade the hardware and software to run the City ID program with required security and privacy measures could shut down the program for a prolonged period of time. This would deny access to a government issued photo ID for thousands of San Franciscans

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Project Implementation Stages/Phases




	Phase 1	Phase 2	Phase 3
Dates:	June 2017	1 st Quarter 17/18 FY	2nd Quarter 17/18 FY
Description:	Approve Card Design	Installation/Testing of new City ID System	Launch of Updated City ID Card Program

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Project Budget	FY 17-18
Number of FTE (existing)	.2
FTE Classifications	1052, 8108
Salary & Fringe	\$0 additional
Software	\$200,000
Hardware	\$500,000
Professional Services	\$250,000
Materials & Supplies	\$50,000
Total Project Cost	\$1,000,000

COUNTY CLERK - CITY ID SYSTEM UPGRADE

Total Project Cost	Total COIT Funding To Date	Total Other GF Funding	Total NGF Funding	Total NGF + GF Funding	Total Spent
\$1,000,000	\$0	\$0	\$0	\$0	\$0

	Status	Comment
Scope		Scope of work is complete along with research of other Municipal ID Programs and Vendor Products.
Schedule		Schedule of work has not been completed. Target launch for Second Quarter of FY 2017/2018
Budget		Project estimated price is complete.

Risks	Potential for price increase before contract is signed.
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QUESTIONS?

DT – IT SERVICE MANAGEMENT (ITSM)

Last year, with funding assistance and support from from Public Health, the DT ITSM team partnered with ServiceNow to configure and deploy core functionality within the ServiceNow platform for:

- *Incident Management*
- *Service Request Fulfillment*
- *Change Management*
- *Problem & RCA Management*
- *Knowledge Management*
- *Self Service Portal*

As well as...

- ✓ *Drastically reduced reliance on email as a method of tracking requests & issues*
- ✓ *Paperless purchasing approval process*
- ✓ *Automated RTF (hiring forms) processing & approvals*
- ✓ *Detailed reporting/dashboards for key service metrics, KPIs and trend data*

Phase 2 looks to extend functionality and processes to include the mapping of critical IT assets and the relationships among these components. We will also enable demand and resource management capabilities that will help us to assess project requests in terms of our capacity.

DT – ITSM PHASE 2

Major Stakeholders:

Citywide - this phase of work supports DT in providing better service and enhanced security to all our client departments

Current Problem Definition:

- Vulnerabilities related to device settings & relationships that exist among at-risk components
- Poor understanding of which services are supported by specific assets
- Impacts of security threats, outages, changes & other issues cannot be adequately understood
- Prioritization of reported incidents is manual and error-prone

- Visibility to the volume & impact of work requests is limited
- Difficulty in scheduling & prioritizing projects
- Limited ability to produce accurate project timelines, forecasts & estimates

DT – ITSM PHASE 2

CONFIGURATION MANAGEMENT DATABASE (CMDB)

Q: What is the CMDB?

A: It's a **logical model** of the critical IT assets (including the hardware, software and other resources) that make up the services provide, and the **mapped relationships** that exist among these assets

This system and related processes enables visibility and control of the infrastructure, systems, applications and other components that allow DT to better provide critical services and security to City departments.

Project Plan

- Definition of services, taxonomy and scoped assets/CIs (Configuration Items)
- Identification of critical City services & their enabling components
- Buildout of eMerge & FSP data sets
- Configuration of DT consumables inventory & some key workstation assets

DT – ITSM PHASE 2

DEMAND & RESOURCE MANAGEMENT

Demand & resource management work will allow incoming request & proposals to be managed through defined assessment, review & approval workflow processes. This will help to ensure that the right work is accepted, expectations are clear, and that capacity is available to schedule the work.

Project Plan

- Demand Management – gather and assess project requests to understand alignment with strategic goals & impact to operational and other competing demands
- Resource Management – Enable the creation of resource plans, what-if forecasts and approval workflow configuration

DT – ITSM PHASE 2

PROJECT IMPLEMENTATION STAGES/PHASES

	Phase 1	Phase 2	Phase 3	
Dates	FY 16-17	FY 17-18	FY 18-19	TBD
Description:	Platform upgrade + core ITSM modules	CMDB; ITAM; Demand Mgmt.	Knowledge Mgt, CMDB cont., Service Mapping & Event Management +?	

DT – IT SERVICE MANAGEMENT & CMDB

Project Budget	FY 17-18	FY 18-19
Number of FTE (CMDB Manager/Librarian)	1 (new)	1 (cont. from 17-18)
FTE Classifications	1042	1042
Salary & Fringe	\$177,368	\$186,000
Software	-	-
Hardware	-	-
Professional Services	\$120,000	\$205,000
Materials & Supplies	-	-
Total Project Cost	\$297,368	\$391,000

Current ITSM team consists of three (3) dedicated staff who handle administration, program management and analyst functions. Total annual salary/fringe for these 3 positions is approximately \$540K

DT – IT SERVICE MANAGEMENT (ITSM)

Total Project Cost	Total COIT Funding To Date	Total Other GF Funding	Total NGF Funding	Total NGF + GF Funding	Total Spent
\$690,000	\$320,000	-	-	\$320,000	

Scope

ITSM Phase 1 was completed August 2016 by the DT ITSM team working alongside ServiceNow resources to: 1) re-deploy the core ITSM modules, 2) perform a platform upgrade, 3) add new functionality via automated workflows and custom application development.

ITSM Phase 2 will focus on documenting critical IT infrastructure to enable improved security and service responsiveness. A smaller, concurrent effort will also focus on configuration & development of ServiceNow modules to help DT better manage incoming work requests

- IT Asset Configuration Management (CMDB) – this includes the population of data center, network/storage & applications assets that support core City infrastructure & services such as eMerge & FSP
- Demand Management – this will enable DT to gather and assess work requests to ensure alignment with prioritized, strategic goals & to understand how the additional work impacts our ability to meet ongoing operational commitments and existing projects

Schedule

ITSM phase 2 is in planning with work anticipated to begin in July 2017 and continue through approximately February 2018

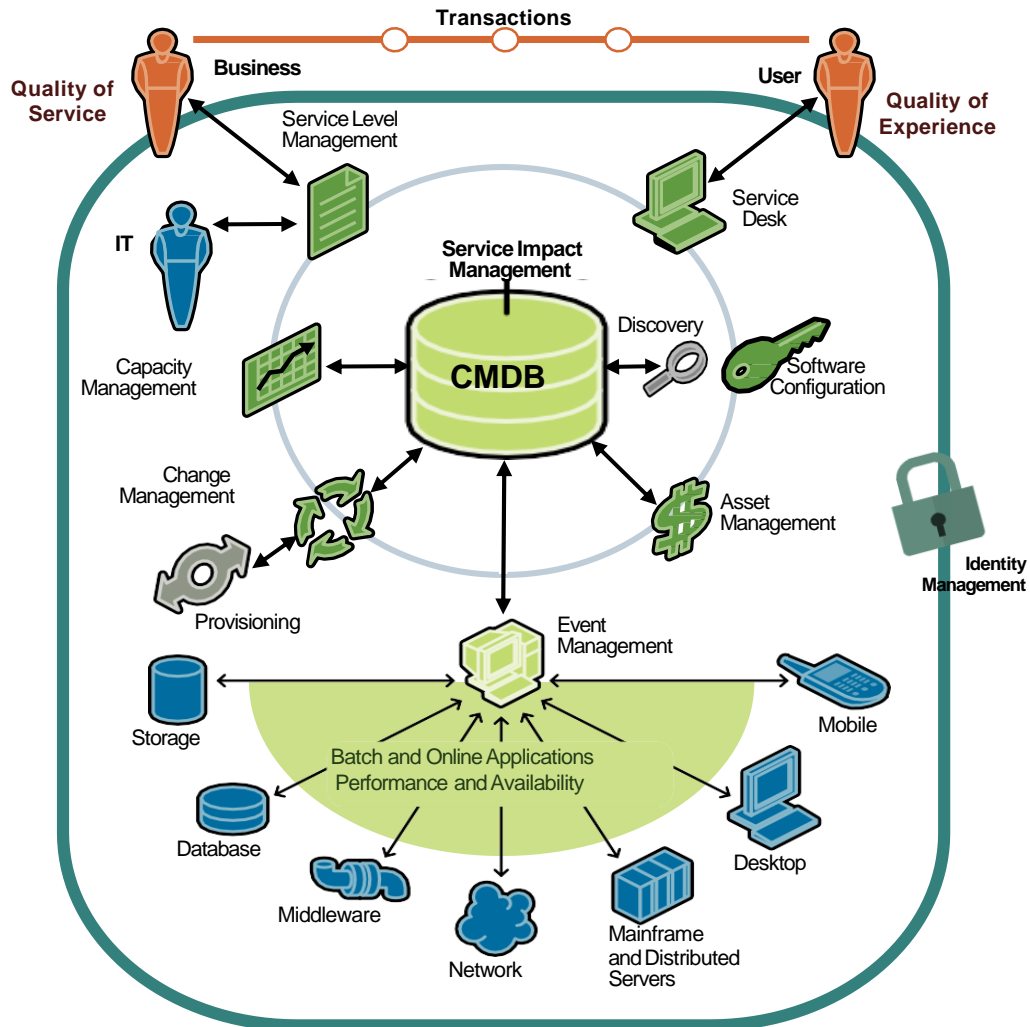
Risks

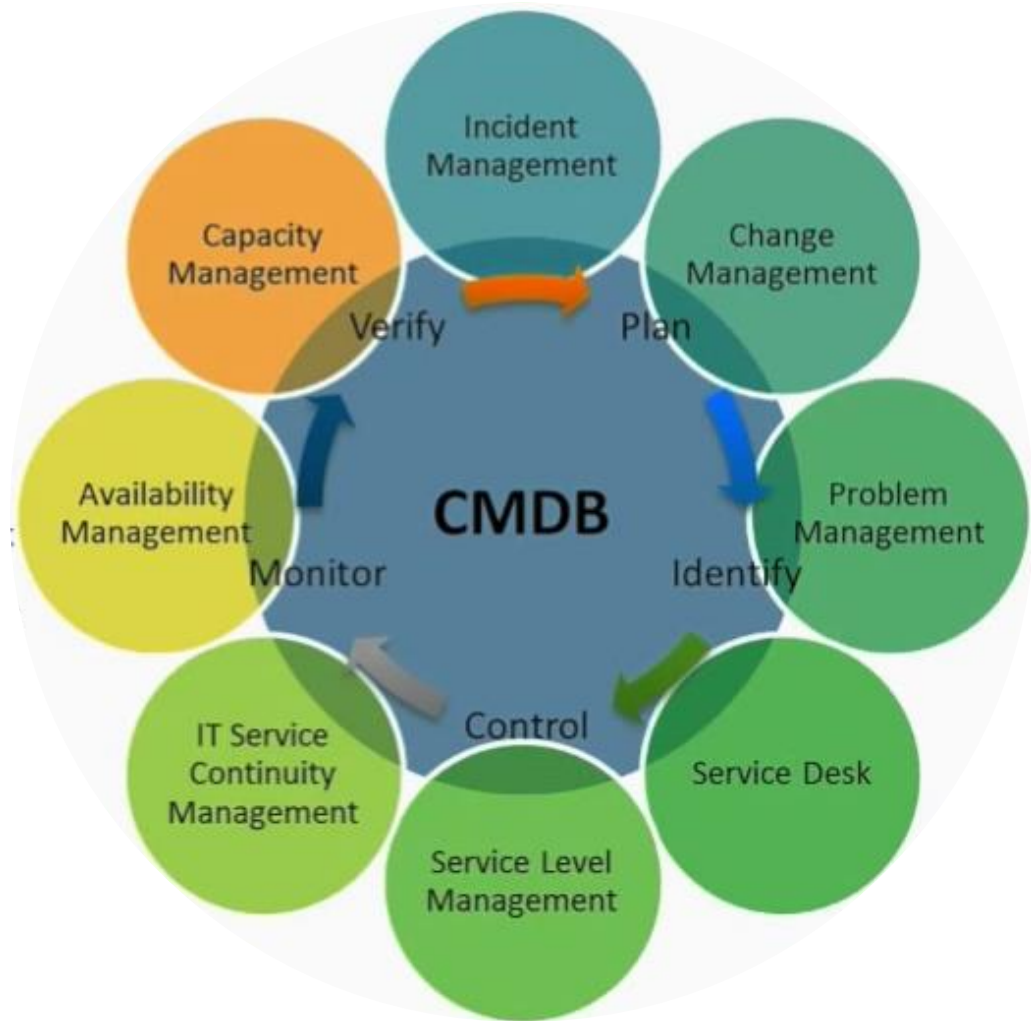
TBD



DT – IT SERVICE MANAGEMENT (ITSM)

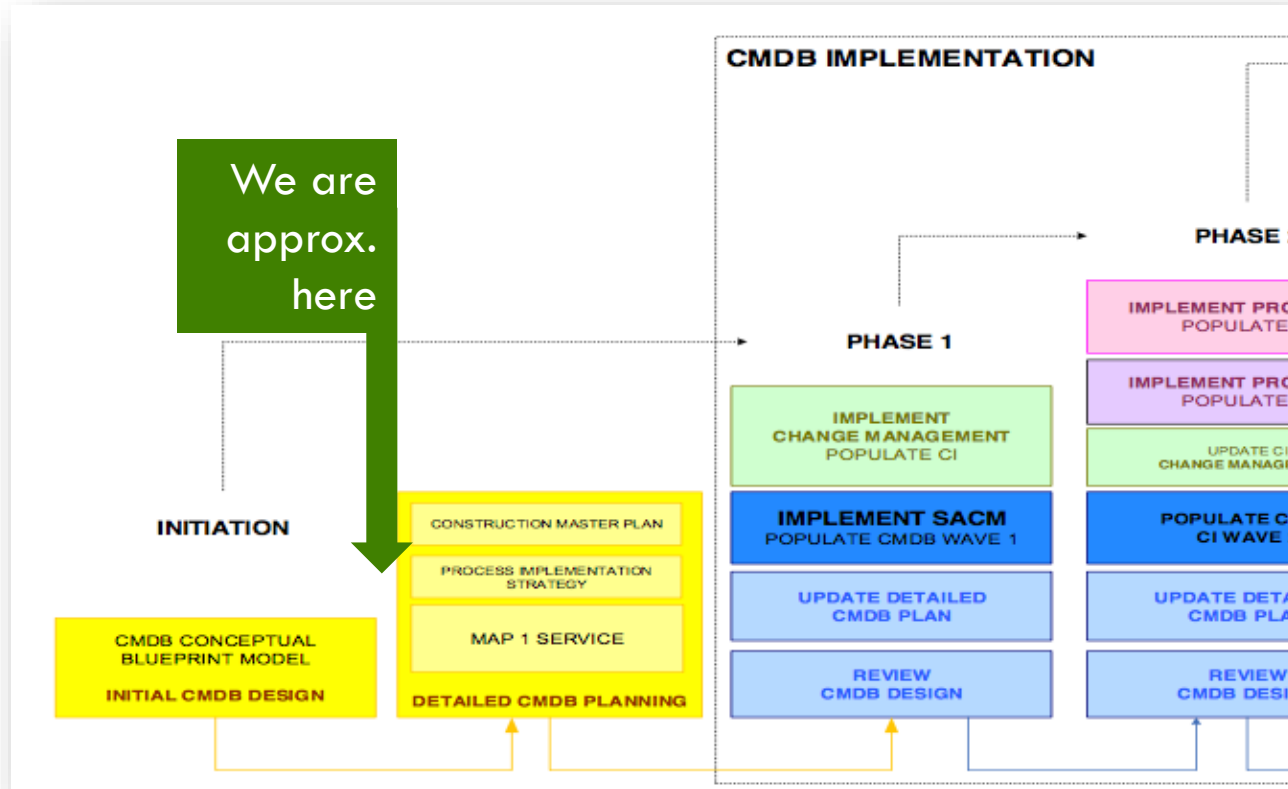
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DT – ITSM PHASE 2

DEMAND & RESOURCE MANAGEMENT



QUESTIONS?

PDR – GIDEON (PDR JUSTIS INTEGRATION)

Project Objective:

Create a desktop and mobile application to maximize efficiency, increase the quality of legal representation, and deliver uniform criminal justice data through 1) workflow automation between the defense team, 2) electronic-scanned document integration and 3) work product data repository.

Major Stakeholders:

City Administrator - JUSTIS Project Sponsor
San Francisco Superior Court
District Attorney
Sheriffs Department
Police Department
Adult Probation Department

PDR – GIDEON (PDR JUSTIS INTEGRATION)

Problem Definition:

Lack of real-time and inefficient collaboration between the defense team because work requests are done via paper and work product is stored in separate files with duplicate copies of the same document held by each member of the team.

Delayed insight into the Department's performance because reports can only be obtained through time consuming and labor intensive hand-counts and self-reports.

Incomplete and inconsistent criminal justice data because the data is either not provided by law enforcement or needs to be provided by the Public Defender to ensure a more complete and balanced picture of criminal justice in the City.

PDR – GIDEON (PDR JUSTIS INTEGRATION)

Project Implementation Stages/Phases


	Phase 1	Phase 2	Phase 3	Phase 4
Dates:	2014	2016	2018	2019
Description:	Gideon Connection to JUSTIS Hub Data Exchange Between Hub and Gideon	Scanned Documents and Media Integration Client ID Consolidation	Document Management Digital Access In Court and On Field Workflow Management	Outcomes and Performance Measurements. Reports

PDR – GIDEON (PDR JUSTIS INTEGRATION)

Project Budget	FY 17-18	FY 18-19
Number of FTE	-	-
FTE Classifications	-	-
Salary & Fringe	-	-
Software	-	-
Hardware	-	-
Professional Services	\$125,000	\$125,000
Materials & Supplies	-	-
Total Project Cost	\$125,000	\$125,000

PDR – GIDEON (PDR JUSTIS INTEGRATION)

Total Project Cost	Total COIT Funding To Date	Total Other GF Funding	Total NGF Funding	Total NGF + GF Funding	Total Spent
\$675,000	\$250,000	\$425,000	-	\$675,000	675,000\$

	Status	Comment
Scope		Remains unchanged.
Schedule		60% Complete.
Budget		Figures above represent total development costs since 2003. Between 2003 and 2014, costs averaged \$32K/year.

Risks	Development resources uncertain.
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QUESTIONS?

ART — SALESFORCE DATABASE

Project Objective:

Increase efficiency and accuracy of data collection, analysis, and reporting between Arts Commission internal and external stakeholders through the replacement of multiple outdated databases and strategic connection of legacy systems.

Major Stakeholders:

Arts Commission
COIT
Department of Technology
Office of Small Business

ART — SALESFORCE DATABASE

Problem Definition:

The Arts Commission currently utilizes 9 databases many of which are out of date and unsupported. The majority of data is collected in isolated excel spreadsheets. Current processes require intense by-hand updating with little to no automation. This leads to dual data entry, a lack of analysis capabilities, inaccurate reporting, and delayed responses to data requests to internal and external stakeholders.

ART — SALESFORCE DATABASE

Project Implementation Stages/Phases

	Phase 1	Phase 2	Phase 3	Etc...
Dates:	FY17-18	FY-18-19	FY-19-20	FY20-21
Description:	Initial consolidation of data; create and implement solutions for phase 1 programs; Database manager staff person identified	Implement solutions for phase 2 programs; on-going software costs	On-going software costs; Increasing staff capabilities with the help of staff appointed- Database manager	On-going software costs

ART — SALESFORCE DATABASE

Project Budget	FY 17-18	FY 18-19
Number of FTE	-	-
FTE Classifications	-	-
Salary & Fringe	-	-
Software	10,000*	10,000*
Hardware	-	-
Professional Services	90,000	-
Materials & Supplies	-	-
Contingency	20,000	-
Total Project Cost	120,000	10,000

*on-going cost

QUESTIONS?

DT – CITYWIDE VOIP

Project Objective:

The objective of this project is to replace the current telephone system infrastructure Citywide with a Unified Communication Phone System, also known as Voice over Internet Protocol (VoIP).

The project will convert 36,000 CCSF phone lines from 100 telephone systems to on premise VoIP telecommunication technology platform (unified communications and collaboration tools); implement enterprise Contact Center system(s) for departments requiring advanced technical features, survivable gateways for departments requiring very high availability, while reducing overall ongoing telecommunication costs over time.

Problem Definition:

The City's 100 telephone systems are aging and costly to maintain with 75% reaching end of life and end of support within the next 5 years. This project will solve the issue of Citywide aging equipment, reducing the number of standalone public branch exchange (PBX) systems and individual maintenance plans and allow the Department of Technology to manage the VoIP system from a single centralized system.

Major Stakeholders:

All CCSF Departments City wide (excluding DPH, SFMTA, SFO)

DT – CITYWIDE VOIP

Background – Current Telephony Environment

- Today DT supports a large number of PBX and CENTREX phone systems representing over 36,000 phones, FAX systems, modems, etc.
- The City and County has contracts with over 25 service providers (includes AT&T and other carriers).
- A significant portion of the current fleet of Avaya PBX systems are no longer supported by the vendor and are reaching the point of obsolescence.
- As a result, DT is proposing the implementation of a shared service VOIP system to serve all departments and provide a replacement for aging PBX systems (**excludes DPH, SFMTA, SFO**).

DT – CITYWIDE VOIP







What is the long term vision for VoIP?

DT is proposing to offer high availability enhanced VoIP Telephony and Collaboration Services via a citywide shared service.

- VoIP Telephony services will be delivered from DT data centers.
- The service offerings will bundle in unlimited local and long distance calling, while actual cost for international calls will continue to be charged back to the departments on a pass-through basis (i.e., billing will be SIP-based).
- Survivability and basic call center functionality (ACD/IVR) will be provided separately as optional service offerings.

DT – CITYWIDE VOIP

DT Considered Multiple Alternatives

	Cloud Vision	Hybrid Vision	On-Premise Vision
Basic Telephony	<p>Cloud-Based</p> 	<p>Premise-Based</p> 	<p>Premise-Based</p> 
Call Center		<p>Cloud-Based</p> 	

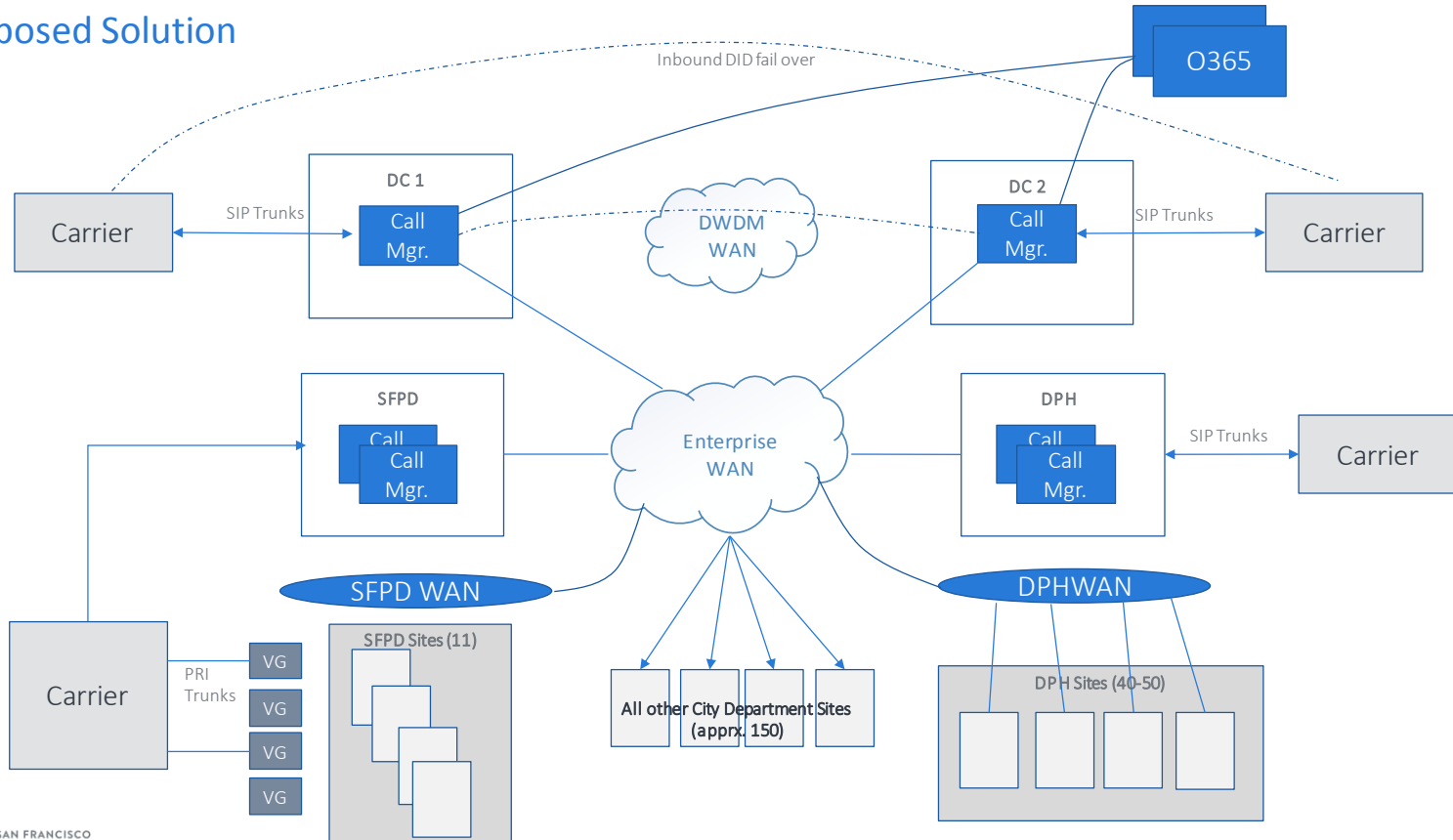
DT issued an RFP to determine available alternative VoIP solutions:

- Cloud Solution
- POCs with Interactive and Cisco completed

Cloud solutions of the size of the City and County of San Francisco are not proven
 Cost for cloud solution is much higher than an in-house premise based solution

DT – CITYWIDE VOIP

Proposed Solution

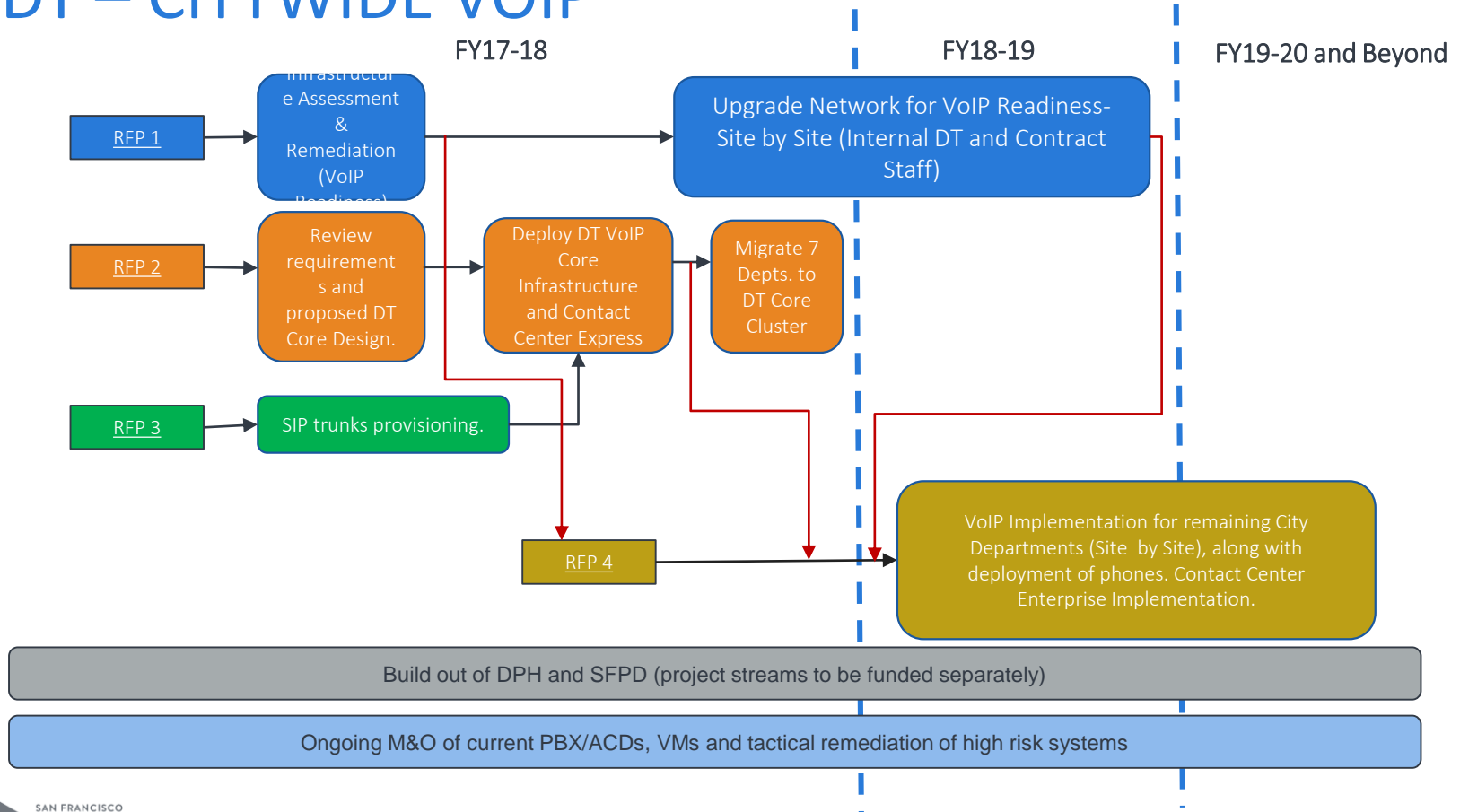


DT – CITYWIDE VOIP

Key Benefits of the Proposed Citywide Strategy

- Mitigates technology obsolescence and vendor viability risks highlighted by the Controller and departments
- Lowers telecom expenses and consolidates unified communications infrastructures
 - Reduction in cost of off-net calls (calls between City and County sites will be routed over the WAN)
- Centralized management and self-service Moves, Adds, and Changes reduces complexity and improves timeliness
 - Reduction in cost of Moves, Adds and Changes
 - Reduction in requirements for vehicles, gas and time spent in the field
- Provides redundant call managers, WAN connections and survivability option
- Increased mobility and flexibility - telecommuting, choice of phone sets, email integration with voicemail

DT – CITYWIDE VOIP



DT – CITYWIDE VOIP

Project Budget (Estimated)	Approved FY 16-17	Request FY 17-18	FY 18-19	FY 19-20	FY20-21	FY21-22
Number of FTE		-	-			
FTE Classifications		-	-			
Salary & Fringe		-	-			
Software		\$420,000	\$594,000	\$350,000	\$350,000	\$350,000
Hardware		\$512,500	\$1,529,744	\$590,000	\$487,500	\$385,000
Professional Services		\$2,200,000	\$3,000,000	\$2,700,000	\$2,700,000	\$2,700,000
Materials & Supplies		\$120,000	\$270,000	\$250,000	\$100,000	\$100,000
Total		\$3,252,500	\$5,393,744	\$3,890,000	\$3,637,500	\$3,535,000
COIT Ask	\$1,900,000	\$0	\$3,721,683	\$2,684,000	\$2,510,000	\$2,439,000
Balance	\$1,747,161					

- VoIP Phones/ Licenses, Contact Center Licenses and Site Survivability enhancement not included.
- DPH VoIP upgrade to be funded separately.
- Excludes MTA, E911 and SFO
- Does not include Equipment estimate for LAN Upgrade.

QUESTIONS?

| City Websites

DT: SF Digital Service & Products



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TECHNOLOGY

7. Public Comment
