Committee on Information Technology

Regular Meeting
February 2, 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 January 5, 2018
4. Department Updates and Announcements
5. Analysis of FY 2018-19 & FY 2019-20 COIT Budget Requests
6. Data Strategy and Architecture Principles (DataSF)
7. Data Warehousing & Business Intelligence (Human Services Agency)
8. Whole Person Care (Department of Public Health)
9. Public Comment
10. Adjournment

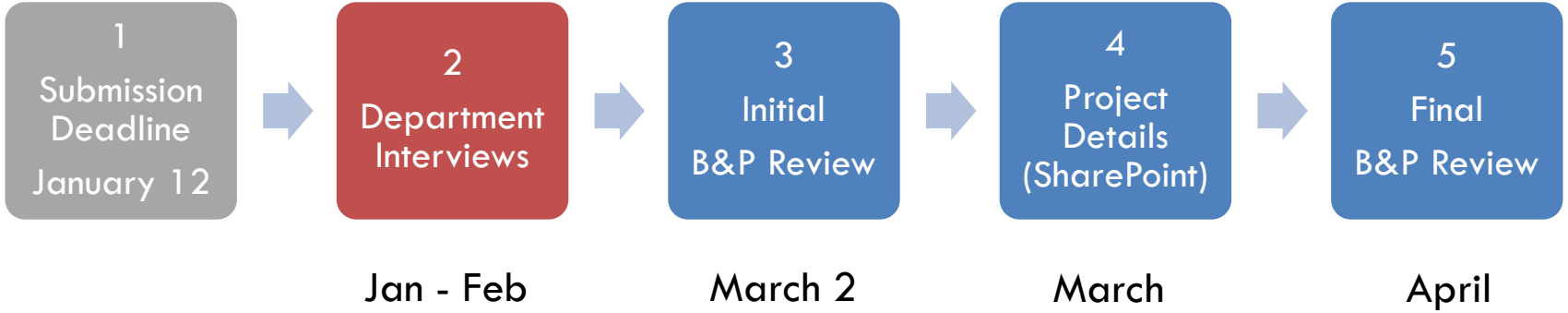
3. Approval of Minutes

Action Item

4. Department Updates & Announcements

5. Analysis of FY 2018-19 & FY 2019-20 COIT Budget Requests

Overview of Budget Process



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 Projects

	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
PATS	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 2017-18 Recommendations

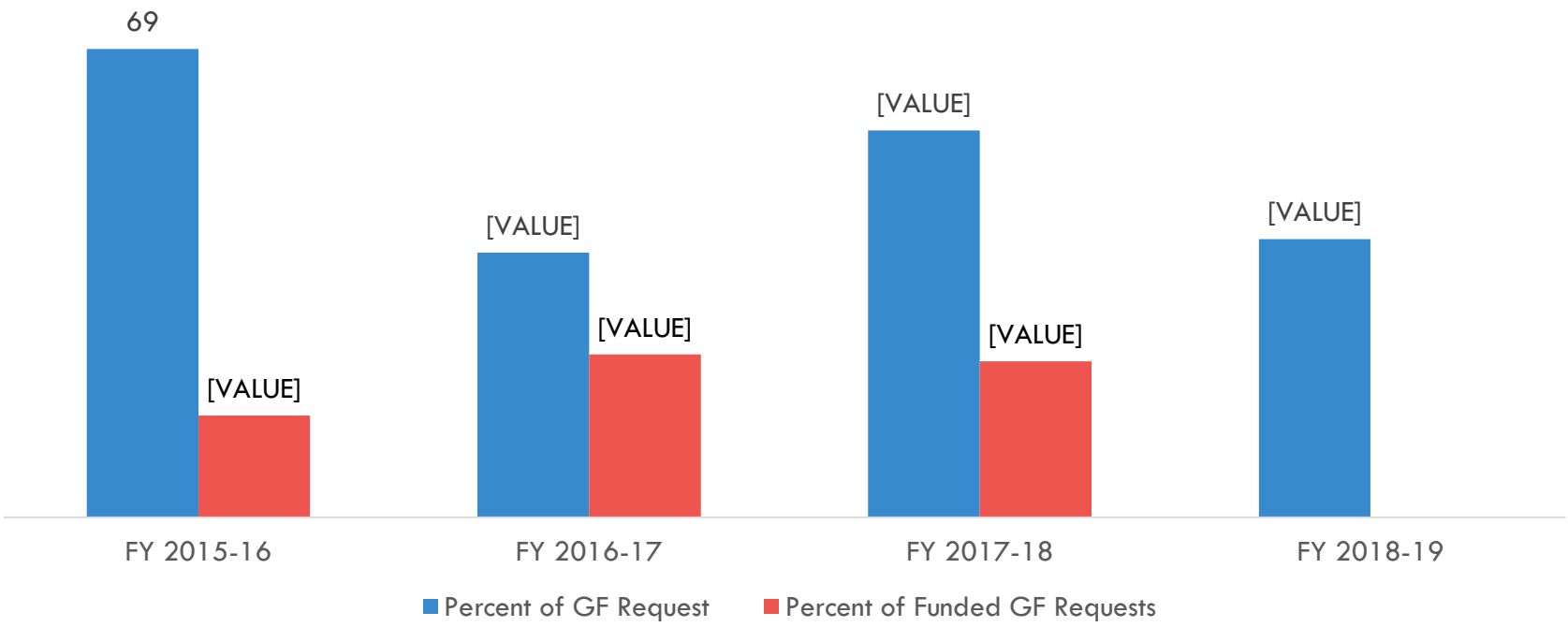
	FY 2018-19
Annual Allocation	**12.8**
ADM - City ID System Upgrade	0.02
CON - HCM PeopleSoft Image Upgrade	0.2
CON - Employee Gateway	0.02
CON - Learning Management	0.02
DEM - Floor Expansion	0.5
DHR - Employee Training Pilot	0.1
DT - Upgrade the Network	0.6
Remainder	**11.2**

General Fund Request 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	66	44.8	21.8	11.2	(10.6)

* All figures shown in $ million.

Funding Requests Comparison

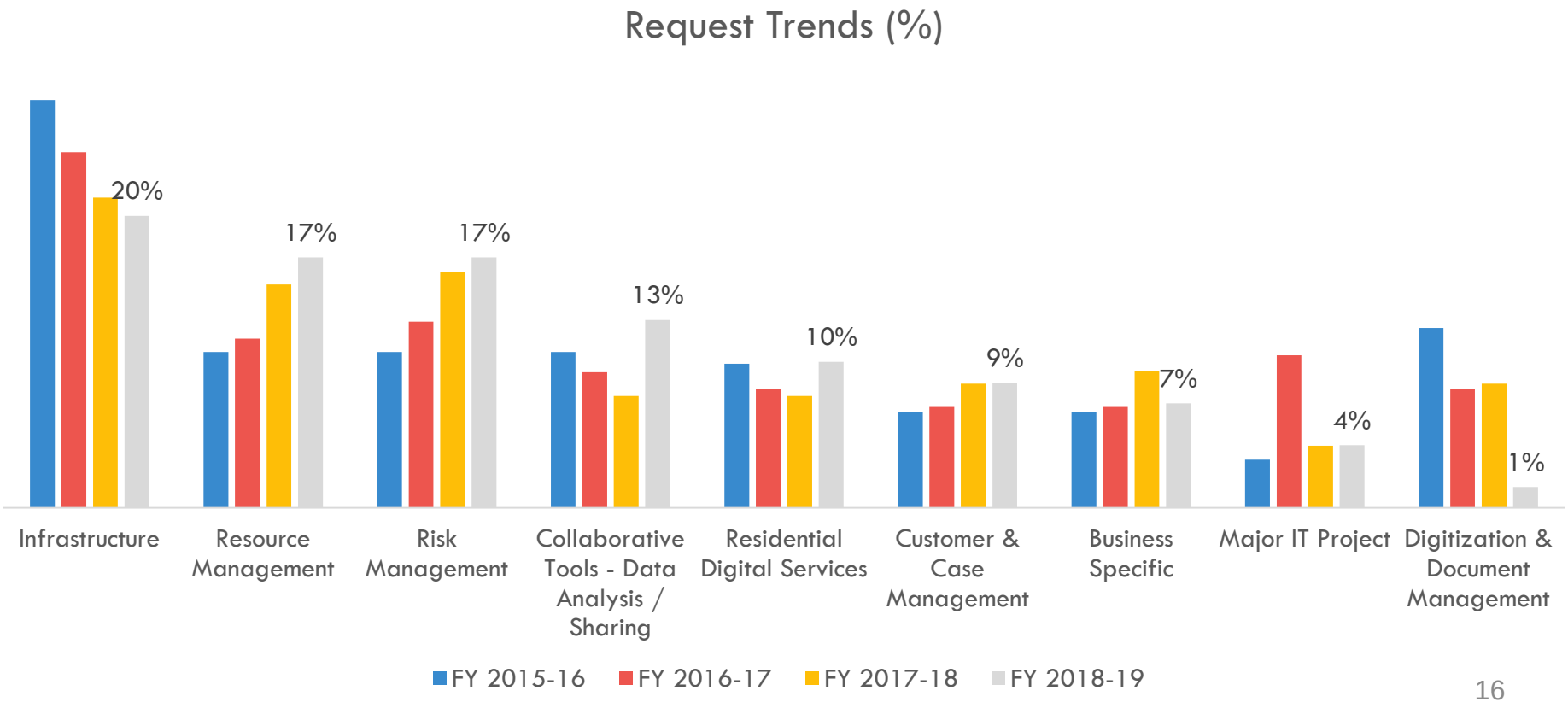


Functional Category

Fiscal Year (FY)	Enhancement	Maintenance	New	Replacement
FY 2015-16	34% (39)	6% (7)	41% (48)	19% (22)
FY 2016-17	37% (36)	4% (4)	36% (35)	23% (22)
FY 2017-18	51% (61)	5% (6)	21% (25)	23% (27)
FY 2018-19	45% (30)	0% (0)	26% (17)	29% (19)

Theme	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Business Specific	8	6	11	5
Customer & Case Management	8	6	10	6
Digitization & Document/Records Management	15	7	10	1
Infrastructure: Network & Data Centers	34	21	25	14
Major IT Project	4	9	5	3
Residential Digital Services	12	7	9	7
Resource Management	13	10	18	12
Risk Management: Cybersecurity & Business Continuity	13	11	19	12
Staff Collaborative Tools - Data Analysis / Data Sharing	13	8	9	9

Request Themes



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

Timeline: January 31 – February 16

Purpose:

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

Survey Areas:

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

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

Data Infrastructure:

Use Cases and Architecture

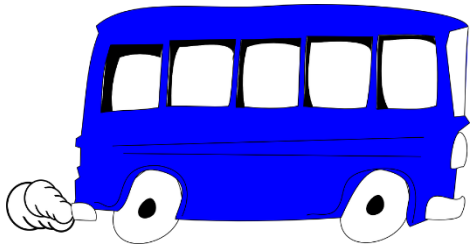
Joy Bonaguro
Chief Data Officer
City and County of San Francisco
COIT Subcommittee, Feb 2, 2018

Agenda

- Data infrastructure use cases
- Architectural choices (within and between)
- Benefits of a strategy

DI Use Case: Move and process data between systems

City database or application



Data “Bus” processes and moves data around

City database or application

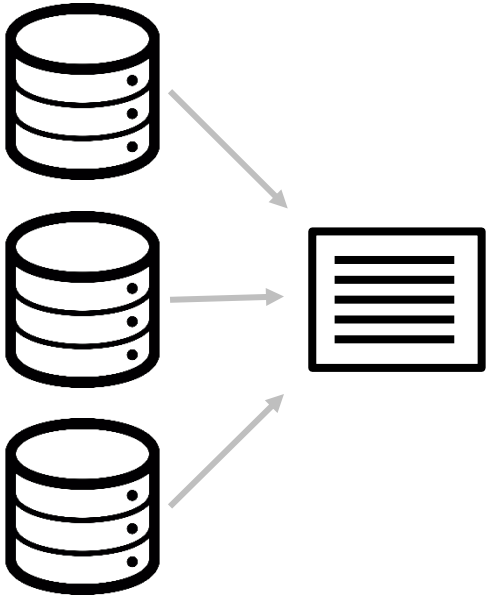
Mobile device

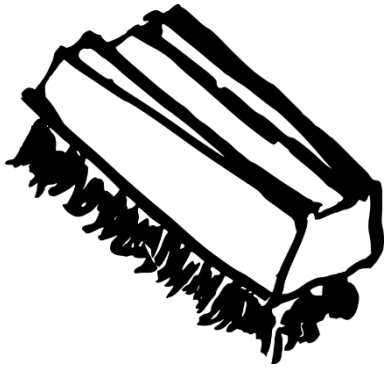
GPS recorder

Anything with a network connection

DI Use Case: Store data for use

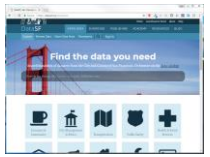
City databases
and applications





Data warehouse

Data lake



OD portal

TIMESCALE

Specialized stores

API

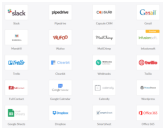
Table views

FTP

FTP drop

tableau

BI tools



Web connectors

Data cube

S1 Connect and extract data from source systems

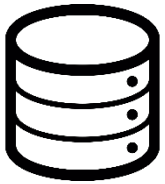
S2 Clean and prepare data

S3 Store data

S4 Provide access

DI Use Case: Monitor data quality

City data store



Database

Results Browser

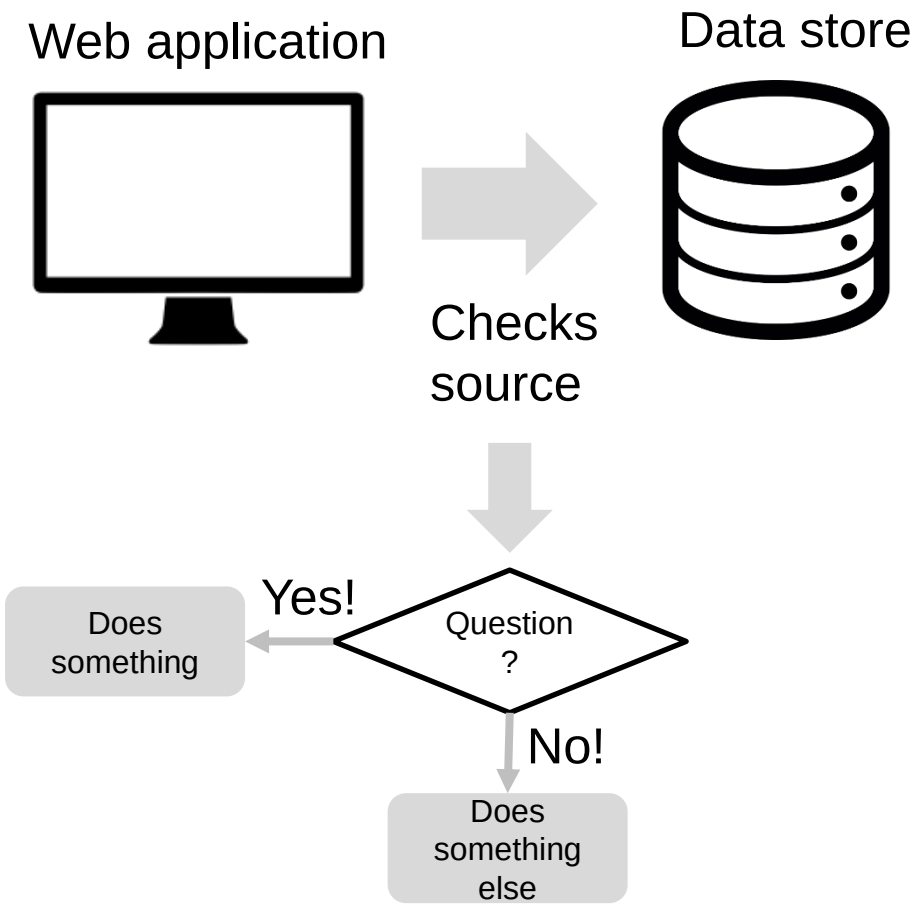
Job: US Customer Data Profiling

Input Field	Total Number	Minimum Length	Maximum Length	Minimum Value	Maximum Value
ID	5438	9	9	AAC434152	ZZZ642455
Name	5438	11	39	Anne Mullen	de Chana, Sergio Marques
Street	5438	2	41	# 3 Riverdrive Rd. East	Wilson & Kirk Road
City	5438	3	20	ABERDEEN	waterloo
State	5438	2	2	AB	WY
ZIP	5438	4	10	01801-6202	n2j4a9
Country	5438	1	13		United States
Phone	5438	1	25	(113) 072 3578	x
Cell	5438	4	14	(113) 575 3765	9978 158
Work	5438	4	28	(113) 007 6029	x7562
eMail	5438	16	35	Aaron.A.Koontz@thu.com	zoi.gibso@snomail.com
DoB	5438	19	19	Jan 1, 1900 12:00:00 AM	Mar 29, 2007 12:00:00 AM
Gender	5438	1	1	F	U
Active	5438	1	1	0	Y
CreditLimit	5438	1	5	0	32800
StartDate	5438	19	19	Apr 1, 2006 12:00:00 AM	Apr 1, 2009 12:00:00 AM
EndDate	5438	19	19	Apr 1, 2008 12:00:00 AM	Apr 1, 2014 12:00:00 AM

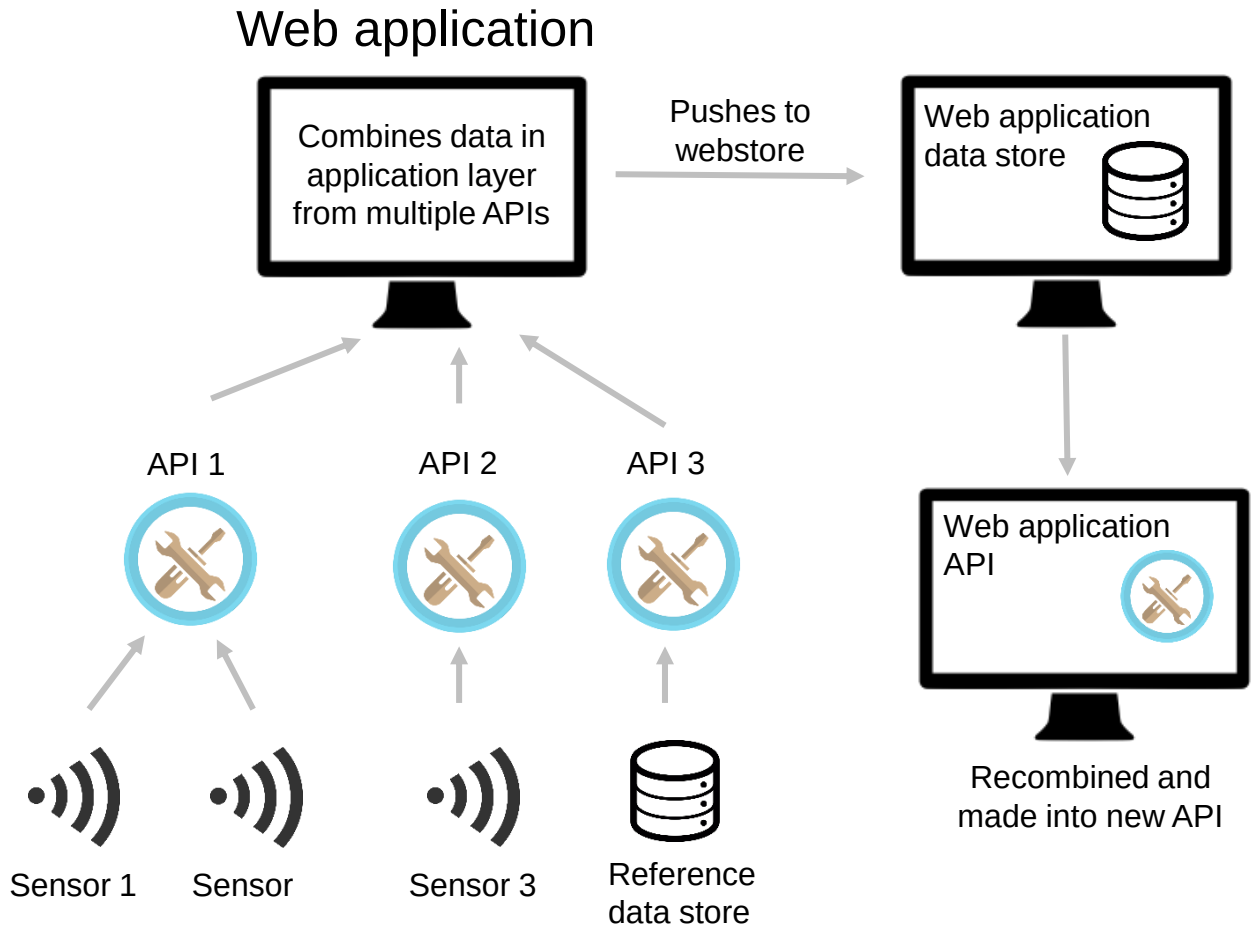
Min and Max Profile | Data

DI Use Case: Consume data from or check against a source

E1 Simple yes/no check

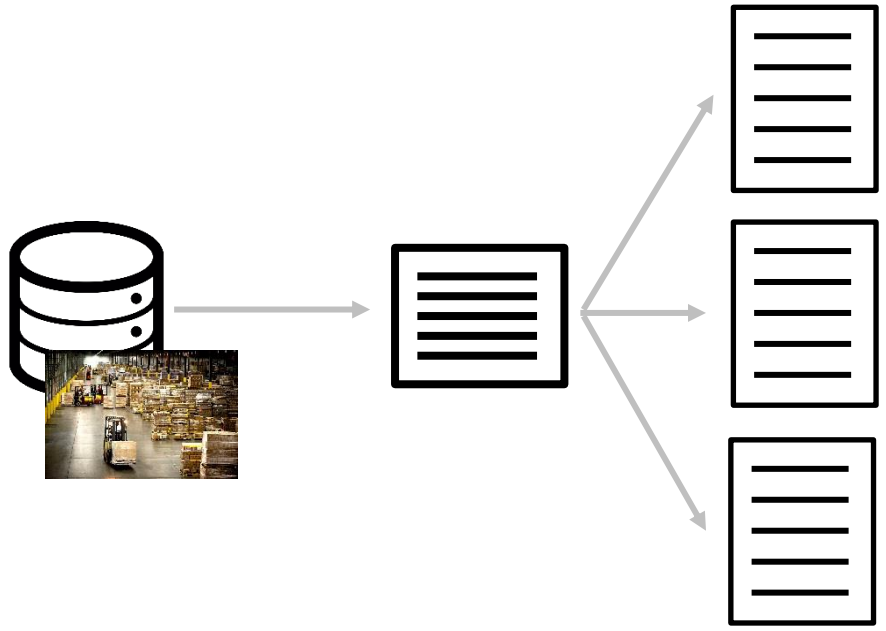


E2 Complex



DI Use Case: Visualize data and KPIs, create dashboards

O1 Centrally structured, codified, controlled, slow



Traditional data warehouse

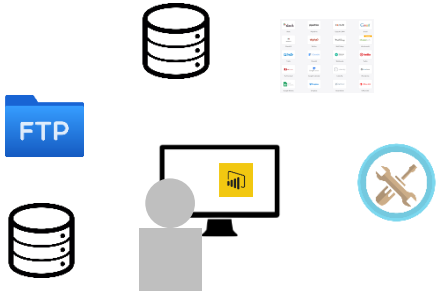
Structured, controlled queries, views

Fixed, standard reports

O2 Self-service, dynamic, ad hoc, fast

1 external source

CSV on desktop



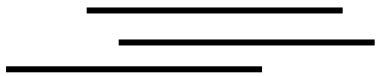
Anything and everything

Locally trusted stores

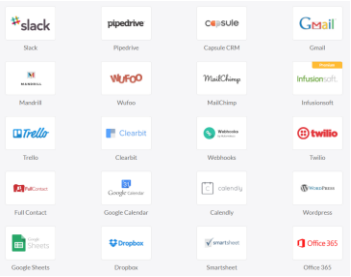
Within each DI use case, there are architectural choices, at a minimum…

Warehoused vs virtualization

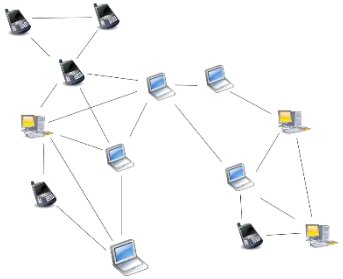
Streaming versus batch



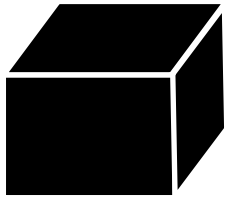
Kitchen sink vs lightly coupled commodity co



Central versus distributed



Low versus high volume

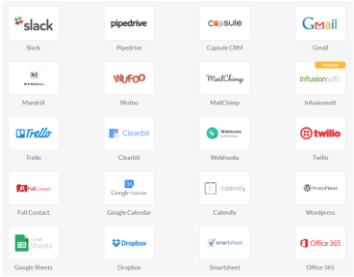


Between DI use cases, earlier choices can restrict downstream choices

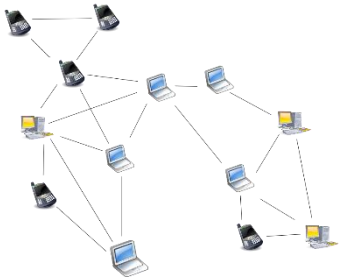
Warehoused vs virtualization

Streaming versus batch

Kitchen sink vs lightly coupled commodity co



Central versus distributed



Low versus high volume

Right now. We are making choices that will affect our downstream capacity and flexibility.

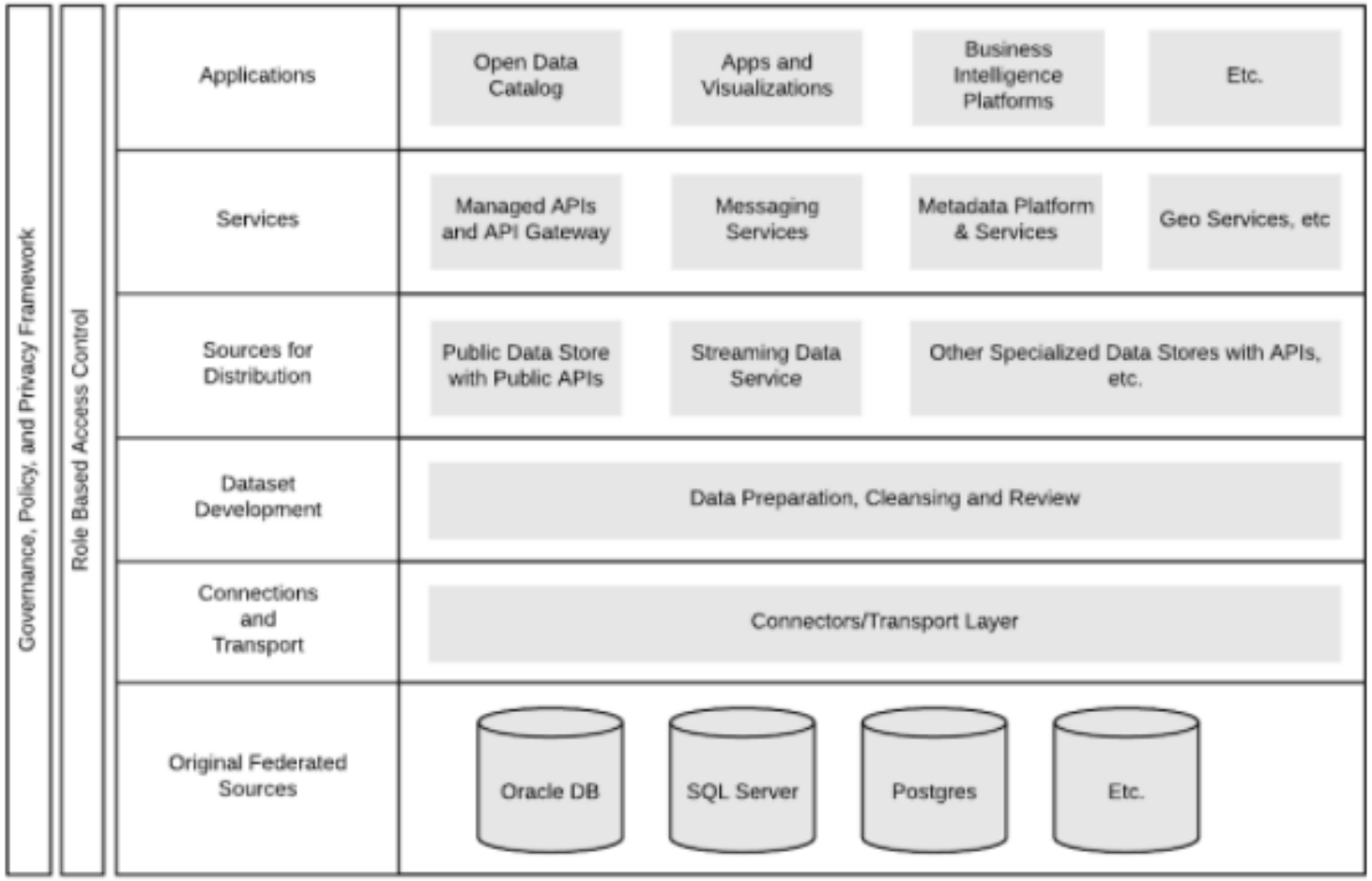
Why we need a conscious data infrastructure strategy

- Improvements in data consistency and quality
- Faster, easier access to data
- Better controls and security
- Data sharing and interoperability between datasets
- Integrated data across departments
- Faster development of digital and web services
- Data analytics and more advanced data science
- New and novel data services

Benefits to different groups

Audience	Benefit
Developers and IT staff	Decrease in technical and development time to create applications, integrations and services
COIT and department budget staff	Decrease in costs for applications and services
Analysts, data users, ShareSF committee	More time and resources for conducting analysis and evaluation → better services and outcomes
Voters, program staff, executives	Better decisions and services

A possible reference architecture



Data, for the love of the City

THANK YOU

@datasf | datasf.org |datasf.org/blog

Data profiling

APPENDIX

DataSF aside: We've profiled every published dataset

Results for "dataset profi | Dataset Profiles | DataSF | DataSF/datasf-profiler: A | Field Profiles | DataSF | C

Secure | https://data.sfgov.org/City-Management-and-Ethics/Dataset-Profiles/w6q6-i3uv/data

SFGov Coordinator's Portal About Help

DataSF

OPEN DATA SHOWCASE PUBLISHING ACADEMY RESOURCES BLOG

Explore Browse Data Open Data Stats Developers Sign In

Unsaved View Save As... Revert

Based on Dataset Profiles

Data profiling information about the published datasets on the DataSF open data portal

Find in this Dataset

Manage More Views Filter Visualize Export Discuss Embed About

	datasetID	nbeID	Dataset Name	Record Count	Field Count	Text Count	Numeric Count	Boolean Count	Timestamp Count	Time Count	Blob Count	Point Count	Multipoint Count
1	ugv9-ywu3	jm7t-cxih	Requests for Inform	0	9	6	1	0	1	0	0	1	
2	evrp-pcmc	ixti-hd8i	SF Development Pi	0	36	10	21	0	4	0	0	1	
3	5x94-tptc	2m8w-pcrn	Citywide Performan	0	28	19	9	0	0	0	0	0	
4	fv2q-qaux	tkr2-mzci	SF Development Pi	0	47	20	22	0	4	0	0	1	
5	g383-7xmf	fq62-z4pc	SF Development Pi	0	38	16	21	0	0	0	0	1	
6	9gib-7p8x	tvzs-7ny6	Campaign Finance	326	5	1	2	0	2	0	0	0	
7	uvqv-zi4r	at7t-h47m	Campaign Finance	11	3	2	0	0	1	0	0	0	
8	ct8k-kggq	5fhb-zfhq	Campaign Finance	16	4	2	1	0	1	0	0	0	
9	dbak-p2fq	cxzm-yqbr	Campaign Finance	175	7	2	2	0	3	0	0	0	
10	ani6-nqh6	46s5-6kik	Campaign Finance	1,030	20	13	3	0	4	0	0	0	
11	hsxb-ci7b	9zyf-rakh	Annual Allowable R	0	2	0	1	0	1	0	0	0	
12	m2tk-75a5	nmmt-sreg	Campaign Finance	0	2	2	0	0	0	0	0	0	
13	hxup-t2n6	h2ky-3rra	SF Development Pi	0	51	24	24	1	1	0	0	1	
14	sz7b-c3pn	xd4p-b99r	Lobbyists on Behalf	0	7	1	0	1	4	0	1	0	
15	t2mb-q3sb	23ua-gffn	Campaign Finance	0	3	2	1	0	0	0	0	0	
16	xr4w-bx78	v794-ecam	2014 SFO Custome	2,818	94	13	81	0	0	0	0	0	
17	3g5j-aamw	sum3-jt5y	2010 SFO Custome	3,234	100	9	90	0	0	0	0	1	
18	6h3c-wyfe	v2sq-ht9x	2015 SFO Custome	2,958	88	7	81	0	0	0	0	0	
19	t3vr-buhp	qee7-2885	2016 SFO Custome	3,087	97	12	84	0	1	0	0	0	

Terms of Use | Socrata Privacy Policy

Made with ♥ in San Francisco

DataSF aside: And every published field

Results for "dataset profi | Dataset Profiles | DataSF | DataSF/datasf-profiler: A | Field Profiles | DataSF | C

Secure | https://data.sfgov.org/City-Management-and-Ethics/Field-Profiles/ekxv-883u/data

SFGov Coordinator's Portal About Help

DataSF

OPEN DATA SHOWCASE PUBLISHING ACADEMY RESOURCES BLOG

Explore Browse Data Open Data Stats Developers Sign In

Unsaved View Save As... Revert

Based on Field Profiles

Data profiling information about the published fields on the DataSF open data portal

Find in this Dataset

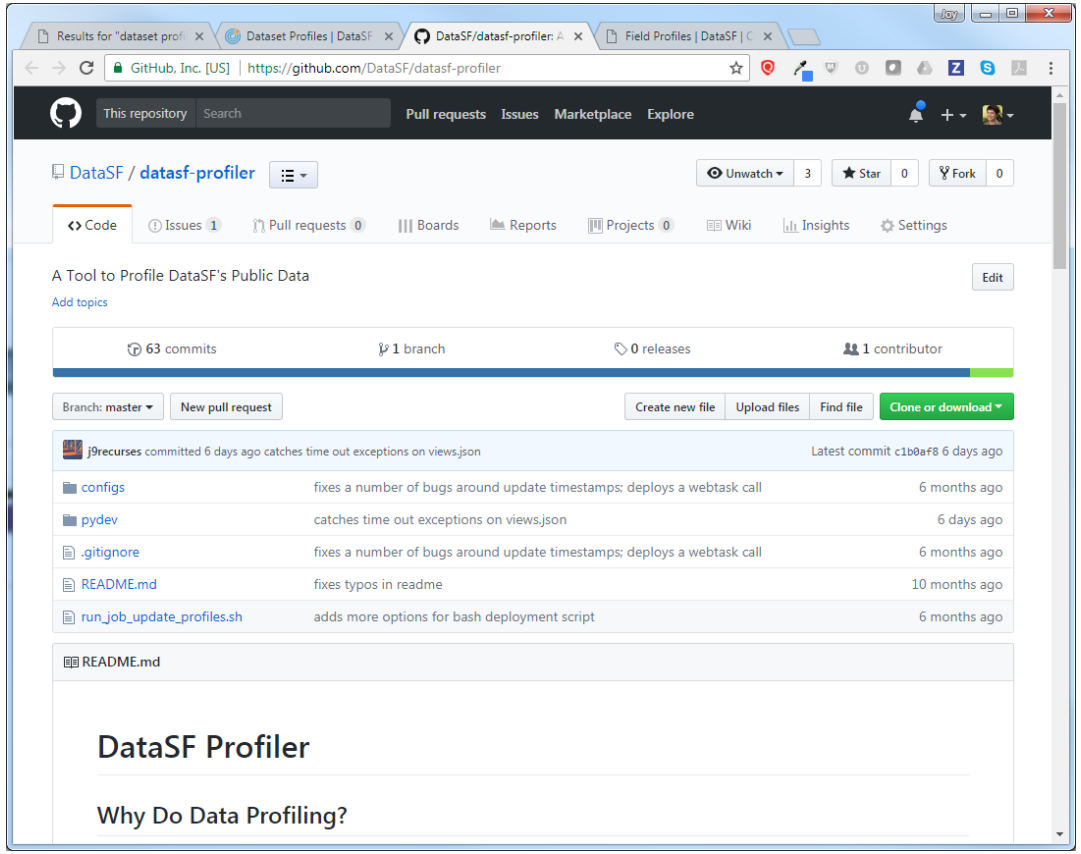
Manage More Views Filter Visualize Export Discuss Embed About

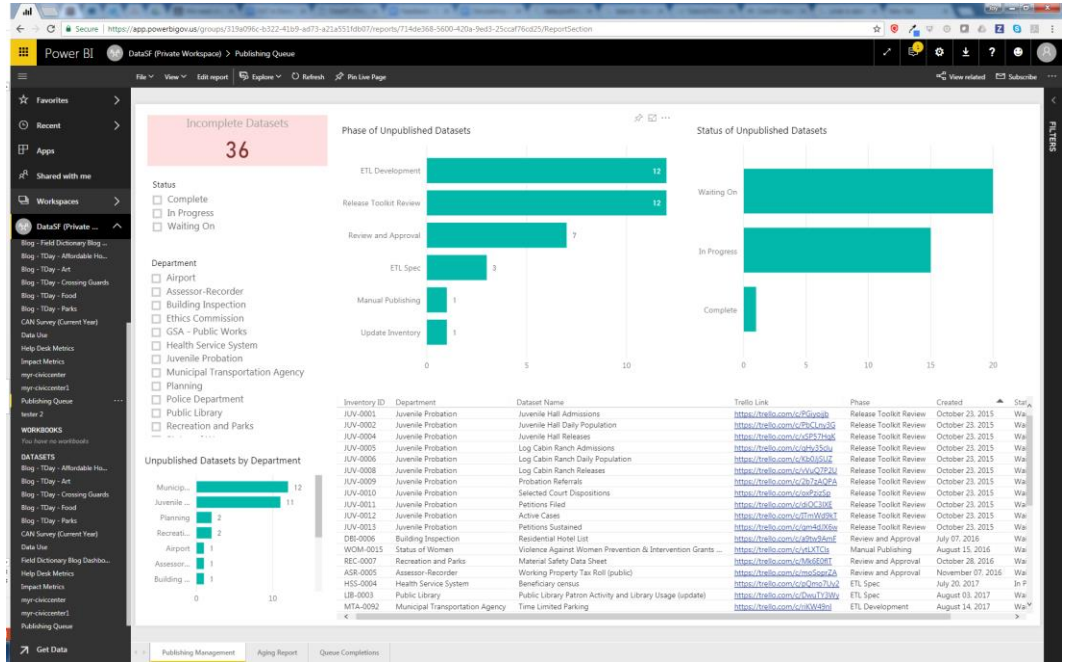
	columnID	Dataset Name	datasetID	Field Name	Field Type	Total Count	Null Count	Missing Count	Actual Count	Cardinality	Completeness	Distinctness	Uniqueness
1	aaxw-2cb8_project_type	Affordable Housing Pipeline	aaxw-2cb8	Project Type	text	299	0	0	299	3	100%	1.003%	
2	aaxw-2cb8_project_status	Affordable Housing Pipeline	aaxw-2cb8	Project Status	text	299	0	0	299	6	100%	2.007%	
3	aaxw-2cb8_recording_number	Affordable Housing Pipeline	aaxw-2cb8	Recording Number	text	299	220	0	79	79	26.42%	100%	
4	aaxw-2cb8_supervisor_district	Affordable Housing Pipeline	aaxw-2cb8	Supervisor District	text	299	0	0	299	11	100%	3.679%	
5	aaxw-2cb8_street_type	Affordable Housing Pipeline	aaxw-2cb8	Street Type	text	299	33	0	266	9	88.96%	3.383%	
6	aaxw-2cb8_lead_agency	Affordable Housing Pipeline	aaxw-2cb8	Lead Agency	text	299	0	0	299	3	100%	1.003%	
7	aaxw-2cb8_planning_entitlements	Affordable Housing Pipeline	aaxw-2cb8	Planning Entitlemer	text	299	111	20	168	160	56.19%	95.238%	
8	aaxw-2cb8_recording_date	Affordable Housing Pipeline	aaxw-2cb8	Recording Date	timestamp	299	220	0	79	71	26.42%	89.873%	
9	aaxw-2cb8_issuance_of_building_per	Affordable Housing Pipeline	aaxw-2cb8	Issuance of Building	timestamp	299	209	0	90	82	30.1%	91.111%	
10	aaxw-2cb8_location	Affordable Housing Pipeline	aaxw-2cb8	Location	geometry: point	299	0	0	299	288	100%	96.321%	
11	aaxw-2cb8_project_id	Affordable Housing Pipeline	aaxw-2cb8	Project ID	text	299	0	0	299	299	100%	100%	
12	aaxw-2cb8_zip_code	Affordable Housing Pipeline	aaxw-2cb8	Zip Code	text	299	0	0	299	25	100%	8.361%	
13	aaxw-2cb8_entitlement_approval	Affordable Housing Pipeline	aaxw-2cb8	Entitlement Approva	timestamp	299	152	0	147	109	49.16%	74.15%	
14	aaxw-2cb8_tay_units	Affordable Housing Pipeline	aaxw-2cb8	TAY Units	numeric	299	0	295	4	3	1.34%	75%	
15	aaxw-2cb8_studio_units	Affordable Housing Pipeline	aaxw-2cb8	Studio Units	numeric	299	0	238	61	46	20.4%	75.41%	
16	aaxw-2cb8_project_units	Affordable Housing Pipeline	aaxw-2cb8	Project Units	numeric	299	0	0	299	174	100%	58.194%	
17	aaxw-2cb8_project_name	Affordable Housing Pipeline	aaxw-2cb8	Project Name	text	299	0	14	285	285	95.32%	100%	
18	aaxw-2cb8_street_number	Affordable Housing Pipeline	aaxw-2cb8	Street Number	text	299	26	0	273	239	91.3%	87.546%	
19	aaxw-2cb8_street_name	Affordable Housing Pipeline	aaxw-2cb8	Street Name	text	299	0	1	298	142	99.67%	47.651%	

Terms of Use | Socrata Privacy Policy

Made with ♥ in San Francisco

DataSF aside: Profiling scripts are open source and building a dashboard so publishers can easily track





Business Intelligence

Agenda

- BI Assessment
- BI Objectives
- Proposed BI Solution
- BI Milestones
- BI Team
- BI Vision
- Process Improvement

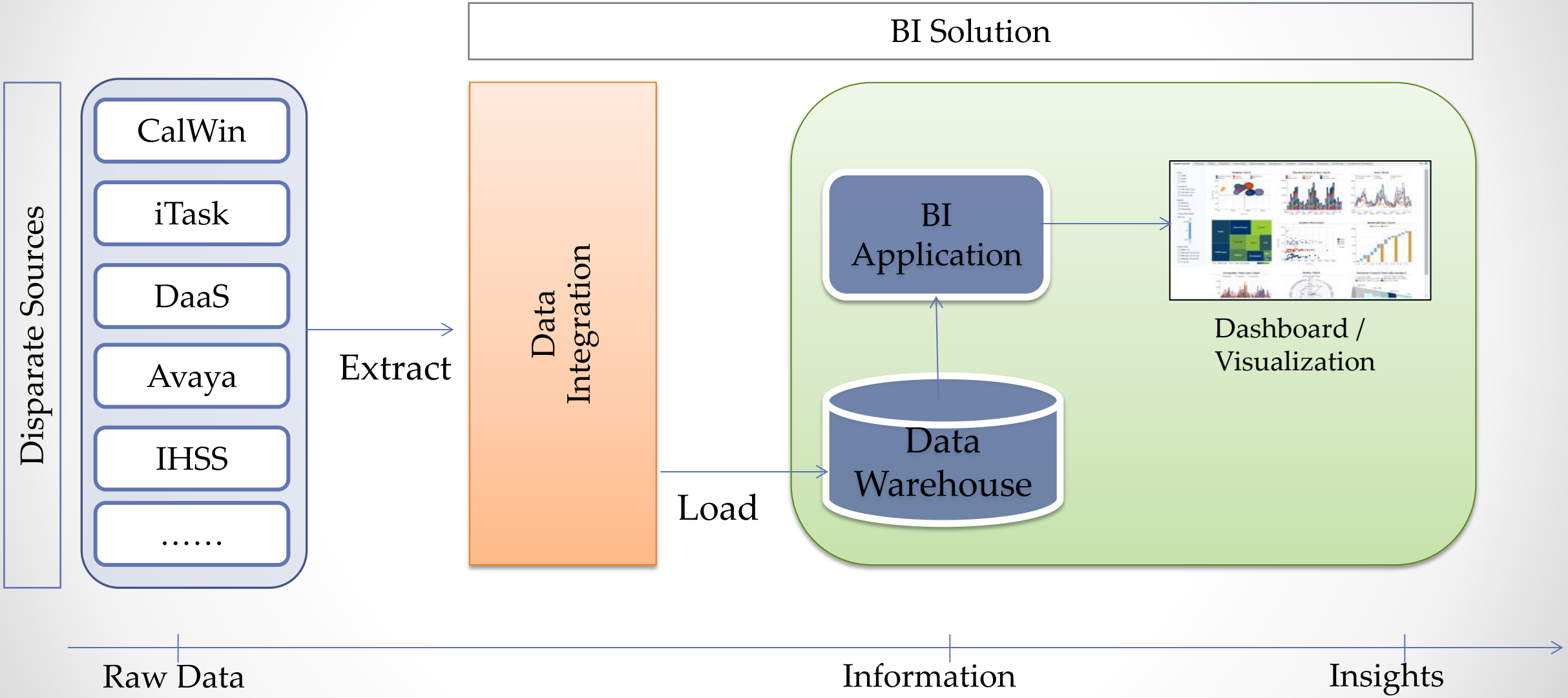
BI Assessment

- Disparate siloed data systems
- IT reporting team facilitates Data Requests
- Turn around time: few days to few weeks
- More Operational, Less Strategic
- Limited ad hoc capabilities

BI Objectives

- **Integrate** disparate siloes data systems
- **Improve** turn around time for reports (hours)
- Capability for extensive **ad hoc** and **Strategic** Analysis
- **Automated** BI solution
- Ultimately, **<u>make data central to decision-making</u>**

Proposed BI Solution



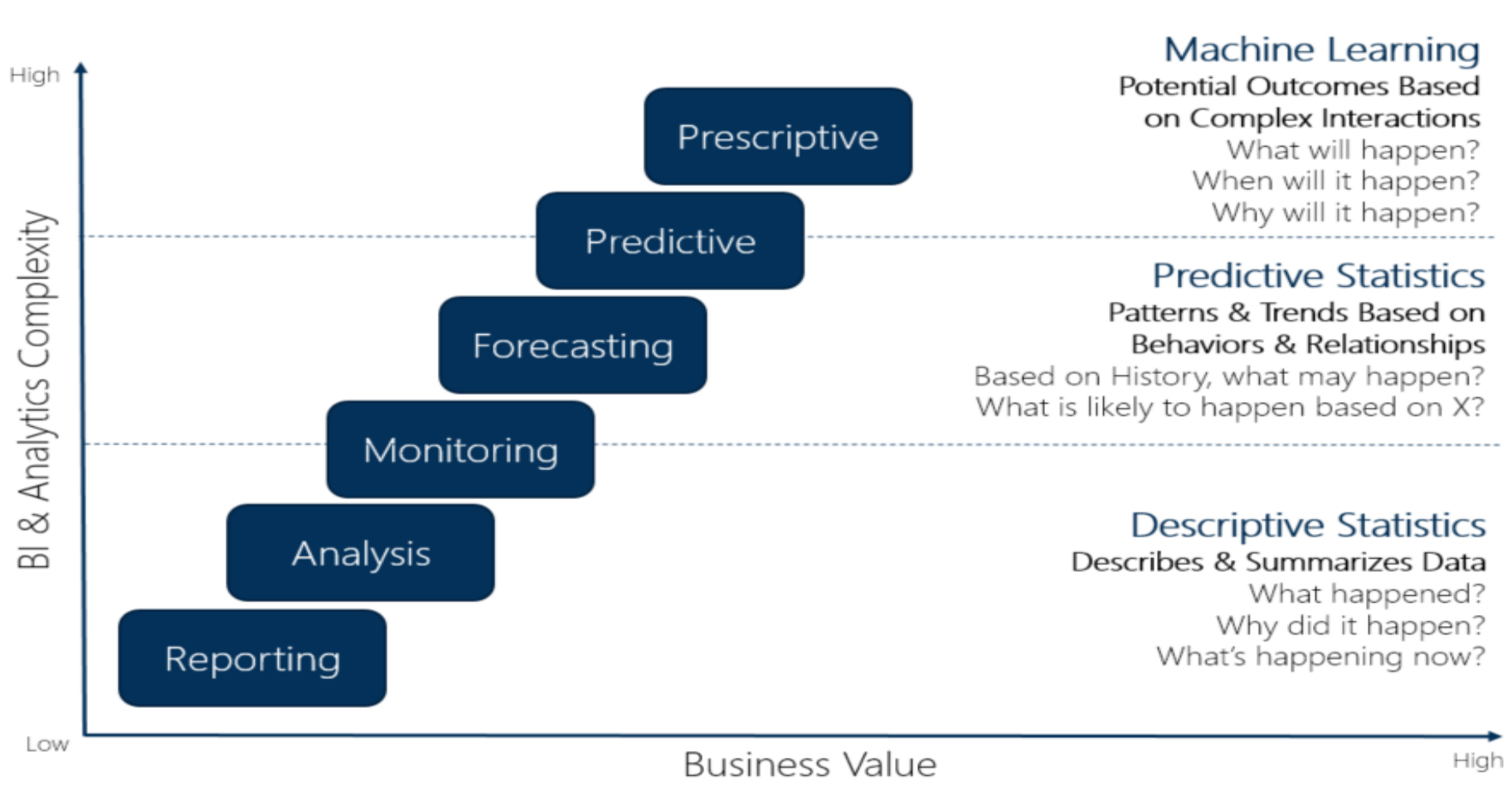
BI Team

- 4 FTE's
  - ETL Architect
  - Sr. BI Engineer
  - Data Analyst/Business Analyst
  - Database Administrator
- Add 4 more FTE's
  - 2 ETL developers
  - Business Analyst/Project Manager
  - QA analyst

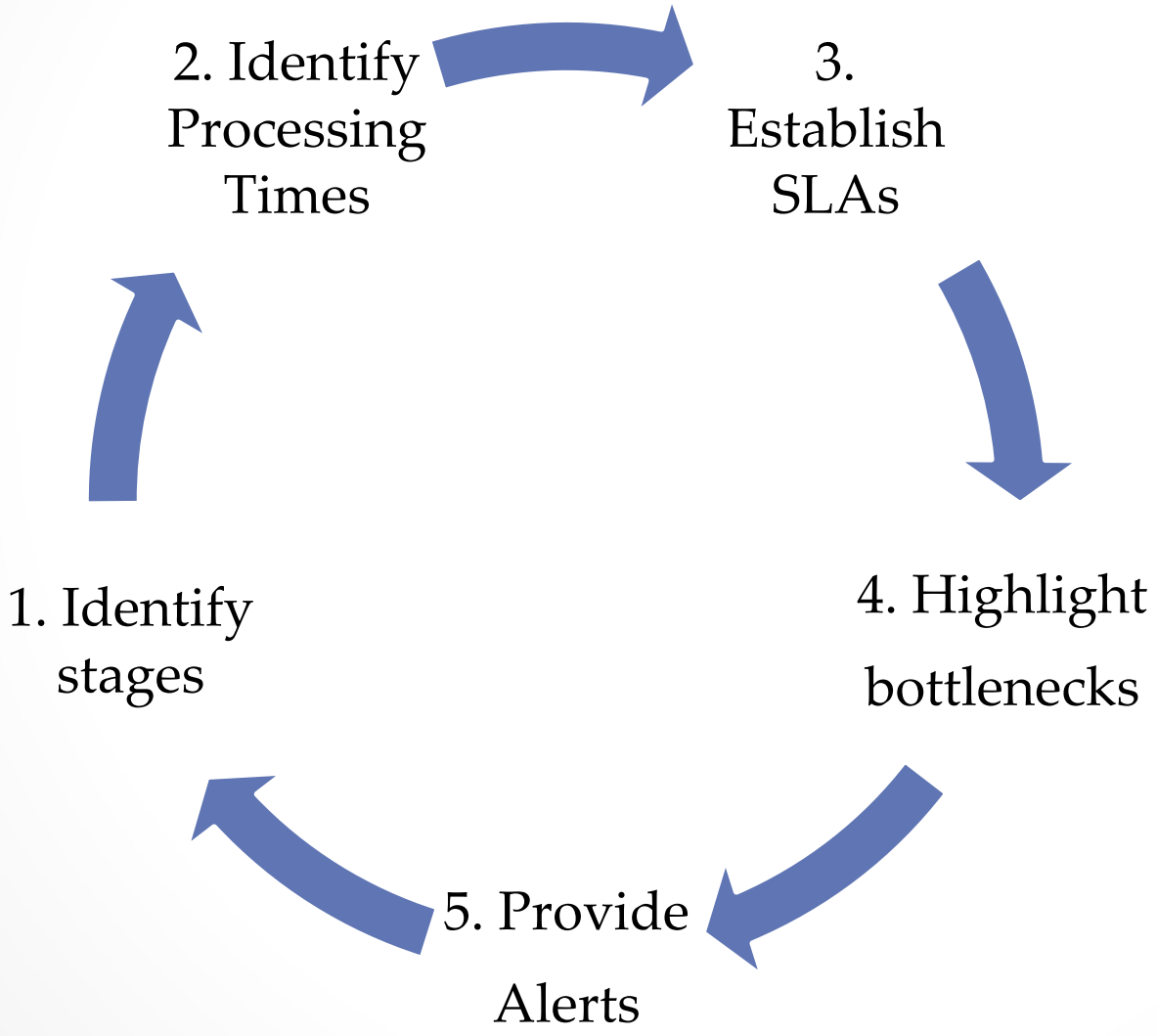
BI Team Milestones

- Completed Hiring the BI team
- Data Analytics Council was formed
- Phase I build of the data warehouse is underway (Feb'18)
- Sharepoint data integration HR & Procurement (Mar '18)
- Built key partnerships with:
  - Planning, HR, Procurement, CAAP, Welfare-to-Work , SF Benefits , Records Management, Rev Mgmt

BI Vision


High
BI & Analytics Complexity
Low
Prescriptive
Predictive
Forecasting
Monitoring
Analysis
Reporting
Business Value
High
Machine Learning
Potential Outcomes Based on Complex Interactions
What will happen?
When will it happen?
Why will it happen?
Predictive Statistics
Patterns & Trends Based on Behaviors & Relationships
Based on History, what may happen?
What is likely to happen based on X?
Descriptive Statistics
Describes & Summarizes Data
What happened?
Why did it happen?
What's happening now?

Process Improvement



Questions ?

San Francisco Whole Person Care

California Medi-Cal 2020 Waiver Initiative

February 2, 2018

COIT Budget & Performance Subcommittee

SF WHOLE PERSON CARE

- Background: What is it?
- Targeted Population in SF: Who is it for?
- SF’s Approach to Whole Person Care
- SF’s Approach to Technology Solution
  - Current State
  - Future Solution
  - Interim Solution

State of California
Department of Health Care Services

Background

WHOLE PERSON CARE

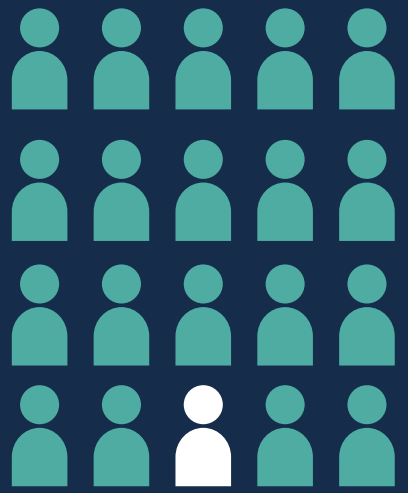
Target Population

Vulnerable Medi-Cal beneficiaries who are high utilizers of multiple health care systems who continue to have poor outcomes

The care for just

5%

of Medi-Cal enrollees accounts for



OVER

50%

of total Medi-Cal spending

WHOLE PERSON CARE

Purpose of Waiver

Increase Integration

among county agencies, health plans, and providers and develop infrastructure to ensure sustainability in the long term.

Improve Data Collection

and sharing to support strategic sustainable program improvements.

Increase Coordination

and appropriate access to care for the most vulnerable Medi-Cal beneficiaries.

Improve Quality

by achieving targeted quality and administrative improvement benchmarks.

Reduce Inappropriate Utilization

of emergency and hospital care.

Improve Health Outcomes

and pay for improvements in health status rather than for services provided.

City and County of San Francisco Whole Person Care

SF’s Targeted Population

WHOLE PERSON CARE AWARD – SAN FRANCISCO

FUNDING

$36.1 M Annual
$18M New / $18M Match
Thru Dec 2020

TWO-PRONGED INNOVATION APPROACH

Services / Care Coordination & Technology Solutions

TARGET POPULATION

Homeless
Single Adults

San Francisco's integrated data system tracks homeless individuals over time

Total Homeless Adults Served by DPH Annually

11,107

Estimated 7k additional

Risk Stratification Methodology:

HUMS – High users of urgent / emergent health services

In top 5% of urgent / emergent services in medical, psych, and substance abuse systems

Experiencing long-term homelessness

Has over 10 years of continuous or periodic homelessness

WHOLE PERSON CARE TARGET POPULATION

Risk Category	Homeless Population (FY1617) with DPH record	Total Adults	Total Urgent/ Emergent Costs
		11,107	**$169M**
Severe	High user AND Long-term Homeless		
High	High user, NOT Long-term Homeless		
	Long-term Homeless, NOT High User		
Elevated	NOT Long-term Homeless, NOT High User		

WHOLE PERSON CARE TARGET POPULATION

Risk Category	Homeless Population (FY1617) with DPH record	Total Adults	Total Urgent/ Emergent Costs
		11,107	**$169M**
Severe	High user AND Long-term Homeless	**12%**	**74%**
High	High user, NOT Long-term Homeless		
	Long-term Homeless, NOT High User	**27%**	**10%**
Elevated	NOT Long-term Homeless, NOT High User	**61%**	**16%**

WHOLE PERSON CARE TARGET POPULATION BY DISORDERS

Risk Category	Homeless Population (FY1617) with DPH record	Serious Medical	Psych	Drug/ Alcohol	All 3
		48%	**58%**	**63%**	**31%**
Severe	High user AND Long-term Homeless				
High	High user, NOT Long-term Homeless				
	Long-term Homeless, NOT High User				
Elevated	NOT Long-term Homeless, NOT High User				

WHOLE PERSON CARE TARGET POPULATION BY DISORDERS

Risk Category	Homeless Population (FY1617) with DPH record	Serious Medical	Psych	Drug/ Alcohol	All 3
		48%	**58%**	**63%**	**31%**
Severe	High user AND Long-term Homeless	90%	89%	96%	**78%**
High	High user, NOT Long-term Homeless	75%	83%	91%	57%
	Long-term Homeless, NOT High User	63%	72%	79%	44%
Elevated	NOT Long-term Homeless, NOT High User	35%	46%	51%	18%

WHOLE PERSON CARE TARGET POPULATION BY OTHER FACTORS

Risk Category	Homeless Population (FY1617) with DPH record	Chronic High User
		2%
Severe	High user AND Long-term Homeless	**23%**
High	High user, NOT Long-term Homeless	6%
	Long-term Homeless, NOT High User	2%
Elevated	NOT Long-term Homeless, NOT High User	0%

WHOLE PERSON CARE TARGET POPULATION BY OTHER FACTORS

Risk Category	Homeless Population (FY1617) with DPH record	Chronic High User	Jail Episode
		2%	**25%**
Severe	High user AND Long-term Homeless	23%	38%
High	High user, NOT Long-term Homeless	6%	29%
	Long-term Homeless, NOT High User	2%	32%
Elevated	NOT Long-term Homeless, NOT High User	0%	21%

WHOLE PERSON CARE TARGET POPULATION BY OTHER FACTORS

Risk Category	Homeless Population (FY1617) with DPH record	Chronic High User	Jail Episode	African American
		2%	**25%**	**31%**
Severe	High user AND Long-term Homeless	23%	38%	40%
High	High user, NOT Long-term Homeless	6%	29%	23%
	Long-term Homeless, NOT High User	2%	32%	46%
Elevated	NOT Long-term Homeless, NOT High User	0%	21%	25%

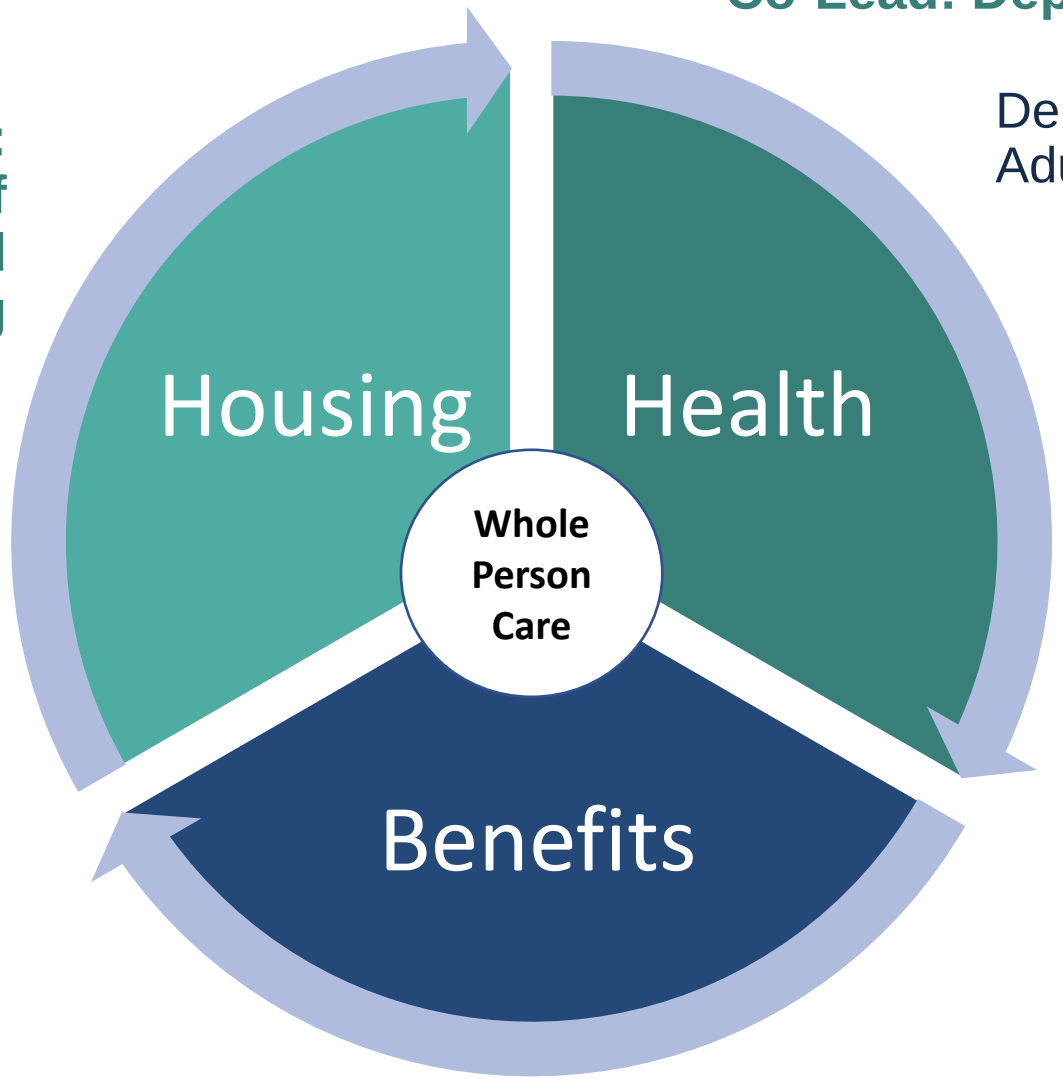
San Francisco’s Approach to Whole Person Care

WHOLE PERSON CARE A MULTI-AGENCY EFFORT

Co-Lead: Department of Public Health

Co-Lead: Department of Homelessness and Supportive Housing

Community Based Organizations



Department of Aging and Adult Services

Emergency Medical Services

Community Based Organizations

SF Health Plan & Anthem BC

Private Hospitals

Department of Human Services

Whole person, Whole story

Physical Health	Mental Health	Substance Use	Living Situation	Finances
Legal	Safety	Skills	Support	Meaning-ful Role

WPC Deliverables

	Current State
Data Sharing	5+ separate systems
Risk Assessment Tool	Service / Disorder / Facility Based
Shared Care Plans	Multiple Single System
Communiques & Alerts	Care Team Members Unknown
System of Care	Service / Disorder / Facility Based

WPC Deliverables

	Current State	By 2020	Quotes from the Future
Data Sharing	5+ separate systems	Integrated Interagency Data System	*As a client, my case manager and doctors know me. I don't have to tell my story or fill out forms again and again.*
Risk Assessment Tool	Service / Disorder / Facility Based	Multi-Agency Multi-Disciplinary Tool	*As a provider, I understand how the system prioritizes clients into housing and into care. It's fair and flexible.*
Shared Care Plans	Multiple Single System	Integrated and Shared Plans	*As a provider, I now know all aspects of my client's life that are impacting their situation. I have knowledge to tailor my support and am confident others will see my work.*
Communiques & Alerts	Care Team Members Unknown	Technology and Tools	*As a client, if I go into the hospital, my care team is notified and they reach out to help.*
System of Care	Service / Disorder / Facility Based	Implemented Human Centered SOC	*As a client, I feel taken care of. I don't have to go to so many places to get the services I need. San Francisco has a system that meets me where I am.*

San Francisco's Homeless Ecosystem of Care

	Urgent and Emergent	Transition and Stabilization		Recovery and Wellness
CARE COORD	←			→
MEDICAL	• Ambulance • Emergency Room • Inpatient • Urgent Care Clinics		• Medical Respite • Shelter Health • Street Medicine • Jail Health	• Primary Care • Specialty Care • Board And Care • Rehab & LT Care
MENTAL HEALTH	• PES • Inpatient • Acute Diversion • Mobile / Westside Crisis • Dore Urgent Care	**| | - Placement - Behavioral Health Access Center - Treatment Access Program - ICM (Sydney Lam) | |**	• Residential Treatment • Intensive Case Management • Hummingbird Psych Respite • Jail Psych	• Outpatient • Case Management • Board And Care
SUBSTANCE ABUSE	• Sobering Center • Medical Detox • Social Detox		• Residential Treatment	• Outpatient/Peer • Methadone Maint. • Buprenorphine
HOUSING	• Street • Vehicle • Encampment • Resource Centers	• Shelter • Navigation Centers • Stabilization Rooms • Transitional Housing	**| | Coordinated Entry | |**	• Permanent Supportive Housing • Cooperative Living • Case Management • Rent Subsidies
SOCIAL	• Incarceration • No Benefits • No Work • No Community/Family	• Benefits Navigation/Advocacy • Cash Assistance • Workforce Development		• SSI • Employment • Food Stamps • Meaningful Life

We adopt a **“whatever it takes”** approach and are relentless in questioning the status quo to make the changes necessary to improve the outcomes of our most vulnerable homeless residents.

San Francisco’s Approach to IT Solution

FRONT END

People, processes, and systems that create the end-to-end service experience for clients, providers, and partners.

Panel Management

What are the needs, expectations, and motivations of providers and clinic directors when preparing to care for clients?

PROVIDER, DIRECTOR

Population Health

What are the needs, expectations, and motivations of administrators and researchers when using vulnerable populations data?

ADMINISTRATION, RESEARCHER

Point of Service

What are the needs, expectations, and motivations of providers and clients when delivering or receiving care?

PROVIDER, CLIENT

Invoicing

What are the needs, expectations, and motivations of providers and clients when delivering or receiving care?

ADMINISTRATION, FINANCE

WPC DISCOVERY NEEDS

CURRENT STATE

Use CCMS as a way to understand and map WPC, provider, and client needs.

FUTURE SOLUTION

Design, develop, and implement a solution to meet the needs of clients, providers, and CCSF for vulnerable populations in San Francisco.

INTERIM SOLUTION

WPC team will prioritize the evolution of CCMS to meet program requirements in the short term. CCMS will serve as a working prototype allowing us to validate potential solutions and inform the future solution.

WPC DISCOVERY TEAMS

- SERVICE
- TECH
- EVAL
- STIR

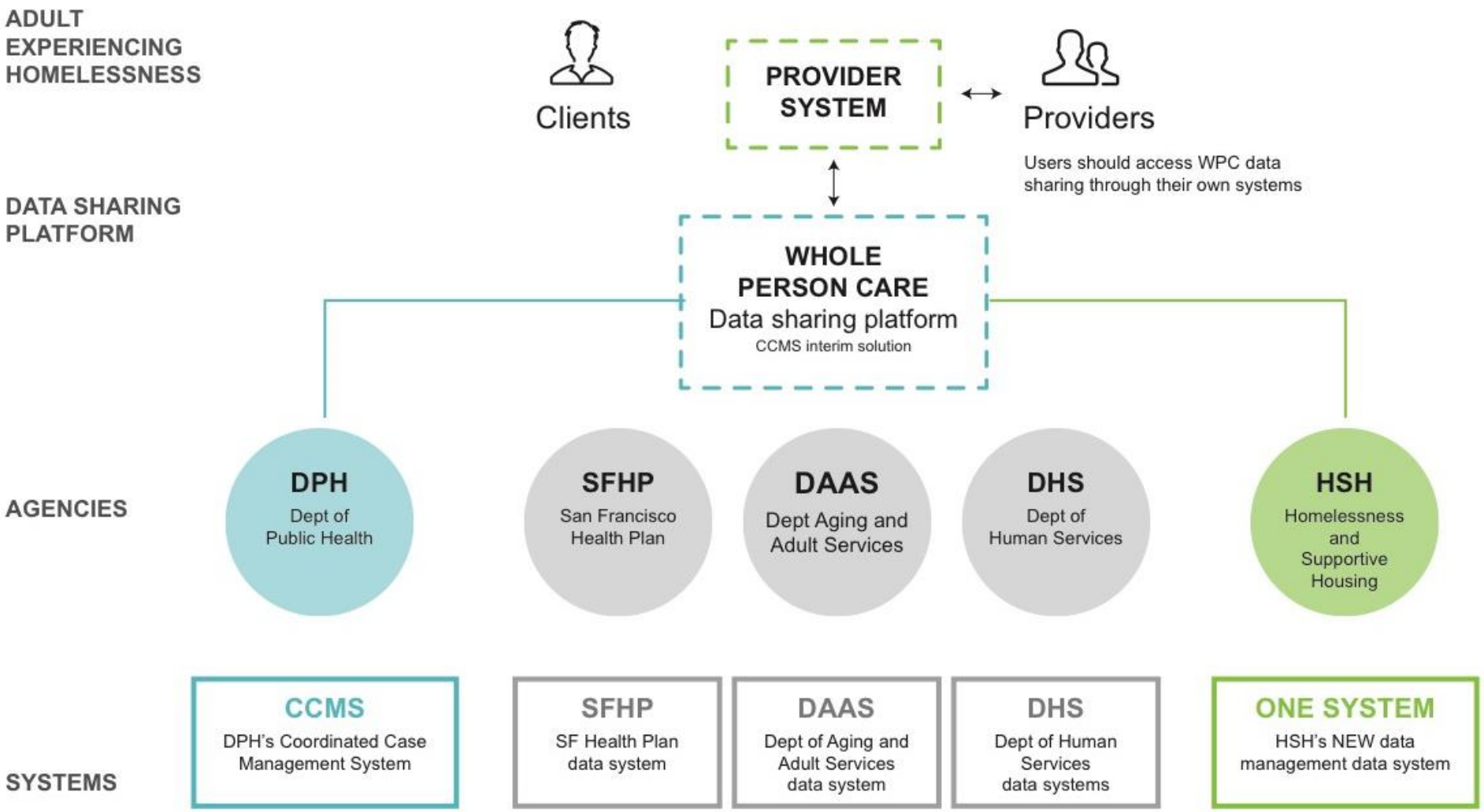
Engineers

Database Admins

IT Leadership

BACK END

Data, systems, policies, and governance that enable and support service delivery.


ADULT EXPERIENCING HOMELESSNESS
Clients
PROVIDER SYSTEM
Providers
Users should access WPC data sharing through their own systems
DATA SHARING PLATFORM
WHOLE PERSON CARE
Data sharing platform
CCMS interim solution
AGENCIES
DPH
Dept of Public Health
SFHP
San Francisco Health Plan
DAAS
Dept Aging and Adult Services
DHS
Dept of Human Services
HSH
Homelessness and Supportive Housing
SYSTEMS
CCMS
DPH's Coordinated Case Management System
SFHP
SF Health Plan data system
DAAS
Dept of Aging and Adult Services data system
DHS
Dept of Human Services data systems
ONE SYSTEM
HSH's NEW data management data system

WHOLE PERSON CARE

The purpose of Whole Person Care is to improve health outcomes for San Francisco's most vulnerable populations through an interagency and human-centered approach to service and care coordination.

Current Situation…

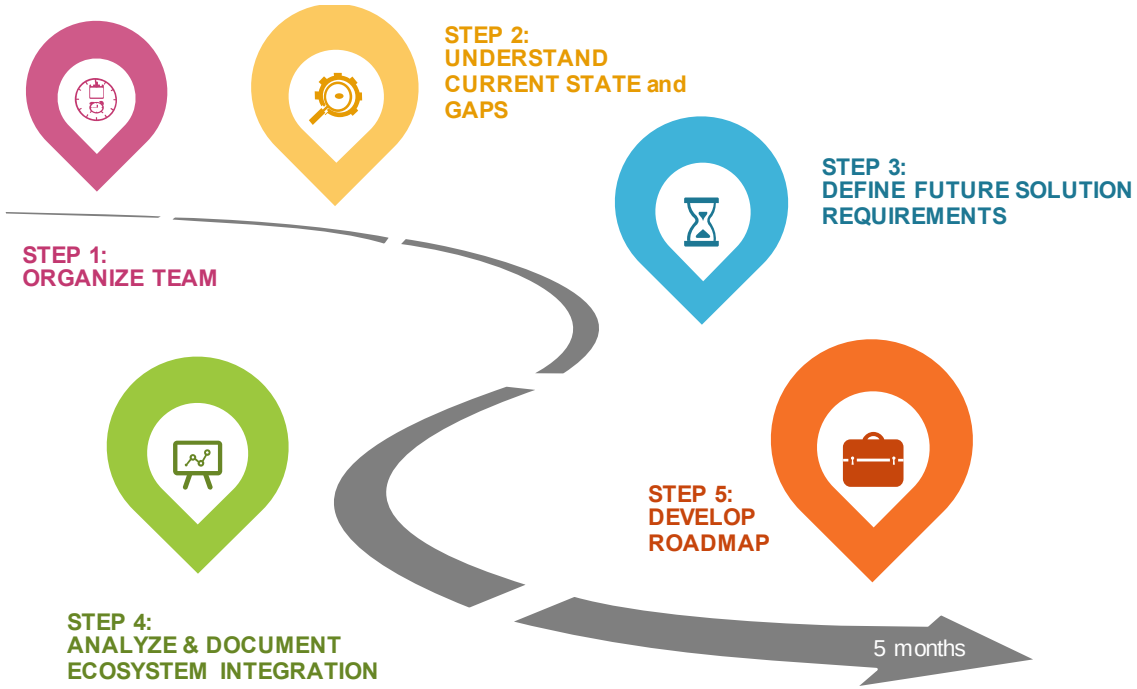
- Multiple systems that don't talk
- Disconnected and duplicate client registrations
- Service gaps / lack of coordination
- Data flow and quality challenges
- Difficult to access data

Future State…

- Enhanced access to information
- Increased coordination & collaboration
- Improved data integrity
- "Next right question" prompts for client
- Flexible, human-centered tools

TECHNOLOGY SOLUTION APPROACH

Gartner will partner with CCSF to identify, define and plan for a human-centered technology solution that enables city-wide Whole Person Care and informs RFP(s) &/or modifications to current system(s) based on best practices and vendor insights.



CCMS as an interim solution enables CCSF to:

- Share data required to facilitate invoicing / reimbursement from the State
- Communicate periodic SF WPC accomplishments required by the State
- Expand access to integrated data to members of the interagency care team

PARTNERS (Data Systems)

Lead

- DPH (CCMS/EPIC)
- HSH (ONE)

Contribute

- DHS (CalWIN)
- DAAS (SFGetCare/IHSS)
- SFHP (PreManage)

Assist

- Gartner

THE ASK

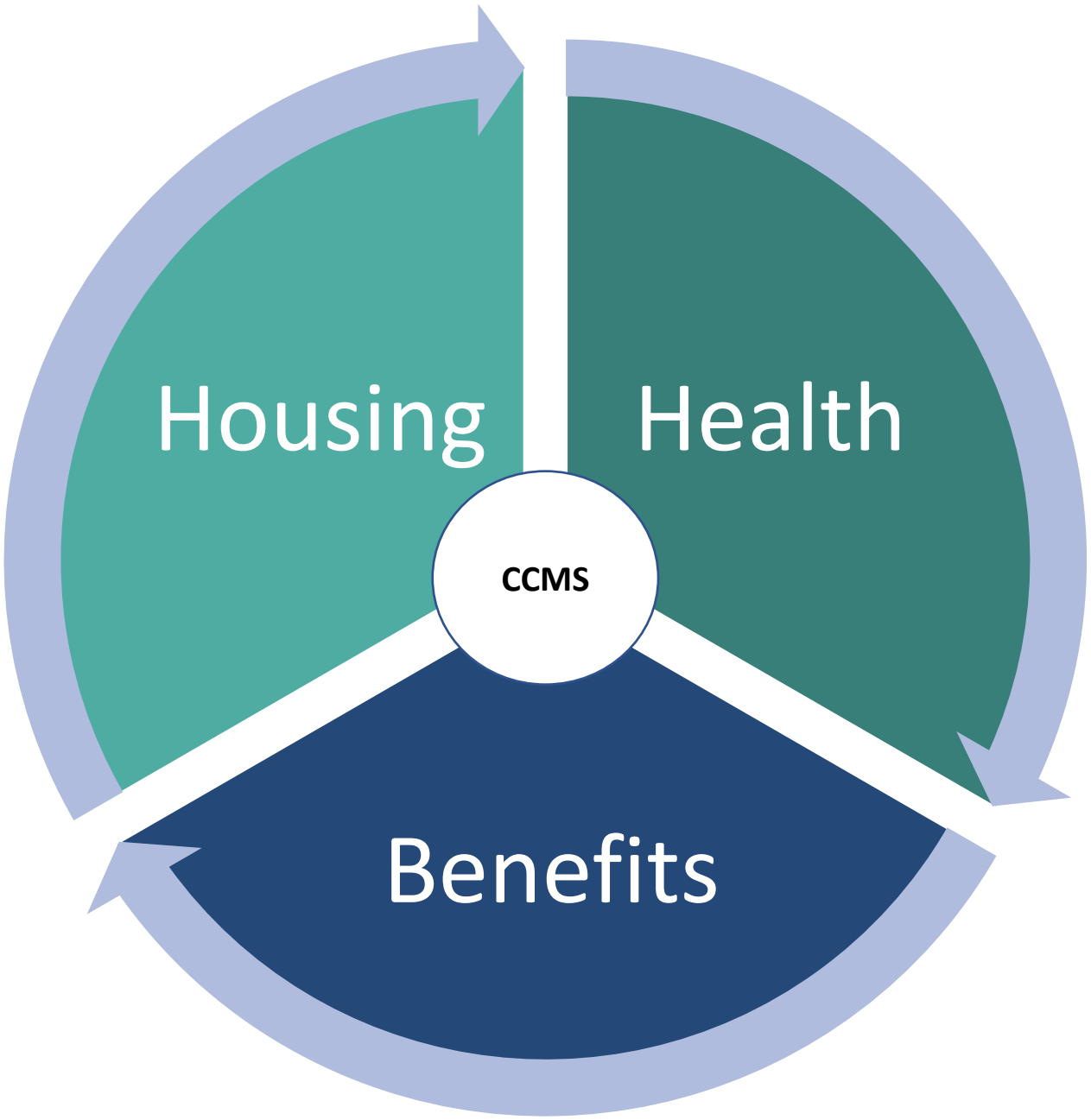
To support this effort, partners will need to:

- Dedicate staff time for interviews and insights;
- Inform the Gartner-driven analysis and planning of current and future state of WPC;
- Implement strategies that enable WPC interim and future states.

Last Updated: 01/11/2018

Coordinated Care Management System

Begun in 2005, CCMS has grown to include 20 years of bio-psycho-social histories from 15 databases for over 450,000 adult vulnerable San Franciscans



COORDINATED CARE MANAGEMENT SYSTEM (CCMS)

TRANSFER ONLY IF URGENT/ EMERGENT SERVICE

MEDICAL
DPH: LCR / eCW
(Services & Diagnoses)

TRANSFER ALL RECORDS

MENTAL HEALTH
DPH: Avatar
(Services & Diagnoses)

MENTAL HEALTH
UCSF: Psych Emergency
(Services & Diagnoses & Notes)

SUBSTANCE ABUSE
DPH: Avatar
(Services & Diagnoses)

SHELTER
DHS: CHANGES
(Services & CAAP)

SOBERING CENTER
DPH: CCMS
(Services & Case Notes)

MEDICAL RESPITE
DPH: CCMS
(Services & Case Notes)

JAIL HEALTH
DPH: JIM
(Episodes)

SFHOT CASE MANAGEMENT
HSH: CCMS
(Episodes)

DIRECT ACCESS TO HOUSING
HSH: CCMS
(Episodes)

STABILIZATION ROOMS
HSH: CCMS
(Episodes)

EMS AMBULANCE
SFFD Billing
(Transports)

TRANSFER IF MATCH

DEATH REGISTRY
California
(Death Records matched)

MEDICAL
DPH: LCR / eCW
(Services & Diagnoses)

MATCH & MERGE

CCMS

A PHASED APPROACH

2018

Enable **ACCESS** to information that is relevant to care (providers) and new services (clients)

2019

USE information to improve delivery of care and design of services

2020+

ITERATE and **SUSTAIN** Whole Person Care

Questions?

maria.x.martinez@sfdph.org, 415-554-2877

9. Public Comment