(d) 1. Smart City Roadmap Update

Kip Harkness, Deputy City Manager
Dolan Beckel, Civic Innovation Director
Rajani Nair, Smart City Manager

April 4, 2019

AGENDA

- Smart City Roadmap Update
- Information Technology Strategic Plan Update
- Information and Technology Audit Update
- Autonomous Vehicles Strategy

Smart City Roadmap 2.0 Reporting

Monthly Status update on High Priority Projects

Rajani Nair, Smart City Manager

PRIORITIZED SMART CITY ROADMAP 2.0
MARCH 2019

THEMES ALPHABETIZED

User-Friendly Government	Integrated Permitting System	Privacy Strategy	City Website	My San Jose	Digital Services Strategy	Data Strategy	Start Up in Residence (STiR) program	Master Address Database Integration
Smart Mobility	Autonomous Vehicle – First and Last Mile	Transportation Events Tracking (E-tracker)						
Smart Infrastructure	Small Cell permitting and deployment	Small Cell Permitting and Process Improvements	Facebook Terragraph Wi-Fi	IoT Reference Architecture				
Safe City	Safe City Strategy	FirstNet Evaluation and Migration	Silicon Valley Regional Communication System	Fire Station Alerting System	Fire Department Business Intelligence			
IT Roadmap	Cybersecurity Work Plan	IT Infrastructure Modernization	City Open Data Environment	Business Tax	Products Management-Projects Execution	Business Tax Amnesty Solution	Advanced Cybersecurity Products and Service RFP	Cybersecurity Policy	Community Engagement through Data	IT Staff Skill-Up and Engagement
Equity	Digital Inclusion Program Fund	Community Wi-Fi Strategy	Rent Registry (Apartment Rent Ordinance)	Access Eastside	Joint/School Issued Library Cards	Data Migration Tool		
Climate Smart	EV Strategy	Greenhouse Gas Emissions Report and Dashboard	Residential Housing Natural Gas Elimination Roadmap					

LEGEND – PROJECT STATUS

- ON TRACK
- ISSUES WITH SCHEDULE, BUDGET OR SCOPE
- AT RISK, CORRECTIVE ACTIONS NEEDED

HIGHEST — RELATIVE PRIORITY OF PROJECTS FROM HIGH TO LOW — LOWEST

4

PRIORITIZED SMART CITY ROADMAP 2.0
APRIL 2019

User-Friendly Government	Integrated Permitting System	Privacy Strategy	City Website	My San Jose	Digital Services Strategy	Data Strategy	Start Up in Residence (STIR) program	Spatial Data Integration (SDI)
Smart Mobility	Autonomous Vehicle – First and Last Mile	Transportation Events Tracking (E-tracker)						
Smart Infrastructure	Small Cell permitting and deployment	Small Cell Permitting and Process Improvements	Facebook Terragraph Wi-Fi	IoT Reference Architecture				
Safe City	Safe City Strategy	FirstNet Evaluation and Migration	Silicon Valley Regional Communi-cation System	Fire Station Alerting System	Fire Department Business Intelligence			
IT Roadmap	Cybersecurity Work Plan	IT Infrastructure Modernization	City Open Data Environment	Business Tax System	Products Management-Projects Execution	Business Tax Amnesty Solution	Advanced Cybersecurity Products and Service RFP	Cybersecurity Policy	Community Engagement through Data	IT Staff Skill-Up and Engagement
Equity	Digital Inclusion Program Fund	Community Wi-Fi Strategy	Rent Registry (Apartment Rent Ordinance)	Access Eastside	Joint/School Issued Library Cards	Data Migration Tool		
Climate Smart	EV Strategy	Greenhouse Gas Emissions Report and Dashboard	Residential Housing Natural Gas Elimination Roadmap					

LEGEND – PROJECT STATUS

- ON TRACK
- ISSUES WITH SCHEDULE, BUDGET OR SCOPE
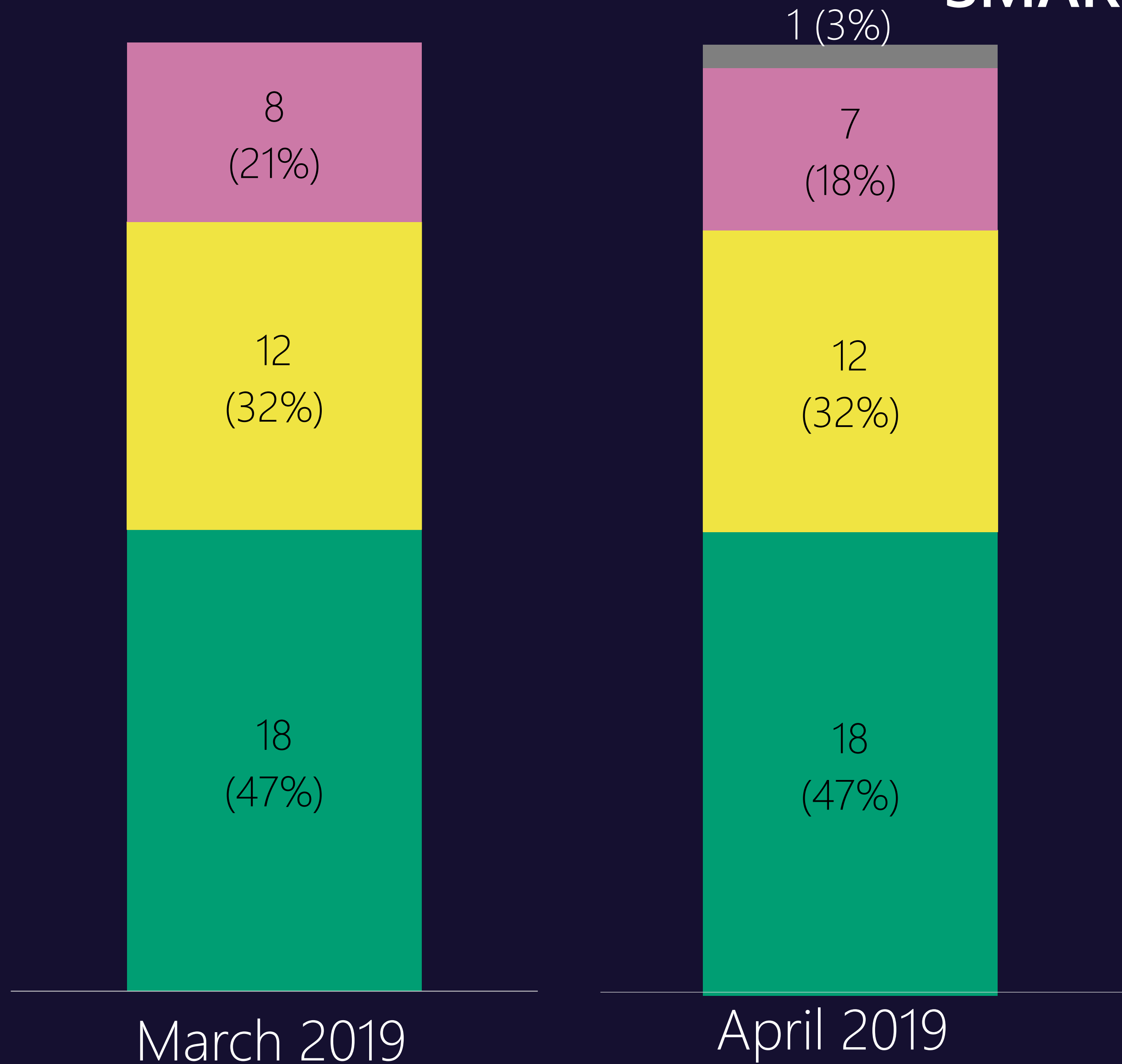- AT RISK, CORRECTIVE ACTIONS NEEDED
- ON HOLD

HIGHEST → LOWEST

RELATIVE PRIORITY OF PROJECTS FROM HIGH TO LOW

SMART CITY ROADMAP 2.0 STATUS
APRIL 2019

March 2019
- 8 (21%)
- 12 (32%)
- 18 (47%)

April 2019
- 1 (3%)
- 7 (18%)
- 12 (32%)
- 18 (47%)

LEGEND – PROJECT STATUS

- ON TRACK
- ISSUES WITH SCHEDULE, BUDGET OR SCOPE
- AT RISK, CORRECTIVE ACTIONS NEEDED
- ON HOLD

6

SMART CITY ROADMAP 2.0 - RED STATUS DETAIL

Integrated Permitting System		
Issues	Resolution Approach	Action Items for April

▪ Delayed by over two years
  ▪ Lack of coordination across several siloed teams (internal and external) for implementation
  ▪ Lack of technology infrastructure readiness
	▪ Re-prioritization and re-scoping of remaining contract targeted for April 2019 to Ad Hoc Committee
	▪ Team reset, new project governance and new operating model implemented
		▪ On track to present to Ad Hoc Committee in April 2019

My San Jose

Issues	Resolution Approach	Action Items for April
- Ramping up the MSJ 2.0 effort required several months to establish governance, team structure, and shared vision - As a result, the Request for Proposal (RFP) is delayed, originally targeted for Q4 2018 release - Procurement bottleneck adds more uncertainty into RFP timeline (NEW) Key personnel departed from the City	- Focus immediate efforts on usability improvements in My San Jose 1.X and back-end process improvements with service teams - Update schedule based on current outlook: - RFP release in Q2 2019 - RFP award in Q3 or Q4 2019 - Target go-live for MSJ 2.0 in Q2 2020	- Issue change order with AST for continued support on contract - Assign interim IT to complete 1.7 release and support - Re-evaluate project approach and schedule based on hiring and procurement timelines - Begin hiring process for PPM

SMART CITY ROADMAP 2.0 - RED STATUS DETAIL

Data Strategy		
Resolution Approach	**Resolution Approach**	**Action Items for April**
▪ Staff hiring behind schedule – two unsuccessful recruitments due to competitive market challenges	▪ On-boarding Chief Data Officer Fuse Fellow in May 2019	▪ Currently interviewing potential candidates

SMART CITY ROADMAP 2.0 - RED STATUS DETAIL

IT Infrastructure Modernization

Issues	Resolution Approach	Action Items for April
▪ Purchasing queue causing significant delays: ▪ Original goal: Award and execution of contract by October 2018 and completion of implementation by June 2019 ▪ Awarded by City Council in late-December 2018 ▪ Contract remains in-process with Purchasing as of March 4, 2019	▪ Initiative with Finance and Civic Innovation to resolve the backlog of contracts and procurements in queue ▪ IT staff is awaiting project initiation as soon as the contract is finalized. Preparation work identified is complete as of March 2019	▪ Support Purchasing Division in finalization of contract ▪ Work with principle and associated vendors to maintain discounts and project availability provided in RFP ▪ Execute Project Kick-Off once complete

SMART CITY ROADMAP 2.0 - RED STATUS DETAIL

Advanced Cybersecurity RFP/Policy

Issues	Resolution Approach	Action Items for April
▪ Cybersecurity products and services RFP is delayed by 6 months; In purchasing queue ▪ Cybersecurity policy has undergone 20 cycles of review with City departments; Delayed by 7 months ▪ Hiring of qualified cybersecurity professional delayed some activities	▪ Initiative with Finance and Civic Innovation to resolve the backlog of contracts and procurements in queue; Cybersecurity is prioritized as a top-3 item ▪ Cybersecurity Office pivoted to Perimeter Security and Disaster Recovery/Business Resumption efforts in interim ▪ Set approach to finalize Cybersecurity Policy between ITD, HR/OER and City Auditor by March 2019	▪ RFP: Support Purchasing Division in finalization of RFP for release in April ▪ Policy: IT finalized last draft; Meet with Auditor and OER to proceed with adoption and signature

SMART CITY ROADMAP 2.0 - RED STATUS DETAIL

Access Eastside

Issues	Resolution Approach	Action Items for April
- Eighteen months behind schedule for Wi-Fi activation for Overfelt and Yerba Buena high school attendance areas - Estimated budget for installation has nearly doubled from the funding amount available from the East Side Union High School District (ESUHSD)	- Technical assessment and educational performance evaluation underway - Go/No go on community Wi-Fi activation for James Lick attendance area is expected by March 2019 - Targeting June 2019 to discuss next steps with ESUHSD	- Continuing to work with SVTP and Paypal to provide technical evaluation of Wi-FI - James Lick HS has provided educational outcomes for evaluation - City to meet with ESUHSD to discuss next steps

SMART CITY ROADMAP 2.0 - GRAY STATUS DETAIL

Business Tax System

Issues	Resolution Approach	Action Items for April
▪ Delayed by 2 years	▪ Shifted focus to Business Tax Amnesty project due to revenue importance ▪ Will develop a new RFP in late 2019 with increased focus on vendor qualifications, scope accuracy and testing processes	▪ Agreed to put project on hold until Business Tax Amnesty project is completed ▪ Memorialize lessons learned between Finance and IT for future RFP ▪ Anticipated new RFP release date is Q1 CY2020 with recommendation to Council late CY2020

INITIATING HIGH PRIORITY PROJECTS
APRIL 2019

User-Friendly Government	Procurement Improvement and Readiness Program				
Smart Mobility	Autonomous Vehicle – Connecting Key Destinations	Emerging Mobility Strategy			
Smart Infrastructure	Vehicle Fleet Telematics – Verizon Connect	AT&T Community Wi-Fi at Community Centers/Parks	Macro Towers Deployment	Building Energy Usage Monitoring	Irrigation Sensor Connectivity - CalSense
Safe City	Smart Digital Infrastructure Nodes – AT&T pilot	Fusion/Data Collection Center	Dual Network Connectivity of Fire Apparatus (Coverage)		
IT Roadmap					
Equity	DAHLIA Affordable Housing Portal	AT&T Tech for Good Pilot			
Climate Smart					

Requirements for Executing High Priority Projects:

✓ Approved budget

✓ Dedicated team of staff

✓ Signed contract

User-Friendly Government	Cloud Based Event Planning Tracking System	FB Live/Box or You Tube	STIR Online Street Banner Asset Management & Booking System
Smart Mobility			
Smart Infrastructure	STIR Compliance Management Tool		
Safe City	STIR Disaster Response Platform		
IT Roadmap			
Equity	Unleash Your Geek #3 - Homelessness	2020 Census Technology Conversation	Community Wi-Fi & Educational Performance Access Eastside	STIR Affordable Housing Compliance System
Climate Smart			

SMALL WONDERS APRIL 2019

LEGEND – PROJECT STATUS

ON TRACK

ISSUES WITH SCHEDULE, BUDGET OR SCOPE

AT RISK, CORRECTIVE ACTIONS NEEDED

15

Start up In Residence (STIR)

- Connects city governments with startups to help solve civic challenges through technology solutions and process improvements

- STIR provides the City a turn-key solution by expediting the procurement process and evaluating options to allow an idea to be demonstrated and if proven, the company can enter into a contract with the City

- City of San Jose is one of 22 agencies for STIR 2019 cohort and currently City is working on four challenges listed below:

Housing	Affordable Housing Compliance System
Public Works	Compliance Management Tool
Office of Emergency Management and Housing Disaster Response Platform	Disaster Response Platform
Office of Economic Development	Online Street Banner Asset Management and Booking System

Streetlight Banner Online Reservation and Asset Management Platform

STIR 2019 Cohort – City of San Jose

Sal Alvarez, Executive Analyst
Office of Economic Development

Apu Kumar, CEO
LotaData, Inc.

The background

- Manage 1,000+ streetlight banner locations citywide
- Receive 25 to 30 applications per year
- Install/remove 1,700 to 2,000 banners per year
  - Campaigns are as small as 18 to as large as 300 banners
- Continued demand and interest for events held at public facilities has increased the use of streetlight banners for placemaking and public messaging
- Currently, no 'off the shelf' software management system is available.

The challenge

- Current process is paper based and applicants do not have visibility into what is available
- Demand during 'High seasons' causes multiple overlapping requests
- Telecom small-cell deployment may potentially impact banner program

The challenge - continued

- Applicants can reserve locations several years in advance with no requirements for providing a deposit

- Current fees only cover DOT staff time for installation or removal and not based on duration of banner installed on streetlight

- No application fee

- Invoices are paid only via mail-in check

- Existing ArcGIS platform is unable to accommodate multiple applications (location, time, creative, point of sale and public interface)

The benefit

Project will modernize the banner program to provide greater clarity for applicants and improve operational efficiency of staff:

- Provides reservation and availability information in real time
- Provides an option for point of sale portal integration for payments to be collected electronically
- Utilizes data to verify best locations for banners placement
- Provides data to the applicants showing impressions frequency and dwell times
- Uses impressions and dwell time data to better understand the value of infrastructure

The process
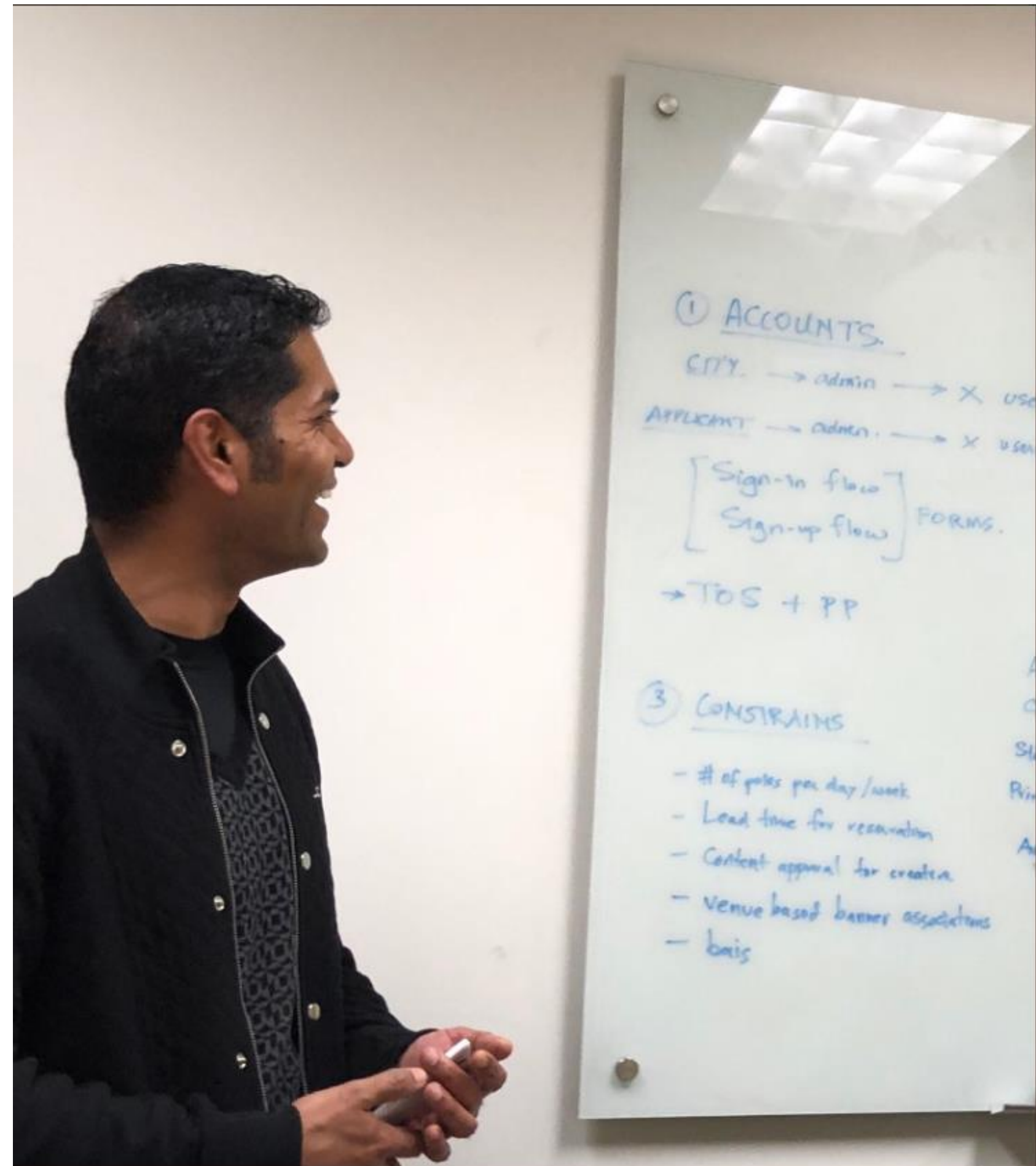
- This project will generate a Minimum Viable Product (MVP) with a focus on improved operational efficiency
- Use of whiteboarding and process mapping helped to visualize various workflows
- Leveraged LotaData's experience in billboard management to identify opportunities to prioritize venues
- Utilized existing GIS platform accelerated application development

Our lessons learned and insights

- Capability exists for point of sale element integration that allows web pages to have the "button" designed into them
- Banner program is highly valued by our partners – generates revenue for them and City
- Need for continued collaboration with Small Cell Team
- Create transparent schedule for banners for better customer service
- Need for Automation of email messages
- Utilization of cellular geo temporal data will provide more accurate people counts and will help to prioritize resource allocation over time

Product Demonstration

Questions?

(d) 1. Smart City Roadmap Update

Kip Harkness, Deputy City Manager
Dolan Beckel, Civic Innovation Director
Rajani Nair, Smart City Manager

April 4, 2019