

Memorandum



DATE April 14, 2017
TO Honorable Mayor and Members of the City Council
SUBJECT **Overview of 911 Call Center Operations**

On Wednesday, April 19, 2017, you will be provided with an overview of the 911 Call Center Operations by William (Bill) Finch, CIO/Director, Communication & Information Services and Interim Chief of Police David Pughes, Dallas Police Department. The briefing materials are attached for your review.

Please contact myself or Jody if you have any questions or need additional information.

Eric D. Campbell
Assistant City Manager

Jo M. (Jody) Puckett, P.E.
Interim Assistant City Manager

cc: T.C. Broadnax, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Kimberly Bizzor Tolbert, Chief of Staff to the City Manager
Theresa O'Donnell, Interim Chief of Economic Development & Neighborhood Services

Majed A. Al-Ghafry, Assistant City Manager
Mark McDaniel, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Joey Zapata, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Alan E. Sims, Interim Chief of Community Services
Directors and Assistant Directors

Overview of 911 Call Center Operations

Council Briefing

April 19, 2017



**Chief David Pughes,
Interim Chief of Police**

**William Finch,
Chief Information Officer**

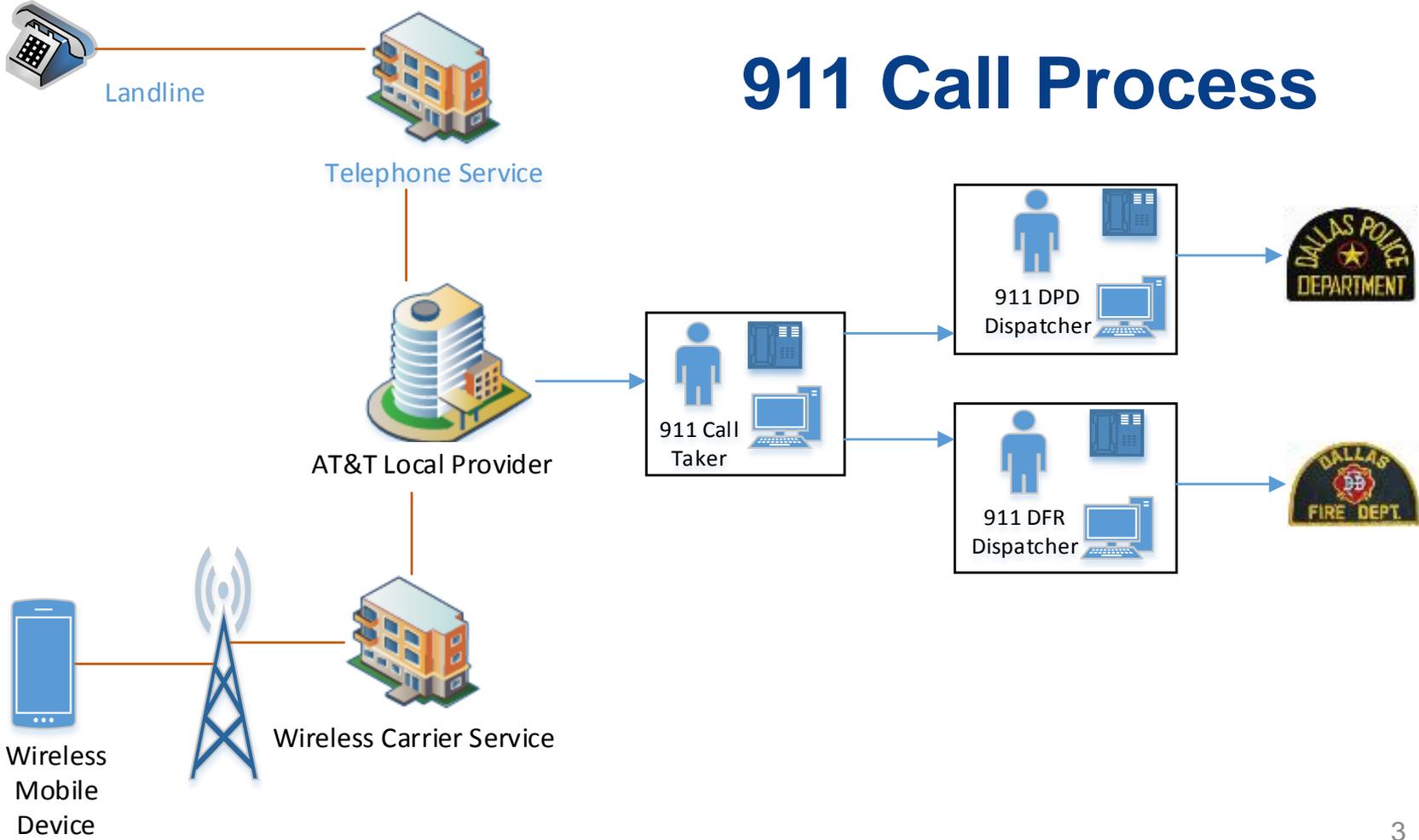
City of Dallas

Purpose

- Describe the 911 call center operation
- Review call center performance
- Identify issues affecting performance
- Outline actions taken
- Next steps



911 Call Process



Dallas 911 Call Center

- Handle calls within Dallas city limits
- Receive reports from the public of crimes, disturbances, fires and medical or police emergencies
- Call Takers triage and/or route calls to DPD or DFR Dispatch

Fiscal Year	Calls Received	Calls Dispatched
13/14	1,974,866	590,443
14/15	2,104,852	599,319
15/16	2,087,949	628,871
*16/17	1,028,222	293,618

*as of 3/31

911 Call Center Performance Standard

90% of all calls answered within 10 seconds **during busiest hour**

National
Emergency
Number
Association

90% of **all calls** answered within 10 seconds

City of Dallas

Here are a few of the cities using same standard as **Dallas**:

San Diego

San Antonio

Ft. Worth

Cincinnati

San Francisco

5



City of Dallas

Historical Service Levels

The City of Dallas goal is 90% of all calls answered within 10 seconds.

Fiscal Year	Calls Received	Average Time to Answer	Service Level
13/14	1,974,866	2 Seconds	95%
14/15	2,104,852	2 Seconds	94%
15/16	2,087,949	3 Seconds	92%
*16/17	1,028,222	22 Seconds	78%

*as of 3/31



Recent Service Levels

FY 2016 – April 14, 2017

Month	Calls Received	Average Time to Answer	Service Level
October 2016	184,926	6 Seconds	83%
November 2016	162,678	4 Seconds	89%
December 2016	172,387	12 Seconds	81%
January 2017	167,230	9 Seconds	80%
February 2017	161,228	44 Seconds	64%
March 2017	179,773	57 Seconds	72%
March 15 – April 14, 2017	167,740	9 Seconds	83%



Recent Issues

Technology

- Call Spikes
- Answering Capacity

Staffing

- Hiring
- Attrition



Recent 911 Call Center Issue:

Problem Statement

- 911 call center inbound call queue experienced an abnormal number of calls (“spike”) with no apparent correlation to an initiating event in the area
- City’s 911 infrastructure tested, validated by service provider AT&T as part of incident investigations
 - In all cases found to be operating as designed with no issues
 - No pattern detected for when an incident would occur, or its duration
- Significant number of abandoned call entries in the call queue were found not to have been made by the identified caller
 - T-Mobile the only carrier associated with these calls, however this affected all carriers



Recent 911 Call Center Issue: Timeline

Time Frame	Activity
November 2016	Unexplained call spike to 911 call center No underlying issue or cause identified
December 2016	Unexplained call spike to 911 call center T-Mobile Network Operations Center (NOC) contacts 911 call center to report T-Mobile is seeing many calls going into queue, unanswered COD and AT&T investigate these abandoned calls
December 2016 – March 2017	Incidents of unexplained call spikes continue intermittently but almost daily during this period



Recent 911 Call Center Issue: Timeline

Time Frame	Activity
February 2017	T-Mobile status calls changed from as needed to daily, due to call spike incidents continuing to occur on an almost daily basis PIO notification to the public and FCC notification made by DPD Memo to City Council about call issue
March 2017	Investigation and work to share information, identify root cause, and resolve the call spike issue continues between COD, T-Mobile, AT&T, other vendor resources during this period
March 2017	Significant unexplained spike in calls to 911 call center, 360+ call entries in queue PIO issues press release about call issue 2 nd memo to City Council about call issue Most significant unexplained spike in call to 911 call center, 410+ call entries in queue City Manager engages T-Mobile USA CEO and President



Recent 911 Call Center Issue: Technology Actions 3/15-17/17

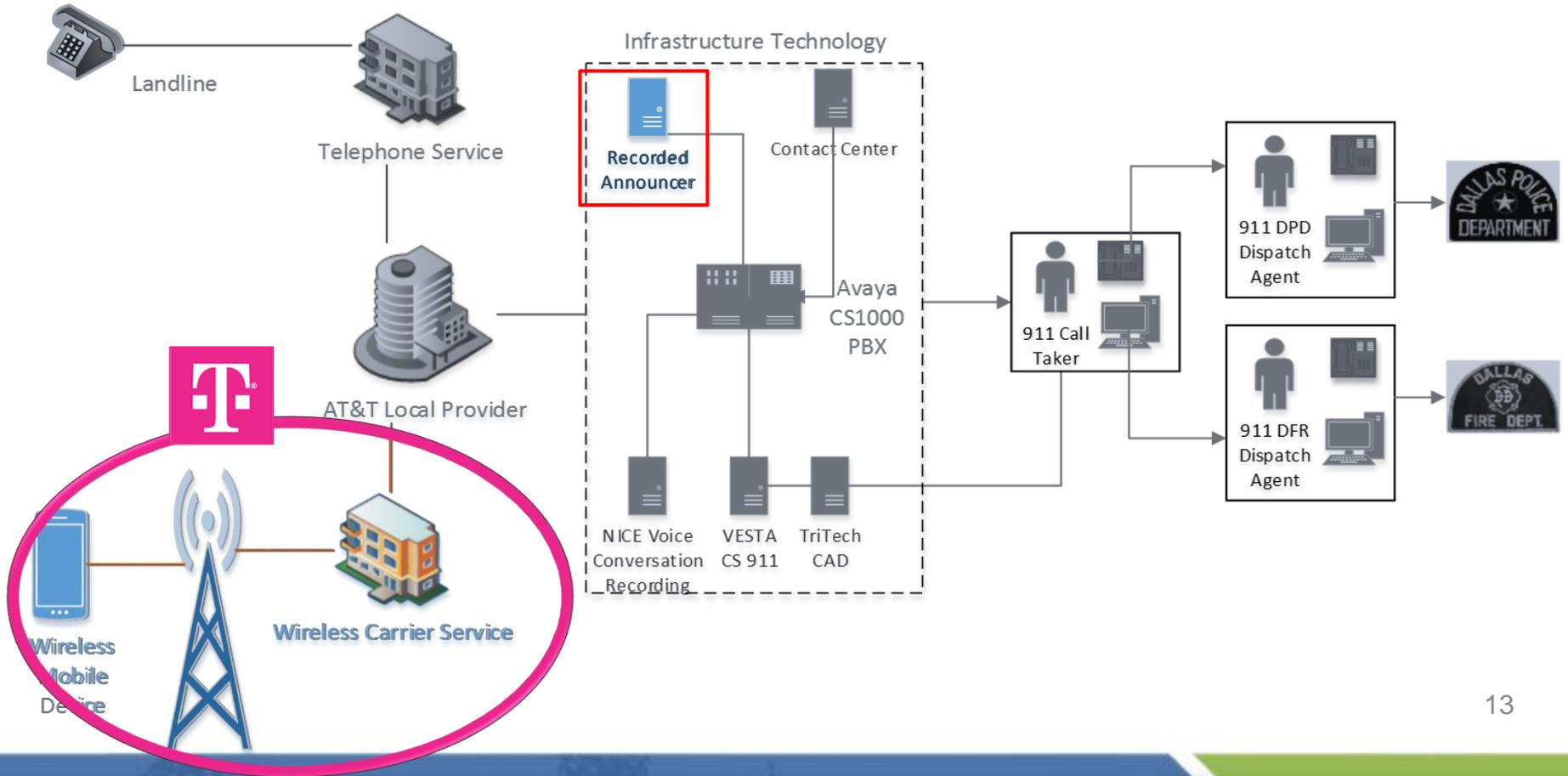
- Actions taken following onsite, joint working sessions at City Hall.
 - T-Mobile - Network changes made to mitigate the technology issue
 - City of Dallas / AT&T - Increased capacity and connections to shorten time and increase efficiency in delivering announcement to callers in queue during periods of high call volumes
- Results - No abnormal call spikes have been detected since these changes were made



911 Call Center Operations

(March 2017 Enhancements)

Public Safety Answering Point



Fiscal Year Issues

Technology

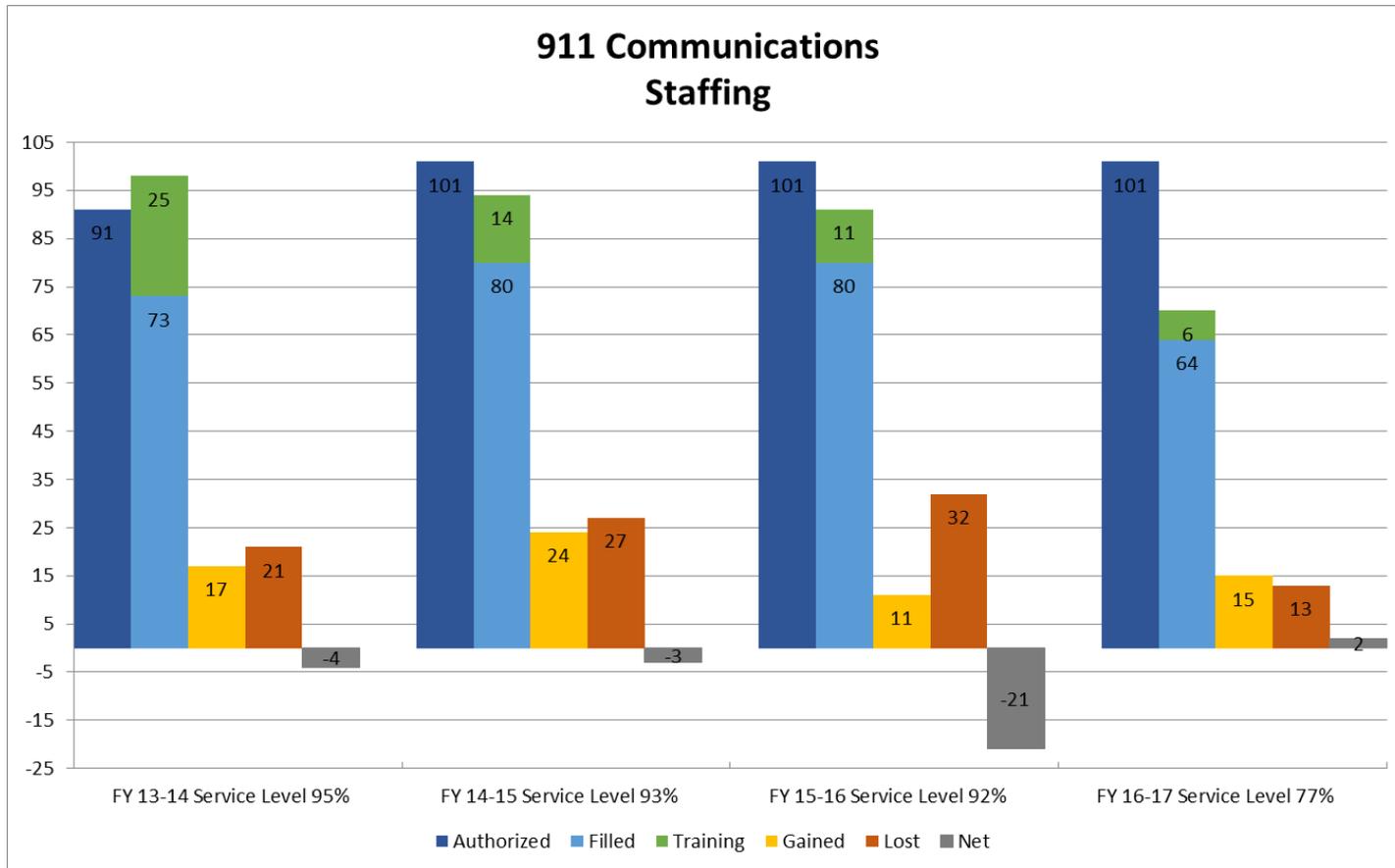
- Call Spikes
- Answering Capacity

Staffing

- Hiring
- Attrition



Historic Staffing Levels



Recent Staffing Levels

Month	Staffing Level		Service Level
	Call Taker	Trainee	
October 2016	65	5	83%
November 2016	63	6	89%
December 2016	62	8	81%
January 2017	62	11	80%
February 2017	61	11	64%
* March 2017	60	12	71%

* as of 3/31

Staffing Actions

Current

Cross-trained
dispatchers

Existing Officers
w/ 911 Training

1 month

39 sworn officers*

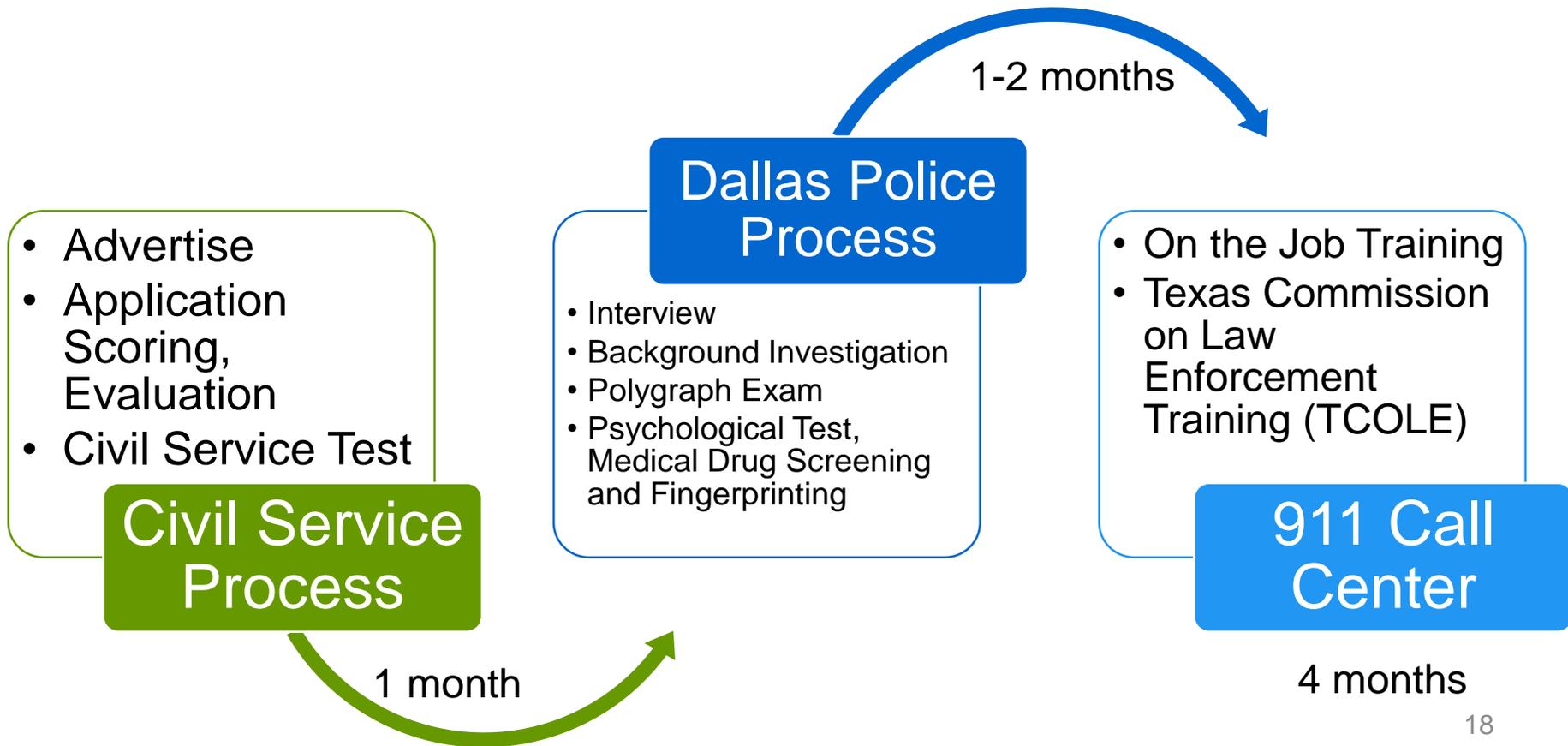
**Temporary Assignment*

1-2 months

**Hiring Fair –
871 Applicants**



Existing 911 Call Taker Hiring Process



Hiring Process Improvements

- Continuous open Civil Service list
- Reduce re-apply period from 30 to 15 days
- Added 911 Call Taker processing to monthly Police on-site hiring
- Adding three civilian background “detectives” who only process civilian applicants
- Shortened background process for applicants



911 Call Taker Salary

911 Call Taker Trainee \$33,382



9 weeks classroom
6 weeks live training

911 Call Taker start - \$36,053

911 Call Taker top - \$57,415

* A salary study is being conducted by Human Resources



Moving Forward

- Staffing software to be utilized for scheduling and forecasting
- Maintain callback list of qualified non-communications employees who can assist, if needed
- Call Center environment enhancements



Future 911 Call Center Actions

- Assessment completed in 2015 recommended develop plan for move to Next Generation 911 technology (NG911)
- NG911 is an Internet Protocol (IP)-based system
 - digital information (e.g., voice, photos, videos, text messages) to flow seamlessly from the public, through the 911 network, and on to emergency responders
 - enhance the 911 system to create a faster, more flexible, resilient, and scalable system: that allows 911 to keep up with communication technology used by the public
- City to implement in phases



Technology Enhancements – Phase I

- Move from an analog phone trunk system to a digital T1 system
- Move from a largely hardware-driven system to a more software-driven, NG911-compatible telephony system
- Hardware refresh of 312 computers
- Phase I in FY2016-17 budget - \$2.6M
 - In progress, completion planned for Oct/Nov 2017



Technology Enhancements – Phase II & III

- Phase II - Upgrade of backup 911 system to same level of technology deployed in Phase I
 - Estimated \$7.2M with 12 month implementation once contracted
 - Functionally redundant, off-site backup of the 911 call center: Call handling, Computer-aided dispatch, 30 seats, Fiber connection to hosted NG911 backup service
- Phase III – Consider and evaluate options for connectivity to an ESINet
 - Timeframe and budget TBD



Questions?



Appendix



911 Call Center Management History

1995

911 and 311 Operations in Dallas Fire-Rescue

2002

Water Customer Service moved to DFR as a component of 311

2005

Dallas Police Department Management and Efficiency Study (Berkshire Study)

2007

Assessment of the Dallas Fire-Rescue Department (Berkshire Study)
Call Center Study (Jericho Consulting)
• Recommendation to separate 911 & 311 call-taking functions into two centers

2008

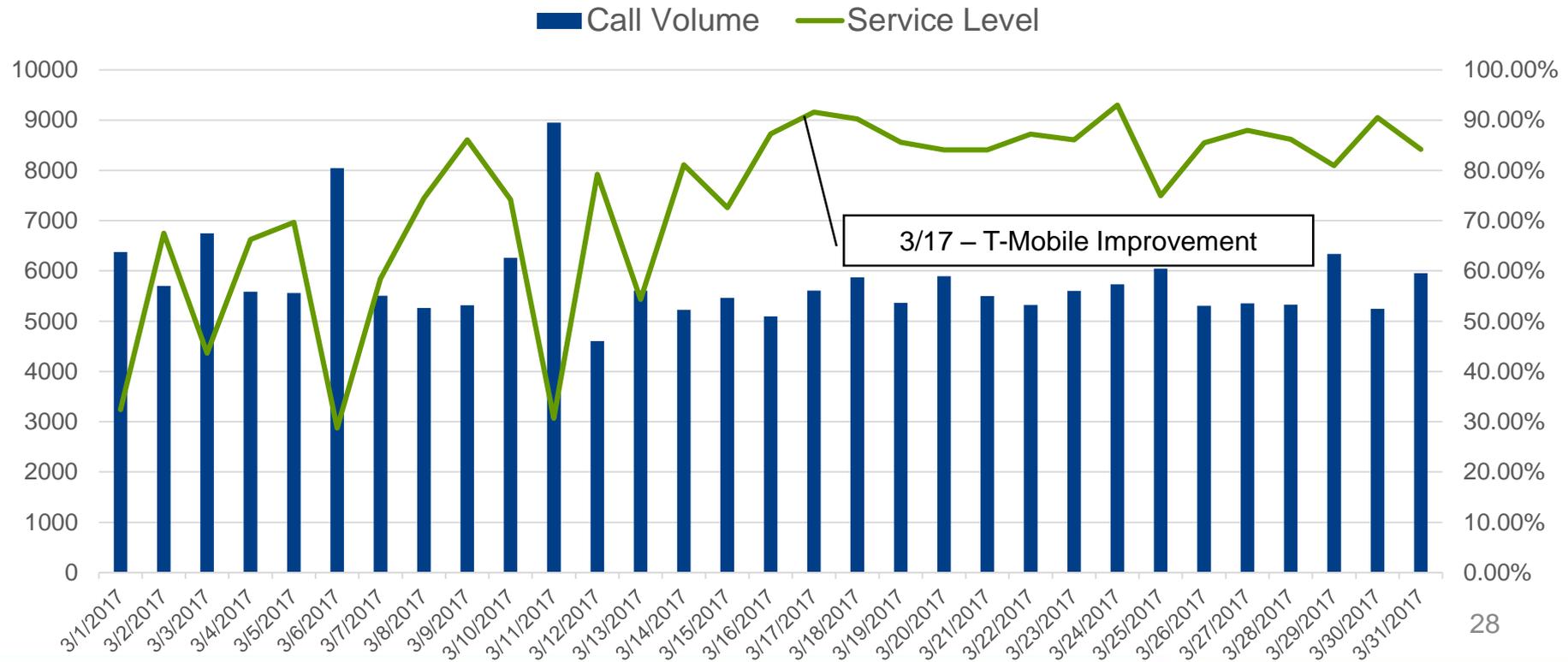
Separation of Call Center functions
• 911 (managed by DPD)
• 311 & Water Utilities



March 2017 Call Volume and Service Level

Calls: 179,773

Service Level: 72.23%



911 Call Taker Minimum Qualifications

- Education
 - High School diploma or GED
- Experience
 - Two (2) years of customer service experience with one (1) year of heavy phone contact, data entry/form completion, complaint resolution
- Additional Requirements
 - Must pass intensive background investigation and drug test
 - Must obtain a Texas Commission on Law Enforcement (TCOLE) Certification during probationary period
 - No Felony or Misdemeanor A convictions
 - No Class B Misdemeanor convictions within the last ten (10) years

