CITY OF OAKLAND

AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Katano Kasaine

SUBJECT: Status Report on ITD Help Desk
Requests made by OPD & OFD

DATE: August 10, 2015

City Administrator Approval		Date	9/2/15

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Staff recommends that the City Council:

Accept This Informational Report Providing An Analysis Of All Help Desk Requests Made By The Oakland Police Department (OPD) And Oakland Fire Department (OFD) To The Information Technology Department (ITD).

OUTCOME

This is an informational report with no specific outcome.

EXECUTIVE SUMMARY

This report is being provided at the request of Public Safety Committee Chairperson Brooks.

In an informational agenda report delivered to the Public Safety Committee for its March 24, 2015 meeting, ITD delivered an initial report on an analysis of help desk tickets and IT projects for OPD from January 1, 2014 to January 31, 2015. The Public Safety Committee then asked for a supplemental report containing the following:

- An explanation of the ticket prioritization process.
- Further parsing of OPD help desk tickets data based on categories.
- Information on the current ITD protocol for providing 24/7 support for mission-critical systems.
- A description of the backup and level of redundancy that exists in these systems.

ITD delivered the requested information and analysis at the May 12, 2015 meeting of the Public Safety Committee. In this meeting, Chairperson Brooks requested regular quarterly updates from ITD regarding OPD and OFD Help Desk tickets.

Item: _____
Public Safety Committee Meeting
September 15, 2015

BACKGROUND / LEGISLATIVE HISTORY

During the first four months of 2015, ITD made modest progress in bringing down the Help Desk ticket backlog for both Oakland Police Department (OPD) tickets and Oakland Fire Department (OFD) tickets. Ticket backlog as a percentage of total tickets went from 68 percent to 50 percent for OPD tickets and from 54 percent to 51 percent for OFD tickets. However, without new strategies, organizational realignments, and additional staff augmentation, decreasing the tickets backlog and maintaining the adequate level of IT projects support would have been impossible. In the past few years, ITD has gone through significant budget cuts in staffing, tools, training and resources. During this same period, it is important to notice that the Help Desk ticket volume has grown, new IT projects have been added, and training academies in OPD and OFD have been added increasing the number of personnel the Help Desk needed to support.

To address this critical business need and meet growing requirements without impacting daily operations, ITD conducted an organizational realignment. To address the growing support requirements immediately, ITD decided to rely initially on staff augmentation; meanwhile current staff can be trained on new tools and additional Full Time Equivalent (FTE) staff can be hired to address the support needs long-term. Staff augmentation resources were brought in to increase the size of the dedicated public safety support team by 50 percent. In addition, a highly-focused, very hands-on "tech wave" strategy was developed to address both backlogged tickets and new issues.

Further analysis of these tickets and of the tech wave strategy is provided in the Analysis section below.

ANALYSIS

A. The Tech Wave Initiative to Increase Help Desk Responsiveness

To effectively handle the demanding need of triaging and addressing public safety Help Desk tickets, the ITD staff crafted the following "tech wave" strategy, tactics and operations.

1. The current inadequate number of public safety support technicians was increased by adding two more positions for a total of eight.

2. OPD and OFD liaisons at each major facility were identified and contacted in advance of the tech wave and informed of the coming efforts. Public Safety IT Supervisor worked collaboratively with the liaisons to agree on a prioritized "hot list" of issues to be addressed when the tech wave team was on site – taking into account factors such as ticket priority and age.

3. Groups of nine technicians and a supervisor went to each major public safety facility and addressed and resolved the previously agreed upon priority list of backlogged and new issues.

4. While on site, the team visited each floor and office and engaged public safety staff at each location to understand the technical needs of each internal customer.

5. Public safety staff who were unavailable were given a follow-up visit or call to remediate the outstanding or new IT related issues. For users working the graveyard shifts and those who were out of the office, communications were sent in advance requesting them to print a copy of their help ticket(s) and leave them at their workstations or to provide a description of the issues along with alternative contact information in case the tech wave team needed to reach them.

The tech wave was deployed in July 2015 resulting in a dramatic decrease in the help desk ticket backlog while also dealing expeditiously with a high number of new tickets. As shown in *Figures 1 & 2* below, by August 1st, the OPD backlog as a percentage of total tickets had dropped from 79 percent to 23 percent and for OFD the decrease was even more dramatic – dropping from 81 percent to 14 percent.

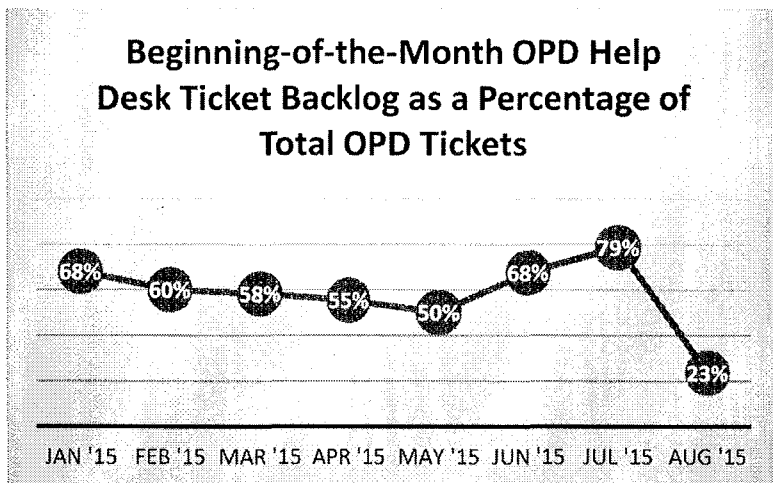*Figure 1: OPD Help Desk Ticket Backlog as a Percentage of Total Tickets*
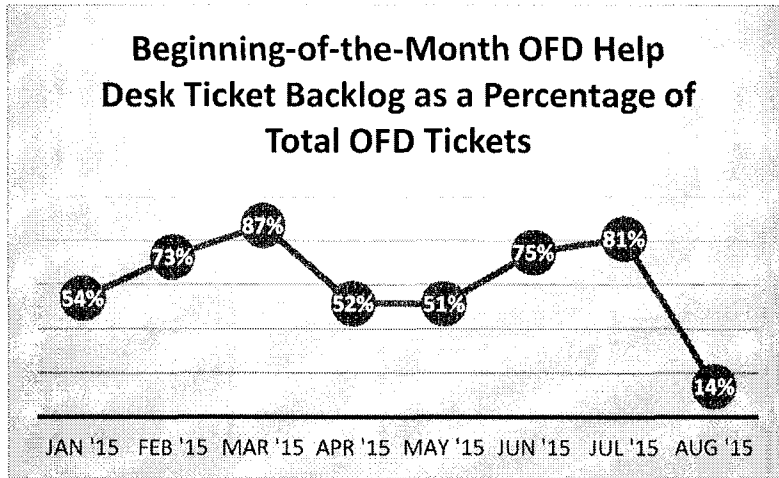
Beginning-of-the-Month OPD Help Desk Ticket Backlog as a Percentage of Total OPD Tickets

68% 60% 58% 55% 50% 68% 79% 23%

JAN '15   FEB '15   MAR '15   APR '15   MAY '15   JUN '15   JUL '15   AUG '15

Figure 2: OFD Help Desk Ticket Backlog as a Percentage of Total Tickets

Beginning-of-the-Month OFD Help Desk Ticket Backlog as a Percentage of Total OFD Tickets

The additional resources and focus brought the backlog down to a number not seen since the tracking system went into use in 2012. The next closest number for OPD tickets was 41 percent back in July 2012 and for OFD tickets it was 31 percent back in May 2014.

A further high-level summary of OPD Help Desk tickets for the period from January 1, 2015 to July 31, 2015 is in *Table 1* below. Note that as part of the tech wave strategy, new issues were also pursued – not just backlogged items. Specifically, the number of new tickets in July 2015 was up 64 percent over the monthly average for the previous six months and represented the second highest number of open tickets ever opened in a single month and yet the number of tickets closed was up even more – a 98 percent increase over the previous six-month average – the highest number ever closed in a single month.

Table 1: Oakland Police Department Help Desk Tickets from 1/1/15 to 7/31/15

Police Department Help Desk Tickets	Q1 2015	Q2 2015	July 2015
Open Ticket Backlog at *Start* of Period	396	365	453
New Tickets Opened	817	747	428
Total Help Desk Tickets (backlog + new)	**1,212**	**1,111**	**881**
Tickets Closed	**848**	**659**	**674**
Open Ticket Backlog at *End* of Period	365	453	207
Net Increase/(Decrease) in Open Tickets	**(31)**	**88**	**(246)**
Percent of Total Tickets Closed	**70.0%**	**59.3%**	**76.5%**

A further high-level summary of OFD Help Desk tickets for the period from January 1, 2015 to July 31, 2015 is in **Table 2** below. For the Fire Department, the tech wave results were even more dramatic – a 98 percent increase in new tickets for July (the most ever opened in a given month) and a 34 percent increase in closed tickets over the monthly average for the previous six months (also the most ever closed in a given month).

Table 2: Oakland Fire Department Help Desk Tickets from 1/1/15 to 7/31/15

Fire Department Help Desk Tickets	Q1 2015	Q2 2015	July 2015
Open Ticket Backlog at *Start* of Period	184	185	264
New Tickets Opened	291	342	209
Total Help Desk Tickets (backlog + new)	**475**	**527**	**473**
Tickets Closed	**290**	**263**	**407**
Open Ticket Backlog at *End* of Period	185	264	66
Net Increase/(Decrease) in Open Tickets	**1**	**79**	**(198)**
Percent of Total Tickets Closed	**61.0%**	**49.9%**	**86.0%**

The results speak for themselves with historic numbers of opened and closed tickets being dispatched quickly leaving the smallest backlog of tickets at the end of the month ever recorded. The sustainability of this approach, however, is dependent on the ITD Public Safety Support Team being able to maintain staffing levels appropriate to the internal customers being serviced. ITD is currently working with the Human Resources Department to update the job specifications and required skills to be used to recruit future ITD staff.

B. Ticket Parsing By Category

Tables 3 and 4 below break down OPD and OFD Help Desk tickets by ticket category for tickets that were open from January 1, 2015 to July 31, 2015 (including backlogged tickets still open from previous periods) and tickets closed during this same period. Due to the increased focus on closing tickets – and, in particular, due to the "tech wave" sprint in July 2015, most categories had an 80 percent or above close rate. Those few that fell below 80 percent did so only because of the small numbers involved or because the problems were dependent on issues outside the control of the Public Safety IT support team (e.g., Oracle issues).

Table 3: Oakland Police Department Help Desk Tickets by Category for the period 1/1/2015 – 7/31/15

Police Department Help Desk Tickets By Category	Open Tickets	Closed Tickets	% Closed
No category	433	414	96%
Password Reset	281	269	96%
Departmental Applications(Business Applications)	265	240	91%
Application	208	171	82%
Configuration / Setup	168	156	93%
Computer Hardware	141	131	93%
Printer	95	89	94%
City Applications(Enterprise Applications)	88	71	81%
Access	80	64	80%
Network Account	80	77	96%
Software Installation	71	66	93%
Telephone	66	65	98%
Desktop	59	53	90%
Network	51	50	98%
Inquiry	41	33	80%
Telecom	34	31	91%
Oracle	29	19	66%
Infrastructure	23	23	100%
Voicemail	23	23	100%
Purchasing	21	19	90%
Operating System	20	17	85%
Mobile Device	16	16	100%
Move Add Change	16	16	100%
Server	15	15	100%
Alarm	10	10	100%
Copier	10	9	90%
Mobile	10	10	100%
Peripheral	4	2	50%
Cell Phone	3	2	67%
Scanner	3	3	100%
Virtual Private Network	3	3	100%
Laptop	2	2	100%
Portable	2	2	100%
Radio	2	2	100%
Remote Access	2	2	100%
Security	2	1	50%
Wiring	2	2	100%
Access Card	1	1	100%
Alert	1	1	100%
Cable Service	1	0	0%
Fax	1	1	100%

Table 4: Oakland Fire Department Help Desk Tickets by Category for the period 1/1/2015 – 7/31/15

Fire Department Help Desk Tickets By Category	Open Tickets	Closed Tickets	% Closed
No category	162	157	97%
Password Reset	129	129	100%
Printer	103	102	99%
Application	78	70	90%
City Applications(Enterprise Applications)	75	72	96%
Computer Hardware	71	66	93%
Departmental Applications(Business Applications)	59	58	98%
Software Installation	58	58	100%
Telephone	37	35	95%
Access	36	31	86%
Configuration / Setup	32	30	94%
Telecom	18	18	100%
Desktop	17	16	94%
Network Account	15	15	100%
Purchasing	15	15	100%
Inquiry	11	11	100%
Network	10	10	100%
Alarm	7	5	71%
Move Add Change	6	5	83%
Radio	6	5	83%
Security	6	5	83%
Fax	5	5	100%
Mobile Device	5	5	100%
Oracle	5	2	40%
Peripheral	5	4	80%
Virtual Private Network	5	5	100%
Infrastructure	4	4	100%
Cable Service	3	2	67%
Mobile	3	3	100%
Operating System	3	3	100%
Cell Phone	2	2	100%
Laptop	2	2	100%
Printing Service	2	2	100%
Voicemail	2	1	50%
Copier	1	1	100%
Estimate	1	1	100%
Portable	1	1	100%
Remote Access	1	1	100%
Server	1	1	100%
Services	1	1	100%
WiFi	1	1	100%
Wiring	1	0	0%

D. Ticket Aging

Figures 3 and 4 below provide a different type of analysis – ticket aging. This is a measurement of how long it took to close a ticket (including tickets that were part of the backlog at the beginning of the period). For tickets that were opened during the period, but not yet closed by 7/31/2015, their age is calculated as of 7/31/2015.

OPD HELP DESK TICKET AGING FROM 1/1/2015 TO 7/31/2015
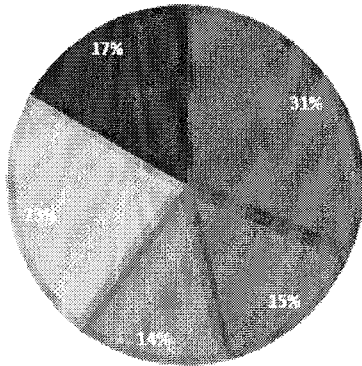
■ 0-2 Days   ■ 2-10 Days   ■ 10-30 Days   ■ 30-90 Days   ■ 90+ Days

Figure 3: OPD Help Desk Ticket Aging from 1/1/2015 to 7/31/2015

OFD HELP DESK TICKET AGING 1/1/2015-7/31/2015

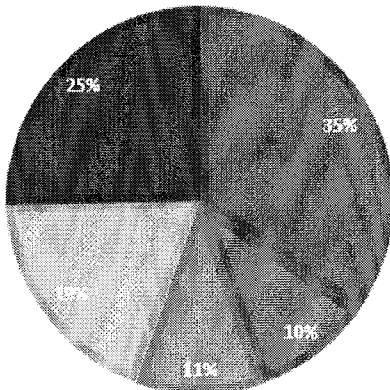■ 0-2 Days   ■ 2-10 Days   ■ 10-30 Days   ■ 30-90 Days   ■ 90+ Days

Figure 4: OFD Help Desk Ticket Aging from 1/1/2015-7/31/2015

E. Process and Technology Enhancements

Going forward, ITD is pursuing possible upgrades to the current underlying technology used to track Help Desk tickets – bringing the software up to the most recent version offered by the vendor. In addition, the support staff is working on changes to the current business processes that would add a prioritization dimension to every ticket.

COST SUMMARY/IMPLICATIONS

There are no additional funds requested as part this report.

PUBLIC OUTREACH/INTEREST

This item did not require any public outreach.

COORDINATION

In the preparation of this staff report, ITD coordinated with the City Administrator's Office, the Budget Office and the City Attorney's Office.

SUSTAINABLE OPPORTUNITIES

Economic: There are no specific economic opportunities created by the acceptance of this informational report.

Environmental: There are no specific environmental opportunities created by the acceptance of this informational report.

Social Equity: There are no specific social equity opportunities created by the acceptance of this informational report.
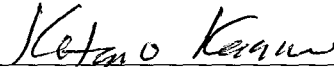
For questions concerning the contents of this report, please contact Ahsan Baig, Information Technology Department at 510-238-3010.

Respectfully submitted,

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