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AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Katano Kasaine
Interim Chief Information Officer

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

DATE: January 10, 2016

City Administrator
Approval

Date

1/26/16

RECOMMENDATION

Staff Recommends That The City Council Receive This Informational Report Providing A Status Report On The Information Technology Department (ITD) Help Desk Requests Made By The Oakland Police Department (OPD) And Oakland Fire Department (OFD).

EXECUTIVE SUMMARY

This report is being provided at the request of Public Safety Committee Chairperson Brooks who, in a meeting of the Committee on May 12, 2015, asked for quarterly updates on this topic.

As reported at the September 15, 2015 Committee meeting, during July and August 2015 ITD augmented support staff to increase resources by 50 percent and the early results of this strategy were very promising. Help Desk ticket backlog and ticket resolution times dropped to historic lows by the beginning of August. With three more months of data now in, it is clear that the additional resources are providing major *sustainable* improvements in the level of service.

Table 1: Combined OPD/OFD Help Desk Tickets

Combined OPD/OFD Help Desk Tickets	Q1 2015	Q2 2015	Q3 2015	Q4 2015
Open Ticket Backlog at <i>Start of Period</i>	580	550	717	174
New Tickets Opened	1,108	1,089	1,961	1,143
Total Help Desk Tickets (backlog + new)	1,688	1,639	2,678	1,317
Tickets Closed	1,138	922	2,504	1,261
Open Ticket Backlog at <i>End of Period</i>	550	717	174	56
Net Increase/(Decrease) in Open Tickets	(30)	167	(543)	(118)
Percent of Total Tickets Closed	67%	56%	94%	96%

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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. Decreasing the ticket backlog even further, while having enough personnel resources to simultaneously support the many resource-intensive information technology (IT) projects, would have been impossible without staff augmentation, new strategies and organizational realignment. In the past few years, ITD has gone through significant budget cuts in staffing, tools, training and resources. During this same period the Help Desk ticket volume has increased, 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 while existing staff were trained on new tools and while additional Full Time Equivalent (FTE) staff were 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. These additional resources and this strategy were brought to bear in July 2015 and the results were dramatic. Key metrics such as ticket backlog as a percentage of total tickets dropped to historic lows. Ticket close times also fell sharply. As this report shows, these dramatic improvements have been sustained.

ANALYSIS AND POLICY ALTERNATIVES

A key Help Desk metric is the percentage of unresolved tickets at the start of every month (as a percentage of the total number of tickets for processed in the prior month). This number is also referred to as the “backlog” and the higher this number is, the more the support staff are falling behind and the longer internal customers are waiting to get their issues addressed. Conversely, when the unresolved ticket percentage is low, it means the support staff are staying ahead and customers are getting quick, responsive service. With this in mind, the two graphs below tell a very positive story about the sustainable effects of augmenting the ITD support staff in July. As the graphs show, these positive effects were felt by both OPD and OFD.

Figure 1: Percentage of Unresolved Help Desk Tickets (OPD)

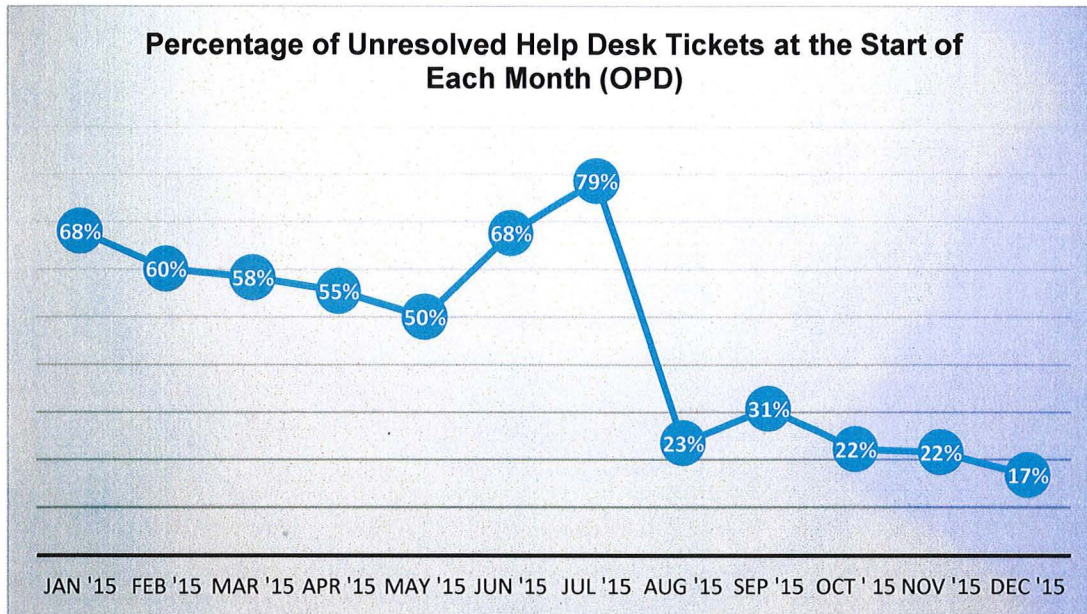
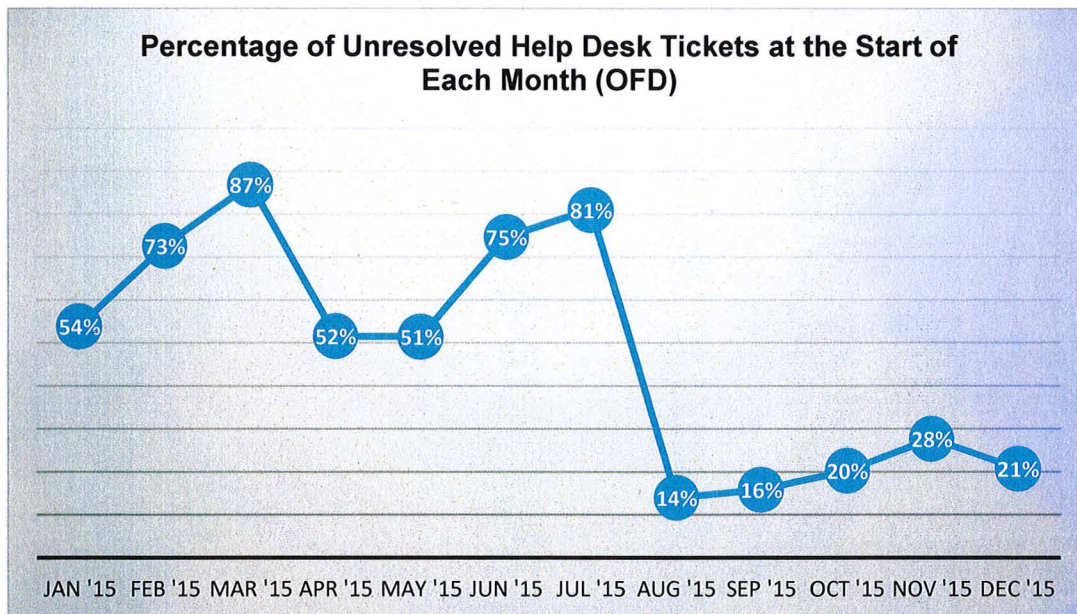


Figure 2: Percentage of Unresolved Help Desk Tickets (OFD)



The current Help Desk ticket tracking system has been in use since April 2012 and during the roughly three-year period leading up to August 2015, the previous lowest percentage of unresolved tickets for OPD was 41 percent back in July 2012 and for OFD tickets it was 31

percent back in May 2014. In short, the results since August 2015 are dramatically better than anything accomplished in recent memory.

A further high-level summary of OPD Help Desk tickets for the period from January 1, 2015 to December 31, 2015 is in **Table 2** below.

Table 2: Oakland Police Department Help Desk Tickets from 1/1/15 to 12/31/15

Police Department Help Desk Tickets	Q1 2015	Q2 2015	Q3 2015	Q4 2015
Open Ticket Backlog at <i>Start</i> of Period	396	365	453	119
New Tickets Opened	817	747	1,200	732
Total Tickets (backlog + new)	1,213	1,112	1,653	851
Tickets Closed	848	659	1,534	825
Open Ticket Backlog at <i>End</i> of Period	365	453	119	26
Net Increase/(Decrease) in Open Tickets	(31)	88	(334)	(93)
Percent of Total Tickets Closed	70%	59%	93%	97%

The corresponding summary of OFD Help Desk is in **Table 3** below and shows similar results and trends.

Table 3: Oakland Fire Department Help Desk Tickets from 1/1/15 to 12/31/15

Fire Department Help Desk Tickets	Q1 '15	Q2 '15	Q3 '15	Q4 '15
Open Ticket Backlog at <i>Start</i> of Period	184	185	264	55
New Tickets Opened	291	342	761	411
Total Tickets (backlog + new)	475	527	1,025	466
Tickets Closed	290	263	970	436
Open Ticket Backlog at <i>End</i> of Period	185	264	55	30
Net Increase/(Decrease) in Open Tickets	1	79	(209)	(25)
Percent of Total Tickets Closed	61%	50%	95%	94%

These results show a continuation of the initial trends identified in the September 2015 report to the Committee. Responsiveness, as measured by percentage of tickets closed and by backlog as a percentage of total tickets, remains at substantially higher levels than ever previously recorded. Clearly the staff augmentation strategy embarked upon in July 2015 – one that started with contractors, but has now transitioned to additional full-time staff, has produced sustainable improvements.

The substantial drop in new tickets from the third calendar quarter (Q3) to the fourth calendar quarter (Q4) is largely the result of the Q3 increase in tickets due to the one-time Q3 “tech wave” exercise in which support staff visited all OPD and OFD facilities and opened (and

closed) many more tickets than average in an effort to ensure OPD and OFD customer satisfaction. No such tech wave was planned for Q4, hence the total number of new tickets returned roughly to recent levels.

On a more general note, there are several factors in addition to the increase in staff resources that have helped improve overall responsiveness. The other factors include more proactive maintenance, the move to Office 365 (that reduced email support tickets dramatically), the cumulative effect of several recent network infrastructure upgrades and the wholesale replacement and upgrading of OPD and OFD laptops and desktop computers. As these infrastructure investments have come online over 2015, they have made material contributions to reductions in overall IT support workload and volume.

Ticket Parsing By Category

Tables 4 and 5 below break down OPD and OFD Help Desk tickets by ticket category for tickets that were open from January 1, 2015 to December 31, 2015 (including backlogged tickets still open from previous periods) and tickets closed during this same period. Thanks to the increased personnel resources available and factoring in the results of the July 2015 “tech wave” sprint, most categories have a 95 percent or above close rate. Those few that fell below 95 percent did so typically because of the small numbers involved or because the resolutions of the issue(s) were dependent on outside resources not under the control of the Public Safety IT support team (e.g., the cable service issue required resolution by an external vendor).

Table 4: Oakland Police Department Help Desk Tickets by Category for the period 1/1/2015 – 12/31/15

Police Department Tickets By Category	Open	Closed	% Closed
Password Reset	432	432	100%
Application	430	427	99%
Access	358	354	99%
No Category	306	306	100%
Departmental Applications(Business Applications)	277	276	100%
Configuration / Setup	270	270	100%
Computer Hardware	191	188	98%
Network Account	187	186	99%
City Applications(Enterprise Applications)	157	155	99%
Printer	144	144	100%
Desktop	126	125	99%
Telecom	82	80	98%
Telephone	82	82	100%
Network	72	72	100%
Software Installation	67	66	99%
Server	58	58	100%
Operating System	43	43	100%
Wifi	39	37	95%
Move Add Change	36	35	97%

Police Department Tickets By Category	Open	Closed	% Closed
Voicemail	28	28	100%
Infrastructure	26	26	100%
Peripheral	23	23	100%
Purchasing	22	21	95%
Copier	19	19	100%
Oracle	16	16	100%
Mobile Device	11	11	100%
Alarm	10	10	100%
Mobile	10	10	100%
Laptop	9	9	100%
Cell Phone	7	7	100%
Remote Access	6	6	100%
Scanner	5	5	100%
Wiring	5	5	100%
Radio	4	2	50%
Security	4	3	75%
Access Card	2	2	100%
Fax	2	2	100%
Portable	2	2	100%
Alert	1	1	100%
Cable Service	1	0	0%
Virtual Private Network	1	1	100%
AT&T	1	1	100%
Printing Service	1	1	100%
Storage	1	1	100%

Table 5: Oakland Fire Department Help Desk Tickets by Category for the period 1/1/2015 – 12/31/15

Fire Department Tickets By Category	Opened	Closed	% Closed
Application	325	321	98.8%
Password Reset	265	265	100.0%
Access	178	176	98.9%
Printer	149	148	99.3%
City Applications(Enterprise Applications)	110	110	100.0%
No Category	104	103	99.0%
Network	95	95	100.0%
Desktop	74	73	98.6%
Departmental Applications(Business Applications)	70	68	97.1%
Computer Hardware	64	64	100.0%
Telecom	54	54	100.0%
Software Installation	49	49	100.0%
Telephone	47	47	100.0%
Configuration / Setup	44	44	100.0%

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Network Account	25	25	100.0%
Wifi	20	20	100.0%
Peripheral	19	19	100.0%
Move Add Change	13	12	92.3%
Infrastructure	11	11	100.0%
Laptop	8	7	87.5%
Operating System	8	8	100.0%
Radio	8	5	62.5%
Alarm	7	7	100.0%
Fax	6	6	100.0%
Purchasing	6	6	100.0%
Security	5	3	60.0%
Voicemail	5	5	100.0%
Mobile Device	4	4	100.0%
Server	4	4	100.0%
Copier	3	3	100.0%
Mobile	3	3	100.0%
Virtual Private Network	3	3	100.0%
Cell Phone	2	2	100.0%
Oracle	2	2	100.0%
Printing Service	2	2	100.0%
Remote Access	2	2	100.0%
Services	2	2	100.0%
Accessory	2	2	100.0%
Cable Service	1	1	100.0%
Estimate	1	1	100.0%
Portable	1	1	100.0%
Wiring	1	1	100.0%
Scanner	1	1	100.0%
Alert	1	1	100.0%
Access Card	1	1	100.0%

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 12/31/2015, their age is calculated as of 1/10/2016.

Figure 3: OPD Help Desk Ticket Aging from 9/1/2015 to 12/31/2015

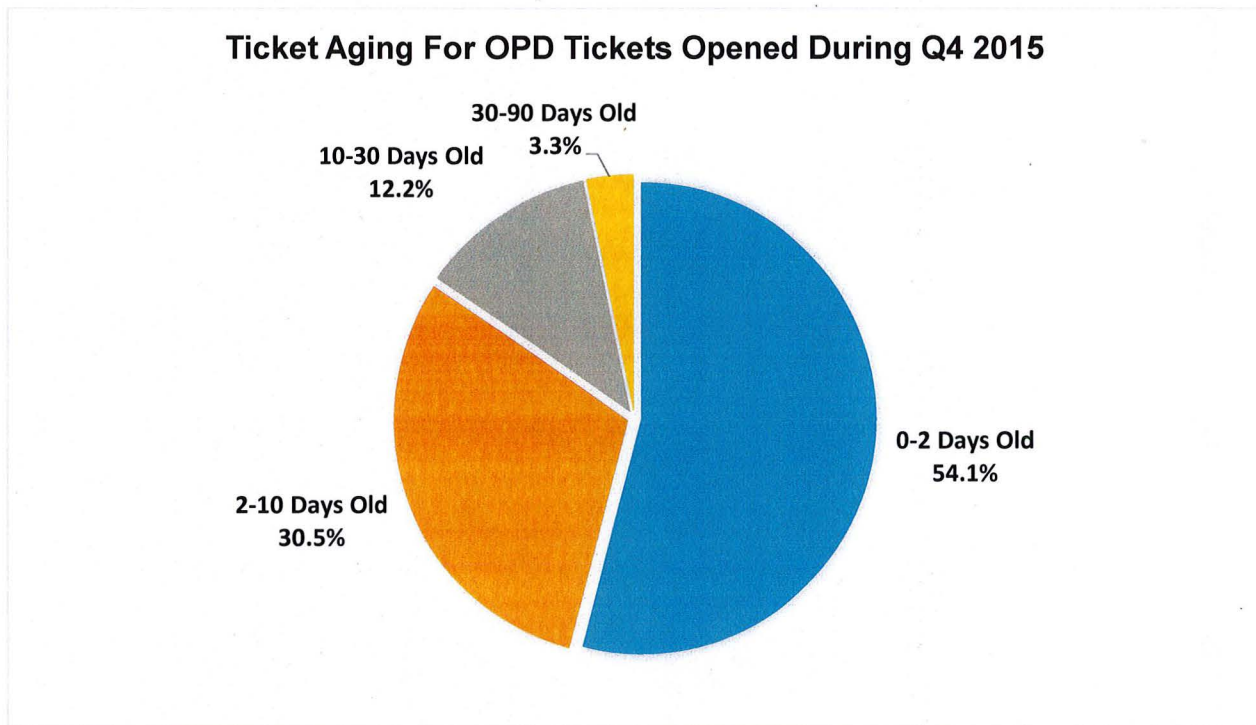
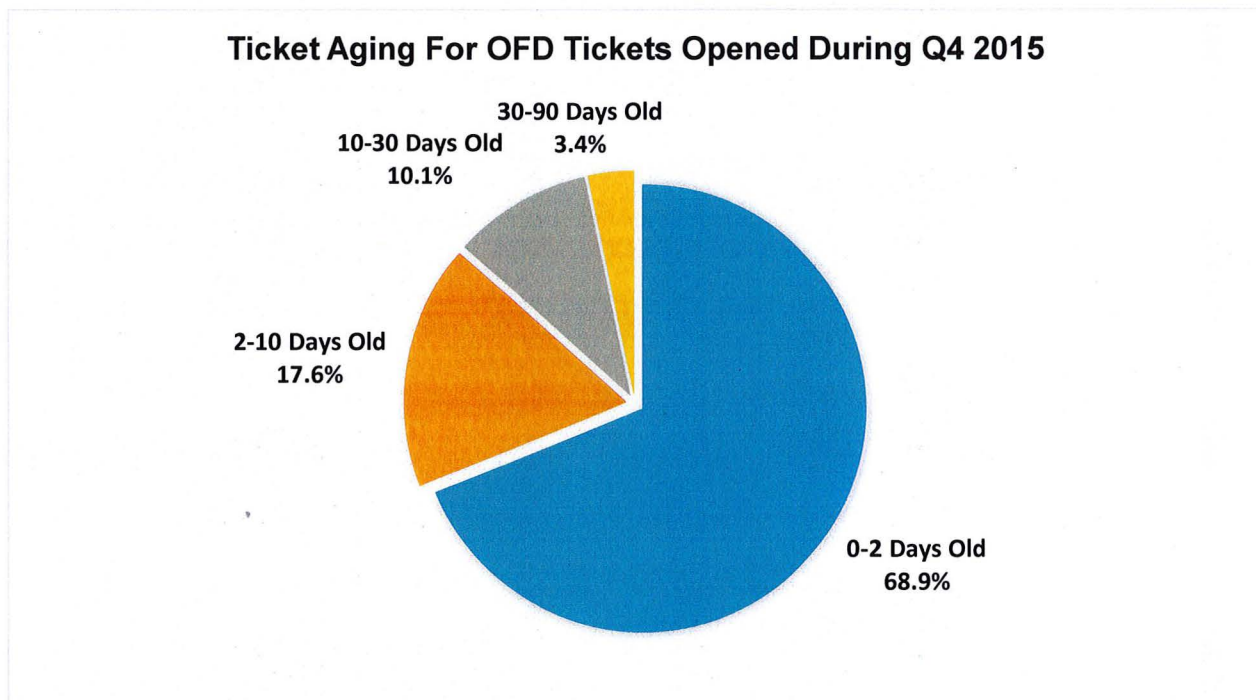


Figure 4: OFD Help Desk Ticket Aging from 9/1/2015-12/31/2015



Process and Technology Enhancements

In addition to the various factors outlined above, ITD has also upgraded the current underlying software used to track Help Desk tickets to the most recent version and provided in-depth training on this new system to all support staff. The latest version of the software supports the ability to prioritize tickets by impact and urgency and ITD is currently finalizing the necessary business rules and processes so that all future tickets get prioritized in a consistent and agreed upon fashion.

FISCAL IMPACT

There are no fiscal impacts associated with this report.

PUBLIC OUTREACH/INTEREST

This item did not require any public outreach other than posting on the City's web site.

COORDINATION

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

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.

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ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Receive This Informational Report Providing A Status Report On The Information Technology Department (ITD) Help Desk Requests Made By The Oakland Police Department (OPD) And Oakland Fire Department (OFD).

For questions concerning the contents of this report, please contact Ahsan Baig, Division Manager, Public Safety Services, Information Technology Department at 510-238-3010.

Respectfully submitted,



Katano Kasaine
Interim Chief Information Officer

Prepared by: Ahsan Baig,
Division Manager, Public Safety Services
Information Technology Department

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Public Safety Committee Meeting
February 9, 2016