Department of Technology Services Performance Review

Dieter Klinger, Acting Director

April 17, 2012

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CountyStat Principles

- **Require Data Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**

Agenda

- **Overview of Budget and Workyear History**

- **Headline Performance Measures**
  - Program Area Review

- **At-Large Long Term Issues for DTS**

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Meeting Goal:

- **Identify areas of DTS operations that based on performance trends lines should be targets for further improvement**

- **Review Current Long-Term Projects**

How We Will Measure Success:

- **Comparison of headline performance measures to previous year's performance will determine if departmental operations are improving, maintaining, or declining**

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Budget and Personnel Review of DTS from FY08 to FY12

Fiscal Years	FY08 Act	FY09Act	FY 10 Act	FY11 Est	FY12 Bud
DTS Work Years in General Fund	143.6	135.0	117.5	84.5	80.6
DTS Work Years as % of total MCG	1.4%	1.3%	1.2%	0.9%	0.9%

% Change DTS Work Years FY08 – FY12:   **-44%**

Fiscal Years	FY08 Act	FY09 Act	FY 10 Act	FY11 Est	FY12 Bud
DTS General Fund Budget	$31.7 M	$32.4 M	$27.7 M	$26.1 M	$25.6 M
DTS Budget as % of total MCG	2%	2%	1.7%	1.7%	1.6%

% Change DTS General Fund FY08 – FY12:   **-19%**

Headline Measures

- **Number of minutes identified Information Technology (IT) systems are out of service**

- **Average number of workdays to complete telecom requests**

- **Percent of DTS Help Desk requests that are resolved on the first call**

- **Average number of seconds to serve a web page**

- **County Email Messaging**
  – Number of email messages sent and received by County email account holders
  – Number of email messages filtered or blocked from entering County email account holders inboxes

- **IT Security**
  – Average system security vulnerabilities per device
  – Internet browse time by risk class

- **Project Management**
  – Project schedule performance – average days past baseline
  – Project budget performance - % over baseline

- **Percent of customers satisfied with Cable Office complaint handling**

- **Transmission Facilities Application Process**

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FY 11 Headline Measure Performance

| Performance Measure Text	FY11	FY10	Performance
Number of minutes identified Information Technology (IT) systems are out of Service	4,173	2,294	⬇
Number of email messages sent and received by County email account holders (in millions)	81.2	76.3	↔
Number of email messages filtered or blocked from entering County email account holders inboxes (in millions)	64.1	268	⬇
Average number of seconds to serve a web page	0.49	0.47	↔
Percent of DTS Help Desk requests that are resolved on the first call *collected quarterly	97.8%	97.37%	↔
Average number of workdays to complete telecom requests	11.2	7.7	⬇
IT Security - Average system security vulnerabilities per device	52	36	⬇
IT Security - Internet browse time in hours by risk class: Security Risk	1,415	62,464	⬆
Project Management - Project budget performance: percent cost over baseline budget	-0.20%	-1.90%	↔
Project Management - Project schedule performance: average days past baseline project end date	+11.8	+4.8	↔
Percent of customers satisfied with Cable Office complaint handling	96%	94%	↔
Transmission Facilities Application Process: Average number of days to process applications for site wireless towers	23	45	⬆

Headline Measure #1
Number of minutes identified Information Technology (IT) systems are out of service
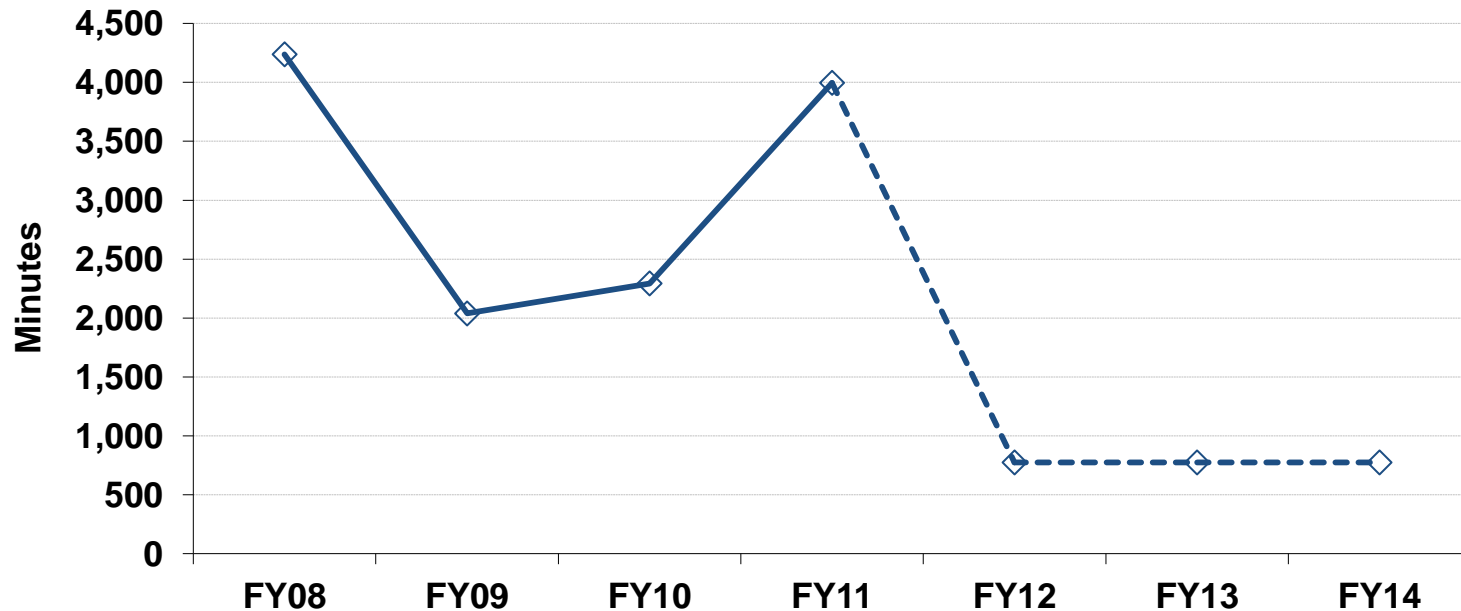
Measure		FY08	FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Minutes	◇	4,238	2,039	2,294	4,137	700	700	700
Currently as of 3/01/12								

FY11 experienced an increased total amount of IT systems out of service.

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Headline Measure #1
Number of minutes identified Information Technology (IT) systems are out of service

Identified IT Systems

System	FY08	FY0	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Mainframe	1,080	0	0	870	--	--	--
Email (internal)	108	248	612	930	--	--	--
Email (external)	105	0	480	870	--	--	--
Internet access	263	283	136	870	--	--	--
CAD	54	457	60	89	0	0	0
ERP	--	--	--	--	250	250	250
MCTime	--	--	--	--	250	250	250
Email	--	--	--	--	0	0	0
Internet Portal	2,628	1,051	526	508	250	250	250
CLASS (Rec registration)	--	--	--	--	250	250	250

Note: Greyed areas will be discontinued from FY12 forward as part of headline measure..

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Headline Measure #1
Number of minutes identified Information Technology (IT) systems are out of service

- **Departmental Explanation for FY11 Performance:**

  - All other systems include a one-time 14.5 hour (870 minute) outage due to PEPCO power outage and COB Datacenter backup generator failure in July 2010. The majority of this outage was during non-business hours.

- **Departmental Explanation for FY12-FY14 Projections:**

  - Data center renovations nearly complete, this should improve system redundancy and improve performance.

  - CAD - implementation of new and fully redundant CAD servers expected to eliminate outages.
  - New application centric measures and methodology for computing outages is proposed.

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Headline Measure: Telecommunications #2
Average number of workdays to complete telecom requests
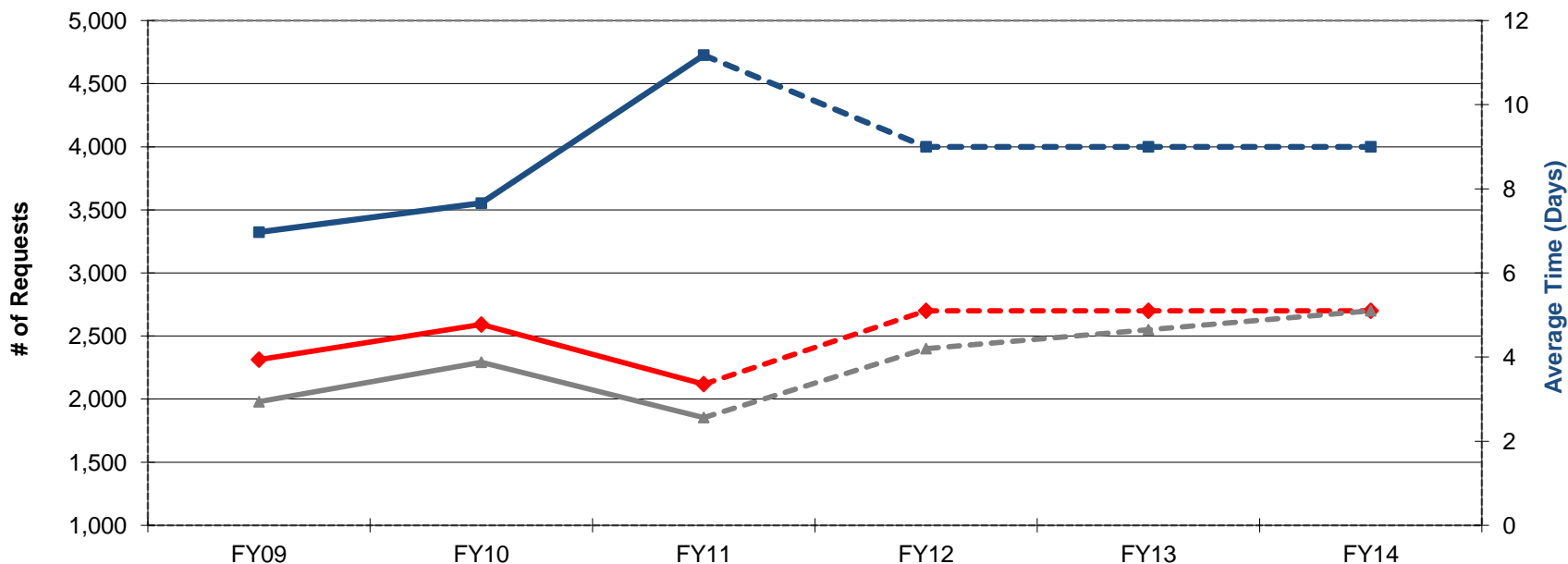
		FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Average Days to Complete Request	◆	6.97	7.66	11.18	9.00	9.00	9.00
# of Closed Requests	◆	2,313	2,591	2,119	2,200	2,200	2,200
# of Requests Completed Before SLA	◆	1,979	2,292	1,854	2,000	2,000	2,000

Telecom services are for internal County users with numbers on the (240)-777/773, (301)-279/565 exchanges. The measure does not include county owned mobile phones.

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Headline Measure: Telecommunications #2
# Average number of workdays to complete telecom requests

- **Departmental Explanation for FY11 Performance:**
  - In FY11 reduction in force impacted turnaround times.

- **Departmental Explanation for FY12-FY14 Projections:**
  - Reallocation of resources expected to improve performance.

Headline Measure: Help Desk #3
Percent of DTS Help Desk requests that are resolved on the first call

First Call Resolution – Service Level Agreement
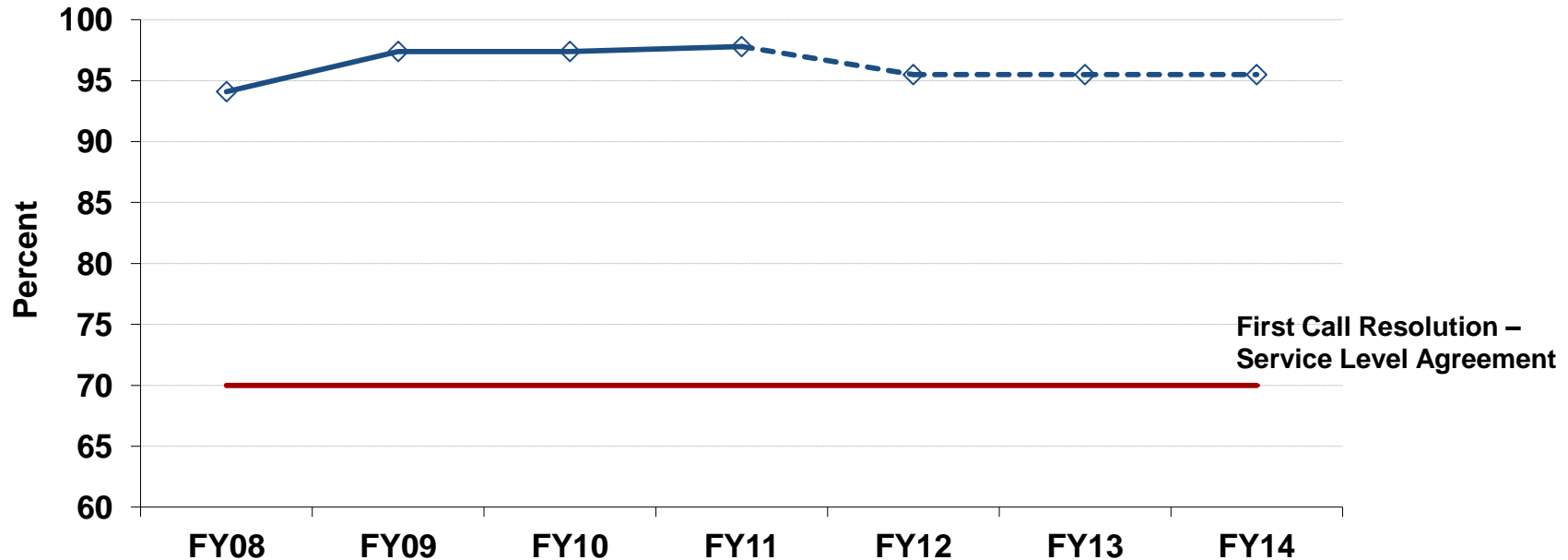
Measure		FY08	FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Percent	◇	94.1	97.4	97.4	97.8	95.5	95.5	95.5
Number of Calls		31,092	29,592	31,168	31,300	32,100	32,100	32,100

Help Desk performance above and beyond service level agreement. Department may want to revise SLA to reflect actual performance.

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Headline Measure: Help Desk #3
Types of DTS Help Desk requests that are resolved on the first call

Areas of Help Desk Requests	Percent of Requests in FY11
Password	12%
Internet	5%
Outlook	12%
Software	25%
Other	46%
Types of "Other" Help Desk Request:	▪All department specific apps ▪All hardware and hardware maintenance subjects ▪All mainframe subjects ▪All DCM-IMAC subjects ▪All Hand held devices subjects ▪All Miscellaneous subjects ▪All Network and Security subjects

Headline Measure: Help Desk #3
Percent of DTS Help Desk requests that are resolved on the first call

- **Departmental Explanation for FY11 Performance:**
  - Budget reductions did not adversely impact help desk resolved on first call rate.
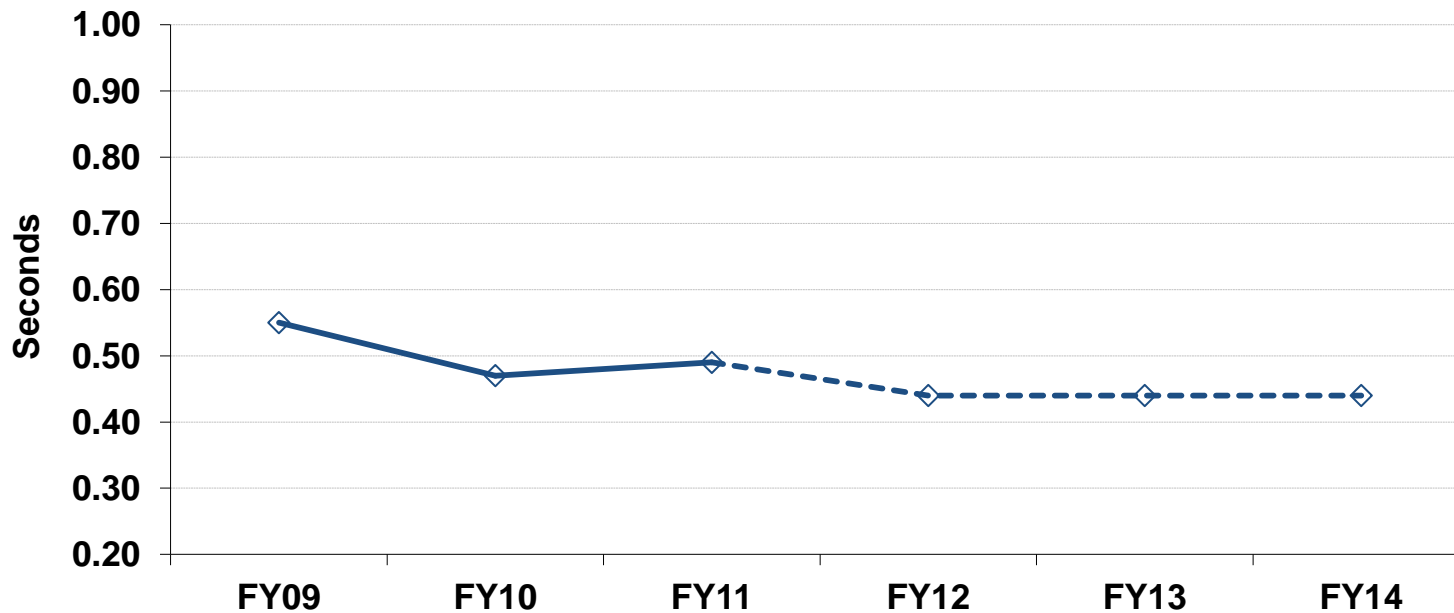
- **Departmental Explanation for FY12-FY14 Projections:**
  - Performance is expected to remain constant.

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Headline Measure #4
Average number of seconds to serve a web page

Measure		FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Seconds	◇	0.55	0.47	0.49	0.44	0.44	0.44

Definition: This represents the average time it takes from the point the server received the page request until it transmitted all the data for county pages on the www.montgomerycountymd.gov domain.

There is an industry target of 3 seconds. DTS consistently meets this target.

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Headline Measure #4
Average number of seconds to serve a web page

Comparison with Private Sector Reported Webpage Load

Webpage Load Speeds	Seconds
Montgomerycountymd.gov	0.55
Apple.com	1.57
Linkedin.com	2.34
Wikipedia.org	3.83
Nytimes.com	5.81

Source: Website Performances for the week of 11/20/2011 of full-page load time (for which download times are inclusive of all images/objects on a page) , www.webmetrics.com/monitoring-services/enterprise-monitoring/platform-features/benchmarking/ Accessed 11/20/2011

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Headline Measure #4
Average number of seconds to serve a web page

- **Departmental Explanation for FY11 Performance:**
 - Focus on infrastructure continues to keep performance high

- **Departmental Explanation for FY12-FY14 Projections:**
  - Performance is expected to remain constant

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Headline Measure: County Email Messaging #5

Number of email messages sent and received by County email account holders
Number of email messages filtered or blocked from entering County email account holders inboxes
(In millions)
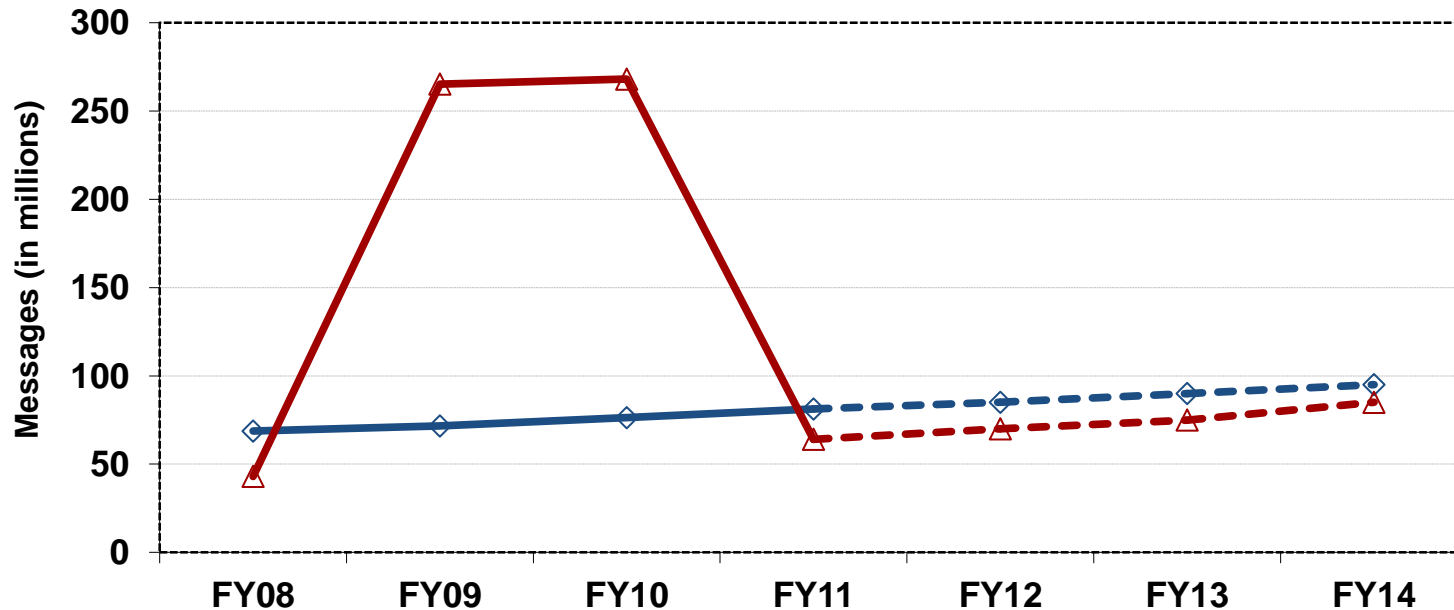
Measure	FY08	FY09	FY10	*FY11	FY12 Target	FY13 Target	FY14 Target
Sent and Received	68.7	71.6	76.3	81.2	85.0	90.0	95.0
Filtered/Blocked	43.1	265.2	268.0	64.1	70.0	75.0	80.0

*FY11 DTS implemented new anti-spam application

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Headline Measure: County Email Messaging #5
Number of email messages sent and received by County email account holders
Number of email messages filtered or blocked from entering County email account holders inboxes (In millions)

- **Departmental Explanation for FY11 Performance:**
    - The large decrease of blocked messages in FY11 is mainly due to implementation of a feature in our anti-spam appliance to significantly improve the performance of spam detection called dynamic reputation, however the appliance does not report the number blocked by this option.

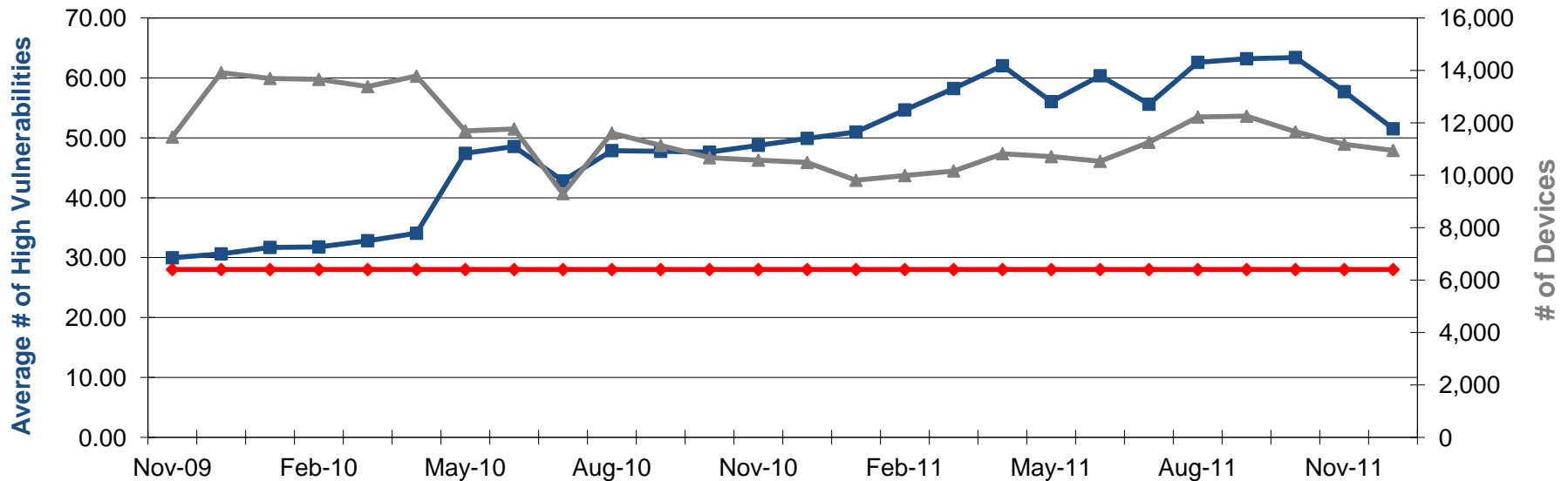- **Departmental Explanation for FY12-FY14 Projections:**
    - Incremental increase in e-mail growth expected.

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Headline Measure: IT Security #6a
Average security vulnerabilities per device

This provides the results of the ongoing County effort to minimize the impact of security vulnerabilities on county devices.

Vulnerability: A weakness in a computing system that can result in harm to the system or its operations, especially when this weakness is exploited by a hostile person or organization.

Device: Can include PCs, servers, systems, printers, switches, etc.

Measure	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Average #of High Vulnerabilities	35	52	28	28	28
No. of Devices	12,917	10,482	11,500	11,500	11,500

Headline Measure: IT Security #6a
Average security vulnerabilities per device

- **Departmental Explanation for FY11 Performance:**
  - Focus of resources on Application deployments and preparations for Windows 7 contributed to drop off in vulnerability patching.

- **Departmental Explanation for FY12-FY14 Projections:**
  - Refocus on vulnerability patching expected to reduce vulnerabilities significantly.

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Headline Measure: IT Security #6b
Internet browse time by risk class

Internet browse by risk class - definitions	Hours				
	FY10	FY11*	FY12 Target	FY13 Target	FY11 Target
Business Usage Definition: Sites that *can be* unrelated to job function based on employee role (e.g. Finance, Search Engines, Government, Travel)	1,542,752	4,473,311	5,000,000	5,500,000	5,750,000
Potential Personal Usage Definition: Sites that are *not usually* related to job function based average employee position (e.g. News, Internet E-mail, Health, Shopping, Sports)	1,273,891	1,363,600	1,500,000	1,165,000	1,900,000
Network Bandwidth Usage Definition: Audio/video downloads and streaming media	394,968	472,757	600,000	750,000	950,000
Security Risk Definition: Sites that present a potential security risk to the County	62,464	1,415	1,400	1,300	1,250
Legal Liability Definition: Sites that are blocked for nearly all County users, but are permitted by approved department director specific requests	208	253	250	260	260

Generally Least Risky ↑ ↓ **Generally Most Risky**

All internet browsing done on County PCs is accounted for through these 5 classes. "Business usage" is generally of the least risk to the County.

* Changed monitoring tool

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Headline Measure: IT Security #6b
Internet browse time by risk class

- **Departmental Explanation for FY11 Performance:**
    - Greater use of business Internet (aka Cloud) applications
    - Internet bandwidth doubled enabling expanded usage
   - Monitoring tool change

- **Departmental Explanation for FY12-FY14 Projections:**
    - Increase in usage driven by greater adoption of mobile platforms and more users having access to computers for work purposes
    - Increase in video and audio usage

Headline Measure: Project Management #7a
Project schedule performance – average days past baseline

This represents the average schedule variance days for all dashboard projects, using last day of month for each quarter value and including projects completed within that quarter. It compares actual/projected end date to last approved baseline end date.

Dept Goal: W/in 30 days of baseline
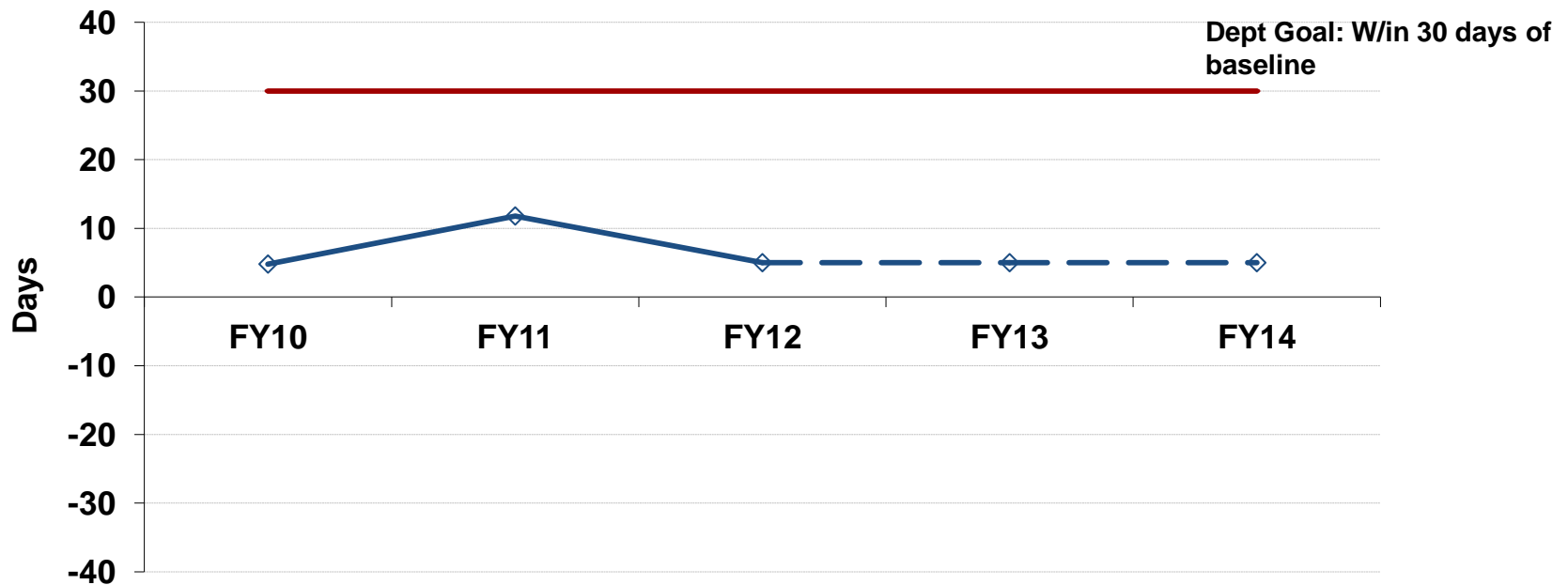
Measure	FY10 Actual	FY11 Actual	FY12 Target	FY13 Target	FY14 Target
Average days past baseline	4.8	11.8	5.0	5.0	5.0

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Headline Measure: Project Management #7a
## Project schedule performance – average days past baseline

- **Departmental Explanation for FY11 Performance:**
  - In FY11, the impact of budget reductions led to fewer resources available to work on projects already underway. Resources needed to be shared across multiple projects and operational activities, leading to conflicts that had negative impact on project schedules.
  - The resource impacts were greater on the larger enterprise projects: CRIMS, SAO CMS, eJustice.

- **Departmental Explanation for FY12-FY14 Projections:**
  - Resource scheduling conflicts and shortages are being taken into consideration when evaluating new project requests. Going forward, fewer projects will be approved in order to avoid negative impact to existing projects.

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Headline Measure: Project Management #7b
Project budget performance - % over baseline

This represents the average projected project percent budget variance for all dashboard projects. It compares projected project cost (incurred + estimate to complete) to the authorized budget.

Dept Goal: All projects within budget - 0% variance
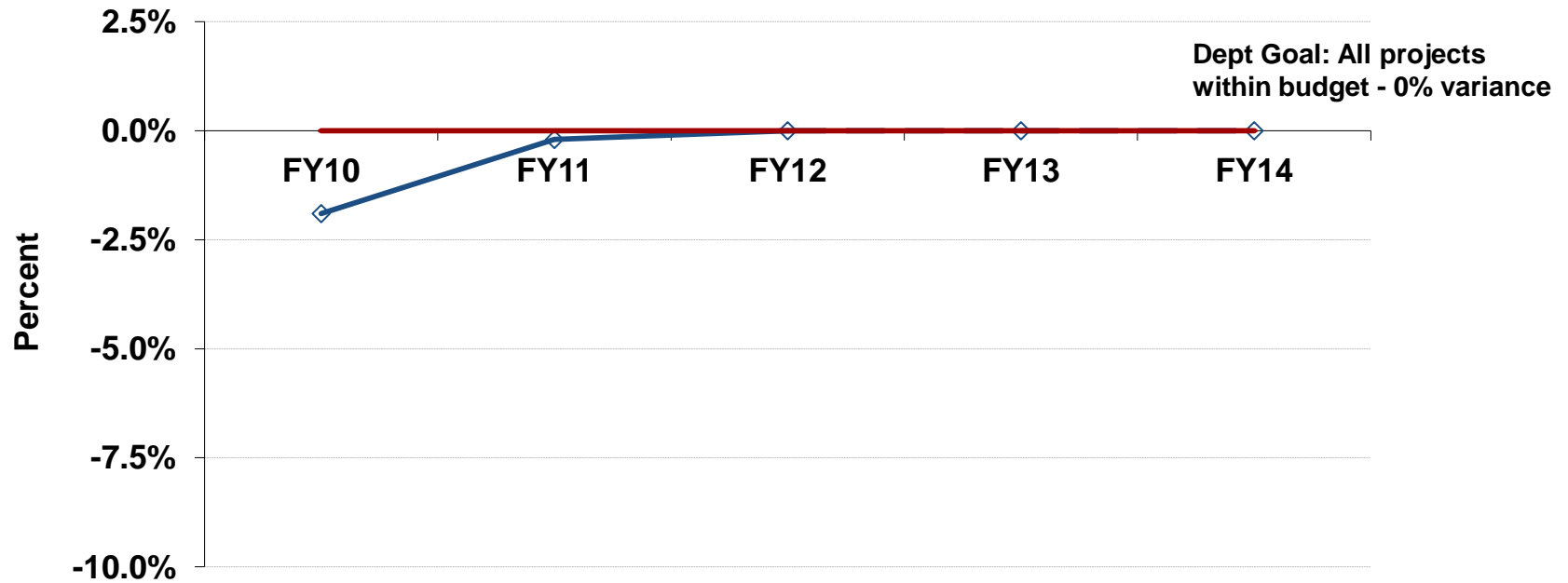
Measure	FY10 Act	FY11 Act	FY12 Target	FY13 Target	FY14 Target
Percent over baseline	-1.9%	-0.2%	0	0	0

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Headline Measure: Project Management #7b
## Project budget performance - % over baseline

- **Departmental Explanation for FY11 Performance:**
  - Overall budget reductions primarily impacted schedules, change management and stressed existing resources.
  - Good PM practices kept existing projects on budget.

- **Departmental Explanation for FY12-FY14 Projections:**
  - Projections for a 0% variance reflect the difficulty in obtaining additional funds for projects in the coming fiscal years.
  - Projects at risk of going over budget will need to mitigate by reducing scope and resources assigned to the project.

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Headline Measure: Cable Office #8
Percent of customers satisfied with Cable Office complaint handling
Complaint categories: Billing, Marketing, Service, Construction, etc..
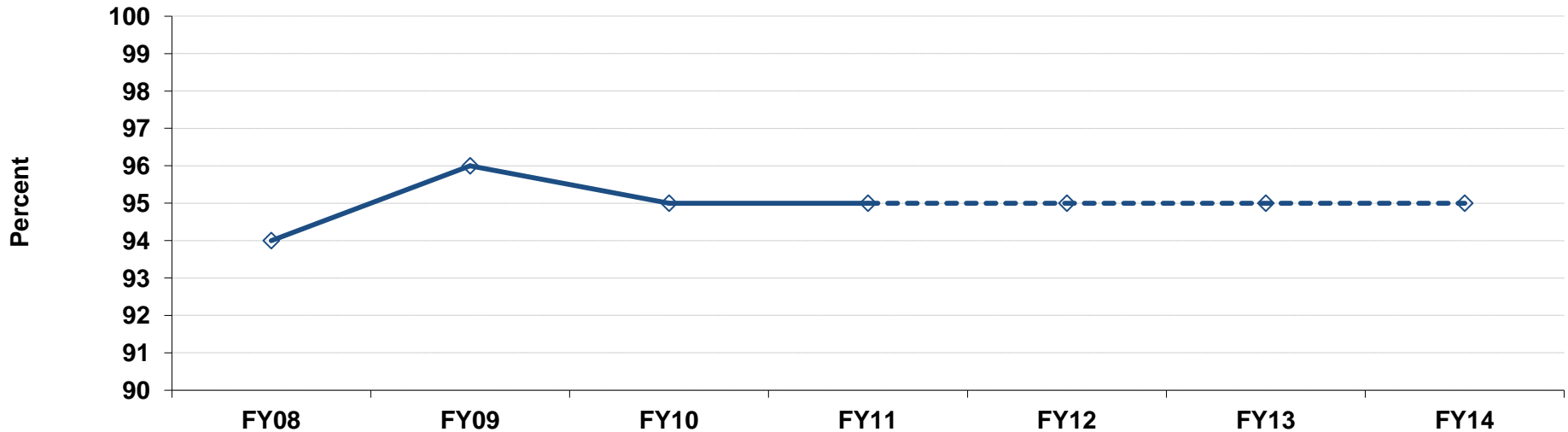
Measure	FY08	FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Percent	94	96	95	96	95	95	95
Cable Survey Response Rate	56%	62%	56%	64%	60%	60%	60%
Number of Complaints	1,754	1,391	1,159	1,363	1,300	1,300	1,300
Average # of Days to Resolve	21.0	18.0	14.6	8.8	12.0	12.0	12.0
Total Amount of Refunds or Credits Obtained for Subscribers	$98,393	$90,568	$62,870	$79,696	$80,000	$80,000	$80,000

Cable Office was able to maintain high customer satisfaction, lower average number of day to resolve problems, with more incoming complaints.

Headline Measure #8
Percent of customers satisfied with Cable Office complaint handling

- **Departmental Explanation for FY11 Performance:**

  – Cable providers placed emphasis on resolving complaints in FY11, resulting in shorter period to resolve complaints
  – Complaints include those resolved by cable operators' customer service and construction departments
  – Increase in construction-related complaints from multi-dwelling units, primarily aging and temporary cables needing repair or replacement

- **Departmental Explanation for FY12-FY14 Projections:**

  – Overall increases in cable rates result in higher refunds per subscribers, so that refund rate may stay constant even though number of complaint declines

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Headline Measure: Cable & Broadband Office #9
Transmission Facilities Application Process
Level of Effort for Transmission Facilities Application Review and Approval

This measure demonstrates Cable & Broadband Office activities on processing of Transmission Facilities Applications. This provides visibility into the efforts to review and approve applications to place new or modify existing wireless communications antennas and facilities.
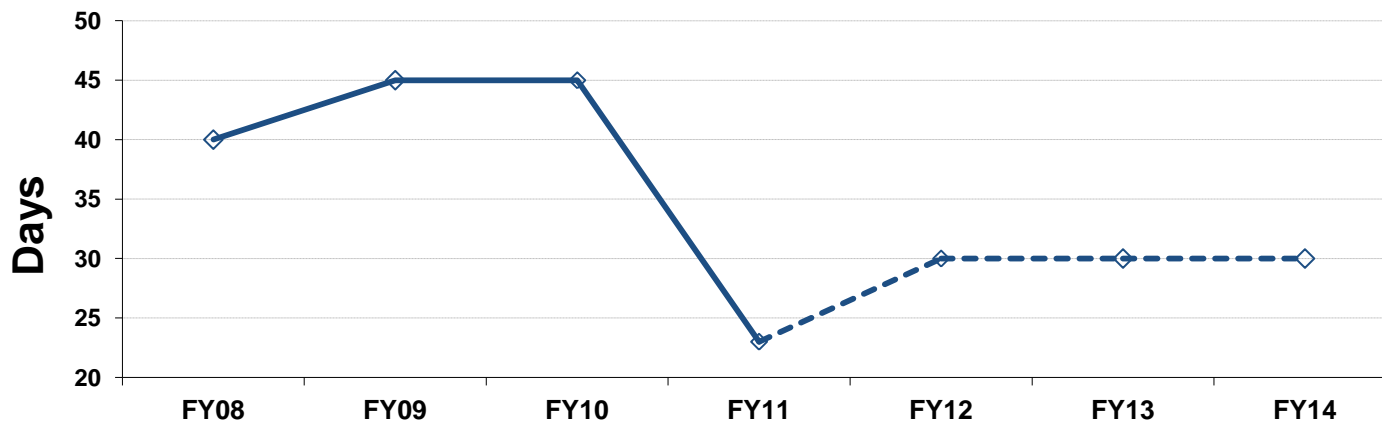
Measure		FY08	FY09	FY10	FY11	FY12 Target	FY13 Target	FY14 Target
Average Days to Process	◇	40	45	45	23	30	30	30
% Submitted Complete		n/a	n/a	64%	65%	65%	65%	65%
Total Applications Received		112	267	111	155	145	145	145

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How Does IT Integrate Technology Trends to meet County Business Needs

IT Trends and Services for 2012

- **Cloud Computing Services**
  - Enterprise Core Services and Cloud for Government Focus

- **Consumerization of IT**
  - Smartphone/Tablet Explosion
  - Employee Owned (BYOD)
  - Use of Consumer Online Services for Business Purposes

- **Maintaining Legacy Support**
  - Managing Enterprise growth, complexity and Information
  - Mainframe Retirement plans & implications

UPDATES - IT Solutions

Implementations / Improvements

- **Montgomery County Cloud Update**

    - Snow Map

    - GIS Data Sharing

- **Web Improvement Plan**

    - Web Governance Status and Enterprise Structure Changes

    - Web Re-Launch Update

- **Data / Apps in the Cloud – Considerations / Barriers**

    - Code for America

    - Civic Commons

    - Open Government Data (Socrata)

    - E-mail Service Offerings under Review

    - Return on Investment

    - Technical and Legal Obstacles

Status

- In production, phase 2 underway

- ITPCC Policy Committee established

- In place

- Soft launch start planned for April/May 2012

- Participation started

- Soft launch started March 2012

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Ongoing and Future Performance and Strategic Planning

- **Business Impact Analysis**

- **Addressing backlog from Datacenter grid lock**

- **New IT support model for multiple devices**

- **IT support for mobile devices and BYOD**

- **Infrastructure, policies, processes for Cloud solutions**

- **County and non-County created Apps governance**

- **Open government data**

- **Cable franchise renewal**

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