



USAID
FROM THE AMERICAN PEOPLE

STAT REVIEW/EXECUTIVE DASHBOARD TASK ORDER
**EXECUTIVE DASHBOARD
BACKGROUND RESEARCH
COMPENDIUM**

October 12, 2011

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OVERVIEW

USAID seeks to strengthen its central management performance capability. Stronger management performance capability will result in greater accountability, consistent monitoring, and reliable reporting that will increase the Agency's ability to move toward a more efficient and effective management platform. USAID currently lacks central management performance capability resulting in weak accountability, ad-hoc monitoring, and unreliable reporting that puts the Agency at risk.

M/MPBP is launching an effort to build USAID's management performance capacity to include strategic planning, monitoring and evaluation, and communicating results. Modeled after the decades-long performance management experience on the program side, this effort will initiate long-term planning for management functions; establish rigorous standards for management metrics and data quality; and promote a process for transparent monitoring and reporting via executive dashboards.

EXECUTIVE DASHBOARD

An executive dashboard captures and reports specific data points from various departments within an organization, providing a visual snapshot of performance. The purpose of the Executive Dashboard is to provide at-a-glance information on key standards and metrics that measure management performance in order to understand what's working, what's not, and what can be improved.

The proposed Executive Dashboard will provide metrics on following key areas:

- Procurement Management
- Information Technology Management
- Human Resources Management
- Financial Management
- Management Services

COMPENDIUM OF BACKGROUND RESEARCH

The compendium of background research for the executive dashboard contains examples of the Executive Dashboard implementation by government and non-government agencies. Current dashboard implementation in the commercial and public sector were researched to explore options that can be considered for a scalable and usable solution. Features of the Executive Dashboards presented in this compendium were presented to the COTR and USAID/M/MPBP staff during an internet and teleconference. Synthesis of the background research will be presented to USAID in the next deliverable.

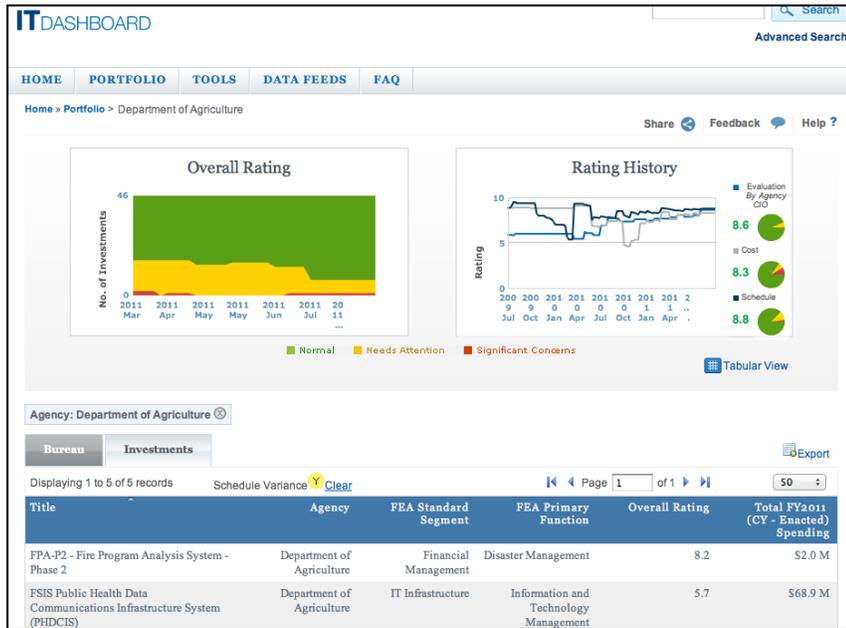
ITDASHBOARD.GOV

The IT Dashboard is a website enabling federal agencies, industry, the general public, and other stakeholders to view details of federal information technology investments. The purpose of the Dashboard is to provide information on the effectiveness of government IT programs and to support decisions regarding the investment and management of resources. The Dashboard is now being used by the Administration and Congress to make budget and policy decisions.

The IT Dashboard provides the public with an online window into the details of Federal information technology (IT) investments and provides users with the ability to track the progress of investments over time. The IT Dashboard displays data received from federal agencies' reports to the Office of Management and Budget (OMB), including general information on over 7,000 Federal IT investments and detailed data for over 800 of those investments that agencies classify as "major." The performance data used to track the 800 major IT investments is based on milestones contained in agency reports to OMB called "Capital Asset Plans," commonly referred to as "Exhibit 300s." Federal Agency Chief Information Officers (CIOs) are responsible for evaluating and updating select data on a monthly basis, which is accomplished through interfaces provided on the IT Dashboard website.

The IT Dashboard displays an Overall Rating for each of the investments. The evaluation, cost, and schedule ratings each represent one-third of the "Overall Rating" for the investment. When the CIO's Evaluation is lower than or equal to both the cost and schedule ratings, the CIO Evaluation entirely overrides those individual cost and schedule ratings and represents 100% of the investment's Overall Rating. When an investment has not yet been assessed by the Agency CIO, the average of cost and schedule ratings will determine the Overall Rating. More information on the rating can be found at: <http://www.itdashboard.gov/faq-agencies#20>

The implementation of the IT Dashboard is based on an open source platform called Drupal. The contents for displaying the charts and reports are managed in Drupal as nodes. The values of various attributes are displayed in an interactive User Interface based on a framework called Fusion charts which is implemented in Flash.



HUD TECHSTAT DASHBOARD

“Proper preparation prevents poor project performance”—this twist on a familiar phrase describes the Department of Housing and Urban Development’s (HUD) approach to TechStat sessions. In HUD’s case, there are seven central Transformation Initiatives that they monitor weekly using detailed criteria to prevent any issues that lead to significant underperformance. HUD uses TechStat sessions—modeled after the OMB TechStat methodology—to proactively check under each project’s hood to identify and mitigate risks in concert with the Department’s Information Technology Management (ITM) Framework. Integrating TechStats with ITM Framework reinforces efforts to institutionalize rigor, discipline, and maturity into the IT project planning and management life cycle. TechStats are most effective if they are integrated into comprehensive performance management frameworks.

HUD has conducted more than 40 TechStat sessions to bring much needed transparency and accountability to its highest priority IT projects. The reviews are based on a standard set of criteria and are reported in a weekly project status dashboard to reflect project health and identify issues that require immediate attention that is then reconciled monthly with the IT Dashboard. The internal dashboard includes what must be done to remove obstacles, who is accountable for taking the requisite action, and an expected completion date. Reports are maintained on a shared internal site that is accessible by every person who has a stake in the success of the project. This process empowers stakeholders to proactively raise the flag on issues and get the help they need to overcome the challenges that all projects inevitably face.

HUD’s criteria for identifying the health of every project are based on common problems that contribute to cost and schedule variances and the delivery of expected functional capability. Key criteria reviewed weekly include (a snapshot of the ratings and their criteria for scoring below):

Staffing: Naming the individuals who are responsible for performing the work in the work breakdown structure (WBS) is an excellent way of determining if the correct skill sets are supporting a project.

Project Management Plan: A good plan helps everyone understand if projects are on track and when it will be done. Tasks in the plan need to be at a level of detail that brings clarity to the work that has to be performed and how each task relates to others in the plan.

Risk Register: Maintenance of a comprehensive risk register is indispensable for anticipating problems and taking proactive steps to avoid them.

Change Management: Transparent management of the changes that almost every project team confronts is required to keep stakeholders informed and dedicated to success.

Key		
<ul style="list-style-type: none"> ● 1: Information available but not provided 		
Blank: Not Applicable to Current Phase		
Overall Project Rating <ul style="list-style-type: none"> ● 3 Project on track ● 2 Project slipping ● 1 Project failing 	Work Breakdown Structure <ul style="list-style-type: none"> ● 3 WBS is Current & Used to Track Project ● 2 WBS Completed ● 1 WBS Not Complete 	Schedule - Current Activities <ul style="list-style-type: none"> ● 3 < 5 days behind ● 2 < 15 days behind ● 1 ≥ 15 days behind
Staffing <ul style="list-style-type: none"> ● 3 Adequately Staffed ● 2 Additional Staffing Needed ● 1 Insufficient Staffing 	Project Management Plan <ul style="list-style-type: none"> ● 3 PMP Current for Lifecycle Phase Activities ● 2 PMP In Development ● 1 PMP Not Started/Available 	Risk Register <ul style="list-style-type: none"> ● 3 Managing & Updating Risk ● 2 Identifies Risks & Mitigation Strategies ● 1 Not Complete
Cost - Current Phase <ul style="list-style-type: none"> ● 3 < 10% cost variance ● 2 < 25% cost variance ● 1 ≥ 25% cost variance 	Total Cost GCE <ul style="list-style-type: none"> ● 3 < 10% cost variance ● 2 < 25% cost variance ● 1 ≥ 25% cost variance 	Acquisition Plan <ul style="list-style-type: none"> ● 3 Awards on track ● 2 Potential Delays ● 1 Actual Delays

Integrating the TechStat model with the IT management framework creates a complimentary rather than conflicting oversight mechanism that reuses a single authoritative set of project health data. HUD uses a common ensemble of IT discipline subject matter experts to review project data and apply their growing knowledge of best practices and lessons learned to all of the other projects in HUD’s portfolio. Results suggest that regular reviews and tune ups avert unwanted problems down the road and reduced overhead costs.

NYC STAT

NYCStat is New York City's one-stop-shop for all essential data, reports, and statistics related to City services. Available at www.nyc.gov, NYCStat provides access to a wide array of performance-related information including citywide and agency-specific information, 311-related data, and interactive mapping features for selected performance data and quality-of-life indicators. With NYCStat, New York City is meeting the challenge and the opportunity that web-based technologies present for helping citizens become directly involved in government. It eliminates the mystery about where and what kinds of performance information are available and increases accountability to its customers.

NYCStat provides quick and easy access to the following reports, data and information:

- CPR, the Citywide Performance Reporting System, an interactive dashboard designed for user-friendly access to the most critical performance indicators for 45 City agencies, with monthly updates and automatic evaluation of trends within specified program areas;
- The Mayor's Management Report, a public report card on City agency performance published twice a year;
- The NYC*SCOUT web page, which maps street conditions such as potholes and catch basin defects, and allows users to track the progress of repairs.
- NYCStat Stimulus Tracker, which tracks the City's use of federal stimulus/recovery funds provided through the American Recovery and Reinvestment Act of 2009.
- The City of New York Data Mine catalog, part of an initiative to improve the accessibility, transparency, and accountability of City government, supplies access to a repository of government-produced, machine readable data sets.
- My Neighborhood Statistics, which maps comparative performance data at the neighborhood level for approximately 50 selected performance measures;
- Scorecard Cleanliness Ratings, updated monthly for streets and sidewalks throughout the five boroughs;
- 311 Customer Service Center data, including basic operational statistics and community-level reports on the City's response to service requests from 311 callers; and
- Citywide Customer Survey Results, from the survey of New Yorker's opinions on the delivery of City services.

One of the key components of the NYC State process is CPR. The CPR project has three components:

1. Performance Management Application (data collection tool) – a back-end shared computer system providing a single point of access for agencies to input data.
2. Analytics Tool/Dashboard – the front-end system to provide standardized reporting format with drilldown capacity, performance summaries, and trend graphics.
3. Data Definition – review and identification of the topics (agency "program areas") measures, and critical indicators included in the CPR system for 44 Mayoral agencies.

CPR improves performance management in three major ways: Accountability, Transparency, and Accessibility, and offers the following features:

- Tracks performance for the most important "outcome" measures - those directly reflecting how government affects citizens' lives. Many of these measures are being reported for the first time and represent fresh thinking about how to measure the outcomes each agency is responsible for.
- Measures performance by comparing current data to data for the same period the year before, thereby holding agencies accountable for year over year improvement.
- Makes performance trends obvious by providing graphical representation of performance, including pie charts and color-coding to provide early warnings for areas that need attention.
- Drill-down capability, allowing users to review comparative trends over a five year period.
- Aggregates important measures into citywide themes, which cut across agency silos and disciplines to reveal the overall picture about city government performance.
- Monthly, quarterly or annual updates of each measure – depending on how often the statistic is produced - so the most recent data is always available.
- Ability to download data for more detailed review and analysis.
- Detailed information about each measure including an explanation of what the measure means its reporting frequency and other useful details.

Key to the development of CPR as an innovative and useful tool for accountability and management was taking a fresh look at what services agencies deliver and how best to measure the outcome of these services. This data definition process led to the review and development of a host of new measures, including those that were central to agency processes and not necessarily final results. In the end several thousand measures were considered, many of them so new that data collection had not yet begun. In this sea of thousands of indicators the most important measures, however, were not adequately highlighted, and so ultimately, a two-tier system separating out approximately 500 critical measures was developed. The majority of these critical measures are final outcomes and, therefore, measure direct impact of government services on the residents of New York City. Since these 500 critical measures represent for the most part what is of vital importance to the public, it was a natural next step—and in line with the goals of accountability, accessibility and transparency—to make this information available to the public.

On a parallel track with data definition, several key decisions about data presentation were made, while attempting to provide as flexible and as useful a tool as possible. In most cases data was available by month, year to-date and full year, so there were many choices about how to best slice and dice the data and make comparisons with prior periods. At the same time, it had to account for variances in data reporting frequencies and data collection lag times. A two-tier system was developed to provide the flexibility needed.

Other crucial steps in the development of the data presentation included decision-making about whether to measure year-to-date trends or measure against pre-set targets; designating the desired direction of each measurement (i.e. up, down or neutral); and developing thresholds (+/-10%) for good and poor performance. Finally, decision-making about how to best present the trend

analysis—whether to use colors, data tables, or up/down arrows—was needed. Ultimately, color-coded pie charts—with red, yellow and green were selected to represent declining and good/stable performance—as the most user friendly presentation on a dashboard.

Finally, in addition to being able to compare agency performance this period to last year at the same time, the system provides users who may or may not be familiar with individual agencies or their performance measures with the ability to view performance at a glance by larger themes. Each of the 525 measures on the public website falls into one or more of the following broader Citywide Themes: Citywide Administration, Community Services, Economic Development & Business Affairs, Infrastructure, Education, Legal Affairs, Public Safety, and Social Services. Together, these eight themes capture all the ways in which the City government serves the people who work and live in New York City.



FOREIGNASSISTANCE.GOV

The Foreign Assistance Dashboard was created in response to the principles of the Paris Declaration on Aid Effectiveness and President Obama's Open Government Initiative. The goal of the Foreign Assistance Dashboard is to enable a wide variety of stakeholders, including U.S. citizens, civil society organizations, the Congress, U.S. Government (USG) agencies, donors, and partner country governments, the ability to examine, research, and track USG foreign assistance investments in an accessible and easy-to-understand format.

The Dashboard is still in its early stages of development. Future versions will incorporate budget, financial, program, and performance data in a standard form from all USG agencies receiving or implementing foreign assistance, humanitarian, and/or development funds. The Dashboard currently contains Department of State and USAID budget and appropriation data.

Foreign assistance investments are presented through a variety of user-friendly graphics on this site, including funding by country, sector, and year. However, the data sets can be filtered and sorted in a variety of additional ways. Users are able to generate their own tables through manual queries and download machine-readable data sets.

The Foreign Assistance Dashboard is implemented in Microsoft ASP framework. The User interface uses Flash charts to display various indicators in a visual format.



WORLD BANK FINANCES

The goal of the World Bank's Finances website is to make data related to the Bank's financials available to everybody in a social, interactive, visually compelling, and machine readable format. The data covers portions of the Bank's investments, assets it manages on behalf of global funds, and the Bank's own financial statements.

All the data on the website is available to everybody to slice and dice, visualize, and share with others. Users can also explore the numerous, easy-to-use tools on the website, discuss and rate the datasets, build their own visualizations, and share what is interesting through channels like Facebook and Twitter. Users can also download the data in multiple formats or, if they are a developer, connect to it through the APIs associated with all the datasets.

The datasets are raw and may not have been audited yet —goal is to make raw data publicly available in open data format as soon as it is approved for public release through other channels. Please refer to the datasets descriptions associated with each dataset for links to official versions (which generally contain slightly older but verified data).

The World Bank recognizes that transparency and accountability are essential to the development process and central to achieving the Bank's mission to alleviate poverty. The Bank's commitment to openness is also driven by a desire to foster public ownership, partnership and participation in development from a wide range of stakeholders. As a



knowledge institution, the World Bank's first step is to share its knowledge freely and openly. <http://finances.worldbank.org>

The World Bank platform is based on Socrata Open Data Solutions for the Government. Some of the features of this platform are:

- Consistent and uniform interface to all datasets
- Programmatic access to data and metadata (Internal developers have exclusive write access through the API)
- High data throughput
- Support for complex sorting and filtering operations
- Choice of programming language
- RESTful architecture

- Open standards, non-proprietary implementation
- Cloud based deployment

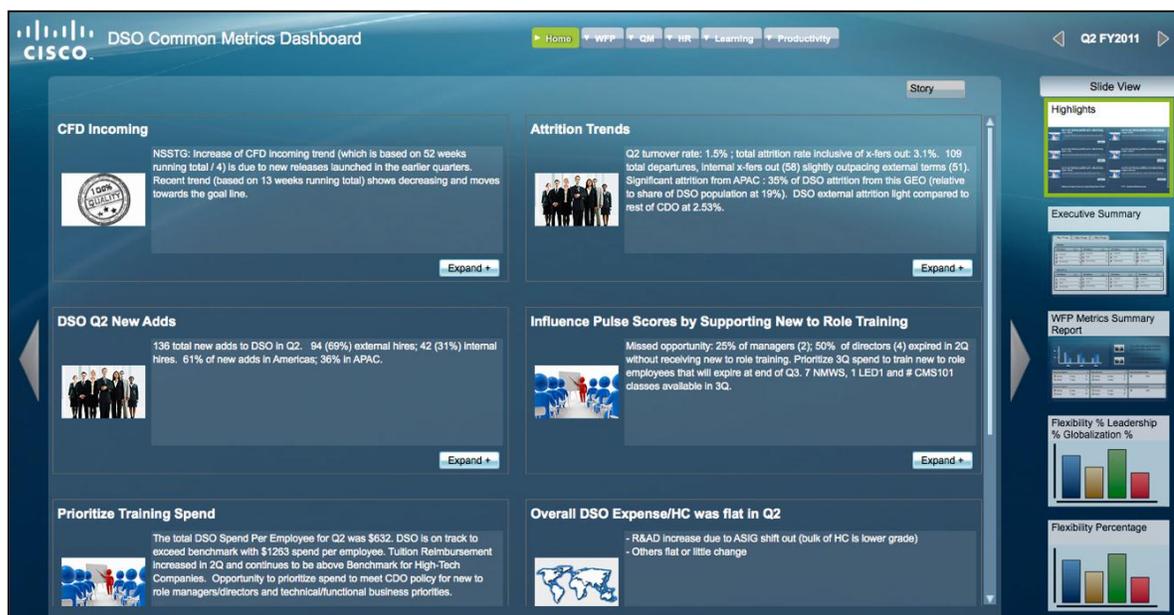
CISCO DSO COMMON METRICS

Cisco's Development and Strategy Organization (DSO) has an initiative to measure and report on Key Business Performance indicators based on cross cutting metrics across the Technology Development organization. This consists of Core Hardware and Software Development groups, Research Organization, Government Solutions Group and others. The Common metrics that were identified in the Initial release were related to Workforce Development, Quality Metrics, Human Resources and Employee Learning and Development. The dashboard that was implemented with current data such that data can be queried on-demand from Enterprise database applications and displayed in an intuitive format.

An Intuitive dashboard was developed with "Social Business Intelligence" features where users can view the key performance metrics and collaborate in discussions in the context of the metrics, assign action items, mark as favorites, etc. Metrics were identified for implementation with Sources of truth data, data update intervals and User interface requirements. Based on the available data sources for the metrics, Entity-Relationship model was defined including Data-as-a-service interface and automated Extract-Transform-Load (ETL) process.

The business logic layer was used to implement the Processing of the metrics for the Key Performance Indicators, with a web service layer and the UI implementation that retrieves and displays the data in a visualization platform.

Using this dashboard, it has enabled Cisco to present Current data for various key performance indicators. Previously, without the dashboard, reviews were conducted using PowerPoint slides which presented stale data. With the dashboard, data is always current as it is retrieved dynamically from Enterprise databases for various functional areas such as HR, Workforce planning, Training databases, etc. Social Business Intelligence features has led to better productivity and collaboration. Cisco is able to perform repeatable Operational Reviews with consistent set of metrics quarter-over-quarter.



CISCO DSO Common Metrics Dashboard

Home | WFM | CM | HR | Learning | Productivity

Q2 FY2011

Executive Summary

Annotations/Notes

By Org | **By Metric** | By Status

NSSTG			
Workforce Planning	Quality	Human Resources	Learning & Development
Expenses/Headcount	%CFR	Hiring Trend by BU	Internal Hours per Employee(Q2)
Flexibility %	%RNE	Span of Control	New To Role (CMS 101)
Globalization %	CAP A/B/M		New To Role (LED 1)
Leadership %	CFD Incoming		New To Role (NMWS)
	CFD MTRR		Spend Per Employee(Q2)
	CSAT (HW)		
	CSAT (SW)		
	CoPQ		
	DPAI		

NMTG			
Workforce Planning	Quality	Human Resources	Learning & Development
Expenses/Headcount	%CFR	Hiring Trend by BU	Internal Hours per Employee(Q2)
Flexibility %	%RNE	Span of Control	New To Role (CMS 101)
Globalization %	CAP A/B/M		New To Role (LED 1)
Leadership %	CFD Incoming		New To Role (NMWS)

1 vs. Target | LDSG Maximize Internal Development Spend & Learning Hours | HR Attrition Trend by TG | LDSG Influence Pulse Scores by Supporting New to Role Trainin

Filters | Slide View

Select: All | None

STATUS

Red Yellow Green

TG

NSSTG COE

NMTG R&AD

GGSG CDO Ops

Select Metrics

Leadership % X

Flexibility % X

Globalization % X

Expenses/Headcount X

Training Spend per Employee X

Internal Hours per Employee X

New To Role (NMWS) X

New To Role (CMS 101) X

New To Role (LED 1) X

%RNE X DPAI X

CoPQ X

CFD Incoming X

CONCLUSION

Business performance dashboards, including ones used for STAT review process have made significant impact towards capturing key metric data with the ability to track such data in a meaningful way. These dashboards have helped pinpoint important metrics where more attention needs to be given. They also help identify performance metrics where things are going right.

The current examples of such dashboards have been built with internal buy-in from senior leadership of the organization. Having Management support is critical for any such initiatives. This facilitates issues with data governance, integration and dashboard implementation for tracking both Strategic and Tactical objectives.

Most of the dashboards have been built using Open source platforms so that they can be extended with new functionality or can be maintained efficiently at low cost. The data definition and modeling is a critical part of any dashboard implementation and should require analysis based on the business requirements of the proposed implementation. Data should be stored in a relational database so that it can be queried and correlated as needed.

The User Interface plays a significant role in terms of adoption of such Dashboards. Efforts should be made to keep the User interface simple, intuitive and flexible. This makes the User interface deal with different types of Metrics and visualizes them so that it can be easily used by the stakeholders. Using web based implementation of the Dashboard user interface makes it more accessible.

When creating a Dashboard for implementation, all the different layers of the software architecture should be considered. This includes the User Interface, Business logic implementation, Data model and Deployment platforms. Proper security features should be considered for access control to sensitive data.

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