

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENTS OF HUMAN SERVICES,
INSURANCE, AND AGING**

INFORMATION TECHNOLOGY STANDARD

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Domain: Application	Category:
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Introduction

Google Analytics (GA) is a service offered by Google that generates detailed statistics about traffic and traffic sources for websites, web applications, and mobile apps. The basic service is free of charge and a premium version (Universal) is available for a fee. GA generates detailed statistics about your visitors, tells you how visitors found your site or app, what they were searching for, what pages or screens they visited, how long they view each, and where they exited.

The way GA works for web applications and websites is by a technique known as page tagging. This technique places a “tag,” in the form of a bit of JavaScript code, in the HTML code on the page. This embedded code collects certain information about the page and its visitors. This information is then passed on to a web analytics service, which collates the data and uses it to create various analytic reports. Google Software Development Kits (SDKs) are used for mobile apps to implement tracking depending on what type of app it is (Android or iPhone) and what code base it uses. The application developers work the code from the SDK into the application code.

Google Tag Manager (GTM) keeps track of a set of tags and tag-firing triggers that define when those tags should be made available on your site or app. When a user visits, the most up-to-date tag configuration is sent over to the end-user’s browser with instructions for which tags should fire. The user (whether an individual, agency, or IT department) can update tags on the fly without ever having to update the website in most cases. Using GTM minimizes tags, reduces latency and makes it easier to build custom measurement solutions.

The goal of analytics is to better understand how a website, web application, or mobile app is being used and apply that information to optimize its usage. Below is an example of the type of information collected:

- The number of visitors using your site or app.
- Where your visitors came from
 - Where your visitors were directed or referred from.
 - where geographically your visitors are located.
- How long visitors are staying on your site or app.
- What pages or screens visitors visit first and which they visit last before they leave.
- If visitors came to your site/app from a search engine, what keywords they searched that led them there in their search results.
- What types of web browsers your visitors are using.

Purpose

The purpose of this document is to provide a brief introduction of Google Analytics/Tag Manager and the DHS policies and procedures for its usage. Topics discussed are administration, the process for requesting support, security related issues when making a request, testing strategy, and a list of current of Commonwealth and DHS policies to be aware of before requesting services.

Administration

The administration of Google Analytics used within DHS is performed by the Web Services Support Unit within the Division of Enterprise Applications (DEA) of the Bureau of Information Systems (BIS). All requests are to be submitted to this Unit following the procedures outlined in the Procedures section of this document.

Mandatory

The usage of Google Analytics/Tag Manager is mandatory for all DHS websites, web applications and mobile apps.

Procedures

The following steps are to be followed when requesting services regarding Google Analytics:

1. Identify a need to track specific information on your website.
2. Create a Task in Team Foundation Studio (TFS) and assign it to Mark McClain.
3. At a minimum include the following information on the task:
 - a. The specific data elements to track.
 - b. The application this is for (Compass, eCIS,...etc.).
 - c. The intended users the data is being collected about, such as citizens, business partners, or Commonwealth Employees.
 - d. Who specifically in DHS will be viewing the data collected.
4. Send the request to "PW, AnalyticsRequest". Make sure to include the TFS Task number in the email.

An initial review is done for security & policy adherence, complexity, and priority. Issues will be escalated to the Analytics Control Board.

Two levels of requests will be considered:

1. Expedited: reviewed and executed ASAP.
2. Scheduled: reviewed and executed within a 10 day period.

Please consider the following when a request is being made to add GA/GTM:

Web Applications and Websites

A unique snippet of code was generated for the DHS GA/GTM account. This snippet will be provided to you and must be placed at the top of the body section of every page of your application/site that you want to track analytics on.

Mobile Apps

Google Software Development Kits (SDKs) are used to implement tracking depending on what type of app it is (Android or iPhone) and what code base it uses. The application developers will have to work the code from the SDK into the application code.

The code tracks 'screens' instead of pages and must be a part of the application's code. Here are some examples and documentation around the iPhone and Android versions:

iOS

<https://developers.google.com/analytics/devguides/collection/ios/v3/>

Android

<https://developers.google.com/analytics/devguides/collection/android/v4/>

Standard vs. Premium (Universal)

DHS has two versions of Google Analytics to offer, Standard and Premium. While Standard allows the basic tracking which is good enough for most websites, Premium expands the features to an enterprise level analytics tool. Some of the advantages of Premium include:

- An increased hit limit of 1 billion per month.
- Additional Custom Variables.
- Unsampled Data analysis.
- Service level agreements for data collection, processing and reporting.
- 24/7 support.

One key difference between the versions is cost. Standard is free and Premium comes with a fee.

A comparison of the two versions can be found at Google's website at the following link:

<http://www.lunametrics.com/blog/2015/09/30/comparing-google-analytics-premium-and-google-analytics/>

Although Premium has an increased level of analytics functionality, its resources are shared among the entire Department's websites. Therefore the version of Google Analytics that will be used with each website will be determined by the Analytics Control Board. The determining criteria will be based on priority, tracking requirements requested, and available Google Analytics resources.

Security

The BIS Security Team has the right to review and deny requests. All requests must adhere to Commonwealth and DHS policies regarding Personal Identifiable Information (PII) and the Health Insurance Portability and Accountability Act (HIPAA).

The DHS Security Team uses the National Institute of Standards and Technology (NIST) standards as the backbone of their risk framework. NIST defines PII as the following...

"any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records; and (2) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information."

Privacy Policy

Any DHS website or web application using Google Analytics/Tag Manager must include the Department's Privacy Policy. The policy can be linked to the following environments using its corresponding address.

Environment	Address
DEV	http://hsavdevweb080/Privacy/PrivacyPolicy.aspx
SAT	https://www.humanservices-t.state.pa.us/dpwsecure/privacypolicy.aspx
PRD	https://www.humanservices.state.pa.us/dpwsecure/privacypolicy.aspx

Recommended Testing Strategy

When ready to add the Google tag manager code to your application, please follow these steps:

1. Notify the Google Analytics Administrator if this is a new application to get the appropriate tag configured.
2. Add the Google Analytics Tag code to the header information of the web application.
3. Run Fiddler or a similar application to see that the traffic is being sent to Google Analytics.
4. Do regression testing on the pages to make sure the code did not break any of the pages.
5. Notify the Google Analytics Administrator that you are ready to test in the lower environments to make sure the Google Analytics project is ready.
6. Run the tests and check the Google Analytics website to make sure the numbers are changing (remember there is a time delay for viewing the Google Analytics, so the website may not update immediately).

Existing Policies and Standards

All analytics requests must adhere to existing Commonwealth and DHS Information Security and Privacy Standards and Policies including, but not limited to, the following:

- ITB-PRV001 - Commonwealth of Pennsylvania Electronic Information Privacy Policy, Issued: 8/7/06, Revised: 11/18/10

- PRIVACY OFFICE BULLETIN – NUMBER 00-02-01 SUBJECT: Department of Public Welfare Initiatives under the Health Insurance Portability and Accountability Act (HIPAA) Privacy Requirements and the Responsibilities of the Department's Business Associates
- POL-SEC003 - DHS Information Security and Privacy Policies – establishes minimum security requirements for protecting DHS's information resources and provides direction for DHS's Information Security Program.
- POL-SEC005 – Information Privacy Policy – establishes requirements for the collection, use, and disclosure of personal information by DHS.
- Privacy Policy – every application that is using Google Analytics must have a link to a Privacy Policy that at least makes the users aware of a 3rd Party Tool tracking their activity within the application to try and find ways to constantly improve their experience within the app. Please reference the Security Domain for the current privacy policy.

DHS Business and Technical Standards can be found at:

<http://www.dhs.pa.gov/provider/busandtechstandards/index.htm#.VzN6F632YkI>

Commonwealth Policies and Procedures can be found at:

<http://www.oa.pa.gov/Programs/Information%20Technology/PoliciesandProcedures/Pages/default.aspx>

Exemptions from this Standard

There will be no exemptions to this standard.

Refresh Schedule

All standards and referenced documentation identified in this standard will be subject to review and possible revision annually or upon request by the DHS Information Technology Standards Team.

Standard Revision Log

Change Date	Version	Change Description	Author and Organization
05/02/2014	1.0	Initial Creation	Mark C. McClain and Laura Fry DHS BIS
10/08/2014	1.1	Updated text.	Mark C. McClain, DHS BIS
05/11/2016	1.2	1. Added that standard is mandatory for all websites, web applications, and mobile apps. 2. Added considerations for websites, web applications, and mobile apps. 3. Updated DPW to DHS. 4. Updated hyperlinks.	Mark C. McClain, DHS BIS