

# **Information Technology Policy**

## ***Business Intelligence Dashboard Policy***

**Number**

ITP-INF012

**Effective Date**

March 23, 2009

**Category**

Information

**Supersedes**

None

**Contact**

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**Scheduled Review**

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### **1. Purpose**

This Information Technology Policy (ITP) establishes enterprise-wide standards and policies for Business Intelligence (BI) and analytics dashboard technologies. Establishing standards will provide guidance to agencies as they plan for new dashboard and analytics capabilities as part of application development projects or investments in existing applications.

### **2. Scope**

This ITP applies to all offices, departments, boards, commissions, and councils under the Governor's jurisdiction (hereinafter referred to as "agencies"). Agencies not under the Governor's jurisdiction are strongly encouraged to follow this ITP.

Third-party vendors, licensors, contractors, or suppliers shall meet the policy requirements of the Commonwealth's ITPs that are applicable to the products and services provided to the Commonwealth.

### **3. Background**

A dashboard typically is a set of web-based application components that delivers key information in a highly visual format to a user group or groups. Dashboards contain summarized Key Performance Indicators (KPIs) and metrics that are most significant for user's business operations and enable users to quickly interpret, understand, and share a snapshot perspective of organizational performance, with the ability to drill down to greater levels of detail.

Dashboards enables Agencies to leverage BI and analytics to achieve their data driven strategic objectives. These Dashboards are tailored for different personas depending on the functional job profile. The dashboards help in successful digital transformation by successfully implementing the digital stories and mobility. Dashboards are a primary method of delivering and displaying BI to users since they

are more visual and intuitive than traditional reports.

Dashboards are deployed to deliver real-time or near-real-time analysis and use visualization techniques to render complex or detailed information in simplified form. Dashboards often are linked to more than one enterprise application and use agents to monitor transactional performance and generate alerts based on unexpected behaviors or out-of-tolerance deviations.

Dashboards are most effective at delivering business information when the business process is well defined, the data relationships are understood, and trending is essential.

Dashboards serve as a means to increase the agency and team level efficiency and effectiveness. The dashboards empower users with analytical capabilities to drive Intelligence and insights. The Intelligence and insights are delivered in the form of a single dashboard or a set of dashboards or a combination of dashboard and operative reports as final Drilldown details. These insights enable agencies to refine their operating model, innovate new agency model, and enable users to focus on right priorities. Leveraging Data available across the agencies will help real-time benchmarking, tracking, and monitoring performance of the agency and across agencies. In certain scenarios, dashboards may reduce the need for any data interfaces across the transactional systems.

This policy documents the implementation of the National Institute of Standards and Technology (NIST) Security Controls: AC-4, AC-21, AC-23, AU-2, AU-3, AU-6, AU-7, AU-13, AU-14, CA-2, IR-4, PM-1, PM-18, PS-6, PE-19, PT-7, RA-3, RA-5, SA-8, SC-31, SI-4.

## 4. Definitions

**Business Intelligence (BI) Dashboard:** A graphical user interface that is an information management tool which provides at-a-glance views of KPIs or Metrics and key data points to monitor the health of a business, department, or specific process, through a single point of access. BI Dashboards visually track, analyze, and display preconfigured or customer defined statistics, insights, and visualization into current data. A BI Dashboard enables business users to interact with data and drill into bits and pieces of information they might need, at any time, or any place to make data-driven decisions.

**Dashboards and Visualizations:** Visualizations and presentation of data to end users that enable them to analyze, discover, plan, and predict.

**Drilldown:** Is an application feature allowing business users to navigate from high level information to detailed information or transaction level.

**Information Silo:** Is an information management system that is unable to freely communicate with other information management systems. Communication within an Information Silo is always vertical, making it difficult or impossible for the system to work with unrelated systems. Information Silos occur when different individuals or groups generate or record new data, but don't integrate or aggregate that information for other parts of the business to view or use in a strategic way. Additionally, it occurs from the tool sprawl and the poor integration of business applications and processes.

**Intelligence:** Using large sets or contents of data and generate information to deliver context-based insights.

**Key Performance Indicators (KPIs):** The set of quantifiable measurements used to gauge an organization's overall long-term performance. KPIs and Metrics specifically help determine an organizations strategic, financial, and operational achievements, especially compared to those of other organizations within the same sector.

**Metrics:** Measures of quantitative assessment commonly used for assessing, comparing, and tracking performance or production.

## 5. Policy

Agencies shall standardize on the current architecture products identified in *STD-INF012A, Business Intelligence Dashboard Product Standards*. Availability and licensing information regarding these products can be found in *GEN-INF012B, Dashboard Product Availability*.

Agencies shall not intentionally create Information Silos. Agencies shall coordinate with the Commonwealth Data Officer to incorporate reporting data stores for enterprise-class applications into a broader BI framework. See [STD-INF010, Business Intelligence Policy](#).

Agencies shall not implement a BI reporting instance requiring authentication that does not leverage enterprise access management solutions as outlined in [ITP-SEC007, Minimum Standards for IDs, Passwords, Sessions and Multi-Factor Authentication](#).

Agencies shall utilize BI Dashboards for the visualization of KPIs or Metrics that they have established and are maintaining.

Agencies shall ensure:

- Applications leveraging a BI Dashboard provide consistent data and metadata for KPIs or Metrics.
- Data that supports the KPIs or Metrics displayed in BI Dashboards are synchronized with the underlying detail data that is used for drill-down analysis.
- Only the data required for their business process is collected and retained per the agency record retention plan.
- The appropriate level of security controls are applied to all BI Dashboard implementations.
- Records retention plans are reviewed and updated with every implementation of BI reporting.

Agencies shall coordinate with Office of Administration, Office for Information Technology (OA/OIT) to:

- Analyze security requirements and ensure all BI Dashboard implementations are in compliance with those requirements.
- Ensure BI Dashboard users are appropriately authenticated, and users can only view BI Dashboards and data that they are entitled to view.
- All users are authenticated and authorized in accordance with all laws, statutes, executive orders, management directives, and policy.

Agencies shall coordinate with Agency Chief Counsel and OA/OIT to ensure BI Dashboard implementations comply with all applicable statutes, laws, regulations, and policies.

## 6. Responsibilities

### 6.1 Agencies shall:

- Adhere to the product standards identified in STD-INF012A.
- Leverage enterprise access management solutions.
- Ensure they are not creating Information Silos.
- Ensure BI Data is consistent and synchronized.
- Ensure the appropriate security controls are applied for all BI Dashboard implementations.
- Coordinate with OA/OIT and Agency Chief Council as outlined in this ITP.

### 6.2 OA/OIT shall:

Comply with the requirements as outlined in this ITP.

### 6.3 Third-party vendors, licensors, contractors, or suppliers shall:

comply with the requirements of this ITP that are applicable to the products and services provided to the Commonwealth.

## 7. Related ITPs/Other References

- Definitions of associated terms of this policy are published on the Office of Administration's public portal: <http://www.oa.pa.gov/Policies/Pages/Glossary.aspx>
- Commonwealth policies, including Executive Orders, Management Directives, and IT Policies are published on the Office of Administration's public portal: <http://www.oa.pa.gov/Policies/Pages/default.aspx>
- [\*Management Directive 205.34, Amended Commonwealth of Pennsylvania Information Technology Acceptable Use Policy\*](#)
- [\*ITP-ACC001, Information Technology Digital Accessibility Policy\*](#)
- [\*ITP-BUS004, IT Policy Waiver Review Process\*](#)
- [\*ITP-INF000, Enterprise Data and Information Management Policy\*](#)
- [\*ITP-INF010, Business Intelligence Policy\*](#)
- [\*ITP-INF011, Reporting Policy\*](#)
- [\*ITP-SEC007, Minimum Standards for IDs, Passwords, Sessions and Multi-Factor Authentication\*](#)
- [\*ITP-SFT002, Commonwealth of PA Design Standards\*](#)
- *STD-INF012A, Dashboard Product Standards*
- *GEN-INF012B, Dashboard Product Availability*
- [\*National Institute of Standards and Technology \(NIST\)\*](#)

## 8. Authority

[\*Executive Order 2016-06, Enterprise Information Technology Governance\*](#)

## 9. Publication Version Control

It is the [Authorized User](#)'s responsibility to ensure they have the latest version of this publication, which appears on <https://itcentral.pa.gov> for Commonwealth personnel and on the Office of Administration public portal: <http://www.oa.pa.gov/Policies/Pages/default.aspx>. Questions regarding this publication shall be directed to [RA-ITCentral@pa.gov](mailto:RA-ITCentral@pa.gov).

## 10. Exemption from this Policy

In the event an agency chooses to seek an exemption from the guidance within this ITP, a request for a policy waiver shall be submitted via the enterprise IT policy waiver process. Refer to [ITP-BUS004, IT Policy Waiver Review Process](#) for guidance.

This chart contains a history of this publication's revisions. Redline documents detail the revisions and are available to CWOPA users only.

Version	Date	Purpose of Revision	Redline Link
Original	03/23/2009	Base Document	N/A
Revision	11/18/2010	ITP Refresh	N/A
Revision	06/25/2021	ITP Refresh	N/A
Revision	07/18/2023	Updated definitions and removed those no longer being used in the policy Moved non-policy language to background section Reorganized policy section for clarity and conciseness Updated responsibilities Updated references throughout policy	<a href="#">Revised IT Policy Redline &lt;07/18/2023&gt;</a>