

# Embracing Business Intelligence: Pioneering Solutions for Transforming Government Agencies through Enterprise Business Intelligence

## Executive Summary

LeSchack Integrations, in collaboration with Sentient Decisions, a service-disabled veteran-owned small business (SDVOSB), is working to create advanced Enterprise Business Intelligence (BI) solutions tailored for government agencies like the Transportation Security Administration (TSA), with plans to extend services to Customs and Border Protection (CBP) and the Department of Homeland Security (DHS) in the future. By leveraging BI technology and existing infrastructure resources at these agencies from companies like Microsoft and Oracle, we aim to transform how these agencies access, analyze, and use data to make informed decisions, optimize operations, and achieve their missions. This whitepaper outlines our approach to developing an Enterprise BI General Support System (BI-GSS) that can integrate with existing systems, streamline data processing and analysis, and deliver actionable insights across agencies.

## Introduction

The successful implementation of BI capabilities can profoundly impact government agencies, as it has done with TSA, by enabling them to identify recurring issues, pinpoint areas for improvement, recognize trends, and modify business processes to achieve their mission and goals. Traditionally, organizations have relied on time-consuming and resource-intensive methods to process and analyze data. However, a modern BI platform can link data and information, transform it into actionable insights, and create value for internal and external users throughout an agency.

## What is Enterprise Business Intelligence General Support System (BI-GSS)?

The role of the Enterprise Business Intelligence General Support System (BI-GSS) is to serve as a central hub that connects to other major and minor systems within the agency. The BI-GSS extracts pertinent data from each relevant source, loads and transforms it into centralized repositories, and develops custom-designed reports, dashboards, alerts, and ad-hoc reporting capabilities. End-users are provided with a single access point in the trusted environment to filter and execute reports rather than replicating them from their original disparate data sources by exporting data via various web applications.

BI information is used at TSA to understand the strengths and weaknesses within the agency and enable better business decisions to be made. It can help find issues in areas such as recurring issues, identify improvement areas, recognize trends, and change business processes to achieve TSA's mission and goals. Before BI technologies existed, organizations used traditional methods to transform data. This process consumed many human and computer resources and time, let alone factoring in human errors. There is a need to have a BI platform to link data and information and then transform it into action and value. The BI platform will help TSA close the gap by providing these capabilities available for internal and external users throughout the agency.

Developing the enterprise BI infrastructure within TSA has empowered TSA system owners and their users to leverage the capabilities offered by the BI platform for data analysis, the creation of reports, and improved visualizations. A common goal for the BI-GSS will be to provide an on-ramp for all systems wanting to take advantage of BI-GSS services.

### **Cross-Agency Collaboration and Standardization**

Implementing the BI-GSS can facilitate cross-agency collaboration and information sharing, allowing these agencies to address common challenges and achieve their missions more effectively. With a unified BI platform, agencies can share data, analytics, and insights in a secure and controlled manner, leading to better coordination and cooperation on critical initiatives.

For instance, CBP, TSA, and DHS could use the BI-GSS to develop a joint database of known and suspected security threats, enabling all agencies to access and act on this information in real time. This cross-agency collaboration can result in faster threat identification, improved response capabilities, and a safer and more secure nation.

Furthermore, adopting the BI-GSS can promote the standardization of data formats, analytics methodologies, and reporting processes across agencies. This standardization can streamline the integration of new systems and technologies, reduce redundancies, and enhance the overall efficiency of government operations.

### **Use Case 1: Transportation Security Administration (TSA) Deployed**

LeSchack Integrations has successfully developed and deployed the Enterprise Business Intelligence General Support System. TSA can use the BI-GSS to analyze passenger and luggage screening data to identify trends and patterns in security risks. This information can help TSA adjust its screening procedures and resource allocation to better address evolving threats. Additionally, the BI-GSS can facilitate the sharing of critical security information with other government agencies, such as DHS and CBP, allowing for a more coordinated response to potential security incidents.

### **Use Case 2: Customs and Border Protection (CBP)**

By leveraging a BI-GSS, CBP can optimize its border management operations, enhance risk assessment, and facilitate trade. Integrating data from various systems, such as cargo tracking and passenger information databases, can provide CBP officers with a comprehensive view of border activities. This information can be used to identify potential security risks, prioritize inspections, and allocate resources more effectively.

### **Use Case 3: Department of Homeland Security (DHS)**

DHS can benefit from the BI-GSS by monitoring and analyzing data from various sources, such as cybersecurity threat intelligence, emergency response operations, and immigration enforcement. This comprehensive view of the homeland security landscape can enable DHS to identify emerging risks, prioritize its efforts, and allocate resources more effectively. Additionally, the BI-GSS can promote better coordination

between DHS and other government agencies, such as CBP and TSA, in addressing shared challenges and objectives.

### **Benefits of Cross-Agency Collaboration**

By developing similar systems using a BI-GSS as done with TSA, government agencies like CBP and DHS can realize significant benefits through cross-agency collaboration. Some of these benefits include:

1. **Enhanced information sharing:** The BI-GSS can facilitate secure and controlled information sharing between agencies, leading to better coordination and cooperation on key initiatives.
2. **Improved decision-making:** Access to a broader range of data and analytics can provide agencies with a more comprehensive view of their operational environment, enabling them to make more informed decisions and take more effective actions.
3. **Streamlined operations:** Standardizing data formats, analytics methodologies, and reporting processes can reduce redundancies, streamline the integration of new systems and technologies, and enhance the overall efficiency of government operations.

### **Conclusion**

In summary, the BI-GSS developed by LeSchack Integrations and Sentient Decisions has empowered TSA and can empower government agencies like CBP and DHS to harness the full potential of their data and make more informed decisions in pursuit of their missions. By building on existing infrastructure resources from companies like Microsoft and Oracle, our solution can integrate seamlessly with current systems, streamlining data management and analysis processes. By implementing a unified BI platform, these agencies can foster cross-agency collaboration, streamline operations, and ultimately improve their effectiveness in serving the public.

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