**One Washington
Business Intelligence Strategy 2.0**

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SECTION 1 INTRODUCTION

1.1 EXECUTIVE SUMMARY

One Washington's goal is to improve access to data that is accurate, readily available and useful to decision makers. Business intelligence is a critical component of this commitment. BI consists of the strategies and technologies used by enterprises for data analysis of business information. BI technologies provide historical, current and predictive views of business operations. The BI strategy provides an actionable plan for the tasks and tools required to deliver information efficiently and effectively to meet the needs of business decision makers.

The BI strategy describes the initiatives that OneWa program will employ to achieve the commitment for accurate, available and useful data. These initiatives are:

- Enterprise reporting and analytics
- BI governance
- Change management

1.2 BACKGROUND, PURPOSE AND OBJECTIVES

OneWa is a comprehensive business transformation initiative to improve business processes and modernize aging business systems through the implementation of an ERP solution. OneWa impacts these statewide core business functions: finance, procurement, budget, human resources and payroll. The BI strategy outlines how business reporting and analytics will be leveraged to enable enterprise, data-driven insights and decision-making. The initiatives are intended to define and build required capabilities, identify technology needs and ensure resources are identified, available and reliable for BI implementation.

Note: Version 2 of the Business Intelligence Strategy was created to update and clarify the BI work that will be done as part of the modernization of the state's legacy enterprise systems. Previous versions, while good for reference, should not be used for workload or timeline.

1.3 GUIDING PRINCIPLES

The guiding principles for the OneWa BI strategy have been set forth by the OneWa executive steering committee and were utilized to guide the development of this strategy:

- **Synchronize the BI implementation with ERP:** the BI capabilities for finance, procurement, budget, and HR/payroll will be deployed incrementally in accordance with the ERP schedule. This approach helps users learn, maximizes the use of new data as it becomes available and provides increasingly-complex reports and analytics over time.
- **Procure BI software with the ERP software procurement:** the software selection for the ERP will include technical specifications and business capabilities for BI software to support BI reporting needs across all finance, procurement, budget and HR/payroll business functions.

- **Mature BI capabilities over time:** BI capabilities, including the design and development of a prioritized set of dashboards, reports and scorecards, will be established incrementally and matured over time as additional data becomes available.
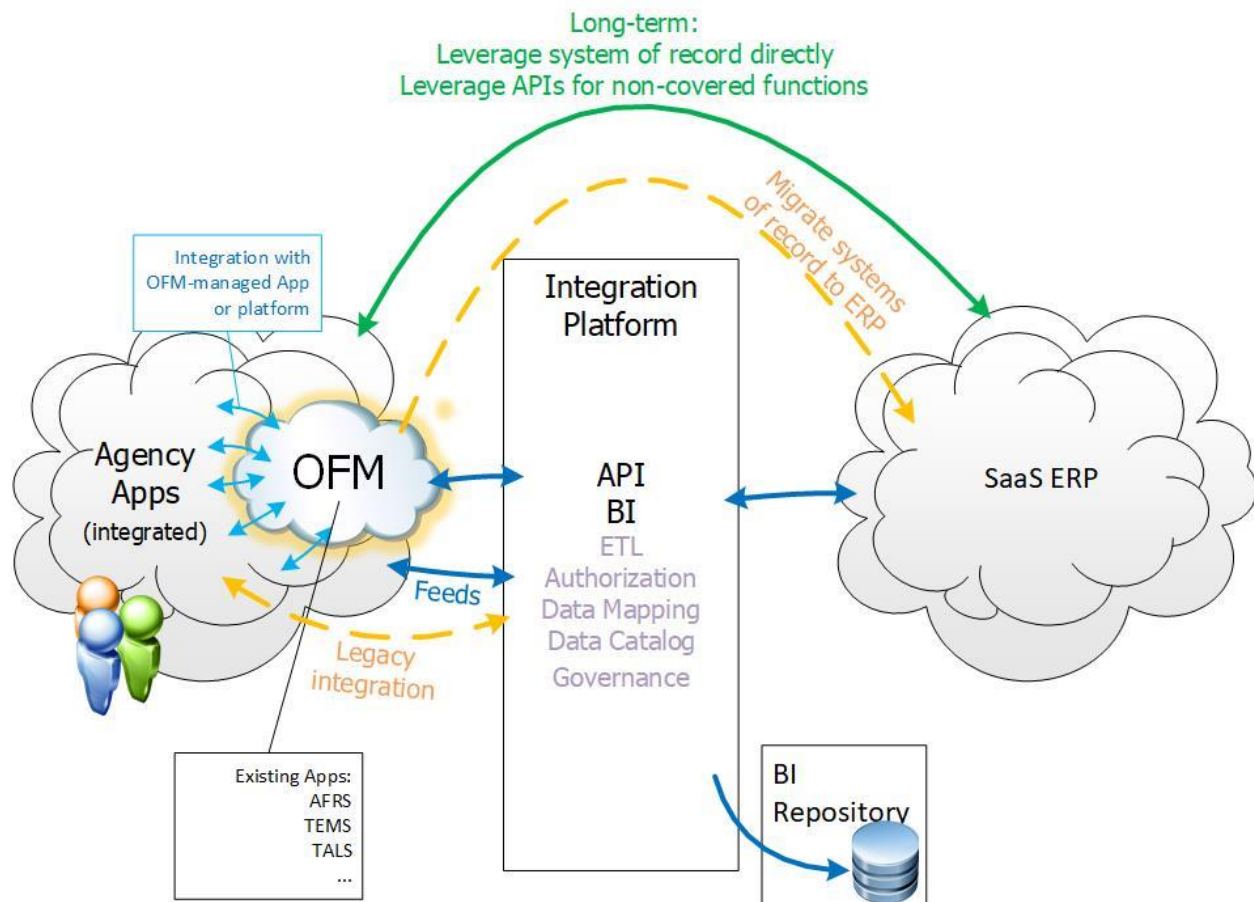
SECTION 2 BI STRATEGY AND ACTION PLAN

To support the goal of accurate, available and useful data, this document describes an actionable strategy including the activities, resources, people, process and technology considerations required to support the state's BI needs. A detailed work plan will be created once the software is chosen and implementation begins.

2.1 OVERVIEW OF INITIATIVES

The following initiatives serve the purpose of deploying a successful BI future state solution as outlined in the conceptual model as well as building BI capabilities in the enterprise in alignment with the deployment of the ERP solution.

The state currently uses an on premise installation of SAP Web Intelligence and Microsoft Powerbase for its BI needs. It is anticipated that these tools will continue to be utilized in the future along with additional BI tools procured with the ERP solution. See figure 1 for a conceptual model.

Figure 1: Conceptual model

2.1.1 ENTERPRISE REPORTING AND ANALYTICS

Enterprise Reporting and Analytics	IMPLEMENT FOUNDATIONAL AND ADVANCED ENTERPRISE REPORTING AND ANALYTICS CAPABILITIES FOR BETTER, FASTER AND INFORMED DECISION-MAKING. FOCUS ON IMPLEMENTATION OF A RATIONALIZED SET OF REPORTS, DASHBOARDS AND SCORECARDS FOR STAKEHOLDERS IN A WELL-GOVERNED, BI ENVIRONMENT.

The enterprise reporting and analytics initiative will create common enterprise and reporting capabilities across the five business functions in scope for the OneWa program in alignment with the timeline for the ERP implementation activities. This is designed to establish the future state BI and analytics capabilities and to consistently meet business needs.

The enterprise reporting and analytics initiative will be conducted in two stages:

1. Deployment of initial dashboards, score cards and reporting for foundational capabilities.
2. Deployment of advanced analytics and advanced capabilities as part of the ERP incremental releases.

The anticipated outcomes are:

- Reporting capabilities deployed.
- Availability of dashboards and reports increased.
- Self-service increased.
- Use of analytics increased.
- Executive style reports and dashboards.

The benefits include:

- Improved insight-based decision-making.
- Increased confidence in accuracy and quality of data.
- Increased business operational efficiencies.
- Increased auditing functionality.
- Established culture for consistent and shared use of BI capabilities.
- Decreased time to respond to BI requests.

The enterprise reporting and analytics initiative will be executed in stages in alignment with the deployment of the ERP solution. Enterprise analytics and reporting will first focus on the initial finance and purchase-to-pay business processes with additional enterprise reporting activities planned with the implementation of expanded financial and procurement functions followed by budget and HR/payroll function deployments.

During the initial deployment, the enterprise reporting and analytics initiative will focus on establishing foundational BI capabilities including design and development of a prioritized set of dashboards, reports and scorecards. During this time, it is imperative that the BI solution address the needs of end users and decision makers.

Reporting and data analytics will be enhanced with the release of additional functionality. As additional data becomes available, gaps will be closed and BI functionalities will be expanded.

DEPLOY ANALYTICS FOUNDATION – DASHBOARDS, SCORECARDS AND REPORTING

Figure 2: Deploy analytics foundation

Objectives	Key Milestones	Anticipated Benefits
• Identify desired BI needs and capabilities required for procurement related activities • Deliver user interface for foundational reporting, dashboards and analytics that encompasses those dashboards and analytics found in corresponding legacy systems • Intend to replace current reports and meeting business needs incrementally	• Define reporting business capabilities and technical specifications. • Integrate ETL data • Develop semantic layer • Develop UI layer • Complete testing • Deploy BI tool • Establish report request management process	• Reduced workload for the reporting team by having clarity on standards and technology for reporting

Critical Success Factors		Organizational Impacts
• Availability of required BI capabilities to support BI activities • Ability to prioritize and execute most critical reporting needs • Change management activities to support BI adoption		• Train on the new BI interface • Change how reports are requested, serviced and delivered • Implement a BI self-service user interface

Key Activities
• Create inventory of specific use cases, business decisions or outcomes that need to be supported by the future state BI solution • Inventory existing reports, dashboards, scorecards and analytics that meet identified needs • Identify gaps between existing reports, dashboards, scorecards and analytics and the desired future needs • Deploy analytics foundation • Identify data sourcing needs • Develop ETL processes based on ERP data model • Develop semantic layer • Develop user interface • Test solution • Train solution • Deploy solution

Potential Risks
• Availability of resources to build the needed reporting tools is limited due to current resource availability • Unclear business capabilities and technical specification definitions leads to reports and outputs that don't support the actual needs of business users, driving business users back to use of shadow systems • Insufficient requirements, analysis and testing lead to deployment of reports that don't add business value

DEPLOY ADVANCED ANALYTICS

Figure 3: Deploy advanced analytics

Objectives	Key Milestones	Anticipated Benefits
• Establish capabilities for advanced and predictive ad hoc reporting	• Identify and prioritize opportunities for dashboards, scorecards and advanced analytics • Identify data sources to support opportunity • Complete modeling • Deploy foundational capabilities	• Reduced costs for reporting • Deeper insights by using advanced analytical techniques and devices

Critical Success Factors	Organizational Impacts
• Clear business processes in place for the identification and prioritization of automation and report development initiatives • Allocate resources to the implementation of each of the business functions • Clear benefits defined • New BI solution should support existing analytics and reports upon implementation	• New skill needed for analytics • New analytics process to be designed and built

Key Activities

• Identify and prioritize advanced analytics opportunities
• Source external and internal data
• Conduct data mining
• Develop supporting models
• Gather lessons learned

Potential Risks

• Alignment on prioritization requires too much time

2.1.2 BI GOVERNANCE

BI Governance	ALIGN BI IMPLEMENTATION ACTIVITIES WITH THE ONEWA DATA GOVERNANCE EFFORTS TO ENSURE CONSISTENT SOURCING AND USE OF QUALITY AND RELIABLE DATA. FOCUS ON IMPROVING COMMUNICATIONS, STANDARDIZATION, CROSS-FUNCTIONAL COLLABORATION AND TRUST OF DATA.

The goal of the BI governance initiative is to leverage common data governance processes across ERP and the BI solution to enable common understanding of data across the OneWa program. A BI sub-committee will set policies and standards across the enterprise to ensure best practices are followed.

The BI governance initiative will be conducted in four stages:

1. Alignment of BI governance with the OneWa data governance efforts.
2. Enabling BI capabilities.
3. Deployment and enhancement of BI capabilities.
4. Deployment of enhanced BI processes.

The anticipated outcomes are:

- Enterprise BI model and organization aligned.
- Enterprise BI implemented.
- Enterprise collaboration increased.

The benefits include:

- Consistent alignment of BI priorities and execution of activities.
- Improved cross-functional BI reporting and analytics among business and technology stakeholders across the business processes.
- Increased transparency and common understanding of data across the business processes.

The BI governance initiative will be executed in alignment with the deployment of the ERP solution.

ALIGN BI GOVERNANCE WITH ONEWA DATA GOVERNANCE EFFORT

Figure 4: Align with data governance efforts

Objectives	Key Milestones	Anticipated Benefits
• Establish an enterprise-wide BI governance subcommittee • Identify common BI governance processes	• Integrate BI Lead into existing data governance advisory committee • Identify governance roles and responsibilities • Adopt BI templates, policy, processes and standards	• Program alignment around resources and priorities • Achieve the commitment to accurate, available and useful data

Critical Success Factors		Organizational Impacts
• Actively engaged executive sponsorship • Leadership commitment across the enterprise • Use of best practices for BI		• Business process changes in managing and prioritizing reporting

Key Activities
• Align BI and data governance activities

Potential Risks
• Time limitations of senior leaders and decision makers to support governance decisions • Misalignment around BI governance standards • Insufficient BI resources • Scope of BI governance needs exceed the scope of this initiative

ENABLE BI CAPABILITIES

Figure 5: Enable BI capabilities

Objectives	Key Milestones	Anticipated Benefits
• Establish BI processes and tools	• Train BI team members • Establish policies • Establish processes	• Improved communications between teams
Critical Success Factors		
• Alignment of ERP and BI implementation activities		
Key activities		
• Train BI governance committee members • Establish BI processes • Execute and evolve BI processes • Establish BI policies		
Potential Risks		
• Time constraints of key staff		

DEPLOY AND OPERATE BI CAPABLITIES

Figure 6: Deploy and operate BI capabilities

Objectives	Key Milestones	Anticipated Benefits
• Drive training and employee engagement on BI standards	• Develop employee communications plan • Implement employee communications plan • Develop and deploy end user training • Incorporate BI into new employee training	• Improvement in BI reporting processes • Improved communication between stakeholders

Critical Success Factors		Organizational Impacts
• Mandatory training on BI processes • Effective and broad-reaching communications from senior leadership to staff • Measures built into performance to focus on correct data usage • Incorporate BI training into employee training regimens to reinforce BI capabilities		• Training of employees in new BI standards and procedures; role and responsibility changes will be required • Workflow of BI and reporting will change

Key activities
• Deliver end user training • Incorporate training into on-boarding • Refine and evolve end user training (ongoing)

Potential Risks
• Ineffective change management and leadership commitment may result in stakeholders not adopting to new governance processes and standards • Lack of understanding of the case for change

DEPLOY ENHANCED BI PROCESSES

Figure 7: Deploy enhanced BI processes

Objectives	Key Milestones	Anticipated Benefits
• Build and implement processes to ensure standards are met for data sourced from ERP system of record • Identify and report on key BI KPIs and metrics	• Define BI capabilities and technical specifications	• Maximized business outcomes, improved usability and improved data quality reporting and analytics.

Critical Success Factors		Organizational Impacts
• Creation of a clear set of BI rules based on the defined standards		• Reporting and analysis process will change

Key activities
• Identify BI processes using policies and standards based on business rules

Potential Risks
• There is lack of clarity in business capabilities and technical specification needs.

2.1.3 CHANGE MANAGEMENT

Change Management	ENSURE TIMELY ADOPTION AND PROFICIENCY OF THE NEW TOOLS AND PROCESSES, AS WELL AS TO REDUCE PRODUCTIVITY LOSS DURING THE TRANSITION. FOCUS ON MANAGEMENT OF CHANGE AND AVOIDING DUPLICATE EFFORTS AND EXTRA COSTS BECAUSE OF THE BI IMPLEMENTATION ACTIVITIES.

The change management initiative leverages the OneWa change management capabilities in support of all BI initiatives.

The anticipated outcomes are:

- BI change management needs identified.
- BI related change management communication and training deployed.

The benefits include:

- Minimize business disruptions due to uncommunicated change.
- Increase adoption of new tools, technology and processes.
- Avoid duplicate efforts and extra cost of managing BI related changes.

The change management initiative aligns BI activities with the change management activities of the OneWa program.

INTEGRATE BI NEEDS WITH PROGRAM CHANGE MANAGEMENT STRATEGY

Figure 8: Integrate change management with BI strategy

Objectives	Key Milestones	Anticipated Benefits
• Integrate BI change management into the change management strategy	• Identify BI change management approach • Integrate change management strategy • Deploy change management solutions	• Minimize the impacts of changes resulting from the BI initiatives and increase adoption of new tools, technology and processes that are implemented.

Critical Success Factors		Organizational Impacts
• Key stakeholders' participation and engagement • Leadership support • Solutions are implemented appropriately • End user adoption of new solutions		• The change management efforts will support the adoption of new processes

Key Activities
• Identify BI change management needs • Integrate BI needs with program change management strategy and plan • Develop communication message and trainings • Deploy communication and trainings • Transfer to on-going maintenance

Potential Risks
• Inactive or ineffective executive sponsorship • Late or insufficient change management efforts or resources

SECTION 3 APPENDIX

Appendix A

Below are historical documents relating to the BI effort to allow for a look-back in time to see where the program has been and the lessons learned.

Archived Documents
Program Blueprint v2