



Office of the Washington State Auditor

Pat McCarthy

Performance Audit

Opportunities to Improve City of Battle Ground's Information Technology Security

January 14, 2019

Table of Contents

Introduction3

Scope and methodology3

Audit Results5

Recommendations.....5

Auditor’s Remarks5

Auditee Response6

Appendix A: Initiative 9007

The mission of the State Auditor’s Office

Provide citizens with independent and transparent examinations of how state and local governments use public funds, and develop strategies that make government more efficient and effective.

The results of our work are widely distributed through a variety of reports, which are available on our website and through our free, electronic **subscription service**.

We take our role as partners in accountability seriously. We provide training and technical assistance to governments and have an extensive quality assurance program.

For more information about the State Auditor’s Office, visit **www.sao.wa.gov**.

Americans with Disabilities

In accordance with the Americans with Disabilities Act, this document will be made available in alternative formats. Please email Communications@sao.wa.gov for more information.

State Auditor’s Office contacts

State Auditor Pat McCarthy
360-902-0360, Pat.McCarthy@sao.wa.gov

Scott Frank – Director of Performance Audit
360-902-0376, Scott.Frank@sao.wa.gov

Kelly Collins – Director of Local Audit
360-902-0091, Kelly.Collins@sao.wa.gov

Peg Bodin, CISA – Assistant Director of Information Audit
360-464-0113, Peggy.Bodin@sao.wa.gov

Kathleen Cooper – Director of Communications
360-902-0470, Kathleen.Cooper@sao.wa.gov

To request public records

Public Records Officer
360-725-5617, PublicRecords@sao.wa.gov

Introduction

Government organizations have become increasingly dependent on computerized information systems to carry out their operations. These systems process, store and share sensitive and confidential information, including personal and financial data, in order to deliver services to residents.

Risks to a local government's information technology (IT) environment go beyond the activities of hackers stealing credit card information or Social Security numbers, or installing malware to disrupt communications. Errors or misuse of the system by employees or contractors can also jeopardize the operation of any entity that relies on computers and networks.

Furthermore, research by Verizon Wireless in their 2017 and 2018 Data Breach Investigation Report shows that the public sector reported the most cyber security incidents. A 2017 study by the Ponemon Institute found that governments pay an average of \$110 per record lost in a data breach.

To help Washington's local governments protect their Information Technology (IT) systems, we are offering them the opportunity to participate in a performance audit designed to assess whether there are opportunities to improve their IT systems.

The City of Battle Ground chose to participate in this audit.

Scope and methodology

The performance audit we conducted was designed to answer the following questions:

- Do the local government's IT security policies, standards and procedures align with leading practices?
- Has the local government implemented effective IT security practices to protect its information, and are they consistent with leading practices?

Comparing the City's IT security program to leading practices

We assessed the City's IT security policies, procedures and practices to leading practices in this area to identify any improvements that could make them stronger. We selected leading practices from the Center for Information Security's Top 20 Critical Security Controls, which were developed by a broad community of private and public sector stakeholders after examining the most common attack patterns. The Top 20 Critical Security Controls are a prioritized list of control areas designed to help organizations with limited resources optimize their security defense efforts to achieve the highest return on investment.

Evaluating effective implementation of IT security practices

To determine if the City has implemented effective IT security practices, we conducted tests to determine if controls were implemented properly and functioning effectively.

Additionally, our subject matter experts conducted tests on the City's IT infrastructure and ranked the identified weaknesses by the severity and ease in which the identified weakness could be exploited, based on their professional experience.

We gave City management the results of the tests as they were completed, then conducted follow-up testing to determine if they had successfully mitigated the weaknesses we identified.

Next steps

Our performance audits of local government programs and services are reviewed by the local government's legislative body and/or by other committees of the local government whose members wish to consider findings and recommendations on specific topics. Representatives of the State Auditor's Office will review this audit with the City of Battle Ground's legislative body in Battle Ground, Washington. The public will have the opportunity to comment at this hearing. Please check the City of Battle Ground website for the exact date, time and location. The State Auditor's Office conducts periodic follow-up evaluations to assess the status of recommendations, and may conduct follow-up audits at its discretion. See **Appendix A**, which addresses the Initiative-900 areas covered in the audit.

Audit Results

The detailed results of our audit work and recommendations were communicated to management of the City of Battle Ground for its review, response and action. We found that, while the City's IT policies and practices partially align with industry leading practices, there are areas where improvements can be made. The City of Battle Ground has already addressed significant issues we identified, and is continuing to make improvements.

Because the public distribution of tests performed and test results could increase the risk to the City, distribution of this information is kept confidential under RCW 42.56.420 (4), and under Generally Accepted Government Auditing Standards, Sections 7.40-43.

Recommendations

To help ensure the City of Battle Ground protects its information technology systems and the information contained in those systems, we make the following recommendations:

- Continue remediating identified gaps
- Revise the City of Battle Ground's IT security policies and procedures to align more closely with leading practices

Auditor's Remarks

The State Auditor's Office recognizes the City of Battle Ground's willingness to volunteer to participate in this audit, demonstrating its dedication to making government work better. It is apparent the City's management and staff want to be accountable to the citizens and good stewards of public resources. Throughout the audit, they fostered a positive and professional working relationship with the Washington State Auditor's Office.



The City of Battle Ground

109 SW 1st Street Battle Ground WA, 98604

December 27, 2018

Peggy Bodin
Local IS Audit Program Manager
Office of the Washington State Auditor
302 Sid Snyder Ave SW
Olympia, WA 98504-0021

Dear Ms. Bodin:

On behalf of the City of Battle Ground, thank you for the opportunity to review and respond to the performance audit report "Opportunities to Improve City of Battle Ground's Information Technology Security."

It was a pleasure to work with your office as well as subject matter experts who evaluated Battle Ground's IT security. We have been continually impressed with the professionalism and collaborative approach taken by your office in our many interactions.

Thank you for recognizing the measures we have already taken to protect our IT systems from numerous threats. We appreciate the efforts of your staff and subject matter experts to evaluate our current IT security posture and recommend opportunities for improvement. Many of the recommendations have already been put into place and have strengthened our IT security program. We remain committed to continuous improvement to address the recommendations in the report.

Sincerely,

Dan Oehler
IT Manager
City Battle Ground

Appendix A: Initiative 900 and Auditing Standards

Initiative 900, approved by Washington voters in 2005 and enacted into state law in 2006, authorized the State Auditor's Office to conduct independent, comprehensive performance audits of state and local governments.

Specifically, the law directs the Auditor's Office to "review and analyze the economy, efficiency, and effectiveness of the policies, management, fiscal affairs, and operations of state and local governments, agencies, programs, and accounts." Performance audits are to be conducted according to U.S. Government Accountability Office government auditing standards.

In addition, the law identifies nine elements that are to be considered within the scope of each performance audit. The State Auditor's Office evaluates the relevance of all nine elements to each audit. The table below indicates which elements are addressed in the audit. Specific issues are discussed in the Results and Recommendations sections of this report.

I-900 element	Addressed in the audit
1. Identify cost savings	No. The audit did not identify measurable cost savings. However, strengthening IT security could help the City avoid or mitigate costs associated with a data breach.
2. Identify services that can be reduced or eliminated	No. The audit objectives did not address services that could be reduced or eliminated.
3. Identify programs or services that can be transferred to the private sector	No. The audit objectives were focused on improving the City's information system security program.
4. Analyze gaps or overlaps in programs or services and provide recommendations to correct them	Yes. The audit compares the City's IT security against leading practices and makes recommendations to align them.
5. Assess feasibility of pooling information technology systems within the department	No. The audit did not assess the feasibility of pooling information systems; it focused on the City's IT security posture.
6. Analyze departmental roles and functions, and provide recommendations to change or eliminate them	Yes. The audit evaluates the roles and functions of IT security at the City and makes recommendations to better align them with leading practices.
7. Provide recommendations for statutory or regulatory changes that may be necessary for the department to properly carry out its functions	No. The audit did not identify a need for statutory or regulatory change.
8. Analyze departmental performance, data performance measures, and self-assessment systems	Yes. Our audit examined and made recommendations to improve IT security control performance.
9. Identify relevant best practices	Yes. Our audit identified and used leading practices published by the Center for Internet Security to assess the City's IT security controls.

Audit performed to standards

We conducted this performance audit under the authority of state law (RCW 43.09.470), approved as Initiative 900 by Washington voters in 2005, and in accordance with Generally Accepted Government Auditing standards (December 2011 revision) issued by the U.S. Government Accountability Office. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.