Digital Crown Jewel
Enhanced Security Requirements

Information Security Office (ISO)
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Crown Jewel Enhanced Security Requirements

Purpose

To align with the Crown Jewel Standard, this document will detail the additional security requirements for assets identified as Crown Jewels (CJ) within CWBFG's Information Technology environment.

Scope

These requirements apply to all CWBFG Crown Jewels.

In the case of a merger or acquisition, Management shall ensure that the requirements detailed here are applied to any newly merged or acquired assets which are identified as crown jewels.

1   Enhanced Security Requirements

Requirement ID	Description
CJ-ESR-1	**Threat models of CWBFG's Crown Jewels** A threat model for each Crown Jewel **must** be developed after the identification of a Crown Jewel and updated annually afterwards, or after any material change in the threat landscape is observed.
CJ-ESR-2	**Privileged Employees with Access to Crown Jewel** Employees with privileged access to key components of the Crown Jewel **must** be considered high risk individuals within the CWB insider threat program. Privileged access to Crown Jewels **must** be configured through Centrify, and associated accounts **must** be separate from those used for day to day activities. Employees with privileged access or with software development functions for the Crown Jewels **must** undergo advanced security training on an annual basis. At minimum, access to key infrastructure and operating system components of the Crown Jewel **must** be restricted using multi-factor authentication. Audits to ensure accurate access privileges for all Crown Jewels must occur annually.
CJ-ESR-3	**Location of Crown Jewel Assets on CWBFG or external networks** Key components of the Crown Jewel **must** reside on a trusted zone or segment and direct access **must** be restricted appropriately (for example, through a secure bastion host). Crown Jewel data and key application components **must not** be hosted in a multitenant external cloud environment.

CJ-ERS-4	**Crown Jewel Communication and Encryption requirements** All critical data types/elements accessed, processed or stored by a Crown Jewel **must** be encrypted at rest, in motion and while in use within the application based on CWB's data protection standards.
CJ-ERS-5	**Crown Jewel Vulnerability Management** Exceptions to apply "critical" and "high" rated patches to Crown Jewel components outside of the timelines enforced by CWB standards are not permitted. Penetration testing **must** be conducted on an annual basis for Crown Jewels. Crown Jewel components **must** be analyzed for signs of compromise (e.g. IOC scans) on an ongoing basis. Crown Jewel hosts **must** be scanned for configuration integrity on an ongoing basis.
CJ-ERS-6	**Crown Jewel Operational Requirements** Crown Jewels must have advanced malware protection enabled. Exclusions are not permitted. Application level logs **must** be implemented for Crown Jewels to support detecting fraud and monitoring transactional integrity.

Review and Amendment History

Version	Date	Author	Description of Change	Approved By
Draft 0.1	April 2020	Kevin Vadnais	Initial Draft	

Appendix A – Current CJ Inventory

CJ Name	CJ Business Owner	Technical Management	CJ Description	Last Gap Analysis
T-24		Teminos Team. CWB will request modifications as needed. Local resources host application	T24 is an integrated core banking solution that is often referred to as "all in one" technology resource. T24 equips financial institutions with all the necessary tools for managing the entire workflow of banking operations from both back and front end in addition to client relationship management. T24 has established strong reputation in financial services market over the past 14 years.	May 2019
SAS EDW / BI		Supported completely by vendor. Customized as requested. Local resources host application	An enterprise Data Warehouse for compiling data used in reporting across CWB. Information is collected and modeled to simplify the generation of actionable reports.	May 2019
Wave		Line Data is vendor who supports it. Customized as requested. Local resources host application	Wave is a web-based integrated accounting solution exclusively designed for small businesses, freelancers, and consultants. Wave provides features including accounting, invoicing, billing, payment tracking, payroll management, finance management, and receipts.	May 2019
Felix		In-House by CWB Staff. National leasing application. Have 40 developers working on this Local resources host application	Felix is a custom developed leasing software used by the National Leasing group.	May 2019
Salesforce	National Leasing and equipment financing	Vendor Managed Cloud Hosted	Salesforce is an online solution for customer relationship management, or CRM. It gives all your departments — including marketing, sales, commerce, and service — a shared view of	May 2019

			customers with one integrated CRM platform.	
Office 365	Information Systems	Most backend is managed by vendor. Administration of application is controlled by CWB IT Staff

Cloud Hosted | Productivity suite of tools including word processors, spreadsheets, email applications, and collaboration tools for instant messaging and online voice/video conferences. | May 2019 |
| Maximizer – Cweb / Purefacts | | Managed by CWT (Canadian Western Trust) but do follow change board processes at CWB.

Local resources host application | Maximizer CRM features sales management, marketing automation, customer service and support and business productivity tools with integration with Microsoft products such as Outlook, Word, Excel and SharePoint.

Purefacts - industry-leading fee calculator has the flexibility to calculate every wealth management fee needed. This prevents revenue leakage while creating new revenue opportunities for CWBFG | May 2019 |
| Workday | Human Resources | Platform managed by Workday.

Cloud Hosted | A SAAS application focused on Human Resource (HR) activities including onboarding, training coordination, talent management, PTO, and other related employee tasks | May 2019 |
| Diligent Board Books | | Vendor managed

Cloud Hosted | Diligent Boards, used by 50% of the Fortune 1000, provides boards and executives with modern governance tools that allows the board to expand their reach outside the boardroom as well as meeting requirements such as distribution of board meeting materials in a secure environment. | May 2019 |
| Beyond Trust | Information Services | Information Services

Local resources host application | BeyondTrust is a global information security software company that helps organizations prevent cyber-attacks and unauthorized data access due to privilege abuse. The company's solutions provide the visibility to confidently | May 2019 |

			reduce risks, and the control to proactively take informed action against data breach threats. Because threats come from anywhere, the solutions unify the most effective technologies for addressing both internal and external risk: privileged access management and vulnerability management.	
Active Directory	Information Services	Information Services

Local resources host application | A Microsoft tool used to create, manage, and control the access of users to CWBFG IT resources. AD enables access permissions to be managed in a central location and ties into most applications currently used by CWBFG. | May 2019 |
| EMC Avamar Backup Solution | Information Services | Information Services

Local resources host application | EMC Avamar is a backup and recovery solution that features backup software, disk targets and global client-side deduplication. | May 2019 |
| RBC | | All technical aspects managed by vendor.

Local resources host application | Online banking management software. Would include thing such as direct deposit interfaces to other financial institutions or wire transfers. | May 2019 |
| Online Banking | | Vendor Managed, customized as requested.

Local resources host application | Customer facing web banking portal. | May 2019 |
| QRM | QRM Group | Information Services

Local resources host application | Risk management software used to track CWBFG risk related information. | May 2019 |