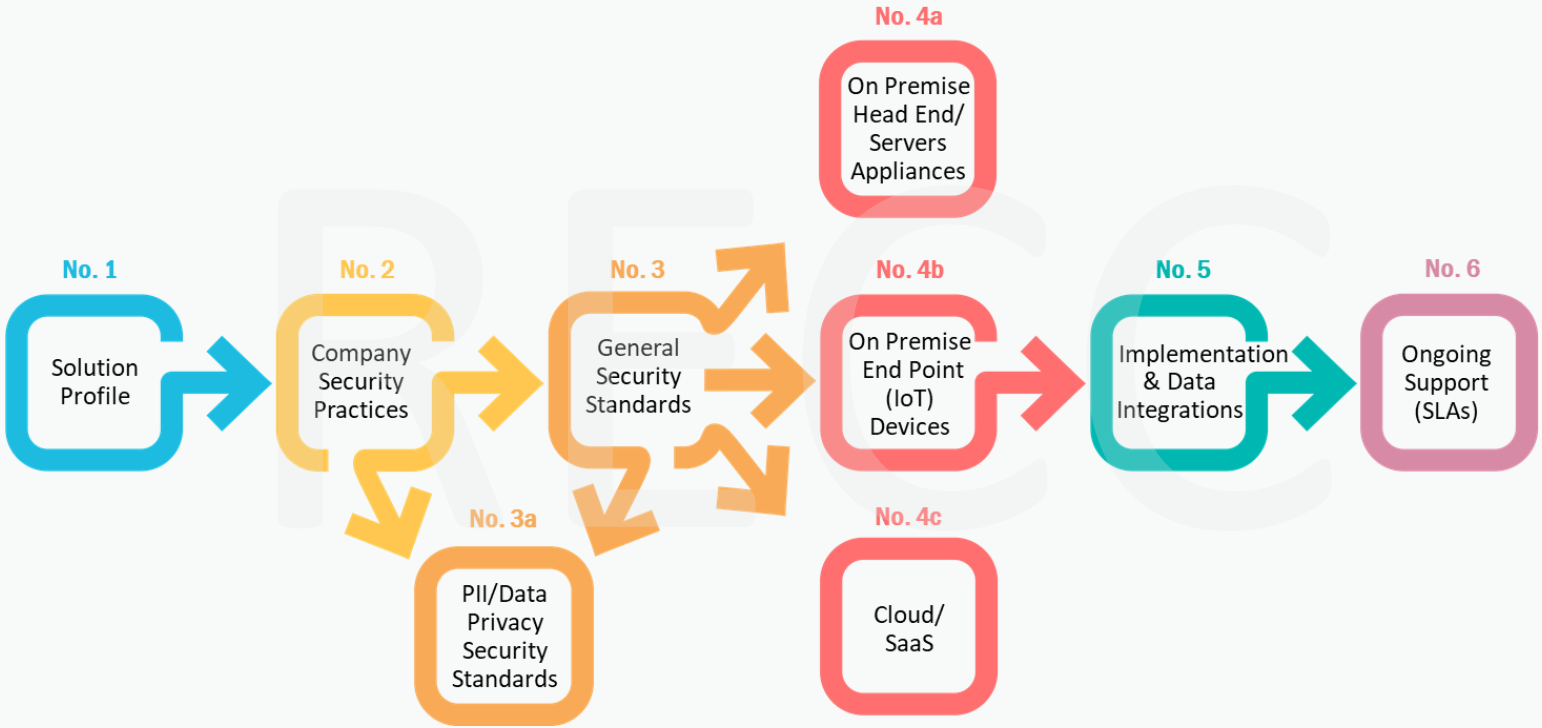
IT Security Assessment for OT Systems

Version 1.0

REAL ESTATE CYBER CONSORTIUM
(RECC)

REAL ESTATE
CYBER CONSORTIUM

IT SECURITY ASSESSMENT FOR OT SYSTEMS



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Overview

- General Solution Description
- Logical & Physical Design
- Current Release Version
- Underlying Database
- Supported Browsers
- Required Client SW
- Required Plug Ins
- Mobile Apps/Supported Devices
- SW Licensing Model

1. Provide an overview of the systems and services that you are providing.
2. Describe and illustrate the logical and physical architecture of your solution.
3. Which platforms (PC, Mac, mobile, etc.) are supported by your solution?
4. Describe the supported browsers and versions.
5. Does your software depend on any 3rd party plug-ins or applications to be loaded on your workstation (i.e., ActiveX, flash, java)? If so, please provide context.
6. What system and end user documentation is available?
7. What is the frequency of new software releases ?
8. Do you have a testing environment for client testing?
9. How long are clients given to test new releases prior to publication?
10. Provide the latest release notes and significant open bug listing.
11. What are the licensing requirements for your application?
12. What type of network connections and minimum bandwidth are required?
13. How is physical access to your data centers, computer rooms and data media storage areas controlled?
14. Do you provide software development and customization services?

Overview

- Employees-Contractors Background Checks
- Annual Acknowledgement of Security Policies
- Annual Formal Security Awareness Training
- Risk Management Program
- Cyber Insurance Policy Coverage

1. Does your company conduct both criminal and financial background checks for all employees who have access to nonpublic personal information?
2. Do you have a documented information security policy incorporating data protection methods, risk assessment, patch management, incident response, etc.? If so, please provide a copy.
3. Do you have a formally tested Business Continuity Plan?
4. Do you perform attack and penetration testing? If yes, is it performed by an outside 3rd party and what is the frequency? Which locations are covered by these tests?
5. Do you have a data / document retention policy? If yes, please provide.
6. Have you experienced any prior data breaches? If yes, please provide additional information.
7. Are you amenable to an on-site visit or 3rd party to access your data center for the purpose of confirming that the controls and security measures represented are in place?
8. Are employees and consultants that have access to nonpublic personal information trained on how this information should be treated?

Overview

- Account & Password Controls
- Windows AD Integration/SSO-SAML Integration
- Multi-Factor Authentication
- Logging
- Encryption Support
  - Browser
  - Data Transmission
  - At Rest

1. Describe your system's capabilities around single sign-on (SSO), federation and multi-factor authentication (MFA), and support for 3rd party clients.
2. How is software development handled (i.e. in-house resources, external sub-contractors, 3rd party developers? In what countries are they located)? How do they attach to your corporate networks?
3. Describe the security controls and encryption available in your application(s) (i.e. SSL, TLS, AES-128).
4. What specific TCP/UDS ports does your application use? Can these ports be changed?
5. How do your software development resources access your corporate network and code libraries?
6. Ability to verify Process Integrity: Verify that handling and processing of information is properly tested and controlled, including monitoring and control of physical and logical access and manipulation of data.
7. Ability to verify Confidentiality: Verify that protection of all client data at all phases of implementation and production, including monitoring and control of access by both internal and external parties.
8. Do you conduct stress testing on the product? If so, provide an overview of the process.
9. Do you provide user activity reporting (i.e. Users added, login failures, etc.)?
10. Does the product provide an audit trail of login attempts / failures/ and changes to configuration settings?
11. Describe your data at rest and data in transit protections.

PII/DATA PRIVACY SECURITY STANDARDS

Overview

- Privacy Policies
- Acceptable Use Policies
- Data Compliance Regulations
  - US
  - Canadian
  - GDPR
  - CCPA

1. How is personally identifiable information (PII) or personal financial information (PFI) stored, maintained and accessed?
2. Do you have a company data (including consumer data, HIPAA, PCI/PA-DSS) privacy policy?
3. Does your organization store and / or replicate data outside the US? If yes, what countries?
4. If data is stored in Europe does your organization comply with GDPR?
5. If data is stored or replicated in Canada does your organization comply with the Canadian Data Privacy Laws? (PIPEDA, PIPA Alberta, PIPA BC and Quebec Privacy Act)
6. Will your organization be compliant with the California data protection laws going into effect in 2020?

ON PREMISE HEAD END/SERVERS-APPLIANCES

Overview

- Hardware Requirements
  - Applications Servers
  - Database Servers
  - Clients
- OS+ Batch Management
- IoT Standards

1. What are your minimum and recommended hardware requirements for: Application Servers?
2. What are your minimum and recommended hardware requirements for: Database Servers?
3. What are your minimum and recommended hardware requirements for: Workstations?

ON PREMISE END POINT (IoT) DEVICES

Overview

- Hardware Requirements
  - Applications Servers
  - Database Servers
  - Clients
- OS+ Batch Management
- IoT Standards

1. What are your minimum and recommended hardware requirements for: Application Servers?
2. What are your minimum and recommended hardware requirements for: Database Servers?
3. What are your minimum and recommended hardware requirements for: Workstations?

Overview

- Cloud/Hosted Provider
- Cloud/Hosted Location(s)
- Certifications (SSAE18, SOC 1-2)
- Design including Backup
- Breach/Compromise Notification Process
- Defined Maintenance Windows
- Disaster Recovery Plan/Annually Tested
- Vulnerability Management/Scanning
- SLA Credits

1. If the solution is hosted, where are the hosting facilities located and who is the hosting provider?
2. Does your hosting facility have an SSAE18 report? If so, please describe the type of report (e.g., SOC 1, SOC 2, SOC 3, Type 1, Type II, etc.), the period of time covered by the most recent report, the firm that performed the most recent report.
3. Is this application hosted in a shared web or multi tenant environment? If so, what controls are in place to ensure segregation of client data?
4. Are all of your locations and service providers where client data will be housed or processed included in the scope of SOC 1 and/or SOC 2 examinations?
5. Do you perform internal and external vulnerability scanning? If so, what is the frequency and which product(s) or provider(s) do you use?
6. Describe the system redundancy, failover and disaster recovery plan. How often do you test your disaster recovery plan?
7. Do you have a formal breach notification policy?
8. Do you offer a high availability solution?
9. Ability to verify completeness: Certify that all vendor locations and service providers where client data will be housed or processed are included in the scope of SOC 1 and/or SOC 2 examinations.

Overview

- Data Migration
- API Design/Import-Export
- End of Term Data Migration

1. What are the available migration tools, either direct or third party, to assist in conversion/migration?
2. Do you provide standard APIs for both import and export of data from your system? Please provide a copy of your detailed API documentation.
3. What is your application and data integration architecture standard (SOAP, REST, others)?
4. Can we add or modify database objects such as triggers, views, indexes?
5. What is the underlying database/RDBMS for the application?

ONGOING SUPPORT (SLAs)

Overview

- SLA
- Support Hours
- Support Access
- New Release Frequency/Major-Minor
- Availability of Test Environment
- Change Management Policy
- Source Code Protections

1. What is your capability for a client to make, copy, and refresh environments (e.g. refresh the test environment with production data)?
2. Please describe your standard maintenance windows. Does the client have the ability to modify or limit these maintenance windows during normal operations and period close operations?
3. Please describe the application monitoring and notification capabilities provided with your solution. How do you ensure uptime?
4. Please outline client's capability to monitor or receive system performance notifications, benchmarks and actuals.
5. What do your Service Levels Agreements (SLAs) state in regards to system availability?
6. What are the application support models and hours of operation (Include reference to time zone)?
7. Is Source Code available for extensibility purposes? If so, please define.
8. Is the source code escrowed? If so, with whom and where?
9. How do you support operating system security or service pack patches / upgrades? What is your SLA related to security patches (timing after released from Microsoft)
10. Do you have an established Change control program?

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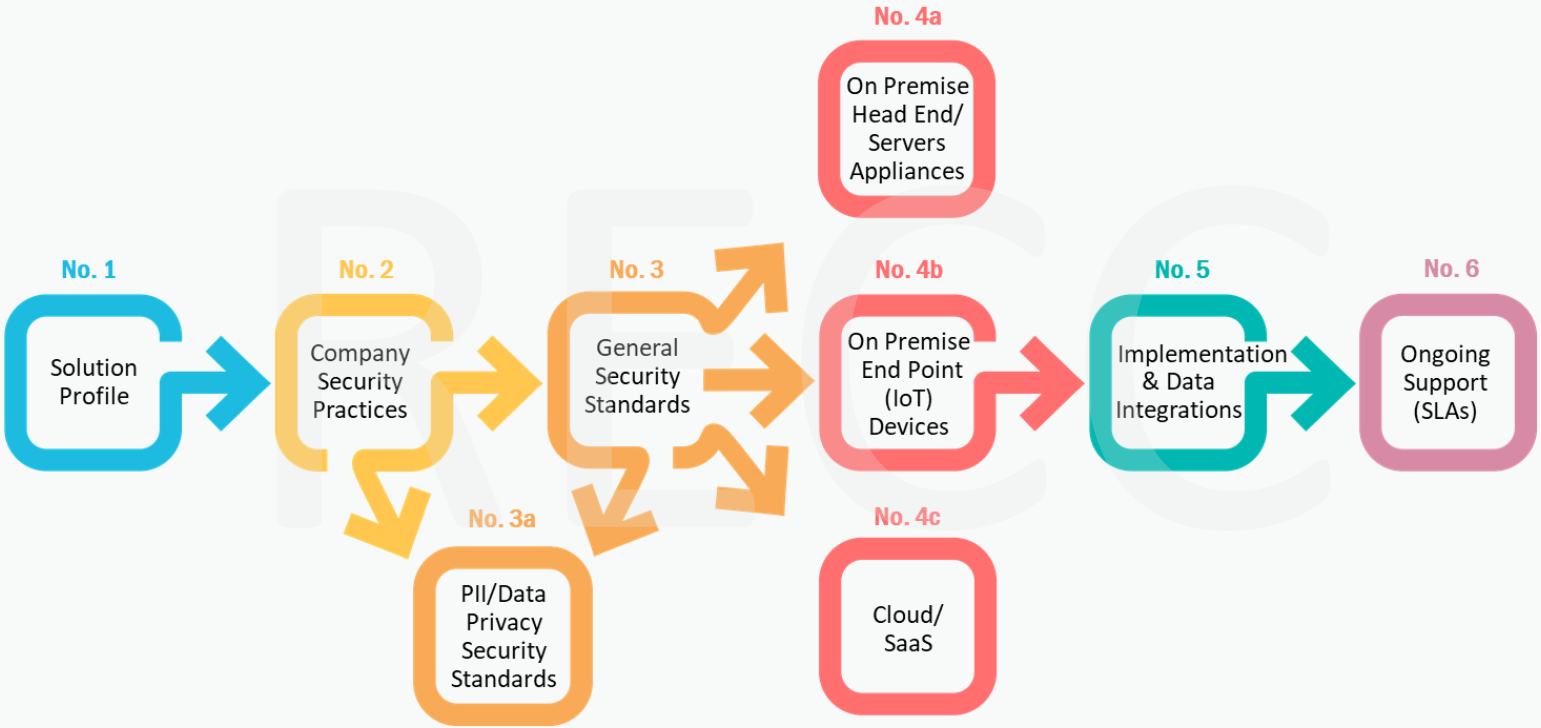

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