

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

STANDARD AGREEMENT

STD 213 (Rev. 03/2019)

AGREEMENT NUMBER

19-11077

PURCHASING AUTHORITY NUMBER (If Applicable)

4265

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

California Department of Public Health

CONTRACTOR NAME

NWN Corporation dba NWN Solutions Corporation

2. The term of this Agreement is:

START DATE

April 10, 2020

THROUGH END DATE

April 9, 2021

3. The maximum amount of this Agreement is:

\$500,000 FIVE HUNDRED THOUSAND DOLLARS

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

Exhibits	Title	Pages
Attachment A	Scope of Work	5
Attachment B	Agency Special Provisions	3
Attachment C *	Information Technology General Provisions (GSPD-401IT)	GSPD
+ Attachment D -	Contractor's Release	1
+ Attachment E -	IPSR	11
+ Attachment F -	CDPH ISO-SR1	21
+ -	The agreement is completed under PCC1102, Proclamation State of Emergency, Executive Order N-25-20.	

Items shown with an asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto.

These documents can be viewed at <https://www.dgs.ca.gov/OLS/Resources>

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

CONTRACTOR

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

NWN Corporation dba NWN Solutions Corporation

CONTRACTOR BUSINESS ADDRESS

2969 Prospect Park, Suite 225

CITY

Sacramento

STATE

CA

ZIP

95670

PRINTED NAME OF PERSON SIGNING

Brian Gai

TITLE

SVP Western Region

CONTRACTOR AUTHORIZED SIGNATURE

Brian Gai

Digitally signed by Brian Gai
Date: 2020.04.09 15:31:16 -07'00'

DATE SIGNED

04/04/2020

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STATE OF CALIFORNIA

CONTRACTING AGENCY NAME

California Department of Public Health

CONTRACTING AGENCY ADDRESS

1616 Capitol Avenue, Suite 74.262, MS 1802, PO Box 997377

CITY

Sacramento

STATE

CA

ZIP

95814

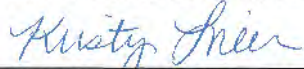
PRINTED NAME OF PERSON SIGNING

Kristy Lieu

TITLE

Chief, Contracts Management Unit

CONTRACTING AGENCY AUTHORIZED SIGNATURE



DATE SIGNED

4/9/20

CALIFORNIA DEPARTMENT OF GENERAL SERVICES APPROVAL

EXEMPTION (If Applicable)

PCC1102 Emergency Services

Executive Order N-25-20

ATTACHMENT A

Scope of Work

1. Service Overview

Contractor agrees to provide to the California Department of Public Health (CDPH), Information Technology Services Division (ITSD) the services described herein.

ITSD will be contracting with NWN Solutions Corporation for purposes of providing access to information technology (IT) staff to assist with IT support services to provide resources augmentation in service areas. Due to the COVID-19 crisis, there is a huge increase in demand for IT help desk services in the areas of telework support, hardware and software support, infrastructure support, and help desk services. Upon request, the contractor staff must be able to provide on-site and remote IT support for the types of requirements listed in this statement of work.

2. Service Location

The services shall be performed onsite at the following location or remotely:

California Department of Public Health
1616 Capitol Avenue
Sacramento, CA 95814

3. Service Hours

The services shall be provided during CDPH's normal working hours 7:00 a.m. to 6:00 p.m., Monday through Friday, excluding state official holidays.

4. Project Representatives

A. The project representatives during the term of this agreement will be:

California Department of Public Health Information Technology Services Division My-Linh Dang-Andres, Contract Manager Telephone: (916) 503-1863 E-mail: my-linh.dang-andres@cdph.ca.gov	NWN Corporation dba NWN Solutions Corporation Todd Saccani Telephone: (916) 637-2177 E-mail: tsaccani@nwnit.com
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B. Direct all inquiries to:

California Department of Public Health Information Technology Services Division Attention: My-Linh Dang-Andres 1616 Capitol Avenue, MS 6800 Sacramento, CA 95814 Telephone: (916) 503-1863 E-mail: my-linh.dang-andres@cdph.ca.gov	NWN Corporation dba NWN Solutions Corporation Todd Saccani Telephone: (916) 637-2177 E-mail: tsaccani@nwnit.com
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C. All payments from CDPH to the Contractor; shall be sent to the following address:

ATTACHMENT A

Scope of Work

Remittance Address

Contractor: NWN Corporation dba NWN Solutions Corporation |

Attention: Angela Timmerman

2969 Prospect Park Dr, Suite 225

Rancho Cordova, CA 95670 |

(916) 637-2124

atimmerman@nwnit.com |

- D. Either party may make changes to the information above by giving written notice to the other party. Said changes shall not require an amendment to this agreement. However, if the remittance address has changed, the Contractor will be required to submit a completed Std.204 Payee Data Record form, which must match the invoice address in order to avoid payment delays.

5. Services to be Performed

The contractor shall perform the following IT Support activities:

- Provides first level IT support on the ITSD call center.
- Installation and maintenance of workstation hardware and software
- Upgrades to hardware and software
- Replace computers as needed
- Installs and sets up workstation operating systems
- Assists end users with accessing and using network resources
- Diagnoses and resolves hardware, software, and connectivity issues, and elevates issues to higher level support staff
- Provides help desk phone support for application software, workstation hardware, and peripherals via.
- Triage and creates Cherwell tickets working to resolve workstation and peripheral problems when necessary.
- Provides set up of workstation hardware, printers, and peripherals
- Configures computer hardware and printers for networking services. Updates workstations, printers, and other computer peripherals as required
- Provides help desk phone support for application software, workstation hardware, and peripherals via.

Staff minimum qualifications:

- Two years of general information technology experience performing technical, analytical, or support tasks for computer systems.
- Minimum one year in a help desk environment
- System administration in a windows environment
- Understanding of Windows 7 and 10
- A basic understanding of networking (IP addressing, DHCP, DNS and basic network troubleshooting)

ATTACHMENT A

Scope of Work

- Experience with Active Directory - creating new accounts, resetting passwords and other basic maintenance tasks
- Analytical and problem solving skills, combined with the ability to provide quick resolution to problems.
- Strong time management skill and the ability to meet a commitment/deadline.
- Technical documentation of troubleshooting steps and information pertaining to new equipment being deployed or pre-existing in a
- Verbal and written communication skills are mandatory.
Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems

All staff assigned shall be screened and approved by the CDPH contract manager or designee.

6. Contractor Administrative Requirements**A. Contractor's Contract Manager**

The Contractor shall designate a Contract Manager to whom all project communications may be addressed, who has the authority to act on all aspects of the project, as well as the contact for all Contractor staffing and invoicing issues. The Contractor's personnel shall work as part of an integrated team of professionals to deliver quality services in a timely manner. Effective teamwork is essential to the successful completion of the required tasks. Contractor personnel should continue to keep their knowledge and skills up-to-date throughout the term of the contract.

B. Contractor's Personnel Changes

The Contractor will make its best effort to maintain staff continuity throughout the life of the contract. CDPH will be notified in writing of any changes in the personnel assigned to tasks. If a Contractor's employee is unable to perform his or her duties due to illness, resignation, emotional instability, incarceration, or other factors beyond the Contractor's control, the Contractor will make every reasonable effort to provide suitable substitute personnel.

C. Submission of Invoices

Payment for services performed under this Contract shall be made in accordance with the State of California's Prompt Payment Act (GC Section 927 et seq.)

Invoices shall be submitted in arrears after the work is concluded and CDPH notifies the Contractor that the work is accepted. One invoice shall be submitted to the CDPH Contract Manager, detailing the labor rate as agreed upon in the Attachment B – Agency Special Provisions. No more than one invoice can be processed during a monthly period.

Invoice submissions must include the following:

- 1) Company Letterhead
- 2) Submission Date
- 3) Name, Address and Telephone Number of the CDPH Contract Manager receiving invoices
- 4) Invoice Number
- 5) Contract Number
- 6) Comments
- 7) Remittance Information: Company Name and Address

ATTACHMENT A

Scope of Work

- 8) Authorized Representative of Company: Name, Title, Phone Number and Signature of Authorized Representative
- 9) Contractor timesheets

D. Problem Escalation

The Contractor may wish to escalate issues. Such issues may include, but are not necessarily limited to, invoice processing and CDPH timeliness in meeting its other contractual obligations. There may be instances where the severity of the problem justifies escalated reporting. To this extent, the Contractor will determine the level of severity and notify the appropriate CDPH personnel as specified below.

The Contractor shall advise the CDPH Contract Manager of any intended escalation. If the Contractor is not satisfied that CDPH is exercising its best efforts to resolve any problem or issue in an appropriate amount of time, the Contractor may escalate the problem or issue to the next appropriate level(s).

CDPH personnel are to be notified in the following sequence:

- 1) First Level: CDPH Contract Manager
- 2) Second Level: CDPH Project Manager
- 3) Third Level: CDPH Application Development and Support Branch (ADSB) Chief

E. Artifact Format

Unless explicitly stated otherwise, all artifacts such as word processing documents, spreadsheets, schedules, and presentations shall be provided in Microsoft Word 2016, Microsoft Excel 2016, Microsoft PowerPoint 2016, Visio 2013, or Microsoft Project 2013. This applies, but is not limited to, word processing documents, spreadsheets, schedules, and presentations. Artifacts must be well organized, free of spelling or typographical errors, grammatically correct and contain pertinent, up to date information when submitted to CDPH.

F. Return of State Property

Return all state property including security badges upon termination or completion of this contract.

7. State Responsibilities

CDPH shall provide the following:

- A. Assign a Contract Manager to whom all questions regarding the contract, invoices and payments may be addressed.
- B. Assign a Project Manager whom will provide clarifications and timely decisions on all aspects of the services to be performed.
- C. Identify Subject Matter Experts (SMEs) in CDPH program and ITSD areas to work with the Contract Manager on decision-making and resolution of technical issues.
- D. Provide the required hardware and software to support a minimum of four environments, Development, Testing, Staging, and Production.

ATTACHMENT A
Scope of Work

- E. Conduct performance testing.
- F. Work with the Contractor to provide clarification of processes and associated expectations.
- G. Review all security assessments.
- H. Provide access to appropriate levels of staff, stakeholders, users, and department management for successful completion of contract activities.
- I. Approve timely decisions and reviews of Work Products.
- J. Pay invoices based on CDPH acceptance of approved work.
- K. Review invoices and associated documents within ten (10) business days of receipt and notify the Contractor in writing of acceptance or dispute.
- L. Provide building access and work space for Contractor staff.

ATTACHMENT B
Agency Special Provisions

1. Invoicing and Payment

- A. In no event shall the Contractor require reimbursement from the State for obligations entered into for costs incurred prior to the commencement date or after the expiration of this Agreement.
- B. For services satisfactorily rendered, and upon receipt and approval of the invoices, the State agrees to compensate the Contractor for Time and Materials based on the hourly rate identified in this attachment under the Rates Payable provision.
- C. Invoices shall include the Agreement Number and shall be submitted in triplicate not more frequently than monthly in arrears to:

Contract#19-11077
California Department of Public Health
Information Technology Services Division
Attn: Wilson Yee
1616 Capitol Avenue, MS 6800
Sacramento, CA 95814
Electronic Submission: CDPH_ITSDinv@cdph.ca.gov

The State, at its discretion, may designate an alternate invoice submission address. A change in invoice address shall be accomplished via a written notice to the Contractor by State and shall not require an amendment to this agreement.

- D. Invoices shall be accompanied by an itemized invoice, as identified in Attachment A – SOW and contain the following:
- 1) Be prepared on Contractor letterhead. If invoices are not on produced letterhead, invoices must be signed by an authorized official, employee or agent certifying that the expenditure claimed represent activities performed and are in accordance with Attachment A-SOW.
 - 2) Invoices must be submitted to CDPH either electronically or in hardcopies.
 - 3) Identify the billing and/or performance period covered by the invoice.
 - 4) Itemize costs for the billing period in the same or greater level of detail as indicated in this agreement. Subject to the terms of this agreement, reimbursement may only be sought for those costs and/or cost categories expressly identified as allowable in this agreement and approved by the CDPH.

E. Amounts Payable

The amounts payable under this agreement shall not exceed \$500,000 for the term of this agreement.

F. Rates Payable

Classification	Hourly Rate
Help Desk Technician	\$55.00
Senior Technician	\$100.00

Rates Payable A: Contractor will provide appropriate staffing to be reimbursed for services satisfactorily performed and invoiced based on the following hourly rate:

ATTACHMENT B
Agency Special Provisions

Rates Payable B: Any necessary incidental travel must be approved in advance by the CDPH Contract Manager. The hourly rate does not include incidental travel costs and shall be identified separately in the invoices received.

2. Budget Contingency Clause

- A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an agreement amendment to Contractor to reflect the reduced amount.

3. Prompt Payment Clause

Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.

4. Timely Submission of Final Invoice

- A. A final undisputed invoice shall be submitted for payment no more than thirty (30) calendar days following the expiration or termination date of this agreement, unless a later or alternate deadline is agreed to in writing by the program contract manager. Said invoice should be clearly marked "Final Invoice", indicating that all payment obligations of the State under this agreement have ceased and that no further payments are due or outstanding. The State may, at its discretion, choose not to honor any delinquent final invoice if the Contractor fails to obtain prior written State approval of an alternate final invoice submission deadline.
- B. The Contractor is hereby advised of its obligation to submit to the State, with the final invoice, a completed copy of the "Contractor's Release (Attachment 4)".

5. Expense Allowability/Fical Documentation

- A. Invoices, received from the Contractor and accepted for payment by the State, shall not be deemed evidence of allowable agreement costs.
- B. Contractor shall maintain for review and audit and supply to CDPH upon request, adequate documentation of all expenses claimed pursuant to this agreement to permit a determination of expense allowability.
- C. If the allowability of an expense cannot be determined by the State because invoice detail, fiscal records, or backup documentation is nonexistent or inadequate according to generally accepted accounting principles or practices, all questionable costs may be disallowed and payment may be withheld by the State. Upon receipt of adequate documentation supporting a disallowed or questionable expense, reimbursement may resume for the amount substantiated and deemed allowable.

ATTACHMENT B
Agency Special Provisions

6. Recovery of Overpayments

- A. Contractor agrees that claims based upon the terms of this agreement or an audit finding and/or an audit finding that is appealed and upheld, will be recovered by the State by one of the following options:
- 1) Contractor's remittance to the State of the full amount of the audit exception within 30 days following the State's request for repayment;
 - 2) A repayment schedule agreeable between the State and the Contractor.
- B. The State reserves the right to select which option as indicated above in paragraph A will be employed and the Contractor will be notified by the State in writing of the claim procedure to be utilized.
- C. Interest on the unpaid balance of the audit finding or debt will accrue at a rate equal to the monthly average of the rate received on investments in the Pooled Money Investment Fund commencing on the date that an audit or examination finding is mailed to the Contractor, beginning 30 days after Contractor's receipt of the State's demand for repayment.
- D. If the Contractor has filed a valid appeal regarding the report of audit findings, recovery of the overpayments will be deferred until a final administrative decision on the appeal has been reached. If the Contractor loses the final administrative appeal, Contractor shall repay, to the State, the over-claimed or disallowed expenses, plus accrued interest. Interest accrues from the Contractor's first receipt of State's notice requesting reimbursement of questioned audit costs or disallowed expenses.

7. Travel and Per Diem Reimbursement

Any reimbursement for necessary travel and per diem shall, unless otherwise specified in this Agreement, be at the rates currently in effect, as established by the California Department of Human Resources (Cal HR). If the Cal HR rates change during the term of the Agreement, the new rates shall apply upon their effective date and no amendment to this Agreement shall be necessary. No travel outside the state of California shall be reimbursed without prior authorization from the CDPH. Verbal authorization should be confirmed in writing. Written authorization may be in a form including fax or email confirmation.

11. Projected Expenditures – Object Code (STD 215 Continued)

Contractor/Supplier Name: **NWN Corporation dba NWN Solutions Corporation**

Contract Number: 19-11077

[illegible]

Revised (06/19)

Contractor's Release

Instructions to Contractor:

With final invoice(s) submit one (1) original and one (1) copy. The original must bear the original signature of a person authorized to bind the Contractor. The additional copy may bear photocopied signatures.

Submission of Final Invoice

Pursuant to contract number 19-11077 entered into between the California Department of Public Health (CDPH) and the Contractor (identified below), the Contractor does acknowledge that final payment has been requested via invoice number(s) _____, in the amount(s) of \$ _____ and dated _____.
If necessary, enter "See Attached" in the appropriate blocks and attach a list of invoice numbers, dollar amounts and invoice dates.

Release of all Obligations

By signing this form, and upon receipt of the amount specified in the invoice number(s) referenced above, the Contractor does hereby release and discharge the State, its officers, agents and employees of and from any and all liabilities, obligations, claims, and demands whatsoever arising from the above referenced contract.

Repayments Due to Audit Exceptions / Record Retention

By signing this form, Contractor acknowledges that expenses authorized for reimbursement does not guarantee final allowability of said expenses. Contractor agrees that the amount of any sustained audit exceptions resulting from any subsequent audit made after final payment will be refunded to the State.

All expense and accounting records related to the above referenced contract must be maintained for audit purposes for no less than three years beyond the date of final payment, unless a longer term is stated in said contract.

Recycled Product Use Certification

By signing this form, Contractor certifies under penalty of perjury that a minimum of 0% unless otherwise specified in writing of post consumer material, as defined in the Public Contract Code Section 12200, in products, materials, goods, or supplies offered or sold to the State regardless of whether it meets the requirements of Public Contract Code Section 12209. Contractor specifies that printer or duplication cartridges offered or sold to the State comply with the requirements of Section 12156(e).

Reminder to Return State Equipment/Property (If Applicable)

(Applies only if equipment was provided by CDPH or purchased with or reimbursed by contract funds)

Unless CDPH has approved the continued use and possession of State equipment (as defined in the above referenced contract) for use in connection with another CDPH agreement, Contractor agrees to promptly initiate arrangements to account for and return said equipment to CDPH, at CDPH's expense, if said equipment has not passed its useful life expectancy as defined in the above referenced contract.

Patents / Other Issues

By signing this form, Contractor further agrees, in connection with patent matters and with any claims that are not specifically released as set forth above, that it will comply with all of the provisions contained in the above referenced contract, including, but not limited to, those provisions relating to notification to the State and related to the defense or prosecution of litigation.

ONLY SIGN AND DATE THIS DOCUMENT WHEN ATTACHING IT TO THE FINAL INVOICE

Contractor's Legal Name (as on contract): _____

Signature of Contractor or Official Designee: _____ Date: _____

Printed Name/Title of Person Signing: _____

Distribution: Accounting (Original) Program

Attachment __ E
Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)

This Information Privacy and Security Requirements Exhibit (For Non-HIPAA/HITECH Act Contracts) (hereinafter referred to as "this Exhibit") sets forth the information privacy and security requirements Contractor is obligated to follow with respect to all personal and confidential information (as defined herein) disclosed to Contractor, or collected, created, maintained, stored, transmitted or used by Contractor for or on **behalf** of the California Department of Public Health (hereinafter "CDPH"), pursuant to Contractor's agreement with CDPH. (Such personal and confidential information is referred to herein collectively as "CDPH PCI".) CDPH and Contractor desire to protect the privacy and provide for the security of CDPH PCI pursuant to this Exhibit and in compliance with state and federal laws applicable to the CDPH PCI.

- I. Order of Precedence: With respect to information privacy and security requirements for all CDPH PCI, the terms and conditions of this Exhibit shall take precedence over any conflicting terms or conditions set forth in any other part of the agreement between Contractor and CDPH, including Exhibit A (Scope of Work), all other exhibits and any other attachments, and shall prevail over any such conflicting terms or conditions.
- II. Effect on lower tier transactions: The terms of this Exhibit shall apply to all contracts, subcontracts, and subawards, and the information privacy and security requirements Contractor is obligated to follow with respect to CDPH PCI disclosed to Contractor, or collected, created, maintained, stored, transmitted or used by Contractor for or on behalf of CDPH, pursuant to Contractor's agreement with CDPH. When applicable the Contractor shall incorporate the relevant provisions of this Exhibit into each subcontract or subaward to its agents, subcontractors, or independent consultants.
- III. Definitions: For purposes of the agreement between Contractor and CDPH, including this Exhibit, the following definitions shall apply:

A. Breach:

"Breach" means:

1. the unauthorized acquisition, access, use, or disclosure of CDPH PCI in a manner which compromises the security, confidentiality or integrity of the information; or
2. the same as the definition of "breach of the security of the system" set forth in California Civil Code section 1798.29(f).

B. Confidential Information: "Confidential information" means information that:

1. does not meet the definition of "public records" set forth in California Government Code section 6252(e), or is exempt from disclosure under any of the provisions of Section 6250, et seq. of the California Government Code or any other applicable state or federal laws; or
2. is contained in documents, files, folders, books or records that are clearly labeled, marked or designated with the word "confidential" by CDPH.

Attachment __ E

**Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)**

- C. Disclosure: "Disclosure" means the release, transfer, provision of, access to, or divulging in any manner of information outside the entity holding the information.
- D. PCI: "PCI" means "personal information" and "confidential information" (as these terms are defined herein:
- E. Personal Information: "Personal information" means information, in any medium (paper, electronic, oral) that:
1. directly or indirectly collectively identifies or uniquely describes an individual; or
 2. could be used in combination with other information to indirectly identify or uniquely describe an individual, or link an individual to the other information; or
 3. meets the definition of "personal information" set forth in California Civil Code section 1798.3, subdivision (a) or
 4. is one of the data elements set forth in California Civil Code section 1798.29, subdivision (g)(1) or (g)(2); or
 5. meets the definition of "medical information" set forth in either California Civil Code section 1798.29, subdivision (h)(2) or California Civil Code section 56.05, subdivision (j); or
 6. meets the definition of "health insurance information" set forth in California Civil Code section 1798.29, subdivision (h)(3); or
 7. is protected from disclosure under applicable state or federal law.
- F. Security Incident: "Security Incident" means:
1. an attempted breach; or
 2. the attempted or successful unauthorized access or disclosure, modification or destruction of CDPH PCI, in violation of any state or federal law or in a manner not permitted under the agreement between Contractor and CDPH, including this Exhibit; or
 3. the attempted or successful modification or destruction of, or interference with, Contractor's system operations in an information technology system, that negatively impacts the confidentiality, availability or integrity of CDPH PCI; or
 4. any event that is reasonably believed to have compromised the confidentiality, integrity, or availability of an information asset, system, process, data storage, or transmission. Furthermore, an information security incident may also include an event that constitutes a violation or imminent threat of violation of information security policies or procedures, including acceptable use policies.
- G. Use: "Use" means the sharing, employment, application, utilization, examination, or analysis of information.

Attachment __ E
Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)

- IV. Disclosure Restrictions: The Contractor and its employees, agents, and subcontractors shall protect from unauthorized disclosure any CDPH PCI. The Contractor shall not disclose, except as otherwise specifically permitted by the agreement between Contractor and CDPH (including this Exhibit), any CDPH PCI to anyone other than CDPH personnel or programs without prior written authorization from the CDPH Program Contract Manager, except if disclosure is required by State or Federal law.
- V. Use Restrictions: The Contractor and its employees, agents, and subcontractors shall not use any CDPH PCI for any purpose other than performing the Contractor's obligations under its agreement with CDPH.
- VI. Safeguards: The Contractor shall implement administrative, physical, and technical safeguards that reasonably and appropriately protect the privacy, confidentiality, security, integrity, and availability of CDPH PCI, including electronic or computerized CDPH PCI. At each location where CDPH PCI exists under Contractor's control, the Contractor shall develop and maintain a written information privacy and security program that includes administrative, technical and physical safeguards appropriate to the size and complexity of the Contractor's operations and the nature and scope of its activities in performing its agreement with CDPH, including this Exhibit, and which incorporates the requirements of Section VII, Security, below. Contractor shall provide CDPH with Contractor's current and updated policies within five (5) business days of a request by CDPH for the policies.
- VII. Security: The Contractor shall take any and all steps reasonably necessary to ensure the continuous security of all computerized data systems containing CDPH PCI. These steps shall include, at a minimum, complying with all of the data system security precautions listed in the Contractor Data Security Standards set forth in Attachment 1 to this Exhibit.
- VIII. Security Officer: At each place where CDPH PCI is located,, the Contractor shall designate a Security Officer to oversee its compliance with this Exhibit and to communicate with CDPH on matters concerning this Exhibit.
- IX. Training: The Contractor shall provide training on its obligations under this Exhibit, at its own expense, to all of its employees who assist in the performance of Contractor's obligations under Contractor's agreement with CDPH, including this Exhibit, or otherwise use or disclose CDPH PCI.
- A. The Contractor shall require each employee who receives training to certify, either in hard copy or electronic form, the date on which the training was completed.
- B. The Contractor shall retain each employee's certifications for CDPH inspection for a period of three years following contract termination or completion.
- C. Contractor shall provide CDPH with its employee's certifications within five (5) business days of a request by CDPH for the employee's certifications.
- X. Employee Discipline: Contractor shall impose discipline that it deems appropriate (in its sole discretion) on such employees and other Contractor workforce members under Contractor's direct control who intentionally or negligently violate any provisions of this Exhibit.

Attachment __ E
Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)

XI. Breach and Security Incident Responsibilities:

- A. Notification to CDPH of Breach or Security Incident: The Contractor shall notify CDPH **immediately by telephone call plus email or fax** upon the discovery of a breach (as defined in this Exhibit), **and within twenty-four (24) hours by email or fax** of the discovery of any security incident (as defined in this Exhibit), unless a law enforcement agency determines that the notification will impede a criminal investigation, in which case the notification required by this section shall be made to CDPH immediately after the law enforcement agency determines that such notification will not compromise the investigation. Notification shall be provided to the CDPH Program Contract Manager, the CDPH Privacy Officer and the CDPH Chief Information Security Officer, using the contact information listed in Section XI(F), below. If the breach or security incident is discovered after business hours or on a weekend or holiday and involves CDPH PCI in electronic or computerized form, notification to CDPH shall be provided by calling the CDPH Information Security Office at the telephone numbers listed in Section XI(F), below. For purposes of this Section, breaches and security incidents shall be treated as discovered by Contractor as of the first day on which such breach or security incident is known to the Contractor, or, by exercising reasonable diligence would have been known to the Contractor. Contractor shall be deemed to have knowledge of a breach if such breach is known, or by exercising reasonable diligence would have been known, to any person, other than the person committing the breach, who is a employee or agent of the Contractor.

Contractor shall take:

1. prompt corrective action to mitigate any risks or damages involved with the breach or security incident and to protect the operating environment; and
 2. any action pertaining to a breach required by applicable federal and state laws, including, specifically, California Civil Code section 1798.29.
- B. Investigation of Breach and Security Incidents: The Contractor shall immediately investigate such breach or security incident. As soon as the information is known and subject to the legitimate needs of law enforcement, Contractor shall inform the CDPH Program Contract Manager, the CDPH Privacy Officer, and the CDPH Chief Information Security Officer of:
1. what data elements were involved and the extent of the data disclosure or access involved in the breach, including, specifically, the number of individuals whose personal information was breached; and
 2. a description of the unauthorized persons known or reasonably believed to have improperly used the CDPH PCI and/or a description of the unauthorized persons known or reasonably believed to have improperly accessed or acquired the CDPH PCI, or to whom it is known or reasonably believed to have had the CDPH PCI improperly disclosed to them; and
 3. a description of where the CDPH PCI is believed to have been improperly used or disclosed; and

Attachment __ E
Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)

4. a description of the probable and proximate causes of the breach or security incident; and
 5. whether Civil Code section 1798.29 or any other federal or state laws requiring individual notifications of breaches have been triggered.
- C. Written Report: The Contractor shall provide a written report of the investigation to the CDPH Program Contract Manager, the CDPH Privacy Officer, and the CDPH Chief Information Security Officer as soon as practicable after the discovery of the breach or security incident. The report shall include, but not be limited to, the information specified above, as well as a complete, detailed corrective action plan, including information on measures that were taken to halt and/or contain the breach or security incident, and measures to be taken to prevent the recurrence or further disclosure of data regarding such breach or security incident.
- D. Notification to Individuals: If notification to individuals whose information was breached is required under state or federal law, and regardless of whether Contractor is considered only a custodian and/or non-owner of the CDPH PCI, Contractor shall, at its sole expense, and at the sole election of CDPH, either:
1. make notification to the individuals affected by the breach (including substitute notification), pursuant to the content and timeliness provisions of such applicable state or federal breach notice laws. Contractor shall inform the CDPH Privacy Officer of the time, manner and content of any such notifications, prior to the transmission of such notifications to the individuals; or
 2. cooperate with and assist CDPH in its notification (including substitute notification) to the individuals affected by the breach.
- E. Submission of Sample Notification to Attorney General: If notification to more than 500 individuals is required pursuant to California Civil Code section 1798.29, and regardless of whether Contractor is considered only a custodian and/or non-owner of the CDPH PCI, Contractor shall, at its sole expense, and at the sole election of CDPH, either:
1. electronically submit a single sample copy of the security breach notification, excluding any personally identifiable information, to the Attorney General pursuant to the format, content and timeliness provisions of Section 1798.29, subdivision (e). Contractor shall inform the CDPH Privacy Officer of the time, manner and content of any such submissions, prior to the transmission of such submissions to the Attorney General; or
 2. cooperate with and assist CDPH in its submission of a sample copy of the notification to the Attorney General.
- F. CDPH Contact Information: To direct communications to the above referenced CDPH staff, the Contractor shall initiate contact as indicated herein. CDPH reserves the right to make changes to the contact information below by verbal or written notice to the Contractor. Said changes shall not require an amendment to this Exhibit or the agreement to which it is incorporated.

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(For Non-HIPAA/HITECH Act Contracts)**

CDPH Program Contract Manager	CDPH Privacy Officer	CDPH Chief Information Security Officer
See the Scope of Work exhibit for Program Contract Manager	Privacy Officer Privacy Office Office of Legal Services California Dept. of Public Health 1415 L Street, 5 th Floor Sacramento, CA 95814 Email: privacy@cdph.ca.gov Telephone: (877) 421-9634	Chief Information Security Officer Information Security Office California Dept. of Public Health P.O. Box 997377 MS6302 Sacramento, CA 95899-7413 Email: cdphiso@cdph.ca.gov Telephone: (855) 500-0016

- XII. Documentation of Disclosures for Requests for Accounting: Contractor shall document and make available to CDPH or (at the direction of CDPH) to an Individual such disclosures of CDPH PCI, and information related to such disclosures, necessary to respond to a proper request by the subject Individual for an accounting of disclosures of personal information as required by Civil Code section 1798.25, or any applicable state or federal law.
- XIII. Requests for CDPH PCI by Third Parties: The Contractor and its employees, agents, or subcontractors shall promptly transmit to the CDPH Program Contract Manager all requests for disclosure of any CDPH PCI requested by third parties to the agreement between Contractor and CDPH (except from an Individual for an accounting of disclosures of the individual's personal information pursuant to applicable state or federal law), unless prohibited from doing so by applicable state or federal law.
- XIV. Audits, Inspection and Enforcement: CDPH may inspect the facilities, systems, books and records of Contractor to monitor compliance with this Exhibit. Contractor shall promptly remedy any violation of any provision of this Exhibit and shall certify the same to the CDPH Program Contract Manager in writing.
- XV. Return or Destruction of CDPH PCI on Expiration or Termination: Upon expiration or termination of the agreement between Contractor and CDPH for any reason, Contractor shall securely return or destroy the CDPH PCI. If return or destruction is not feasible, Contractor shall provide a written explanation to the CDPH Program Contract Manager, the CDPH Privacy Officer and the CDPH Chief Information Security Officer, using the contact information listed in Section XI(F), above.
- A. Retention Required by Law: If required by state or federal law, Contractor may retain, after expiration or termination, CDPH PCI for the time specified as necessary to comply with the law.
- B. Obligations Continue Until Return or Destruction: Contractor's obligations under this Exhibit shall continue until Contractor returns or destroys the CDPH PCI or returns the CDPH PCI to CDPH; provided however, that on expiration or termination of the agreement between Contractor and CDPH, Contractor shall not further use or disclose the CDPH PCI except as required by state or federal law.

Attachment __ E
Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)

- C. Notification of Election to Destroy CDPH PCI: If Contractor elects to destroy the CDPH PCI, Contractor shall certify in writing, to the CDPH Program Contract Manager, the CDPH Privacy Officer and the CDPH Chief Information Security Officer, using the contact information listed in Section XI(F), above, that the CDPH PCI has been securely destroyed. The notice shall include the date and type of destruction method used.
- XVI. Amendment: The parties acknowledge that federal and state laws regarding information security and privacy rapidly evolves and that amendment of this Exhibit may be required to provide for procedures to ensure compliance with such laws. The parties specifically agree to take such action as is necessary to implement new standards and requirements imposed by regulations and other applicable laws relating to the security or privacy of CDPH PCI. The parties agree to promptly enter into negotiations concerning an amendment to this Exhibit consistent with new standards and requirements imposed by applicable laws and regulations.
- XVII. Assistance in Litigation or Administrative Proceedings: Contractor shall make itself and any subcontractors, workforce employees or agents assisting Contractor in the performance of its obligations under the agreement between Contractor and CDPH, available to CDPH at no cost to CDPH to testify as witnesses, in the event of litigation or administrative proceedings being commenced against CDPH, its director, officers or employees based upon claimed violation of laws relating to security and privacy, which involves inactions or actions by the Contractor, except where Contractor or its subcontractor, workforce employee or agent is a named adverse party.
- XVIII. No Third-Party Beneficiaries: Nothing express or implied in the terms and conditions of this Exhibit is intended to confer, nor shall anything herein confer, upon any person other than CDPH or Contractor and their respective successors or assignees, any rights, remedies, obligations or liabilities whatsoever.
- XIX. Interpretation: The terms and conditions in this Exhibit shall be interpreted as broadly as necessary to implement and comply with regulations and applicable State laws. The parties agree that any ambiguity in the terms and conditions of this Exhibit shall be resolved in favor of a meaning that complies and is consistent with federal and state laws and regulations.
- XX. Survival: If Contractor does not return or destroy the CDPH PCI upon the completion or termination of the Agreement, the respective rights and obligations of Contractor under Sections VI, VII and XI of this Exhibit shall survive the completion or termination of the agreement between Contractor and CDPH.

Attachment __ E**Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)****Attachment 1****Contractor Data Security Standards****1. General Security Controls**

- A. **Confidentiality Statement.** All persons that will be working with CDPH PCI must sign a confidentiality statement. The statement must include at a minimum, General Use, Security and Privacy safeguards, Unacceptable Use, and Enforcement Policies. The statement must be signed by the workforce member prior to access to CDPH PCI. The statement must be renewed annually. The Contractor shall retain each person's written confidentiality statement for CDPH inspection for a period of three (3) years following contract termination.
- B. **Background check.** Before a member of the Contractor's workforce may access CDPH PCI, Contractor must conduct a thorough background check of that worker and evaluate the results to assure that there is no indication that the worker may present a risk for theft of confidential data. The Contractor shall retain each workforce member's background check documentation for a period of three (3) years following contract termination.
- C. **Workstation/Laptop encryption.** All workstations and laptops that process and/or store CDPH PCI must be encrypted using a FIPS 140-2 certified algorithm, such as Advanced Encryption Standard (AES), with a 128bit key or higher. The encryption solution must be full disk unless approved by the CDPH Information Security Office.
- D. **Server Security.** Servers containing unencrypted CDPH PCI must have sufficient administrative, physical, and technical controls in place to protect that data, based upon a risk assessment/system security review.
- E. **Minimum Necessary.** Only the minimum necessary amount of CDPH PCI required to perform necessary business functions may be copied, downloaded, or exported.
- F. **Removable media devices.** All electronic files that contain CDPH PCI data must be encrypted when stored on any removable media or portable device (i.e. USB thumb drives, floppies, CD/DVD, smart devices tapes etc.). PCI must be encrypted using a FIPS 140-2 certified algorithm, such as Advanced Encryption Standard (AES), with a 128bit key or higher.
- G. **Antivirus software.** All workstations, laptops and other systems that process and/or store CDPH PCI must install and actively use a comprehensive anti-virus software solution with automatic updates scheduled at least daily.
- H. **Patch Management.** All workstations, laptops and other systems that process and/or store CDPH PCI must have operating system and application security patches applied, with system reboot if necessary. There must be a documented patch management process which determines installation timeframe based on risk assessment and vendor recommendations. At a maximum, all applicable patches must be installed within 30 days of vendor release.
- I. **User IDs and Password Controls.** All users must be issued a unique user name for accessing CDPH PCI. Username must be promptly disabled, deleted, or the password changed upon the transfer or termination of an employee with knowledge of the password.

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Passwords are not to be shared. Must be at least eight characters. Must be a non-dictionary word. Must not be stored in readable format on the computer. Must be changed every 60 days. Must be changed if revealed or compromised. Must be composed of characters from at least three of the following four groups from the standard keyboard:

- Upper case letters (A-Z)
- Lower case letters (a-z)
- Arabic numerals (0-9)
- Non-alphanumeric characters (punctuation symbols)

- J. **Data Sanitization.** All CDPH PCI must be sanitized using NIST Special Publication 800-88 standard methods for data sanitization when the CDPH PCI is no longer needed.

2. System Security Controls

- A. **System Timeout.** The system must provide an automatic timeout, requiring reauthentication of the user session after no more than 20 minutes of inactivity.
- B. **Warning Banners.** All systems containing CDPH PCI must display a warning banner each time a user attempts access, stating that data is confidential, systems are logged, and system use is for business purposes only. User must be directed to log off the system if they do not agree with these requirements.
- C. **System Logging.** The system must maintain an automated audit trail which can identify the user or system process which initiates a request for CDPH PCI, or which alters CDPH PCI. The audit trail must be date and time stamped, must log both successful and failed accesses, must be read only, and must be restricted to authorized users. This logging must be included for all user privilege levels including, but not limited to, systems administrators. If CDPH PCI is stored in a database, database logging functionality must be enabled. Audit trail data must be archived for at least 3 years after occurrence.
- D. **Access Controls.** The system must use role based access controls for all user authentications, enforcing the principle of least privilege.
- E. **Transmission encryption.** All data transmissions of CDPH PCI outside the contractor's secure internal network must be encrypted using a FIPS 140-2 certified algorithm, such as Advanced Encryption Standard (AES), with a 128bit key or higher. Encryption can be end to end at the network level, or the data files containing CDPH PCI can be encrypted. This requirement pertains to any type of CDPH PCI in motion such as website access, file transfer, and E-Mail.
- F. **Intrusion Detection.** All systems involved in accessing, holding, transporting, and protecting CDPH PCI that are accessible via the Internet must be protected by a comprehensive intrusion detection and prevention solution.

3. Audit Controls

Attachment __ E**Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)**

- A. **System Security Review.** All systems processing and/or storing CDPH PCI must have at least an annual system risk assessment/security review which provides assurance that administrative, physical, and technical controls are functioning effectively and providing adequate levels of protection. Reviews shall include vulnerability scanning tools.
- B. **Log Reviews.** All systems processing and/or storing CDPH PCI must have a routine procedure in place to review system logs for unauthorized access.
- C. **Change Control.** All systems processing and/or storing CDPH PCI must have a documented change control procedure that ensures separation of duties and protects the confidentiality, integrity and availability of data.

4. Business Continuity / Disaster Recovery Controls

- A. **Disaster Recovery.** Contractor must establish a documented plan to enable continuation of critical business processes and protection of the security of electronic CDPH PCI in the event of an emergency. Emergency means any circumstance or situation that causes normal computer operations to become unavailable for use in performing the work required under this agreement for more than 24 hours.
- B. **Data Backup Plan.** Contractor must have established documented procedures to securely backup CDPH PCI to maintain retrievable exact copies of CDPH PCI. The backups shall be encrypted. The plan must include a regular schedule for making backups, storing backups offsite, an inventory of backup media, and the amount of time to restore CDPH PCI should it be lost. At a minimum, the schedule must be a weekly full backup and monthly offsite storage of CDPH data.

5. Paper Document Controls

- A. **Supervision of Data.** CDPH PCI in paper form shall not be left unattended at any time, unless it is locked in a file cabinet, file room, desk or office. Unattended means that information is not being observed by an employee authorized to access the information. CDPH PCI in paper form shall not be left unattended at any time in vehicles or planes and shall not be checked in baggage on commercial airplanes.
- B. **Escorting Visitors.** Visitors to areas where CDPH PCI is contained shall be escorted and CDPH PHI shall be kept out of sight while visitors are in the area.
- C. **Confidential Destruction.** CDPH PCI must be disposed of through confidential means, using NIST Special Publication 800-88 standard methods for data sanitization when the CDPH PSCI is no longer needed.
- D. **Removal of Data.** CDPH PCI must not be removed from the premises of the Contractor except with express written permission of CDPH.
- E. **Faxing.** Faxes containing CDPH PCI shall not be left unattended and fax machines shall be in secure areas. Faxes shall contain a confidentiality statement notifying persons receiving

Attachment __ E

**Information Privacy and Security Requirements
(For Non-HIPAA/HITECH Act Contracts)**

faxes in error to destroy them. Fax numbers shall be verified with the intended recipient before sending.

- F. **Mailing.** CDPH PCI shall only be mailed using secure methods. Large volume mailings of CDPH PHI shall be by a secure, bonded courier with signature required on receipt. Disks and other transportable media sent through the mail must be encrypted with a CDPH approved solution, such as a solution using a vendor product specified on the CALIFORNIA STRATEGIC SOURCING INITIATIVE.



INFORMATION SECURITY OFFICE

Information Systems Security Requirements for Projects (ISO/SR1)

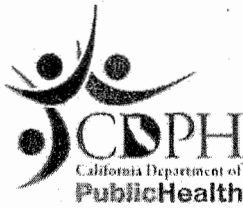
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February 2010

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<i>Type: ISO Requirements</i>	
<i>Issued: February 08, 2010</i>	<i>Doc Number: SR1 v4.0</i>
<i>Revised:</i>	
<i>Title: Information Systems Security Requirements for Projects</i>	

IMPORTANT NOTE: If an exemption from any SR1 requirement is required, the SR1 Exemption Form in Appendix A must be completed by the Project Manager or Contract Manager.

I. Purpose

This document provides the minimum security requirements mandated by the California Department of Public Health (CDPH) Information Security Office (ISO) for projects governed and/or subject to the policies and standards of CDPH. Projects that intend to deploy systems/applications into the CDPH system infrastructure, or will utilize CDPH information system services, are also subject to these minimum security requirements.

This document is intended to assist CDPH and its service customers in understanding the criteria CDPH will use when evaluating and certifying the system design, security features and protocols used by project solutions utilizing CDPH services. These security requirements will also be used in conjunction with the CDPH ISO compliance review program of its information system services customers.

This document will serve as a universal set of requirements which must be met regardless of physical hosting location or entities providing operations and maintenance responsibility. These requirements do not serve any specific project, nor do they prescribe any specific implementation technology.

II. Scope of Requirements

The information security requirements in this document are organized in five categories (sections) and address at a minimum:

- Administrative/Management Safeguards
- Technical and Operational Safeguards
- Solution Architecture
- Documentation of Solution
- ISO Notifications and Approvals

III. Contact

Chief Information Security Officer
California Department of Public Health
Information Security Office (ISO)
cdphiso@cdph.ca.gov

IV. Information Systems Security Requirements

A. Administrative / Management Safeguards

1. Workforce Confidentiality Statement

All persons working with CDPH information must sign a Security and Confidentiality Acknowledgement Statement. The Statement must include, at a minimum: General Use, Security and Privacy safeguards, Unacceptable Use, Audit and Enforcement policies. (Contact the CDPH ISO for the current version of the Security & Confidentiality Acknowledgement Statement in use.)

The Statement must be signed by the Project member prior to being granted access to the CDPH information. The Statement must be renewed annually.

2. Access Authorization & Maintenance

Project/Program must document and implement clearly defined rules and processes for vetting and granting authorizations, as well as procedures for the supervision of workforce members who work with CDPH information or in locations where it might be accessed.

On at least a semi-annual basis, Project/Program will review and remove all authorizations for individuals who have left the department, transferred to another unit, or assumed new job duties within CDPH.

3. Information System Activity Review

Project/Program must implement and document procedures to regularly review records of information system activity (such as audit logs, access reports, and security incident tracking reports).

Project/Program must ensure any hosting or maintenance agreements clearly identify responsibility for this activity. Logs may be stored within the system or preferably on a centralized logging server or service, and must be maintained for a minimum of three years.

4. Periodic System Security & Log Review

All systems must allow for periodic system security reviews that provide assurance that management, operations, personnel, and technical controls are functioning effectively and providing adequate levels of protection.

These reviews may include technical tools and security procedures (such as vulnerability assessment products and penetration testing).

All systems processing and/or storing CDPH information must have a method or procedure in place to create and review system logs for unauthorized access. Logs may be stored within the system or on a centralized logging server or service, and must be maintained for a minimum of three years.

5. Disaster Recovery Plan

Project/Program will establish procedures that allow facility access in support of restoration of lost information under the Disaster Recovery Plan (DRP) and emergency mode operations plan in the event of an emergency.

The restoration/recovery support procedures must be added to the existing DRP to restore any loss of information and assure continuity of computing operations for support of both the application and information.

Recovery procedures must be developed using the most current DRP template provided by the CDPH ISO.

All systems, as part of a new or existing project, must allow for periodic system recovery testing. The period between tests should be defined as part of the project and be consistent with relevant CDPH disaster recovery standards. Such testing should provide assurances that plans and controls (management, operations, personnel, and technical) are functioning effectively and providing adequate levels of protection during an incident, disaster, or breach.

Project/Program will conduct an annual Business Impact Analysis of the application to determine the Maximum Acceptable Outage (MAO), cost of lost functionality, system component dependencies, business function dependencies, and business partner dependencies.

6. Change Control

All systems processing and/or storing CDPH information must have a documented change control procedure that ensures separation of duties and protects the confidentiality, integrity, and availability of information.

Systems running within the CDPH environment and/or utilizing CDPH services must comply with CDPH standards for change control process and procedures.

7. Supervision of Information

Classified information in paper form must not be left unattended at any time, unless it is locked in a file cabinet, file room, desk, or office. Unattended means that information is not being observed by an employee authorized to access the information. Classified information in paper form must also not be left unattended at any time in vehicles or planes, and must not be transported in checked-in baggage on commercial airplanes.

8. Escorting Visitors

Visitors to areas where classified information is contained must be escorted and classified information must be kept out of sight while visitors are in the area.

B. Technical and Operational Safeguards

1. System Security Compliance

All Project systems must comply with applicable CDPH security policies and requirements, as specified in the State Administrative Manual (SAM), Public Health Administrative Manual (PHAM), Privacy Act, and any other applicable State or Federal regulation. All security safeguards and precautions must be subject to the approval of the CDPH ISO.

2. Malware Protection

All systems must install and actively use anti-virus software, with a minimum daily automatic update scheduled. Systems such as mainframes, where anti-virus is unavailable, are excluded from this requirement. All security safeguards and precautions must be subject to the approval of the CDPH ISO.

3. Patch Management

All systems must install and actively use a comprehensive third-party patch management program, and routinely update system and application software within two weeks of vendor release unless the CDPH ISO validates a patch is not applicable. Critical updates may require a more restrictive timeline. All security safeguards and precautions must be subject to the approval of the CDPH ISO.

4. Encrypted Electronic Transmissions

All information electronic transmissions that contain classified information (such as website access, file transfers or through e-mail) must be encrypted end-to-end using an industry-recognized encryption standard (such as Transport Layer Security (TLS) or its predecessor, Secure Socket Layer (SSL), Secure File Transfer Protocol (SFTP), or any FIPS 140-2 certified encryption algorithm). Classified information must be encrypted at the minimum of Advanced Encryption Standard (AES) with a 128 bit key or higher. Equivalent or stronger algorithms may be used upon approval of the CDPH ISO.

5. Encrypted Information Storage

All classified information must be encrypted when electronically stored using a CDPH approved encryption standard. Classified information must be encrypted at the minimum of AES with a 128 bit key or higher, or any FIPS 140-2 certified encryption algorithm. Equivalent or stronger algorithms may be used upon approval of the CDPH ISO.

6. Workstation / Laptop Encryption

All workstations and laptops that process and/or store classified CDPH information must be encrypted with a CDPH ISO approved solution. Classified CDPH information must be encrypted at the minimum of AES with a 128 bit key or higher, or any FIPS 140-2 certified encryption algorithm. Equivalent or stronger algorithms may be used upon approval of the CDPH ISO.

7. Removable Media Encryption

All electronic files that contain classified CDPH information must be encrypted at the minimum of AES with a 128 bit key or higher, or any FIPS 140-2 certified encryption algorithm when stored on any removable media type device (such as USB thumb drives, floppies, CD/DVD, tape backup, etc.). Equivalent or stronger algorithms may be used upon approval of the CDPH ISO. The solution should follow best practices described in National Institute of Standards & Technology (NIST) 800-111, Guide to Storage Encryption Technologies for End User Devices.

8. Secure Connectivity

All transmission and data-links between the information and application/system, and DBMS and the Office of Technology Services (OTech) Wide Area Network (WAN), must be secure between transmission systems as required by regulation, policy and/or standard and as prescribed for the given application/system.

9. Intrusion Detection and Prevention

All systems that are accessible via the Internet, are critical, and/or contain classified information must install and actively use a CDPH ISO approved comprehensive third-party real-time intrusion detection and prevention solution. The solution must also report security events directly to a CDPH enterprise monitoring solution. All security safeguards and precautions must be subject to the approval of the CDPH ISO.

10. Minimum Information Download

In accordance with the principle of need-to-know, only the minimum amount of information required to perform necessary business functions should be copied or downloaded.

11. Information Sanitization

All classified CDPH information (electronic or paper) must be sanitized from systems when the information is no longer necessary. The sanitization method must conform to NIST Special Publication 800-88 Guidelines for Media Sanitization. Once information has been sanitized, the CDPH contract manager must be notified. If an agency or other entity is unable to sanitize the media in accordance with NIST 800-88 and provide notification, the media must be returned to CDPH after usage for sanitization in an approved manner.

12. Removal of Information

Classified CDPH information (electronic or paper) must not be removed from CDPH premises, or from the premises of an authorized vendor or contractor, without the written permission of the CDPH ISO.

13. Faxing or Mailing of Information

Facsimile transmissions containing classified CDPH information must not be left unattended if fax machines are not in a secure area. Facsimile transmissions must include a cover sheet that contains a security statement notifying persons receiving faxes in error to destroy them and notify the CDPH ISO immediately. Fax numbers must be verified before sending.

Classified CDPH information must only be mailed using secure methods. Large volume mailings of classified CDPH information must be by a secure, bonded courier with signature required upon receipt. Disks and other transportable media sent through the mail must be encrypted with a CDPH ISO approved solution.

C. Solution Architecture

1. System Security Compliance

The system must comply with all applicable CDPH security policies and requirements, as well as those specified in the State Administrative Manual (SAM), Public Health Administrative Manual (PHAM) Privacy Act, and any other applicable State or Federal regulation. All security safeguards and precautions must be subject to the approval of the CDPH ISO.

The system may share data with other entities only after all applicable agreements are in place. For example, using a CDPH data release form, Business Associate Agreement, or Data Use Agreement. These agreements must ensure data is protected according to all applicable standards and policies.

Any data which is exported outside the scope of the system and its security provisions (such as exports for statistical analysis) require approval by the CDPH ISO to ensure sufficient security is in place to protect the exported data.

2. Warning Banner

All systems containing CDPH information must display a login warning banner stating that information is classified, activity is logged, and system use is for business purposes only. User must be directed to log off the system if they do not agree and comply with these requirements.

The following warning banner must be used for all access points (such as desktops, laptops, web applications, mainframe applications, servers and network devices):

WARNING: This is a State of California computer system that is for official use by authorized users and is subject to being monitored and/or restricted at any time. Unauthorized or improper use of this system may result in administrative disciplinary action and/or civil and criminal penalties. By continuing to use this system you indicate your awareness of and consent to these terms and conditions of use.

LOG OFF IMMEDIATELY, if you do not agree to the conditions stated in this warning.

3. Layered Application Design

Applications must be able to be segmented into a layered application design separating, at a minimum, the Presentation, Application/Business Logic, and Data Access Logic, and Data Persistence/Database layers.

The Presentation, Application/Business Logic, and Data Access Logic layers must be separated physically by a firewall regardless of physical implementation.

Any system request made to the Business logic layer must be authenticated.

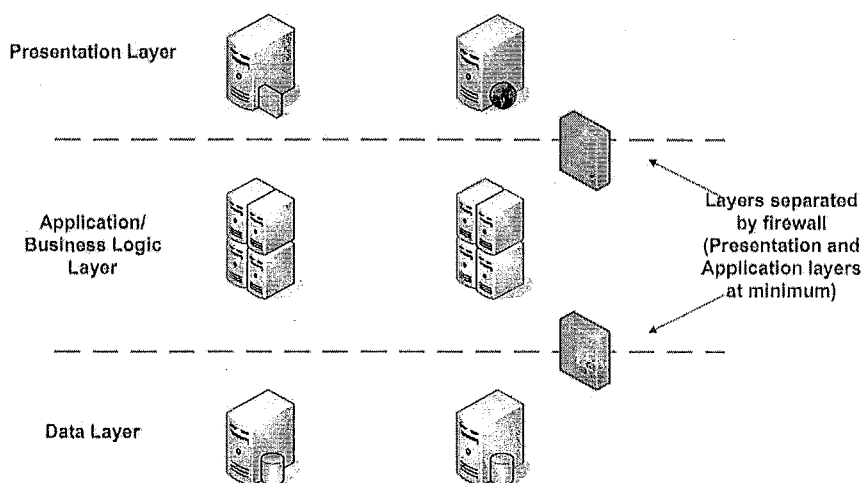
The Data Access Logic Layer may take the form of stored procedures, database Application Programming Interface (API), Data Access Objects/Components, Data Access Middleware, Shared Data Services, or Secure Web Service. Any system request made to the Data Access

logic layer must be authenticated and authorized. No direct access to the Data Persistence/Database layer will be permitted, except through the Data Access logic layer.

All calls to the Data Persistence/Database layer will be made through the Data Access logic layer as a trusted sub-system that utilizes a single database access account to all transactions.

The Data Access Logic Layer must take the form of stored procedures, database API, Data Access Objects/Components, Data Access Middleware, Shared Data Services, or Secure Web Service. System requests made to the Business logic and Data Access logic layers must be authenticated and authorized.

Vendor-provided commercial off-the-shelf (COTS) packages, or components where physical separation of layers is not possible, requires CDPH ISO approval.



4. Input Validation

All user input must be validated before being committed to the database or other application information repository. The system must manage client input controls from server side to the extent possible. Data queries from the Presentation or the Business Logic layers must be validated for appropriate use of query language, and validated for appropriate quantity and quality of data input. This includes In-line Structured Query Language (SQL) calls. The system must validate client input on the server side to the extent possible. All third-party client side input controls must be documented and approved by the CDPH ISO.

5. Data Queries

All Data queries (including In-line SQL calls) will not be allowed from the Presentation or the Business Logic layers unless validated for appropriate use of query language and validated for appropriate quantity/quality of data input. All data queries solution must be approved by the CDPH ISO.

Database table names and column names must not be exposed. Applications must use an alias for every table and column.

Dynamic SQL will not be permitted from the Presentation Layer without prior approval from the CDPH ISO.

6. Username/Password Based Authentication

When usernames and passwords are going to be used as the method for system authentication, the following requirements must be met:

- Username requirements:
 - Must be unique and traceable to an individual.
 - Must not be shared.
 - Must not be hard-coded into system logic.
- Password requirements:
 - Must not be shared.
 - Must be 8 characters or more in length.
 - Must not be a word found in the dictionary, regardless of language.
 - Must be encrypted using irreversible industry-accepted strong encryption.
 - Must be changed at least every 60 days.
 - Must not be the same as any of the previous 10 passwords.
 - Must be changed immediately if revealed or compromised.
 - Must be composed of characters from at least three of the following four groups from the standard keyboard:
 - Upper case letters (A-Z);
 - Lower case letters (a-z);
 - Numbers (0 through 9); and
 - Non-alphanumeric characters (punctuation symbols).
- Account security:
 - Accounts must be locked after three (3) failed logon attempts.
 - Account lock-out reset timers must be set for a minimum of 15 minutes.
 - Accounts must be promptly disabled, deleted, or the password changed upon the transfer or termination of an employee with knowledge of the password.

7. Administrative / Privileged Accounts Management

A privileged account is an account that allows an individual to perform maintenance on an operating system or applications (e.g. create/remove users, install applications, create/modify databases, etc.). Privileged accounts require the approval of the individual's manager, the CDPH ISO, and must include a business justification stating why privileged access is required and what it will be used for. Individuals granted privileged accounts must have already signed the Security and Confidentiality Acknowledgement Statement. (Contact the CDPH ISO for the current version of the Security & Confidentiality Acknowledgement Statement in use.)

The use of shared privileged accounts (e.g. Administrator) is strictly prohibited.

System administration must be performed using a different username rather than the one used for daily non-administrative activities. Administrative accounts must be used only for administrative activity within the authorized role of that account and the individual using it. It must be logged out of immediately after administrative work is complete.

- Username requirements:
 - Must be unique and traceable to an individual.
 - Must not be shared.
 - Must not be hard-coded into system logic.
 - Must be the same across different zones (e.g. Web Zone, Internal network, and Test Labs / Environments).
 - The default built-in Administrator account must be renamed and disabled.

- The naming convention for privileged accounts must not make it obvious that usernames belong to privileged accounts.
- If a generic privileged account is created:
 - Must only be used in an Emergency.
 - Must not be used for routine maintenance.
 - The password storage and management process for generic privileged accounts must be approved by the CDPH ISO.
- Password requirements:
 - Must not to be shared.
 - Must be 12 characters or more in length.
 - Must not be a word found in the dictionary, regardless of language.
 - Must be encrypted using irreversible industry-accepted strong encryption.
 - Must be changed at least every 60 days.
 - Must not be the same as any of the previous 10 passwords.
 - Must be changed immediately if revealed, or compromised.
 - Must be comprised of characters from at least three of the following four groups from the standard keyboard:
 - Upper case letters (A-Z);
 - Lower case letters (a-z);
 - Numbers (0 through 9);
 - Non-alphanumeric characters (punctuation symbols).
 - Must be changed immediately upon the termination or transfer of an employee with knowledge of the password.
 - Must not be the same across different zones (e.g. Web Zone, Internal network, and Test Labs / Environments).
- Account security:
 - Accounts must be locked after three (3) failed logon attempts.
 - Account lock-out timers must be set for at least 60 minutes.

8. Service Accounts Management

A service account is an account used to run a service and whose password is known by multiple individuals. When and where it is necessary to use a service account, the account request will be approved by the manager of the Project/Program requesting the account and by the CDPH ISO. Requirements, stating the need for a service account, will be documented in the request. A service account password is shared among the individuals authorized to access the account, and is subject to controls as stated in the password requirements in this document.

Restrictions for Service Accounts

- Sharing passwords via email is prohibited, unless the body of the email itself is encrypted using strong encryption.
- When users are no longer authorized to access an existing service account, the service account password must be changed.

9. Authentication and Authorization

Any system deployed during a project, or as a result of a project, must provide secure role-based access for authorization (separation between system/server administrators and application/database administrators) utilizing the principle of least privilege at all layers/tiers.

In all cases, applications must default to explicitly deny access where authentication and/or authorization mechanisms are required. No application that requires a login can offer to, or be capable of, remembering a user's credentials.

10. Authentication Logging

The system must log success and failures of user authentication at all layers as well as log all user transactions at the database layer as required by regulation, policy or standard, and as prescribed for the given application/system. This logging must be included for all user privilege levels including, but not limited to, systems administrators. This requirement applies to systems that process, store, and/or interface with CDPH information.

11. Automatic System Session Expiration

The system must provide an automatic timeout, requiring re-authentication of the user session after 20 minutes of inactivity.

12. Automatic System Lock-out and Reporting

The system must provide an automatic lock-out of users and a means to audit a minimum of three (3) failed log-in attempts. The means of providing audit information must be approved by the CDPH ISO.

13. Audit (Access)

All systems/applications will implement role-based access to auditing functions and audit trail information utilizing the principle of least privilege.

All systems/applications will implement a secure online interface to Audit Capabilities and Reporting by way of API or network service (or Web Service) to allow CDPH ISO to view logs, auditing procedures, and audit reporting.

14. Audit (Minimum Information)

The minimum log information below is required for any system that contains, or is involved in the transmission of, classified information. The log information should be available on every system running a production environment. This information must be provided upon request of the CDPH ISO for investigations and risk assessments.

The system must record, at minimum, the following events and any other events deemed appropriate by the CDPH ISO:

Transaction Types

- Any and all administrative changes to the system (such as administrative password changes, forgotten password resets, system variables, network configuration changes, disk sub-system modifications, etc).
- Logon failures.
- Logons during non-business hours.
- Failed access to an application or data.
- Addition, deletion, or modification of users or program access privileges.
- Changes in file access restrictions.
- Database addition, deletion, or modification.
- Copy of files before and after read/write changes.
- Transaction issued.

Individual audit trail records must contain the information needed to associate each query transaction to its initiator and relevant business purpose. Individual audit trail records should capture, at a minimum, the following:

Minimum Audit Trail Record Content

- Date and time stamp.
- Unique username of transaction initiator.
- Transaction recorded.
- Success or failure of transaction recorded.
- Relevant business process or application component involved.
- Data captured (if any).

Audit Trail logs must be maintained at minimum for three (3) years after the occurrence, or a set period of time determined by the CDPH ISO that would not hinder a detailed forensic investigation of the occurrence. The CDPH ISO has final approval authority.

15. Application Security Controls

For any application which accesses classified information, the following technical controls must be present, unless an exception is granted by the CDPH ISO:

- Must use *least privileged accounts* to execute code and to access databases.
- User access rights must be authenticated and authorized on entry to each application tier.
- All user input must be validated, including parameters passed to all public web service methods.
- Information that is not required must not be exposed.
- If a web application fails, it must not leave sensitive data unprotected or expose any details in error messages presented to the user. Any exceptions must be logged or emailed to the appropriate team member.
- Any sensitive data stored in session, cookies, disk files, etc., must be encrypted. Any sensitive data passed between tiers must be encrypted or must use SSL.
- Applications must be protected from the Internet by a front-end web application, firewall, gateway, and proxy of a type approved by the CDPH ISO, which must be included in the documented system design.
- Postback Universal Resource Locators (URLs) must not contain unencrypted record identifiers or database keys.
- Postback URLs must not include query strings.

16. Application Code Security

Application developers should use tools and methods during development to ensure all custom source code is free from security vulnerabilities. At a minimum, the application must be free of the vulnerabilities described in the CWE/SANS Top 25 Most Dangerous Programmer Errors (<http://www.sans.org/top25errors/>).

CDPH has the right to conduct a vulnerability scan against the application prior to its activation, and may disapprove use of the application until the vulnerabilities are remediated and the application re-tested. Any verified vulnerabilities from this list must be corrected by the organization which developed the application, at no additional cost to CDPH. Unless an exception is granted by the CDPH ISO, vulnerabilities identified within third-party components must be remediated by the third-party vendor at no additional cost to CDPH. Otherwise, a different third-party component must be selected and implemented.

17. Strong Authentication

Any information system providing access to Personally Identifiable Information (PII) and/or classified information from the Internet must assess the need for additional strong authentication, to prevent a significant data breach if a password is compromised. Strong authentication is defined as additional mandatory authentication over and beyond the password, for each account which has direct access to PII and/or classified information, or which has administrative privileges. The following factors should be included in the assessment:

- Applicable policies and regulations.
- Sensitivity of the PII or classified information.
- Number of data records.
- Number of user accounts with access to data.
- Level of control over end users.
- Level and frequency of log monitoring.
- Automated alerts and controls for unusual data access patterns.
- End user training on security practices.
- Other mitigating security controls.

The Project/Program providing access to PII and/or classified information from the Internet must either implement an approved strong authentication method, or document why strong authentication will not be utilized. This documentation must be provided to the CDPH ISO for review and approval.

The following methods are approved for strong authentication:

- **Physical Token:** A physical device in the possession of the account holder, which must be physically connected to the computer. Examples include a USB token or Smartcard.
- **One Time Password (OTP):** A temporary one time pass code is provided to the account holder, either by a physical device in their possession, or by way of a pre-defined communication channel such as cell phone or e-mail address. Examples include OTP token, or OTP sent via SMS text message, e-mail, or by automated voice call.
- **X.509 Certificate:** A digital certificate which has been installed on the access point computer or device, utilizing a Public Key Infrastructure (PKI).
- **Firewall Rules:** Firewall TCP/IP rules which ensure the account is only usable from an authorized access point, based upon specific IP address or IP subnet.

The following strong authentication method is approved for personal data access, where accounts have access to only the account holder's personal data, or a single data record they are custodian over such as a family member or information about their company. For example, an application where a client can submit or edit an enrollment form for themselves or someone else, but cannot access any other data records.

- **Personal Challenge Questions:** During registration, the account holder pre-answers one or more questions known only to them. When logging into a different computer, typically tracked with a cookie, they cannot login without correctly answering the pre-configured questions. The user should be prompted for whether the new computer is trusted vs. a one-time login, and this information used to determine whether to save a new cookie.

The proposed strong authentication mechanism must be included in the detailed design documentation as described in Section E.5, Application Security Approvals.

D. Documentation of Solution

1. System Configuration

Project/Program must document and maintain documentation for the system/application. This should include the following:

- Detailed design.
- Description of hardware, software, and network components.
- Special system configurations.
- External interfaces.
- All layers of security controls.

2. Information Classification

Project/Program will document and maintain an information classification matrix of all information elements accessed and/or processed by solution.

The matrix should identify at a minimum:

- Information element.
- Information classification/sensitivity.
- Relevant function/process, or where is it used.
- System and database, or where is it stored.

3. System Roles and Relationships

Project must document the following roles and ensure everyone understands their role, and complies with all applicable policies and regulations.

- The designated owner of the system.
- The designated custodian(s) of the system.
- The users of the system.
- The security administrator for the system.
- Outside entities sending or receiving data to system.

Project must document the organizational structure and relationships between these roles.

4. Audit Method Documentation

Project/Program will document the solution's auditing features and provide samples of audit reporting.

5. Retention of Documentation

The system/application administrators will retain documentation, including audit and activity logs, for a minimum of three (3) years (up to seven (7) years maximum) from the date of its creation or the date it was last in effect, whichever is later. Shorter retention periods must be allowed contingent upon applicable regulations, policies, and standards, and upon approval by the CDPH ISO. In certain circumstances the retention period must be lengthened to comply with regulatory requirements.

E. ISO Notifications and Approvals

1. Security Compliance Notification

As part of each project, assigned staff will document how the proposed solution meets or addresses the requirements specified in this document. This documentation must be submitted to the CDPH ISO prior to taking custody of CDPH information.

2. Notification of Changes to Solution

Once a project is approved as final by the CDPH ISO, no changes will be made to the project scope, documentation, systems or components without a change approval by the CDPH ISO.

3. Notification of Breach

The system/application administrators must immediately, and in writing, report to the CDPH ISO any and all breaches or compromises of system and/or information security. They must also take such remedial steps as may be necessary to restore security and repair damage, if any.

In the event of a breach or compromise of system and/or information security, the CDPH ISO may require a system/application security audit. The CDPH ISO must review the recommendations from the security audit, and make final decisions on the steps necessary to restore security and repair damage.

The system/application administrators must properly implement any and all recommendations of the security audit, as approved by the CDPH ISO.

4. Project Security Approvals

Projects must ensure checkpoints throughout the System Development Life Cycle (SDLC) which verify security requirements are being met. This must be incorporated in the project plan along with identification of necessary resources, timelines, and costs to address these requirements. The CDPH ISO should be involved throughout the SDLC to ensure this occurs.

For reportable Feasibility Study Reports (FSRs), the California Office of Information Security (OIS) requires submission of the *Questionnaire for Information Security and Privacy Components in Feasibility Study Reports and Project-Related Documents*.

See

http://www.cio.ca.gov/OIS/Government/documents/docs/Info_Sec_and_Priv_Components_FSR-Questionnaire.doc.

The response to this document must be approved by the CDPH ISO prior to submission.

Projects must ensure all applicable security requirements and deliverables are included in the project plan, and that ISO approvals are obtained, where required. This includes those listed in the following section, and any covered by other sections of this document. The CDPH ISO must be given reasonable time to review and comment on these deliverables.

5. Application Security Approvals

At a minimum, for any application which accesses classified information, the following documented CDPH ISO approvals must be obtained at the appropriate project phases, and before the application is moved to production.

- CDPH ISO approval of a dated, detailed design document. This design must include network layout including specific firewall port requirements, server hosting locations, operating systems, databases, data exchange interfaces, and points of authentication/authorization. The project must not move beyond the design phase until there is a CDPH ISO approved design.
- CDPH ISO approval of any non-standard development tools (such as programming languages or toolkits).
- CDPH ISO approval of a plan for an independent security code review which addresses at minimum the current Open Web Application Security Project (OWASP) top ten application vulnerabilities, and CWE/SANS Top 25 Most Dangerous Programmer Errors, where applicable. CDPH ISO must approve any findings of that code review not being corrected. CDPH ISO recommends the security code review be carried out during the development process rather than only at the end.
- CDPH ISO approval of a plan for security code reviews of future maintenance code changes, which addresses at minimum the current OWASP top ten application vulnerabilities, CWE/SANS Top 25 Most Dangerous Programmer Errors, where applicable.
- CDPH ISO approval of a plan for an independent automated security vulnerability assessment of the application, and approval of the findings of that assessment. The assessment must assess at minimum the OWASP top ten risks and CWE/SANS Top 25 Most Dangerous Programmer Errors, where applicable.

Independent as indicated above is defined as organizationally separate from those developing or configuration the application. The independence and skill level of the entities being utilized must be approved by the CDPH ISO.

Application code and infrastructure is subject to a CDPH ISO audit, and must match the approved detailed design.

F. Appendix A – SR1 Exemption Form

REF	Security Requirement	Exemption (Yes, No, or N/A)	Business Justification
A	Administrative / Management Safeguards		
1	Workforce Confidentiality Statement		
2	Access Authorization & Maintenance		
3	Information System Activity Review		
4	Periodic System Security & Log Review		
5	Disaster Recovery Plan		
6	Change Control		
7	Supervision of Information		
8	Escorting Visitors		
B	Technical and Operational Safeguards		
1	System Security Compliance		
2	Malware Protection		
3	Patch Management		
4	Encrypted Electronic Transmissions		
5	Encrypted Data Storage		
6	Workstation / Laptop Encryption		
7	Removable Media Encryption		
8	Secure Connectivity		
9	Intrusion Detection and Prevention		
10	Minimum Information Download		
11	Information Sanitization		
12	Removal of Information		
13	Faxing or Mailing of Information		
C	Solution Architecture		
1	System Security Compliance		
2	Warning Banner		
3	Layered Application Design		
4	Input Validation		
5	Data Queries		
6	Username/Password Based Authentication		
7	Administrative / Privileged Accounts Management		
8	Service Accounts Management		
9	Authentication and Authorization		
10	Authentication Logging		
11	Automatic System Session Expiration		
12	Automatic System Lock-out and Reporting		

REF	Security Requirement	Exemption (Yes, No, or N/A)	Business Justification
13	Audit (Access)		
14	Audit (Minimum Information)		
15	Application Security Controls		
16	Application Code Security		
17	Strong Authentication		
D	Documentation of Solution		
1	System Configuration		
2	Information Classification		
3	System Roles and Relationships		
4	Audit Method Documentation		
5	Retention of Documentation		
E	ISO Notifications		
1	Security Compliance Notification		
2	Notification of Changes to Solution		
3	Notification of Breach		
4	Project Security Approvals		
5	Application Security Approvals		