

Information Technology Capital Plan

CALFIRE IT Capital Plan



Information Technology Capital Plan, Plan Year 2009-10 through 2013-14 Executive Approval Transmittal

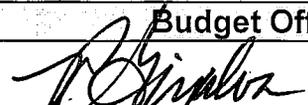
Department Name

APPROVAL SIGNATURES

I am submitting the attached Information Technology Capital Plan as required by the State Administrative Manual Section 4904.

I certify that the IT Capital Plan was prepared in accordance with State Information Management Manual section 57 and that the proposed IT projects are consistent with our business strategies and information technology strategy.

I have reviewed and agree with the information in the attached Information Technology Capital Plan.

	19 Aug 08
Printed name: Ronald D. Ralph	
Chief Information Officer	Date Signed
	
Printed name: Bill Robertson (Acting)	
Information Security Officer	Date Signed
	8/26/08
Printed name: Janet Barentson	
Budget Officer	Date Signed
	9/3/08
Printed name: Del Walters (Acting for Ruben Grijalva)	
Department Director	Date Signed

DEPARTMENT IT CAPITAL PLAN

Department Name and Org Code:

CALFIRE 99200

Plan Year:

2009-10 through 2013-14

1. Summarize your organization's business goals and objectives below:

The Department of Forestry and Fire Protection (CAL FIRE) protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens.

2. What are your organization's plans to upgrade or replace your IT infrastructure for the following? When responding, please indicate the timeframes of your intended upgrade or replacement efforts.

2.1. Hardware

- The Computer Aided Dispatch system will be upgraded in place starting in the Fall / Winter of 2008 / 2009. (Approved BCP)
- The Geographic Information System will be upgraded starting 2010 / 2011 (Pending internal and external approval of FSR / BCP)

2.2. Software

- The Computer Aided Dispatch System will be upgraded 2013 (FSR / BCP not started)

2.3. Network

- The Wide Area Network will be upgraded starting fiscal year 09/10 (FSR and BCP pending approval)

3. Existing Approved Reportable IT Projects

Provide the following information regarding your existing approved reportable IT projects on Table 1 on the following page:

Currently CAL FIRE has two projects that are pending Post Implementation Evaluation Reports (PIER). The Computer Aided Dispatch (CAD) project is now in maintenance and operations. The reporting requirement ended in October 2007. The PIER is currently in the internal review process.

The California All Incident Reporting System (CAIRS) project is in maintenance and operations and reporting requirements for this project ended in mid-2007. The PIER for CAIRS is in the internal process at this time.

- Existing IT Project;
- Approved Project Cost;
- Project Number; and
- Implementation Date

4. Proposed IT Projects

After each proposed IT project has been documented by answering questions 4.1 through 4.15 of the attached IT Project Proposal Form, provide the following information on Table 2 on the following page:

- **The name of each proposed IT project;**
- **The priority ranking;**
- **The FSR submission date; and**
- **The estimated cost**

Table 1-Existing Approved Reportable IT Projects Summary by Department

Existing IT Project	Approved Project Cost*	Project Number	Implementation Date
Computer Aided Dispatch (CAD) PIER pending	20.5 million	3540-24	June 2007
California All Incident Reporting System (CAIRS) PIER pending	3.8 million	3540-33	November 2006

*Note: If a Special Project Report (SPR) was submitted for review in July 2008 that includes project costs that differ from the last approved project document, enter both the last approved project cost and the revised project cost from the SPR under review.

Table 2-Proposed IT Project Summary

Proposed IT Project	Priority Ranking	FSR Submission Date	Estimated Total Cost
Wide Area Network	1	14 July 2008	\$54 Million
Vehicle and Aircraft Positional Awareness (AVL)	2	Pending	\$18.3 Million
Enterprise GIS	3	Pending	\$ 6.8 Million

PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 through 4.15 below) for each proposed IT project that meets the definition of a reportable project as defined in the State Administrative Manual Section 4819.37:

4.1. Proposal name and priority ranking:

Wide Area Network (WAN) – Priority 1

4.2. Description of the proposed IT project:

The CALFIRE Wide Area Network will be upgraded and extended to all CALFIRE permanent locations, as well as incident command bases that are established during significant disasters. This project increases available bandwidth to ensure critical flow of information during high departmental activity.

4.3. Which of your department's business goals and objectives does this project support, and how?

- Replace aging WAN hardware before it fails and cannot be serviced
- Include a one-time hardware budget refresh in Year 5 to further extend the CAL FIRE WAN life expectancy
- Provide an infrastructure to support electronic distribution of CAL FIRE information to all full time employees regardless of location
- Provide the infrastructure to support electronic transfer of critical public safety information to external stakeholders
- Ensure a consistent and reliable means for situational support at Incident Command Centers
- Ensure readiness to integrate into future State-wide financial accounting and budget applications

4.4. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

The general objectives of the WAN Upgrade are to:

- Minimize the risk of disruption to CAL FIRE's operations that support public safety. This risk is increasing due to an aging and obsolete WAN infrastructure. Minimizing this risk will be accomplished by:
 - Providing a technology refresh to replace obsolete WAN hardware
 - Providing a robust WAN backbone to address current and future bandwidth and performance demands
- Increase public safety efficiencies, streamline business processes and support CAL FIRE's future business vision. This will be accomplished by extending the WAN footprint to all CAL FIRE locations.
- Enable CAL FIRE to better support the communication needs of Incident Command locations during big fires and large incidents. CAL FIRE currently provides high speed data connectivity to Incident Command Centers on an ad hoc basis that is dependent on where the command center is established and the availability of rental satellite equipment

from a local satellite services provider. This will be improved upon by providing better high-speed data connectivity options for Incident Command locations.

4.5. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

- Supporting and enhancing services for Californians and businesses
- Enhancing information and IT security
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)
- Improving the reliability and performance of IT infrastructure
- Enhancing human capital management
- Supporting state and agency priorities and business direction

4.6. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes
- No

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

- 4.7. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?
 Yes
 No

- 4.8. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

July 2008

- 4.9. What is the estimated project start date (mm/yyyy) if the FSR is approved?

July 2009

- 4.10. What is the duration of the proposed project?

July 2009-July 2016

- 4.11. Will the proposed project utilize the existing infrastructure?

- Yes
 No

If no, please explain.

The CAL FIRE WAN will be replaced / augmented with new equipment and expanded to 700 plus additional locations

- 4.12. Is the proposal related to another proposal or to an existing project?

- Yes
 No

If yes, describe the related proposal or project and how it is related:

- 4.13. Describe the consequences of not doing this proposed project at the planned timeframe:

CAL FIRE will struggle to meet the communication needs of the department during critical times such as fires, floods and other disasters. Dispatching and resource ordering of key personnel and equipment will be delayed, potentially causing public safety degradation and increased costs due to increased fire activity.

- 4.14. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed
 Redirection of existing funds
 Other (describe):

4.15. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund	\$11,698,170	\$6,206,900	\$5,308,250	5,594,315	5,594,315	\$55,755,811
Federal Fund						
Special Fund						
Total	\$11,698,170	\$6,206,900	\$5,308,250	5,594,315	5,594,315	\$55,755,811

* Note: Identify the fund source and if the department is the sole user of the fund.

4.16. Proposal name and priority ranking:

Vehicle and Aircraft Positional Awareness – Priority 2

4.17. Description of the proposed IT project:

The vehicle and aircraft positional awareness project will develop and deploy technologies that allow CALFIRE to track and make command and control decisions regarding the current and past locations of the vehicle and aircraft fleet.

4.18. Which of your department's business goals and objectives does this project support, and how?

Increase situational awareness by:

- Providing positional situational awareness of equipment (aircraft, fire engines) in "near" real-time
- Produce historic reports of equipment position prior to, during, and post incident activity
- Enabling a "common operational view" of resources
- Reducing potential for firefighter injury and death

Increase effectiveness of resource management by:

- Visualizing equipment position
- Capturing equipment positions for post-incident analysis, billing and lessons learned

Decrease emergency response times by:

- Decreasing the time required by resource managers to gather information concerning unit location, status, and assignment
- Providing comprehensive information on unit status and location across the State at state-wise, regional, and unit scales
- Enabling unit and regional dispatchers to rapidly determining the closest resource to the incident
- Provide accurate routing information for units assigned to an incident

Decrease reliance on voice communications by:

- Eliminating the 15 minute verbal status update for equipment location
- Providing digital routing directions, incident information and other communication to and from CAL FIRE engines and battalion chief vehicles

4.19. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

- Provide information to the Governor's office on equipment movement during and after incidents (respond to executive inquiries).
- Redirect resources in air to reduce time to incident by attacking the fire when it is the smallest (decrease emergency response time).
- Ensure closest available resource to and incident can be determined, improving the dispatching processes.
- Improve the ability to redirect resources during equipment movement to staging areas (decrease emergency response time).
- Improve the ability to divert ground resources in transit quicker through visual map displays
- Increase fire fighter safety and accountability
- Improve the ability to direct distressed resources to the closest safety zone (improved firefighter safety).

4.20. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

- Supporting and enhancing services for Californians and businesses**
- Enhancing information and IT security**
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)**
- Improving the reliability and performance of IT infrastructure**
- Enhancing human capital management**
- Supporting state and agency priorities and business direction**

4.21. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes**
- No**

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.22. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?

- Yes
 No

4.23. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

July 2008

4.24. What is the estimated project start date (mm/yyyy) if the FSR is approved?

July 2008

4.25. What is the duration of the proposed project?

July 2008-July 2010

4.26. Will the proposed project utilize the existing infrastructure?

- Yes
 No

If no, please explain.

New equipment will need to be purchased and deployed, including AVL transponders, Laptop computers used as mobile data terminals (MDT) and servers to process and assimilate the location data.

4.27. Is the proposal related to another proposal or to an existing project?

- Yes
 No

If yes, describe the related proposal or project and how it is related:

4.28. Describe the consequences of not doing this proposed project at the planned timeframe:

CALFIRE will not be able to automatically track vehicle and aviation assets, nor provide the Governor's office with timely information of where these assets have been or where they are. Situational awareness will not be improved, compromising firefighter and public safety objectives.

4.29. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed
 Redirection of existing funds
 Other (describe):

4.30. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund	4,249,834	4,449,834	4,649,834	2,500,000	2,500,000	18,349,502
Federal Fund						
Special Fund						
Total	4,249,834	4,449,834	4,649,834	2,500,000	2,500,000	18,349,502

*** Note: Identify the fund source and if the department is the sole user of the fund.**

4.31. Proposal name and priority ranking:

Enterprise GIS – Priority 3

4.32. Description of the proposed IT project:

The proposed solution expands and enhances the use and application of GIS capabilities to the CAL FIRE enterprise. The proposed solution is designed to provide a foundation that will enable CAL FIRE to meet the GIS demands for the next seven (7) to ten (10) years. Although the proposed solution does not include all of the GIS applications that are currently needed or projected in the future, the governance framework, system infrastructure, centralized geo-database and initial applications will serve as the core capabilities that can be enhanced and expanded during future years.

4.33. Which of your department's business goals and objectives does this project support, and how?

The proposed solution creates a framework and applications for collaborative use of GIS and spatial data across CAL FIRE business and decision process.

- Establishes a core framework for E-GIS operations focused on data sharing, visualization and governance
- Builds a capability to visualize and employ GIS data throughout CAL FIRE and expand GIS data across all departmental personnel
- Creates governance structure and deploys system to manage and share spatial data across CAL FIRE to eliminate redundancy of spatial data acquisition and analysis
- Develops Department-wide training for E-GIS and GIS use across CAL FIRE
- Creates data sharing foundation and State-level agencies/departments, local/regional entities, and contracted communities
- Integrates state-wide parcel/administrative boundary data to assist in land and resource management, planning, and hazard mitigation

- Provides for direct integration of operational and administrative spatial data to include data between CAL FIRE and contracted counties
- Deploys E-GIS applications to expand the use of GIS for day-to-day decision making for CAL FIRE business areas
- Creates additional public-level views of GIS data for incident and risk information
- Adds regional E-GIS staff to support management of E-GIS data sharing and incident support

4.34. What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?

Avoid CAL FIRE System/Business GIS Operation Collapse by:

- Instituting a governance structure to ensure that policies, procedures and standards are established and followed
- Updating GIS technologies that facilitate efficient and effective use of resources to mitigate the existed/projected increase in GIS related services
- Preserving institutional knowledge through system automation and data management services

Improve CAL FIRE's ability to manage resources (personnel, equipment) across the business programs by providing enterprise level GIS for decision support and situational awareness during:

- Tactical response by improving the flow of information using visual and related communication technologies and improving the damage assessment process
- Strategic planning by environmental indicators, carrying out departmental initiatives, implementing the fire plan, documenting fire hazard severity zones and risk analysis, facilitating the inspection process, and improving pipeline safety reporting
- Meet the Governor's Executive Orders and legislation by facilitating application of standardized GIS technologies across CAL FIRE's enterprise in support of their mission, vision, values and plans
- Increase the capacity by CAL FIRE to perform GIS related analytical tasks and produce work products (GIS data and maps)
- Facilitating user-friendly access to GIS information and analytical capabilities
- Increasing productivity and enhancing staff performance by leveraging common GIS services
- Enabling flexibility in assigning GIS related tasks
- Implementing data management practices (cataloging, versioning, notifications, security, automation)
- Increase CAL FIRE's capability for information sharing through the standardized application of E-GIS technologies
- Establishing standards, policies, and procedures for data collection, maintenance, and use
- Enabling fire safety planning information/incident intelligence to prevent fatalities and serious injuries to fire fighters and the public
- Reducing the potential damage to "assets at risk"
- Facilitating data exchange and automated system interfaces between other information systems (e.g. CAD, CAIRS, FPS)
- Providing needed spatial data to various partners, collaborators, clients, contractors and the public

- Facilitating information sharing between Homeland Security and Office of Emergency Services
- Enable CAL FIRE to capture self-sustaining revenue by:
- Maintaining state Parcel data for billing purposes

4.35. The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:

- Supporting and enhancing services for Californians and businesses
- Enhancing information and IT security
- Reducing state operational costs (leveraging, consolidation, new technology, etc.)
- Improving the reliability and performance of IT infrastructure
- Enhancing human capital management
- Supporting state and agency priorities and business direction

4.36. Is the proposal consistent with your organization's Enterprise Architecture?

- Yes
- No

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.37. Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?

Yes

No

4.38. If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?

July 2009

4.39. What is the estimated project start date (mm/yyyy) if the FSR is approved?

July 2010

4.40. What is the duration of the proposed project?

July 2010-July 2012

4.41. Will the proposed project utilize the existing infrastructure?

Yes

No

If no, please explain.

Some new equipment will need to be purchased and deployed, including servers for ESRI production and test environments, as well as a Google earth server and a Storage Area Network.

Is the proposal related to another proposal or to an existing project?

Yes

No

If yes, describe the related proposal or project and how it is related:

The CALFIRE Wide Area network project will need to be at least partially completed prior to deployment of the eGIS solution due to bandwidth constraints. The projects are phased accordingly.

4.42. Describe the consequences of not doing this proposed project at the planned timeframe:

- There will be a lack of a centralized location to store, find and facilitate use of spatial data
- Excess labor required to perform manual processes that should be automated (managing modifications to SRA data, performing Timber Harvesting Plans cumulative affects analysis)
- Delays experienced making decisions that increase cost of CAL FIRE operation and need to access California Emergency Fund (E-Fund)
- Inability to respond to the demand for on-going parcel-level analysis

4.43. Check the appropriate box(es) to identify the proposal's funding strategy:

- Augmentation needed
- Redirection of existing funds
- Other (describe):

4.44. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund	\$ 1,988,523	\$ 1,677,039	\$ 1,049,439	\$ 1,049,439	\$ 1,049,439	\$ 6,813,879
Federal Fund						
Special Fund						
Total	\$ 1,988,523	\$ 1,677,039	\$ 1,049,439	\$ 1,049,439	\$ 1,049,439	\$ 6,813,879

* Note: Identify the fund source and if the department is the sole user of the fund.

Enterprise Architecture

A.1. Does your organization have documented Enterprise Architecture principles, strategies, or standards to guide decisions on technology projects?

- Yes
 No

A.2. Indicate on Table A-1 below, the completion status of the component Reference Models of your formal Enterprise Architecture efforts. If available, please submit a copy of your Enterprise Architecture document.

Table A-1, Enterprise Architecture Completion Status

Component Reference Model	Status			
	Implemented	Implementation in Progress	Planned or Planning in Progress	Not Implemented and Not Planned
Business	Yes			
Service	Yes			
Technical	Yes			
Data	Yes			

A.3. Describe the governance structure your organization uses to review and approve the Enterprise Architecture and any subsequent changes.

There is a steering committee made up of departmental Executives that meets on a regular schedule called the Information Technology Oversight Committee, or ITOC.

The objective of ITOC is to ensure alignment of Information Technology investments with program objectives and priorities, as well as statewide governance structures.

By establishing the processes and organizational constructs, program and Information Technology can make and implement effective, long-term decisions. The scope of these decisions encompasses Information Technology strategy, priorities, Information Technology related policy and management practices, operating budgets, and issue resolution.

The ITOC specifically governs the following:

- **Information Technology Strategy.**

Provide the direction and guidance on how CALFIRE will deliver Information

Enterprise Architecture

Technology goods and services into CALFIRE operations, and administer its Information Technology investment.

- Approves, prioritizes, and monitors large Information Technology projects and strategic Information Technology assets
- Evaluates and approves all strategic information management needs
- Reviews and approves technology strategic and operational plans.
- Reviews and approves technology policies.
- **Information Technology Accountability.**
Clearly define the roles and responsibilities of all entities involved in CALFIRE's Information Technology operations. Designate specific authority and powers to accomplish assigned tasks and activities.
 - Defines roles and responsibilities for large projects.
 - Designates specific authority and powers.
 - Approves asset plans and lifecycle management plans
 - Ensures security requirements are met
- **Information Technology Oversight**
Ensure that CALFIRE Information Technology operations and projects result in efficient operations and improved services. Oversight monitors Information Technology projects and expenditures, intervenes when expenditures exceed benefits, and ensures that benefits achieved from efficient Information Technology operations are integrated into the CALFIRE budget. Oversight provides ITOC with the information it needs when making budget and policy decisions in order to make the most effective allocation of limited resources.
 - Monitors Information Technology projects and expenditures.
 - Directs corrective actions to problematic Information Technology projects.
 - Provides information for budget and policy decisions.
 - Performs Information Technology Portfolio Management
 - Develops Information Technology budget and asset management alternatives.

Primary Membership (Decision Making)

Deputy Director, Management Services
The State Fire Marshal
Deputy Director, Fire Protection
Deputy Director, Resource Management

A.4. Does your organization have an Enterprise Architect? (if yes, provide their name, telephone number, and e-mail address below)

- Yes
 No

Enterprise Architecture

Name: _____

Classification: _____

Telephone Number: _____ E-Mail: _____

Information Security

B.1. How is your Information Security Officer involved in proposed project development efforts?

The Information Security Officer sits on ITOC in an advisory role.

B.2. What are your department's core business principles, policies and standards related to information integrity, confidentiality, and availability and the protection of information assets?

CAL FIRE adheres to state business standards and policies in this area. The following additional principles apply to the enterprise security architecture.

Principle 1: Apply a level of security to resources commensurate to its value to the organization and sufficient to contain risk to an acceptable level.

Security is a business enabler with associated costs. Security costs should be rationalized to the intended benefits.

Rationale:

- Requirements for security vary depending on the information system, connection to other systems, sensitivity of data, and probability of harm.
- Each transaction type will have individual security requirements.
- Security costs potentially increase beyond the value of the assets protected. Don't use more security than is required.

Principle 2: Resetting security assurance levels should not require modification of the architecture.

Varying requirements for levels of protection should be supported without modifications to the security architecture.

Rationale:

- Requirements for security vary depending on nature of communication, sensitivity of data, risks to the enterprise.
- Security services should be granular enough to accommodate assurance levels required.

Principle 3: Provide infrastructure security services to enable the enterprise to conduct business electronically.

An architecture that defines an integrated set of security services permits CDF to focus on the business goals rather than on the implementation of security.

Information Security

Rationale:

- Integration of security services will enable interoperability and provide flexibility in conducting electronic business across and beyond the enterprise.
- Integration will reduce the costs of protecting the state's resources.
- Integration will increase the reliability of security solutions.

Principle 4: Maintain accurate system date and time.

An accurate system date and time are essential to all security functions and accountability and must be maintained.

Rationale:

- The validity of digital signatures and electronic transactions depends on precise, reliable date and time information.
- Audit accountability relies on placing events sequentially according to date and time.

Recommended Best Practices:

The following best practices apply to enterprise-wide security.

Recommended Best Practice 1: Perform a business driven risk assessment for all automated systems.

- Risk assessment should be performed for all new and ongoing business systems. To determine the appropriate security requirements, business units should assess the value of system assets, risk exposure to those assets and evaluate the costs of protecting those systems.
- Understanding the value of assets and associated risks is essential to determining the level of security required.
- Security requirements should be included when designing or purchasing new applications.

Recommended Best Practice 2: Base application security on open standards.

Security services will be provided as infrastructure services. In order to take advantage of security services, application security must be designed for open standards. A clear migration path should be defined for products not yet capable of integrating with the infrastructure security services.

- Products from vendors are often implemented in ways that make it difficult to integrate these products into an overall security architecture.
- Clear identification of integration issues should be part of the design process. If necessary, a migration path should be defined.

When selecting software requiring security, selection criteria must include:

- Strict Adherence to open standards, such as X.509v3 Certificates, SSL and S/MIME.

Information Security

- Avoiding platform-specific implementations that inhibit integration.

Recommended Best Practice 3: Use existing services consistent with open standards where possible.

Security services exist for many common applications. Where possible, use existing services consistent with open standards.

- Web-enabled applications have Web browser to Web Server secure connections such as Secure Sockets Layer (SSL). Unless client authentication is required, basic SSL connections offer sufficient security to support many applications.
- Email clients can support secure messaging with S/MIME.

Recommended Best Practice 4: Locate security in the appropriate layer of a communications protocol to ensure maximum usability with minimum future modification.

Whenever security is required, the location in a communications protocol will have an impact. The impact may be on performance, reliance on an underlying network protocol, and on developers. Choosing the appropriate layer in a communications protocol will maximize usability and minimize future changes.

- Security services can have an impact on performance. The impact is minimized when security services are located at lower layers of a communications protocol.
- Security services can have an impact on developers. For example, services provided at the transport layer have less impact on application programmers than services that run above that layer.
- Security services can increase reliance on a network protocol. An appropriate choice depends on the communication requirements of the business system.

B.3. If data within your department is shared with external entities, does your department implement data exchange agreements with these entities?

- Yes
 No

If no, please explain.

The fire community does not operate using tightly focused and traditional agreements that you may see in other state departments. CALFIRE exchanges data with numerous local and federal governments. These entities are largely fire based communities of interest, with developing needs for data exchange. The processes and governance structures surrounding these efforts are immature due to the cultural environments of the entities involved, however, it is clear that these departments tear down barriers and governmental red tape, aiding each other in times of crisis with mutual aid agreements that are robust in nature and have served these communities well for many years.

Not applicable

Information Security

B.4. How does your department ensure that software developers and programmers follow standards and best practices for Web, application, and system development?

CALFIRE routinely trains developers in the use of standards and best practices, and utilizes peer review methodologies.

B.5. Does your organization have an Information Security Officer? (if yes, provide their name, telephone number, and e-mail address below)

Yes

No

Name: Bill Robertson (Acting)

Classification: Deputy Director

Telephone Number: (916) 653-7709 E-Mail: bill.robertson@fire.ca.gov

C.1. Does your organization have a workforce development plan for IT staff?

- Yes
- No

If yes, briefly describe it.

The Information Technology management team meets on a yearly basis to develop training plans and budgets that are tied into individual Development Plans (IDP) as well as strategic and tactical initiatives. These plans are designed to ensure technical proficiency of the CAL FIRE IT workforce, as well as adapting to changing technology conditions. Execution of the plans are audited at mid year, and adjustments are made as needed.

C.2. Check the appropriate box(es) to identify which workforce development tools, if any, your organization is using for

IT classifications:

- Training
- Upward Mobility
- Mentoring
- Career Assessments
- Knowledge transfer program
- Performance Evaluations
- Other (please list)

C.3. Does your organization have a workforce plan for IT staff (i.e., for Rank and File)?

- Yes
- No

If yes, briefly describe it.

Same as indicated above.

C.4. Does your organization have a succession plan for IT staff (i.e., for Management)?

- Yes
- No

If yes, briefly describe it.

C.5. IT Staffing

Provide the following information in table C-1 on the following page:

- The name of each IT classification currently in the organization.
- The number of staff in each IT classification in the organization.
- The number of staff in each IT classification eligible to retire in the next five years.
- The percentage of each IT classification eligible to retire in the next five years.

Table C-1 — IT Staffing

CALFIRE ITS Classification Retirement Estimate Within Five Years* <small>* Estimates based on age and amount of state service as of July 25, 2008</small>				
Class Code	Class Title	Reporting Unit	Total Number of Employees	Retirement Eligible in 2013
1470	Associate Information Systems Analyst (Specialist)	021	9	2
		061	1	1
		024	1	0
	Totals	026	2	1
	Percentage		13	4
				30.70%
1579	Associate Programmer Analyst (Specialist)	021	8	1
			8	1
	Totals			
	Percentage			12.50%
1479	Assistant Information Systems Analyst	021	1	1
			1	1
	Totals			
	Percentage			100%
1384	Data Processing Manager II	021	1	0
			1	0
	Totals			
	Percentage			0%

Appendix C

1393	Data Processing Manager III	021	2	1
	Totals		2	1
	Percentage			50%
1562	Information Systems Technician Specialist I	021	2	1
	Totals		2	1
	Percentage			50%
1337	Senior Information Systems Analyst (Specialist)	021	1	1
	Totals	001	1	1
	Percentage		2	2
				100%
1340	Senior Information Systems Analyst (Supervisor)	021	1	1
	Totals		1	1
	Percentage			100%
1583	Senior Programmer Analyst (Specialist)	021	3	3
	Totals		3	3
	Percentage			100%
1584	Senior Programmer Analyst (Supervisor)	021	1	0
	Totals		1	0
	Percentage			0%
1312	Staff Information Systems Analyst (Specialist)	021	17	10
	Totals	061	1	0
	Percentage		18	10
				55.60%
1581	Staff Programmer Analyst (Specialist)	021	2	1
	Totals	027	1	1
	Percentage		3	2
				66.60%
1587	Systems Software Specialist I (Technical)	021	6	6
	Totals		6	6
	Percentage			100%
1558	Systems Software Specialist II (Supervisor)	021	1	1
	Totals		1	1
	Percentage			100%
1373	Systems Software Specialist II (Technical)	021	6	2
	Totals		6	2
	Percentage			33.30%

Appendix C

1559	Systems Software Specialist III (Supervisor)	021	1	1
	Totals		1	1
	Percentage			100%
69 total employees (Including Field Coordinators)				
<i>Within five years it is conceivable that 52.2% of ITS employees will retire or at least be eligible to do so</i>				

Project Management, Portfolio Management and IT Governance

D.1. Does your organization have a process for improving the alignment of business and technology?

- Yes
 No

If yes, briefly describe it.

The ITOC governance committee does this as part of it's charter.

D.2. What is the status of implementing a formal portfolio management methodology for technology projects within your organization?

- Implemented (Please describe)

The CALFIRE portfolio management methodology is tied into the overall ITOC governance structure, and is designed to align portfolio investments with business goals, and effectively execute on those goals. By aligning investments with business priorities, IT investments and funding decisions are optimized, keeping costs contained and ensuring that value is maximized for the department.

- Implementation in progress (Please describe)
 Planned or planning in progress
 Not implemented and not planned

D.3. List any automated tools being used for portfolio management. Enter "None" if no automated tools are being used.

CALFIRE uses customized Microsoft Excel spreadsheets that provide rudimentary dashboard functionality.

D.4. What is the status of implementing a standard project management methodology for technology projects in your organization?

- Implemented (Please describe)

CALFIRE uses the Microsoft Solutions Framework for small projects, and PMBOK for large projects.

- Implementation in progress (Please describe)
 Planned or planning in progress
 Not implemented and not planned

Project Management, Portfolio Management and IT Governance

D.5. Does the organization require its project managers to be certified, either through a professional organization (e.g., PMI, ITIL) and/or through completion of specified project management coursework:

- Yes
- PMI
 - ITIL
 - Agency-specified project management coursework (identify below)
- No

D.6. Select from the list other areas of training your organization requires of its project managers:

- Fundamental Project Management
 - Systems Development Life Cycle
 - Scheduling tool (identify below)
Microsoft Project
 -
 - Project Performance Management (e.g., Earned Value Management)
 - Business Process Analysis
 - Requirements Traceability
 - Procurement/Contracts Management
 - Other (identify below)
 -
 -
 -
- None

D.7. Describe project-level governance practices, including change management, issue resolution, and problem escalation.

CALFIRE uses a formal methodology for change management that includes a formal documented change initiation, change review, change approval and scheduling, and planning, developing, testing, and implementing processes. Bug and issue management is implemented using the Microsoft solution Framework processes. Problem escalation procedures have been implemented depending on the criticality of the system and the problem reported. Some of these processes are automated using vended tools.

D.8. Does the project management methodology include processes for documenting lessons-learned and applying these to future projects?

- Yes (Please describe)

This is accomplished during the Post Implementation Evaluation phase of every large project, or PIER phase.

- No