

REVIEW DRAFT

State Telecommunication Strategic Plan

Vision:

In response to current and emerging business needs, State and local government will have access to cost-effective, capable, flexible, and responsive telecommunications technology and services which include transport and management of network data. A customer-driven governance structure and processes will promote the timely acquisition and provision of these telecommunications services to meet the State's emergency response, employee productivity, and public service delivery mandates.

Mission:

The mission of state telecommunications management is to ensure that all state entities can obtain the telecommunications products and services necessary to meet their business needs.

Scope:

For the purposes of this Strategic Plan, 'telecommunications' is defined to include all hardware, software and service components involved in the secure, efficient and reliable delivery of analog and digital data streams to and/or from government 'end systems'.

Telecommunications systems, as defined here, generally consist of systems, services or components that:

- Do not **create** data except for use by the telecommunication system or systems used to monitor or manage the telecommunication system;
- Do not **store** data except transiently for purposes related to network routing, performance optimization, or error recovery; and
- Do not **delete** or modify data except for purposes related to the reliability, efficiency and security of the telecommunications service.

This definition of telecommunications is broad enough to allow us to consider, as part of a 'telecommunications system,' technologies that are common across organizations but are focused not just on the mechanics of transporting information but also on the content of what is transported. These tend to fall into special classes, such as network caching devices, data compression and WAN optimization devices, anti-spam devices or services, anti-spyware and content filters, intrusion detection or intrusion prevention devices, etc.

REVIEW DRAFT

Convictions:

1. **Telecommunications is mission critical.** Protection of public health and safety and many of the State's primary business purposes in today's world rely upon a robust and always available telecommunications system.
2. **Telecommunications is fundamental for government services.** Robust telecommunications will improve worker productivity and enhance delivery of services to all Californians.

Key Values:

- **Flexibility and responsiveness.** The state should consider technical flexibility, variety, and affordability of service offerings to be paramount for meeting the diverse telecommunications needs of the state and local government entities.
- **Proactive policies.** State policy and procedure should facilitate and encourage the timely adoption of valuable and appropriate telecommunications technology.
- **Buy not build.** The State's preference should be to meet its business needs through the use of competitively available commercial services rather than to construct proprietary infrastructure, thereby reducing support costs and avoiding obsolescence.
- **Nondiscrimination in services.** The state should endeavor to provide telecommunications services to meet the needs of all state entities and business models.
- **Choice, not mandates.** The state should not build infrastructure nor contract for services solely for the purpose of cost savings if those cost savings are dependent on a level of participation that must be maintained by mandate.
- **Advancement of public infrastructure.** When considering its programmatic business needs, the state should leverage its buying power to promote the development of infrastructure that will be of benefit to all state residents and businesses.

GOALS, OBJECTIVES, AND ACTIONS

Note:

The Goals and Objectives presented in this document are in draft final form; few significant changes are anticipated. The indicated Actions, however, are in preliminary draft status. They are provided to indicate general intent and directions of the Working Group and are subject to further additions, editing, and refinement. Moreover, many possible actions were omitted from this draft report because it was felt they needed additional refinement or definition before being presented publicly.

GOAL 1

The State will take an enterprise perspective in the acquisition and strategic management of telecommunications services

To meet the customer-focused government business needs of state agencies and their local government partners, the State will collaboratively acquire, manage, and maintain enterprise-wide telecommunications services to support current and planned government operations. To achieve these purposes, the State will undertake procedural and administrative management reforms.

Objective 1

Promote the planning, architecture, and implementation of telecommunication systems to align with the State's diverse business goals and provide State and local agencies with a statewide network that is dynamically scalable to meet changing business needs.

Actions:

1. Establish a mechanism to periodically survey agencies for telecommunications business needs.

REVIEW DRAFT

2. Establish a strategic team to explore alternatives and develop recommendations for statewide network planning that will lead the state toward effective network deployment, management and support.

Objective 2

Reduce telecommunications bill management complexity.

Actions:

1. Explore and recommend bill simplification options by CALNET 2 suppliers and cellular providers.
2. Explore bill simplification options for other DTS telecommunications bills.
3. Explore mechanisms to consolidate billing management.
4. Execute a leveraged procurement document for telecommunications expense management and invoice validation services.

Objective 3

Pursue, on an ongoing basis, enterprise-wide procurements that are timely and cost effective, using leveraged contracting vehicles.

Actions:

1. Develop an easy-to-use procurement vehicle for independent network service management and operational services.
2. Develop an easy-to-use procurement vehicle for streaming video and audio services, to facilitate the implementation of Governor's Executive Order S-23-06.

GOAL 2

The State shall secure robust and flexible communications services to support its business objectives

To support its business objectives, the State will secure robust and flexible telecommunications services, including enhanced Web services and mobile connectivity. Technologies shall be consolidated and managed centrally where practical and cost effective. Policies, contracts, and management governance structures will be fashioned to promote central management where appropriate.

REVIEW DRAFT

Objective 1

Develop diverse network connectivity options, adopting technologies that provide greater flexibility in how and where government business processes are conducted by government organizations and other service providers.

Actions:

1. Develop a wi-fi deployment model for use by state agencies needing to implement wi-fi.
2. Utilize Metro Ethernet or similar high-speed technology to support functions that include general backup, Disaster Recovery, and fault tolerance.

Objective 2

Provide for flexibility of intra-campus telecommunications transport and network services.

Objective 3

Include cost vs. quality alternatives to meet business needs for state agencies through tiered quality and cost options.

Actions:

1. Evaluate tiered services based on Service Level Agreements, to the extent this is not covered in CALNET 2 contracts.
2. DTS shall carefully monitor customer satisfaction with its enterprise-wide procurements and act to enhance and extend existing or new procurements in response to customer needs.

Objective 4

Re-architect State telecommunications infrastructure to support a wide variety of applications.

Actions:

1. Evaluate network caching (content caching) at strategic points on the network.
2. Ensure that advanced network features, such as Quality of Service (QOS) and multi-casting, are generally available and appropriate priority levels are set.
3. Implement and manage multimedia and other network-based audio, video, and web-based collaboration services to facilitate public access to government information and services and information exchange between government organizations.

GOAL 3

The State will facilitate public safety and emergency preparedness by enhanced access to communications networks and improved survivability

To ensure adequate protection of the public, the State will facilitate State obligations related to public safety and emergency preparedness by enhanced access to telecommunications networks and improved survivability and disaster recovery for the State’s information resources.

Objective 1

Assess the State’s readiness, survivability, and flexibility of telecommunications assets in the event of a major regional disaster.

Actions:

1. Conduct assessment of the State’s readiness, survivability and flexibility of telecommunications assets in the event of a major regional disaster in the Sacramento metropolitan area and establish regular assessment intervals.
2. Conduct analysis of expanding capabilities of the satellite system maintained by the Governor’s Office of Emergency Services (OES) for continuity of operations. OES has unique telecommunications needs, infrastructure, and resources.

Objective 2

Ensure the ability to recover from a catastrophic outage.

Actions:

1. Develop policies that promote access to effective and reliable telecommunications services to be used in emergency situations by public safety, health, defense, and other emergency personnel.
2. Develop policies and guidelines that facilitate rapid restoration of the state’s telecommunications infrastructure and facilities after disruption by any cause.
3. Develop telecommunications fault tolerance guidelines and standards to be used for new State constructed buildings that provide essential services to the public. Such guidelines would address diversity of telecommunication pathways and installations and minimum electrical

REVIEW DRAFT

power requirements required to survive extended interruptions of utility services.

4. The state shall work collaboratively with industry and other governmental agencies to coordinate and engage in outreach to develop standards for emergency telecommunications services restoration, infrastructure sharing during disasters, and interoperability.
5. The state shall explore all available ways to ensure that all emerging telecommunications infrastructure, technologies, networks, and services are reliable, interoperable, redundant, and rapidly restorable.
6. Establish a plan that will use current and emerging telecommunications technologies to provide information, directions, and status updates to the public during an emergency.

Objective 3

Provide easy-to-use procurement vehicles to obtain services that are not available from the state's public safety network.

Actions:

1. Secure a contract for satellite phone service to be used for safety and emergency services in remote locations.
2. Investigate and secure equipment and services for dual-mode satellite and cellular wireless telecommunications.

GOAL 4

The State will protect its information assets and networks from loss, damage, misuse, and misappropriation

To ensure security of critical information assets, the State will take actions to secure its networks from unauthorized intrusion, malware, and other disruptions to the safe conduct of the state's business. All data stored on state systems and networks shall be regarded as state information assets. State networks will be safeguarded from unnecessary or unauthorized use.

Objective 1

Establish a baseline set of policies for governing telecommunications security.

Actions:

REVIEW DRAFT

Objective 2

Develop and promote tools, services, and standards to enable organizations to comply effectively with security policies and requirements.

Actions:

1. Assess the needs and benefits of products and service offerings, such as web content filtering, intrusion protection systems, firewall implementations, and network vulnerability assessment.
2. Provide a clearinghouse for network security best practices.
3. Develop a security strategy for wi-fi deployment.
4. Develop a standard network topology for department network boundaries.
5. Develop a standard approach for remote access to end-user applications and technical support services.

GOAL 5

The State will promote the convergence and integration of voice, data, video, and radio services

To more effectively serve its constituents, the State should move prudently and deliberately toward convergence of communications where it suits the business needs of the State. Networks should be designed with the capability of supporting convergence of voice, data, video, and radio services (e.g., VOIP, Call Center).

Objective 1

Promote the use of converged technologies to improve access to information.

Actions:

Objective 2

Promote the use of call center technologies and services to improve service delivery and reduce operational cost.

Actions:

1. Evaluate the development of Statewide 311 call centers to meet customer needs and shift current non-health and non-safety calls from 911.
2. Evaluate call center consolidation.

REVIEW DRAFT

Objective 3

Promote the use of converged services for radio-to-radio over IP (ROIP) in support of interoperability, continuity of operations (COOP), and continuity of government (COG) objectives.

Actions:

1. Meet with telecommunication contractors to evaluate options to reduce costs and increase business capabilities.

GOAL 6

The State will ensure a more effective telecommunications workforce

The State will facilitate organizational transformation down to the departmental level by aligning voice, data, video, and radio services workforce, governance structures, recruitment, and training mechanisms.

Objective 1

Merge the voice, data, video, and radio services workforce under common management structures.

Actions:

1. Survey agencies and departments and issue a report on the management structures used in the acquisitions, deployment, and management of telecommunications solutions, including data networking, voice, cellular telephone, radio, and video.
2. Sponsor a "California Telecommunications Workforce Management Committee" to review the findings regarding telecommunications workforce classification structures and recommend workforce convergence opportunities, risks, issues, and collective bargaining and budget considerations.

Objective 2

Align voice, data, video, and radio services workforce recruiting and training methodologies.

REVIEW DRAFT

Actions:

1. Sponsor forums whereby information technology and telecommunications workers can exchange information, experiences, and concepts to their mutual benefit.
2. Work with the Department of Personnel Administration and State Personnel Board to ensure that consolidated testing and recruitment vehicles address network skills required of State employees.

GOAL 7

The State will establish a customer-driven telecommunications governance structure

The State will develop a customer-driven governance structure and processes to promote the acquisition and provision of cost-effective, capable, flexible, and responsive telecommunications services to identify and meet current and emerging State government business needs.

Objective 1

Establish a telecommunications governance structure.

Actions:

1. Establish a layered telecommunications governance structure that clearly assigns authority, responsibility, and accountability to deliver State business and program services. The governance structure and decision-making processes should ensure: Departmental business and program performance and responsiveness; successful and relevant telecommunications strategic planning and decision-making in support of business needs; support for collaboration, flexibility, and change; oversight and alignment of information technology projects and operations to ensure consistency with and advocacy for the State Telecommunications Strategic Plan; and operational control by those most directly responsible for program performance and delivery.
2. Establish a governance structure for the development, administration, and implementation of the strategic plan.

Objective 2

Improve alignment of telecommunications governance with State programs.

Actions:

REVIEW DRAFT

Objective 3

Pursue partnership opportunities to improve access to telecommunications technology and services.

Actions:

1. Identify areas of opportunity to communicate and facilitate government needs with local, regional and federal partners, tribal nations, schools, universities, and industry private sector. Value collaboration and information sharing. (This may involve use of surveys, analysis, and reports.)

Objective 4

Implement performance measures and benchmarks.