Voice Over Internet Protocol (VoIP) Deployment **FY2007 Request: $15,000,000**
Reference No: 41807

AP/AL: Allocation
Project Type: Information Systems
Category: General Government
Location: Statewide
Contact: Eric Swanson
House District: Statewide (HD 1-40)
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Estimated Project Dates: 07/01/2006 - 06/30/2011
Appropriation: ETS Technology Projects

Brief Summary and Statement of Need:
On or about October 14, 2005 - ETS was notified by Nortel Systems that the State of Alaska was facing serious support issues on the existing Private Branch Exchange (PBX) telephone switches located in Juneau, Anchorage and Fairbanks. These PBX switches currently support approximately 15,000 telephones in the state offices located in these three locations. The PBX switch environment is approaching 13 years in existence. It has been the target of minimal to no maintenance over the past 5 years; due primarily to the Telecommunications Partnering Agreement signed in 2001. Lightning strikes last year in Juneau and Anchorage have also significantly impacted the infrastructure.

Funding:	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	Total
Gen Fund	$15,000,000	$3,000,000	$3,000,000				$21,000,000
Total:	$15,000,000	$3,000,000	$3,000,000	$0	$0	$0	$21,000,000

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☑ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:
Funding in the amount of $1,005,000 was appropriated in FY 2006.

Project Description/Justification:

Project Name	**Amount (in thousands)**	**Fund Source**
Voice Over Internet Protocol (VoIP) deployment	$ 15,000,000	GF

Problem To Be Solved:

On or about October 14, 2005 - ETS was notified by Nortel Systems that the State of Alaska was facing serious support issues on the existing Private Branch Exchange (PBX) telephone switches located in Juneau, Anchorage and Fairbanks. These PBX switches currently support approximately 15,000 telephones in the state offices located in these three locations. The PBX switch environment is approaching 13 years in existence. It has been the target of minimal to no maintenance over the past 5 years; due primarily to the Telecommunications Partnering Agreement signed in 2001. Lightning strikes last year in Juneau and Anchorage have significantly impacted the infrastructure, leaving ETS with very little choices about upgrades and/or replacements and concern about the viability of the phone systems in place today.

According to Nortel, effective April 1, 2006 – the State of Alaska will no longer be supported

technically on any reported issues within the PBX infrastructure, inclusive of the Remote Peripheral Equipment (RPE) sites, that offer an extension of phone services. A sub-contractor for Nortel, has submitted a proposal to the State of Alaska to address the support issues on the PBX switches (software upgrades) and replacement of the RPE switch devices for approximately $2 million. Replacing the existing phone sets (15,000) would cost approximately $5 million more.

The State of Alaska has committed itself to a converged technology base through recent investments (i.e. NSI project $5 million+) and upgrades to the data network in general. The decision to invest in a legacy environment or move forward with an accelerated deployment of Voice Over Internet Protocol (VoIP) telephony is now upon us.

ETS has asked Cisco Systems and Northrop Grumman for a rough order of magnitude estimate to address the issue of converting approximately 15,000 telephones onto the VoIP platform currently serving approximately 700 phones in Juneau and Anchorage. Their estimate is approximately $18 million – converting the majority of the locations within a 6-8 month timeframe.

Solution:

The rough order of magnitude estimate provides pricing for the deployment of a new Cisco IP Telephony platform and data infrastructure to replace existing SOA core telephone infrastructure in Anchorage (6,000 phones), Juneau (6,500 phones) and Fairbanks (2,400 phones). The estimate includes the following major components:

- Cisco Call Manager clusters to support 15,000 phones in Juneau, Anchorage and Fairbanks.
- Cisco Unity voicemail for all 15,000 phones.
- Cisco Emergency Responder (E-911) support in all three locations.
- Layer 2 Cisco switching infrastructure to support all sites in all three cities.
- Cisco ROS Day-2 support for all voice related components, inclusive of routers and switches.
- Cisco MeetingPlace voice conferencing support for all 15,000 phones.
- Cisco IPCC Express Contact Center and IVR.

Benefits:

Committing to a decision of an accelerated VoIP deployment that addresses the urgency of support in the existing legacy PBX environment will resolve two matters. One, it will immediately respond to a support issue on the legacy PBX phones. Two, it will allow the state to invest in a converged technology and not spend funds on legacy equipment that may or may not address other legacy issues yet to be brought to our attention.

What We Propose to Buy:

Bill of materials may include:

Core telephony infrastructure	$ 8,902,000
Layer 2 switching infrastructure	$ 2,431,000
Implementation services (Northrop Grumman)	
Core telephony infrastructure	$ 4,857,000
Layer 2 switching infrastructure	$ 730,000
Support level (Day 2 maintenance / operations)	
15,000 phones, 40 site Cisco ROS contract	$ 960,000
Cisco ROS activation fee	$ 120,000

Prior Funding History: Funding in the amount of $1,005,000 was appropriated in FY 2006 for components related to the PBX environment.

Timeline: The proposal as written by Northrop Grumman indicates a 6-8 month target of deployment that addresses phones in scope in Juneau, Anchorage and Fairbanks.

Explanation of How Project Contributes to Your Divisional Mission: ETS is the state agency that has the responsibility to deliver computing and telecommunications services to the 15,000+ users of the data and voice networks. Upgrading our voice environment onto the now converged data network in Juneau, Anchorage and Fairbanks is on track with the vision of migrating to a converged network that will serve voice, data and video in the future. It is important to deliver a robust, secure network that meets the daily requirements of our customer base in a responsible and cost effective manner.

Explanation of How Project Contributes to End Result: Acceleration of a VoIP deployment in response to a non-supported legacy phone environment in the Core sites of Juneau, Anchorage and Fairbanks will provide a new technology base for the largest population of users on the State of Alaska networks. Associated ongoing costs of the maintenance and operations of the legacy phone networks can now be reallocated to the new converged network.