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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>								DATE <b>February 2000</b>	
BUDGET ACTIVITY <b>07 - Operational System Development</b>				PE NUMBER AND TITLE <b>0303112F AIR FORCE COMMUNICATIONS</b>				PROJECT <b>674884</b>	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
674884 Public Key Infrastructure Implementation	0	0	11,478	31,648	0	0	0	0	43,126
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0
<p>(U) <b><u>A. Mission Description</u></b>            PUBLIC KEY INFRASTRUCTURE (PKI):</p> <p>A Department of Defense (DoD) PKI was mandated by the Deputy Secretary of Defense on 8 Aug 97 and the Services were further directed to use the capabilities in a 6 May 99 memo. PKI, a new start program, supports the overall Defense-in-Depth strategy for information assurance capabilities -- user identification, non-repudiation, digital signatures and encryption for government electronic business and network transactions -- protecting/securing all network information.</p> <p>Because of the initial program efforts for integration and implementation of the PKI COTS certificates and products into our common operating environment (including network architecture), FY01 and FY02 funds were transferred from Operations and Maintenance (O&amp;M) to Research Development Test &amp; Evaluation (RDT&amp;E).</p> <p>Funds will be used to support initial implementation and integration of PKI user smart card , public key directory storage of the PKI certificates, PKI registration for both users and servers, and initial training. In particular, the RDT&amp;E funds will be applied to the Smart Card/Common Access Card (CAC) to integrate and test with the current Defense Enrollment Reporting System (DEERS)/Real-Time Automated Personnel Identification Systems (RAPIDS) ID and registration system. Additionally, the funds will be used to prototype and test replicating the DoD Public key directory to each Air Force base-level directory structure. Furthermore, we will perform technology integration and testing of new hardware CAC token into the user desktop environment. Finally, we alloted a small amount for AF SPO program support activities.</p> <p>(U) <b><u>FY 1999 (\$ in Thousands)</u></b>            (U) \$0 No Activity            (U) \$0 Total</p> <p>(U) <b><u>FY 2000 (\$ in Thousands)</u></b>            (U) \$0 No Activity            (U) \$0 Total</p>									
Project 674884			Page 1 of 4 Pages				Exhibit R-2 (PE 0303112F)		

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(U) **A. Mission Description Continued**

(U) FY 2001 (\$ in Thousands)

- (U) \$7,085 Prototyping support for Interface/Integration of registration Common Access Card tokens, peripheral readers with Air Force-wide computer and communication architectures
- (U) \$3,820 Testing support of Public Key Infrastructure Certificate Directories and other infrastructure components
- (U) \$573 Program and management control (SPO activities)
- (U) \$11,478 Total

(U) **B. Budget Activity Justification**

This is a budget activity 7, Operational System Development because it supports Air Force requirements to prototype, integrate, and test Public Key Infrastructure components including registration and usage hardware/software/middle-ware, Common Access Cards, and directories on Air Force computer systems and networks.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2000 PBR)				
(U) Appropriated Value				
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions				
f. Other				
(U) Adjustments to Budget Years Since FY 2000 PBR			11,478	
(U) Current Budget Submit/FY 2001 PBR			11,478	43,126

(U) Significant Program Changes:

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<b>(U) D. Other Program Funding Summary (\$ in Thousands)</b>										
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Cost to</u>	<u>Total Cost</u>	
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		
(U) AF RDT&E										
(U) APPN 3600/PE 33112F/PE Title AF Communications/BPAC 674884/ Title PKI			11,478	31,648					43,126	
(U) Other APPN										
<b>(U) E. Acquisition Strategy</b>										
Electronic Systems Center (ESC) Information Assurance Product Area Directorate (PAD) manages the AF PKI Program. All major contracts within this program element are scheduled to be awarded after full and open competition or through existing government contracting vehicles. The PKI program is a new start and we will continue to address contract options. The options under review include: GSA, Standard AF contract (through the Standard Systems Group, AL), and Information Technology Services Program (ITSP) to support engineering effort and equipment for the integration of Common Access Card tokens and prototyping of AF base level directories. Current PKI program strategy is to use the ITSP contract.										
<b>(U) F. Schedule Profile</b>										
			<u>FY 1999</u>			<u>FY 2000</u>		<u>FY 2001</u>		
			1	2	3	4	1	2	3	4
(U) Prototyping support for PKI Interface/Integration of Tokens								1		
(U) Testing support of Public Key Infrastructure Certificate Directories								X		
X denotes planned event										

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2000		
BUDGET ACTIVITY 07 - Operational System Development					PE NUMBER AND TITLE 0303112F AIR FORCE COMMUNICATIONS				PROJECT 674884	
(U) <b><u>A. Project Cost Breakdown (\$ in Thousands)</u></b>										
						<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>
(U)	Prototyping support for Interface/Integration of registration Common Access Card tokens, peripheral readers with Air Force-wide computer and communication architectures							7,085		7,085
(U)	Testing support of PKI Certificate Directories and other infrastructure components									3,820
(U)	Program and management control (SPO activities)									573
(U)	Total									11,478
(U) <b><u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u></b>										
(U) <b><u>Performing Organizations:</u></b>										
<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 1999</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>	<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>										
Prototyping Support	PR	Dec 00	TBD	TBD				7,085	19,500	26,585
<u>Support and Management Organizations</u>										
ESC/DIW SPO Activities	PR	Dec 00	TBD	TBD				573	1,600	2,173
<u>Test and Evaluation Organizations</u>										
Test Support	PR	Dec 00	TBD	TBD	0	0	0	3,820	10,548	14,368
<u>Subtotals</u>					<u>Total Prior to FY 1999</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
Subtotal Product Development								7,085	19,500	26,585
Subtotal Support and Management								573	1,600	2,173
Subtotal Test and Evaluation					0	0	0	3,820	10,548	14,368
Total Project					0	0	0	11,478	31,648	43,126