# CRITICAL TECHNOLOGY ASSESSMENT: Encryption Products



# SCOPE OF ASSESSMENT

The Bureau of Industry and Security (BIS), Office of Technology Evaluation (OTE), in coordination with the U.S. Department of Defense, National Security Agency (NSA) is conducting a critical technology assessment of the U.S. encryption industry. The principal goal of this data collection is to assess the competitive position of the U.S. in the global encryption market and determine effectiveness of dual-use export controls in ensuring a vibrant domestic base for these important products. The information gained from the survey will be used to: 1- quantify and assess the state of the U.S. encryption sector and the competitive challenge from non-U.S. producers, 2- document the impact of dual-use export controls on U.S. firms and encryption exports, and 3- provide government and industry representatives with a comprehensive picture of this critical sector to benchmark future performance and capabilities.

## **RESPONSE TO THIS SURVEY IS REQUIRED BY LAW**

A response to this survey is required by law (50 U.S.C. app. Sec. 2155). Failure to respond can result in a maximum fine of \$10,000, imprisonment of up to one year, or both. Information furnished herewith is deemed confidential and will not be published or disclosed except in accordance with Section 705 of the Defense Production Act of 1950, as amended (50 U.S.C App. Sec. 2155). Section 705 prohibits the publication or disclosure of this information unless the President determines that its withholding is contrary to the national defense. Information will not be shared with any non-government entity, other than in aggregate form. The information will be protected pursuant to the appropriate exemptions from disclosure under the Freedom of Information Act (FOIA), should it be the subject of a FOIA request.

Not withstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number.

## BURDEN ESTIMATE AND REQUEST FOR COMMENT

Public reporting burden for this collection of information is estimated to average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information to BIS Information Collection Officer, Room 6883, Bureau of Industry and Security, U.S. Department of Commerce, Washington, D.C. 20230, and to the Office of Management and Budget, Paperwork Reduction Project (OMB Control No.0694 -0119), Washington, D.C. 20503.

		WHO MUST RESP	OND TO THIS SU	RVEY				
-	Company Name	Address	City	State	Zip	_		
	Company Name	Address	City	State	Zip			
Please select the description that most closely reflects your company								
1.	<ul> <li>Manufacturer of encryption items, including all encryption commodities, software and technology that contain encryption features are are subject to the Export Administration Regulations and under U.S. Department of Commerce jurisdiction.</li> </ul>							
2.	Exporter of encryption items, including all encryption commodities, software and technology that contain encryption features are are subject to the Export Administration Regulations and under U.S. Department of Commerce Yes jurisdiction.							
3.	If you selected "Yes" to questions	s 1 and/or 2 above, please c	ontinue completing	this surv	ey.		•	
4.	If you selected "No" for both ques	stions 1 and 2, please comp	lete "Exemption Fro	om Surve	y" below.			
-		EXEMPTIO	N FROM SURVEY					
If your company's operations during the last 5 years <b>did not</b> involve the manufacture or export of encryption items, you may be exempt from completing this U.S. Government survey. Please call one of the BIS contacts listed in "General Instructions" to verify your status. Then, complete steps 5-6 below.								
5.	Briefly explain the products and/or services provided by your organization in the space below:							
Explanation:								
6.	Please complete and print out the official or point-of-contact has con transmit the Certification page to o	firmed your company's or o	rganization's exem	ption by s	peaking with one of our staff.		vered	

	GENERAL INSTRUCTIONS
1.	Your company is required to complete this survey using an Excel template, which can be downloaded from the BIS website. At you request, BIS staff will e-mail the Excel survey template directly to your company. For your convenience, a PDF version of the survey is available on the BIS website to aid internal data collection. DO NOT submit the PDF as your company's response to BIS.
2.	Please indicate "N/A" in the Excel drop-downs if a particular Section question does not apply to your company. Many Sections also ask for narrative, short answer responses in addition to "Yes," "No," percents, dollars, measurement or unit numbers, etc. These questions should be answered, unless not applicable to your company.
3.	Upon completion, review, and certification of the survey, please transmit to the secure, U.S. Federal Government e-mail address: <u>encryption@bis.doc.gov</u> .
4.	For questions related to this survey, please contact Ashley Miller at <u>amiller@bis.doc.gov</u> , 202-482-4678 or Gerry Horner at <u>ghorner@bis.doc.gov</u> , 202-482-2078.
5.	For letter correspondence to the Office of Technology Evaluation please write to: Brad Botwin, Director, Industrial Studies Office of Technology Evaluation, Room 1093 U.S. Department of Commerce 1401 Constitution Avenue, NW Washington, DC 20230 Please do not submit completed surveys to this address; all surveys must be submitted electronically.

#### **Production and Sales**

**1.** Please describe the primary function(s) of the encryption items produced or exported by your company (e.g. consumer electronics, business software).

Description

2. For 2008 and 2009 what percentage of your company's product line were encryption items?					
2008	2009				
%	%				

<b>3.</b> What percentage of the encryption items produced or exported by your company use encryption exclusively for Operation, Administration, Management and Provisioning (OAMP) information?					
2008	2009				
%	%				

4.	Please	provide	your comp	any's tota	al domestic	sales reven	ue and tota	l sales r	revenue f	or encr	yption i	tems fr	om 20	)06 throug	gh 200	)9.
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Domestic Sales	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)
Total Sales (all products)				
Total Encryption Item Sales				
Export Sales	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)
Total Sales (all products)				
Total Encryption Item Sales				

#### **5.** Please provide the top five countries of destination for your company's export sales and corresponding value from 2006 to 2009 for encryption items.

Encryption Item Export Sales	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)
Country 1				
Country 2				
Country 3				
Country 4				
Country 5				

#### Marketshare

**6.** Please list all Schedule B Numbers under which your company's encryption items are currently exported, separated by commas (e.g. 8517620050, 8471500150, etc.).

Schedule B (1)	Schedule B (5)
Schedule B (2)	Schedule B (6)
Schedule B (3)	Schedule B (7)
Schedule B (4)	Schedule B (8)

#### Competition

BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act

**7a.** Please identify your company's domestic competitors for encryption items. Also provide the names of the products that compete with those produced or exported by your company.

Domestic Competitor:	Product(s) that compete:
Competitor 1	Product Name(s)
Competitor 2	Product Name(s)
Competitor 3	Product Name(s)
Competitor 4	Product Name(s)
Competitor 5	Product Name(s)

# **7b.** Please identify your company's non-U.S. competitors for encryption items. Also provide the names of the products that compete with those produced or exported by your company and indicate whether they meet or exceed the encryption standard used by your company (e.g. AES, DES, etc.).

Non-U.S. Competitor	Competitor Country	Product(s) that compete	Competitor Standard
Competitor 1	Country 1	Product Name(s)	Meets/Exceeds
Competitor 2	Country 2	Product Name(s)	Meets/Exceeds
Competitor 3	Country 3	Product Name(s)	Meets/Exceeds
Competitor 4	Country 4	Product Name(s)	Meets/Exceeds
Competitor 5	Country 5	Product Name(s)	Meets/Exceeds

**8.** For the encryption items produced by your company, please list all product families, including standard technical parameters that the encryption functionality of these encryption items would be measured by and their definitions (these may include more than those listed in the ECCN and description).

Product Family Details	Family 1	Family 2	Family 3	Family 4	Family 5
Product Family Name					
Protocol					
Key Length					
Other					

<b>9.</b> Is your company aware of any products currently available in the market that contain emerging or advanced encryption functionality (e.g., quantum cryptography). If so, please explain, identifying the product/family name(s) and producer (s).					
Yes	No				
Producer 1	Product/Family 1				
Producer 2	Product/Family 2				
Producer 3	Product/Family 3				
Producer 4	Product/Family 4				
Producer 5	Product/Family 5				

# Export Control Impact

<b>10.</b> Have U.S. export controls for encryption items had a positive or negative	impact on your company's competitiveness? Explain.
Positive	Negative
Explanation	

<b>11.</b> Has your company experienced difficulty fulfilling license conditions? If	yes, please explain.
Yes	No
Expla	nation

<b>12.</b> Has your company ever designed or modified an encryption item so that If yes, please explain.	the item's parameters were not subject to a license or reporting requirement?
Yes	No
Expla	anation

**13.** Please estimate the amount of time necessary to comply with license exception ENC requirements and the annual cost to your company.

Requirement	Total Hours	Total Cost (\$)	N/A
Technical Review	# of Hours	Cost (\$)	N/A
Pre-export Notification	# of Hours	Cost (\$)	N/A
ENC/ELA Semi-annual Reporting	# of Hours	Cost (\$)	N/A
Key Length Increase Notification	# of Hours	Cost (\$)	N/A
Comment			

**14.** Has your company experienced difficulty selling encryption items in a particular country or group of countries? If yes, please identify the country/countries and explain.

Yes	No
Expla	anation

## Compliance

<b>15.</b> Are you aware of companies located in the U.S. that export encryption items without a license or without submitting technical reviews or reporting to BIS? If yes, please estimate the number of companies that are not compliant with export control regulations on encryption items.		
Yes	No	
	#	

Non-U.S. Availability

**BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act** 

<b>16.b</b> Does your company have any evidence of encryption items being produc	ced in non- <b>Supplement 3</b> countries? If yes, please indicate the producer and	
country of origin and provide evidence, if possible. Evidence may include eyewitness reports of the item produced in another country, brochures/manuals,		
evidence of the non-U.S. company participating in a trade show, or any other information demonstrating that the item is available-in-fact from non-		
Supplement 3 countries. Materials may be submitted to <u>encryption@bis.doc.gov</u> .		
Yes	No	
Description		

<b>16.c</b> Are you aware of the above products being sold to non-U.S. militaries? If sold.	f yes, please identify the products and country or countries in which they are
Yes	No
Соц	intry

<b>16.d</b> Can your company provide any evidence that the items are being advertised or can otherwise be purchased from a non-U.S. country without an export control license or under a program more advantageous than the U.S.? If yes, please explain and/or provide evidence (e.g. internet URL,		
brochures/pamphlets) to encryption@bis.doc.gov.		
Yes	No	
Expla	nation	

17. Do export control practices in the U.S. for encryption items compare with those of non-U.S. countries? If yes, please explain, specifying the country or			
countries.			
Yes	No		
Expla	nation		

**18.** Does your company believe that is at a disadvantage in the international marketplace for encryption items based on U.S. export and/or re-export control practices? For example, do you believe that European and/or Japanese export control practices are not harmonized with that of the United States for encryption items? If yes, please explain/provide examples.

Yes

No

Explanation

# **Certification Page**

The undersigned certifies that the information herein supplied in response to this questionnaire is complete and correct to the best of his/her knowledge. It is a criminal offense to willfully make a false statement or representation to any department or agency of the United States Government as to any matter within its jurisdiction. [18 U.S.C.A. 1001 (1984 & SUPP. 1197)]

BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act

Company or Organization Name			
Name			
Name of Authorizing Official	Title of Authorizing Offic	ial	
Name	Title		
Phone Number	Fax Number		
Number	FAX		
Point of Contact	Title		
Name	Title		
Email Address	Phone Number	Extension	
Email	Number	Number	
			Number of Hours
How many hours did your company dedicate to completion of this survey?			
	Survey.		Number
			Number
Would your company like to receive a copy of the BIS encryption			
Would your company like to receive a copy of the BIS encryption			Number Yes No
Would your company like to receive a copy of the BIS encryption			
Would your company like to receive a copy of the BIS encryption In the space below, please provide all additional comments or any	technology assessment?	to include regarding your particip	Yes No
	technology assessment?	to include regarding your particip	Yes No
	technology assessment?	to include regarding your particip	Yes No
	technology assessment?	to include regarding your particip	Yes No
In the space below, please provide all additional comments or any	technology assessment?	to include regarding your particip	Yes No