### RFID RESULTS - GROUP A: All Respondents

BASE: 244 Respondents

(Note: Percentages are based on Total Respondents to each question.

## 1. Please check the box that best describes the organization you work for:

	Response Total	
Civilian government agency	137	56%
Department of Defense	63	26%
State/local government	23	9%
Other (please specify: Contractors, consultants, OEMs working for govt.)	20	8%
Total Respondents	243	100%
(skipped this question)	1	0%

### 2. Does your organization currently use Radio Frequency Identification (RFID) systems?

	Response Iotal		
Yes	59	24%	
No	124	51%	
Don't know	59	24%	
Total Respondents	242	100%	
(skipped this question)	2		

#### 3. If not is your organization planning to use RFID systems in the next 12 to 36 months?

	Response Total	Response Total		
Yes - in the next 12 months	18	9%		
Yes - in 12 to 24 months	10	5%		
Yes - in 24 to 36 months	19	9%		
No	57	28%		
Don't know	99	49%		
Total Respondents	203	100%		
(skipped this question)	41			

4. If your organization is using or planning to use RFID for which of the following applications? (Please check all that apply.)

	Currently Use	Currently Use	Planning to Use	Planning to Use
Personnel ID and access control	33	28%	36	30%
Asset management/inventory control	24	20%	51	43%
Supply chain logistics	20	17%	29	24%
Vehicular access control (e.g. border crossing)	11	9%	15	13%
Document ID and control	8	7%	17	14%
Other	8	7%	11	9%
Animal tracking	4	3%	4	3%
Pharmaceuticals tracking	2	2%	12	10%
Total Responses	110	Multiple replies	175	Multiple replies
			-	

Total Respondents 120 100% (skipped this question) 124

5. If you checked "Other" in Question 4 for what other application? (Please briefly describe.)

Total Respondents 15 (skipped this question) 229

6. What type of RFID tag technology is your organization using or planning to use? (Please check all that apply.)

	Currently Use	Currently Use	Planning to Use	Planning to Use
Passive tags (unpowered)	43	28%	41	27%
Active tags (powered)	18	12%	18	12%
Sensor tags (able to sense movement environment)	9	6%	16	11%
Tags for real time location system	16	11%	25	17%
Don't know	44	29%	52	34%
Total Responses	130	Multiple replies	152	Multiple replies

Total Respondents to question 151 100% (skipped this question) 93

#### 7. If your organization is using or planning to use RFID at what stage is your organization's RFID implementation?

	Response lotal	
Initial evaluation of RFID capability	40	36%
Pilot program	13	12%
Early stage deployment - expect fine tuning in the future	24	21%
Full scale integration	24	21%
Other (please specify)	11	10%
Total Respondents	112	100%
(skipped this question)	132	•

## 8. What are the primary benefits your organization expects to gain by using RFID? (Please check top 3 benefits.) Response Total

	response rotal	
Increased security	76	63%
Increased asset visibility	61	50%
Increased speed of operation	47	39%
Increased data integrity	45	37%
Reduced cost of operation	43	36%
Reduced cost of inventory	42	35%
Other (please specify)	14	12%
Total Respondents	121	100%
(skipped this question)	123	_

## 9. What are the major impediments to RFID being adopted or expanded within your organization? (Please check top 3 impediments.)

	Response Total	•
Cost of infrastructure	61	47%
Lack of knowledge or understanding about RFID's benefits within our organization	48	37%
Business process integration, reengineering issues	46	35%
Security issues not yet resolved	41	31%
Return on investment not yet demonstrated	37	28%
Lack of interoperability with existing ID systems or with other agencies	35	27%
Lack of standards	30	23%
Cost of tags	26	20%
Privacy issues not yet resolved	25	19%
Performance of data collection (tag reading) not yet demonstrated	16	12%
Other (please specify)	15	11%
Total Respondents	131	100%
(skipped this question)	113	

10. How much of a deterrent to adopting RFID in your organization is the lack of fully-developed standards in the following categories?

	Significant	Moderate	Minor	None	Don't know
Hardware (Operating frequency tag readers tag data protocol)	30	41	18	17	66
Software (middleware, data management software)	28	39	22	16	65
Data security (encryption, tag cloning)	41	29	20	17	64
Hardware (Operating frequency, tag readers, tag data protocol)	17%	24%	10%	10%	38%
Software (middleware data management software)	16%	22%	13%	9%	37%
Data security (encryption tag cloning)	24%	17%	11%	10%	37%
Total Respondents	174				

70

Total Respondents (skipped this question)

# 11. How important is it that your current or future RFID systems be interoperable with your organization's current asset identification system? Response Total

Critical - The systems must interoperate	52	28%
Important - Preferable but not essential	46	25%
Not important - Our RFID systems will operate separately from the current asset identification	19	10%
Don't know	68	37%
Total Respondents	185	100%
(skipped this guestion)	59	

#### 12. How important is it that your current or future RFID systems be interoperable with the systems of other government agencies or commercial partners?

	Response Total	•
Critical - The systems must interoperate	44	24%
Important - Preferable but not essential	50	27%
Not important - Our RFID systems only need to meet our internal requirements	25	14%
Don't know	65	35%
Total Respondents	184	100%
(skipped this question)	60	

### 13. What are your biggest security concerns about the use of RFID systems in your organization's application? (Please check all that apply)

	Response rotar	
Tag security (e.g. cloning, spoofing, tampering)	97	65%
Data security in the tags (e.g. unauthorized tag reads)	78	52%
Data security within the data management system (e.g. data hacking)	69	46%
Data security during transfer in the air	64	43%
Privacy	55	37%
Encryption	52	35%
Other (please specify)	18	12%
Total Despandents	450	100%
Total Respondents	150	100%
(skinned this question)	94	

## 14. FINAL QUESTION: What are the most significant issues or capabilities that next-generation RFID technology need to address for your organization's applications? (Please che Response Total

	response rotar	
Improved data security	76	52%
Lower tag costs	54	37%
Expanded read capability/reliability (reading on a greater variety of substrates)	53	36%
Improved read performance (faster reading greater read range)	49	34%
Integration of RFID with sensor technology	44	30%
Enhanced tag or reader survivability	40	27%
Integration of RFID with biometric technologies	37	25%
Enhanced tag data storage capability	29	20%
Tag miniaturization	28	19%
Other (please specify)	17	12%
Total Respondents	146	100%
(skipped this guestion)	98	

15. If you care to elaborate on any of your answers above on the state of RFID use in government in general please add your comments here:

Total Respondents	18
(skipped this question)	226

## RFID RESULTS - GROUP B: Those who are currently using RFID in their organizations.

BASE: 59 Respondents

(Note: Percentages are based on Total Respondents to each question.

## 1. Please check the box that best describes the organization you work for:

	Response Total		
Civilian government agency	26	45%	
Department of Defense	22	38%	
State/local government	5	9%	
Other (please specify)	5	9%	
Total Respondents	58	100%	
(filtered out)	185		
(skipped this question)	1		

# 2. Does your organization currently use Radio Frequency Identification (RFID) systems?

	Response Iotal
Yes	59
No	0
Don't know	0
Total Respondents	59
(filtered out)	183
(skipped this question)	2

### 3. If not is your organization planning to use RFID systems in the next 12 to 36 months?

	Response Total
Yes - in the next 12 months	8
Yes - in 12 to 24 months	2
Yes - in 24 to 36 months	2
No	1
Don't know	9
Total Respondents	22
(filtered out)	181
(skipped this question)	41

#### 4. If your organization is using or planning to use RFID for which of the following applications? (Please check all that apply.)

	Currently Use	Currently Use	Planning to Use	Planning to Use
Personnel ID and access control	28	49%	11	19%
Asset management/inventory control	21	37%	13	23%
Supply chain logistics	19	33%	10	18%
Vehicular access control (e.g. border crossing)	10	18%	8	14%
Document ID and control	6	11%	7	12%
Other	5	9%	3	5%
Animal tracking	4	7%	1	2%
Pharmaceuticals tracking	2	4%	7	12%
Total Responses	95	Multiple replies	60	Multiple replies
		•	-	

Total Respondents 57 100% (filtered out) 63 (skipped this question) 124

#### 5. If you checked "Other" in Question 4 for what other application? (Please briefly describe.)

Total Respondents 7
(filtered out) 8
(skipped this question) 229

#### 6. What type of RFID tag technology is your organization using or planning to use? (Please check all that apply.)

	Currently Use	Currently Use	Planning to Use	Planning to Use
Passive tags (unpowered)	39	68%	11	19%
Active tags (powered)	18	32%	11	19%
Tags for real time location system	16	28%	13	23%
Sensor tags (able to sense movement environment)	9	16%	12	21%
Don't know	4	7%	3	5%
Total Respondents	57	100%		
(filtered out)	94			
(skipped this question)	93			

### 7. If your organization is using or planning to use RFID at what stage is your organization's RFID implementation?

	Response rotar	
Initial evaluation of RFID capability	5	9%
Pilot program	5	9%
Early stage deployment - expect fine tuning in the future	18	34%
Full scale integration	24	45%
Other (please specify)	1	2%
Total Respondents	53	100%
(filtered out)	59	
(skipped this question)	132	

# 8. What are the primary benefits your organization expects to gain by using RFID? (Please check top 3 benefits.) Response Total

Increased security	38	70%
Increased asset visibility	32	59%
Increased speed of operation	26	48%
Reduced cost of operation	25	46%
Increased data integrity	23	43%
Reduced cost of inventory	19	35%
Other (please specify)	4	7%
Total Respondents	54	100%
(filtered out)	67	
(skipped this question)	123	

#### 9. What are the major impediments to RFID being adopted or expanded within your organization? (Please check top 3 impediments.)

	Response Total		
Cost of infrastructure	23	47%	
Business process integration, reengineering issues	22	45%	
Lack of interoperability with existing ID systems or with other agencies	20	41%	
Security issues not yet resolved	17	35%	
Lack of knowledge or understanding about RFID's benefits within our or	16	33%	
Lack of standards	15	31%	
Privacy issues not yet resolved	13	27%	
Cost of tags	11	22%	
Return on investment not yet demonstrated	9	18%	
Performance of data collection (tag reading) not yet demonstrated	2	4%	
Other (please specify)	2	4%	
Total Respondents	49	100%	
(filtered out)	82		
(skipped this guestion)	113		

10. How much of a deterrent to adopting RFID in your organization is the lack of fully-developed standards in the following categories?

	Significant	Moderate	Minor	None	Don't know	Response Iotal
Hardware (Operating frequency, tag readers, tag data protocol)	9	14	8	13	13	57
Software (middleware data management software)	8	14	12	9	13	56
Data security (encryption tag cloning)	12	12	10	11	11	56
Hardware (Operating frequency tag readers tag data protocol)	16%	25%	14%	23%	23%	100%
Software (middleware, data management software)	14%	25%	21%	16%	23%	98%
Data security (encryption, tag cloning)	21%	21%	18%	19%	19%	98%

Total Respondents 57

#### 11. How important is it that your current or future RFID systems be interoperable with your organization's current asset identification system?

,	Response Total	
Critical - The systems must interoperate	25	44%
Important - Preferable but not essential	17	30%
Not important - Our RFID systems will operate separately from the cur	re 4	7%
Don't know	11	19%
Total Respondents	57	100%
(filtered out)	128	
(skipped this question)	59	

#### 12. How important is it that your current or future RFID systems be interoperable with the systems of other government agencies or commercial partners?

	Response Iotal	
Critical - The systems must interoperate	20	36%
Important - Preferable but not essential	19	34%
Not important - Our RFID systems only need to meet our internal require	9	16%
Don't know	8	14%
Total Respondents	56	100%
(filtered out)	128	
(skipped this question)	60	

## 13. What are your biggest security concerns about the use of RFID systems in your organization's application? (Please check all that apply) Response Total

	rresponse rotal	
Tag security (e.g. cloning, spoofing, tampering)	40	74%
Data security in the tags (e.g. unauthorized tag reads)	31	57%
Data security within the data management system (e.g. data hacking)	29	54%
Data security during transfer in the air	22	41%
Encryption	20	37%
Privacy	19	35%
Other (please specify)	2	4%
Total Respondents	54	100%
(filtered out)	96	
(skipped this question)	94	

## 14. What are the most significant issues or capabilities that next-generation RFID technology need to address for your organization's applications? (Please check top 3 issues. Response Total

response rotar	
31	56%
26	47%
24	44%
20	36%
19	35%
18	33%
15	27%
14	25%
12	22%
5	9%
55	100%
91	
98	
	31 26 24 20 19 18 15 14 12 5

15. If you care to elaborate on any of your answers above on the state of RFID use in government in general please add your comments here:

Total Respondents	5
(filtered out)	13
(skipped this question)	226

## RFID RESULTS - GROUP C: Those who are not currently using, but plan to in the next 12-26 months.

#### **BASE: 31 Respondents**

(Note: Percentages are based on Total Respondents to each question.

#### 1. Please check the box that best describes the organization you work for:

0	Response Total	
Civilian government agency	17	55%
Department of Defense	8	26%
State/local government	3	10%
Other (please specify)	3	10%
Total Respondents	31	100%
(filtered out)	212	
(skipped this question)	1	

#### 2. Does your organization currently use Radio Frequency Identification (RFID) systems?

	Response Total
Yes	0
No	31
Don't know	0
Total Respondents	31
(filtered out)	211
(skipped this question)	2

### 3. If not is your organization planning to use RFID systems in the next 12 to 36 months?

	Response Total
Yes - in the next 12 months	9
Yes - in 12 to 24 months	6
Yes - in 24 to 36 months	16
No	0
Don't know	0
Total Respondents	31
(filtered out)	172
(skipped this question)	41

# 4. If your organization is using or planning to use RFID for which of the following applications? (Please check all that apply.) Currently Use Planning to Use Planning to Use

	Currently Use	Planning to Use	Planning to Use	
Asset management/inventory control	1	26	84%	
Personnel ID and access control	0	14	45%	
Supply chain logistics	1	11	35%	
Document ID and control	0	9	29%	
Vehicular access control (e.g. border crossing)	0	5	16%	
Pharmaceuticals tracking	0	4	13%	
Animal tracking	0	2	6%	
Other	0	2	6%	
Total Respondents		31	100%	
(filtered out)		89		
(skipped this question)		124		

#### 5. If you checked "Other" in Question 4 for what other application? (Please briefly describe.)

Total Respondents	1
(filtered out)	14
(skipped this question)	229

#### 6. What type of RFID tag technology is your organization using or planning to use? (Please check all that apply.)

	Currently Use	Planning to Use	Planning to Use
Passive tags (unpowered)	0	22	73%
Active tags (powered)	0	6	20%
Sensor tags (able to sense movement environment)	0	4	13%
Tags for real time location system	0	9	30%
Don't know	0	5	17%
Total Respondents		30	100%
(filtered out)		121	
(skipped this question)		93	

## 7. If your organization is using or planning to use RFID at what stage is your organization's RFID implementation?

	Response Total	
Initial evaluation of RFID capability	20	67%
Pilot program	5	17%
Early stage deployment - expect fine tuning in the future	4	13%
Full scale integration	0	0%
Other (please specify)	1	3%
Total Respondents	30	
(filtered out)	82	
(skipped this question)	132	

#### 8. What are the primary benefits your organization expects to gain by using RFID? (Please check top 3 benefits.)

	p	
	Response Total	
Increased asset visibility	16	53%
Increased data integrity	10	33%
Increased speed of operation	12	40%
Increased security	17	57%
Reduced cost of operation	9	30%
Reduced cost of inventory	12	40%
Other (please specify)	2	7%
Total Respondents	30	100%
(filtered out)	91	
(skipped this question)	123	

# 9. What are the major impediments to RFID being adopted or expanded within your organization? (Please check top 3 impediments.)

	Response rotal	
Cost of infrastructure	16	52%
Return on investment not yet demonstrated	15	48%
Lack of knowledge or understanding about RFID's benefits within our	12	39%
Security issues not yet resolved	12	39%
Business process integration, reengineering issues	11	35%
Lack of interoperability with existing ID systems or with other agencies	11	35%
Performance of data collection (tag reading) not yet demonstrated	9	29%
Lack of standards	8	26%
Privacy issues not yet resolved	8	26%
Cost of tags	5	16%
Other (please specify)	1	3%
Total Respondents	31	100%
(filtered out)	100	
(skipped this guestion)	113	

## 10. How much of a deterrent to adopting RFID in your organization is the lack of fully-developed standards in the following categories?

	Significant	Moderate	Minor	None	Don't know	Response Total
Hardware (Operating frequency, tag readers tag data protocol)	7	11	6	1	5	30
Software (middleware, data management software)	6	12	5	3	4	30
Data security (encryption, tag cloning)	11	4	7	2	6	30
Hardware (Operating frequency tag readers tag data protocol)	23%	37%	20%	3%	17%	100%
Software (middleware data management software)	20%	40%	17%	10%	13%	100%
Data security (encryption tag cloning)	37%	13%	23%	7%	20%	100%

**Total Respondents** 

#### 11. How important is it that your current or future RFID systems be interoperable with your organization's current asset identification system?

	Response Total	, ,
Critical - The systems must interoperate	10	32%
Important - Preferable but not essential	11	35%
Not important - Our RFID systems will operate separately from the cur	8	26%
Don't know	2	6%
Total Respondents	31	100%
(filtered out)	154	
(skipped this question)	59	

#### 12. How important is it that your current or future RFID systems be interoperable with the systems of other government agencies or commercial partners?

	Response Total	•
Critical - The systems must interoperate	8	26%
Important - Preferable but not essential	14	45%
Not important - Our RFID systems only need to meet our internal requ	8	26%
Don't know	1	3%
Total Respondents	31	100%
(filtered out)	153	
(skipped this question)	60	

## 13. What are your biggest security concerns about the use of RFID systems in your organization's application? (Please check all that apply)

_	Response rotal	
Data security in the tags (e.g. unauthorized tag reads)	17	57%
Data security during transfer in the air	16	53%
Data security within the data management system (e.g. data hacking)	12	40%
Encryption	12	40%
Privacy	10	33%
Tag security (e.g. cloning, spoofing, tampering	21	70%
Other (please specify)	2	7%
Total Respondents	30	100%
(filtered out)	120	
(skipped this question)	94	

## 14. What are the most significant issues or capabilities that next-generation RFID technology need to address for your organization's applications? (Please check top 3 issues Response Total

	response rotal	
Integration of RFID with sensor technology	15	50%
Expanded read capability/reliability (reading on a greater variety of sub	14	47%
Improved read performance (faster reading greater read range)	12	40%
Lower tag costs	10	33%
Tag miniaturization	10	33%
Enhanced tag or reader survivability	9	30%
Improved data security	9	30%
Integration of RFID with biometric technologies	9	30%
Enhanced tag data storage capability	4	13%
Other (please specify)	0	0%
Total Respondents	30	100%
(filtered out)	116	
(skipped this question)	98	

15. If you care to elaborate on any of your answers above on the state of RFID use in government in general please add your comments here:

Total Respondents	1
(filtered out)	17
(skipped this question)	226