2 Impact Evaluation Criteria Worksheet

Phase 1
Process S1
Activity S1.1

Step	1	

Define a qualitative set of measures (high, medium, low) against which you will evaluate a risk's effect on your organization's mission and business objectives.

Reputation/Customer Confidence	e
Impact Type	Low Impact
Reputation	Reputation is minimally affected; little or no effort or expense is required to recover.
Customer Loss	Less than 10% reduction in customers due to loss of confidence
Other:	
Other:	

	Reputation/Customer Confidence
Medium Impact	High Impact
Reputation is damaged, and some effort and expense is required to recover.	Reputation is irrevocably destroyed or damaged.
$10_{to} 20_{\%}$ reduction in customers due to loss of confidence	More than 20 % reduction in customers due to loss of confidence

Step 1	
Financial	
Impact Type	Low Impact
Operating Costs	Increase of less than 5% in yearly operating costs
Revenue Loss	Less than% yearly revenue loss
One-Time Financial Loss	One-time financial cost of less than §_10,000
Other:	

	Financial
Medium Impact	High Impact
Yearly operating costs increase by 5_{to} .	Yearly operating costs increase by more than $-10^{\%}$.
<u> </u>	Greater than — <u>10</u> —% yearly revenue loss
One-time financial cost of \$_ 10,000 to \$ 15,000	One-time financial cost greater than ^{\$} 15,000

Step 1	
Productivity	
Impact Type	Low Impact
Staff Hours	Staff work hours are increased by less than $\frac{5}{5}$ for $\frac{10}{5}$ to $\frac{10}{10}$ day(s).
Other:	
Other:	
Other:	

		Productivity
Medium Impact		High Impact
Staff work hours are increased between 5% and 10% for 10 to 15 day(s).	Staff work I	hours are increased by greater than $\frac{\text{for}}{20} - \frac{10}{40} - \frac{10}{40} - \frac{10}{40} + \frac{10}{10} + $

Step 1	
Safety/Health	
Impact Type	Low Impact
Life	No loss or significant threat to customers' or staff members' lives
Health	Minimal, immediately treatable degradation in customers' or staff members' health with recovery within four days
Safety	Safety questioned
Other:	

		Safety/Health
Medium Impact		High Impact
Customers' or staff members' lives are threatened, but they will recover after receiving medical treatment.	Loss of cust	omers' or staff members' lives
Temporary or recoverable impairment of customers' or staff members' health	Permanent i customers' o	mpairment of significant aspects of or staff members' health
Safety affected	Safety viola	ted

Step 1	
Fines/Legal Penalties	
Impact Type	Low Impact
Fines	Fines less than \$_10,000 are levied.
Lawsuits	Non-frivolous lawsuit or lawsuits less than \$_ 20,000 are filed against the organization, or frivolous lawsuit(s) are filed against the organization.
Investigations	No queries from government or other investigative organizations
Other:	

	Fines/Legal Penalties
Medium Impact	High Impact
Fines between \$ <u>10,000</u> and \$ 20,000 are levied.	Fines greater than \$_50,000are levied.
Non-frivolous lawsuit or lawsuits between \$_ 20,000 and \$_ 30,000 are filed against the organization.	Non-frivolous lawsuit or lawsuits greater than \$ 100,000 are filed against the organization.
Government or other investigative organization requests information or records (low-profile).	Government or other investigative organization initiates a high-profile, in-depth investigation into organizational practices.

Step 1	_
Other	
Impact Type	Low Impact
A: Reputation/Cus- tomer confidence	
B: Supplier Confidence	
_{C:} Financial/Legal	
^{D:} Productivity	

		Otl	her
Medium Impact		High Impact	
	å		

3 Asset Identification Worksheet

		Phase 1
		Process S1
		Activity S1.2
Step 2	Identify information-related assets in your organization (information, systems, people).	applications,

Information, Systems, and Applications	
System	Information
What systems do people in your organization need to perform their jobs?	What information do people in your organization need to perform their jobs?
Store Manager Storefront computer	Transaction software use and log Customer contact
Store Associate Storefront computer	Transaction software use
	Customer contact
Warehouse Mgr Warehouse computer	Excel, supplier contact
Owner Storefront computer, warehouse computer	Supplier Contact Transaction software Customer contact Excel program

	Information, Systems, and Applications
Applications and Services	Other Assets
What applications and services do people in your organization need to perform their jobs?	What other assets are closely related to these assets?
transaction software	wifi router, storefront computer
warehouse packing sched excel log	wifi router, warehouse computer
supply delivery	supplier contact
supply payment	supplier contact
order fulfillment	customer contact

Information, Systems, and Applications (cont.)	
System	Information
What systems do people in your organization need to perform their jobs?	What information do people in your organization need to perform their jobs?
excel	warehouse supply supplier info
transaction software	storefront computer customer transaction

	Information, Systems, and Applications (cont.)	
Applications and Services	Other Assets	
What applications and services do people in your organization need to perform their jobs?	What other assets are closely related to these assets?	

People	
People	Skills and Knowledge
Which people have a special skill or knowledge that is vital to your organization and would be difficult to replace?	What are their special skills or knowledge?
Warehouser mgr	supplier delivery packing schedule warehouse inventory
Storefront mgr	Customer preferences Online orders/customers Store inventory
Owner	Employee schedule Employee payment Supplier payment Supplier contracts

	People
Related Systems	Related Assets
Which systems do these people use?	Which other assets do these people use (i.e., information, services, and applications)?
Warehouse mgr	warehouse computer
Storefront mgr	storefront computer
owner	storefront computer warehouse computer personal computer

People (cont.)	
People	Skills and Knowledge
Which people have a special skill or knowledge that is vital to your organization and would be difficult to replace?	What are their special skills or knowledge?

People (cont.)
Related Assets
Which other assets do these people use (i.e., information, services, and applications)?

4 Security Practices Worksheet

		Phase 1
		Process S1
		Activity S1.3
Step 3a	Determine to what extent each practice in the survey is used by the organizatio	n.
Step 3b	As you evaluate each security practice area using the survey from Step 3a, doc detailed examples of	ument
	• what your organization is currently doing well in this area (security pr	ractices)
	• what your organization is currently <i>not</i> doing well in this area (organi vulnerabilities)	zational

Step 4	After completing Steps 3a and 3b, assign a stoplight status (red, green, yellow) to each security practice area. The stoplight status should reflect how well you believe your organization is performing in each area.

1. Security Awareness and Training

Step 3a

Statement		To what extent is this statement reflected in your organization?	
Staff members understand their security roles and responsibilities. This is documented and verified.		Very Much	Somewhat Not At All Don't Know
There is adequate in-house expertise for all supported services, mechanisms, and technologies (e.g., logging, monitoring, or encryption), including their secure operation. This is documented and verified.		Very Much	Somewhat Not At All Don't Know
Security awareness, training, and periodic reminders are provided for all personnel. Staff understanding is documented and conformance is periodically verified.		Very Much	Somewhat Not At All Don't Know
Staff me	embers follow good security practice, such as	Very Much	Somewhat Not At All Don't Know
•	securing information for which they are responsible		
•	not divulging sensitive information to others (resistance to social engineering)		
•	having adequate ability to use information technology hardware and software		
•	using good password practices		
•	understanding and following security policies and regulations		
•	recognizing and reporting incidents		

1. Security Awareness and Training

Step 3b		
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
Employees have personal IDs Transaction software	Only one wifi channel for personal and work devices on router No network defense	Red
Owner has access to all administrative duties	No known storefront security	Tenow
Associates do not have access to employee information	No access controls on storefront/warehouse computers	Green
Managers do not have lateral access to em- ployee information	No security modification to OS/regular patch up- dates	Not Applicable
Not currently open to web application attacks		

2. Security Strategy

Step 3a Statement To what extent is this statement reflected in your organization? Somewhat Not At All The organization's business strategies routinely Very Much Don't Know incorporate security considerations. Somewhat Not At All Don't Know Security strategies and policies take into consideration Very Much the organization's business strategies and goals. Security strategies, goals, and objectives are Very Much Somewhat Not At All Don't Know documented and are routinely reviewed, updated, and communicated to the organization.

		2. Security Strategy
Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	Does not currently have a documented security plan	RedParticular<

3. Security Management

Step 3a	
Statement	To what extent is this statement reflected in your organization?
Management allocates sufficient funds and resources to information security activities.	Very Much Somewhat Not At All Don't Know
Security roles and responsibilities are defined for all staff in the organization.	Very Much Somewhat Not At All Don't Know
All staff at all levels of responsibility implement their assigned roles and responsibility for information security.	Very Much Somewhat Not At All Don't Know
There are documented procedures for authorizing and overseeing all staff (including personnel from third- party organizations) who work with sensitive information or who work in locations where the information resides.	Very Much Somewhat Not At All Don't Know
The organization's hiring and termination practices for staff take information security issues into account.	Very Much Somewhat Not At All Don't Know
 The organization manages information security risks, including assessing risks to information security taking steps to mitigate information security risks 	Very Much Somewhat Not At All Don't Know
Management receives and acts upon routine reports summarizing security-related information (e.g., audits, logs, risk and vulnerability assessments).	Very Much Somewhat Not At All Don't Know

a a b	
3. Security	Management

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No formal security management plan in place	Red
		Yellow
		Green
		Not Applicable

4. Security Policies and Regulations

Step 3a

Statement	To what extent is this statement reflected in your organization?		
The organization has a comprehensive set of documented, current policies that are periodically reviewed and updated.	Very Much Somewhat Not At All Don't Know		
 There is a documented process for management of security policies, including creation administration (including periodic reviews and updates) communication 	Very Much Somewhat Not At All Don't Know		
The organization has a documented process for evaluating and ensuring compliance with information security policies, applicable laws and regulations, and insurance requirements.	Very Much Somewhat Not At All Don't Know		
The organization uniformly enforces its security policies.	Very Much Somewhat Not At All Don't Know		

4. Security Policies and Regulations

	Step 4
What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
Employees can access wifi through their pers- onal devices Employees have not been trained in relevant security behaviours	RedYellow
No known documentation detailing security plan/ management	GreenNot Applicable
	What is your organization currently not doing well in this area? Employees can access wifi through their personal devices Employees have not been trained in relevant security behaviours No known documentation detailing security plan/management

5. Collaborative Security Management

Step 3a			
Statement	To what extent is this statement reflected in your organization?		
The organization has policies and procedures for protecting information when working with external organizations (e.g., third parties, collaborators, subcontractors, or partners), including	Very Much Somewhat Not At All Don't Know		
 protecting information belonging to other organizations 			
• understanding the security polices and procedures of external organizations			
• ending access to information by terminated external personnel			
The organization documents information protection requirements and explicitly communicates them to all appropriate third parties.	Very Much Somewhat Not At All Don't Know		
The organization has formal mechanisms for verifying that all third-party organizations, outsourced security services, mechanisms, and technologies meet its needs and requirements.	Very Much Somewhat Not At All Don't Know		
The organization has policies and procedures for collaborating with all third-party organizations that	Very Much Somewhat Not At All Don't Know		
 provide security awareness and training services 			
• develop security policies for the organization			
 develop contingency plans for the organization 			

5. Collaborative Security Management

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
Warehouse manager does not share private information about suppliers Owner does not share supplier payment info- rmation	No formalized policy for third party information security Computer is not up to date, contains sensitive information Third party software is not vetted for open-source code flaws / no indication software is patched regularly	 Red Yellow Green Not Applicable

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6. Contingency Planning/Disaster Recovery

Step 3a		
Statement	To what extent is this statement reflected in your organization?	
An analysis of operations, applications, and data criticality has been performed.	Very Much Somewhat Not At All Don't Know	
 The organization has documented, reviewed, and tested contingency plan(s) for responding to emergencies disaster recovery plan(s) business continuity or emergency operation plans 	Very Much Somewhat Not At All Don't Know	
The contingency, disaster recovery, and business continuity plans consider physical and electronic access requirements and controls.	Very Much Somewhat Not At All Don't Know	
 All staff are aware of the contingency, disaster recovery, and business continuity plans understand and are able to carry out their responsibilities 	Very Much Somewhat Not At All Don't Know	
6. Contingency Planning/Disaster Recovery

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No current documented contingency plan in place	Red
		Yellow
		🗖 Green
		Not Applicable

7. Physical Access Control

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
Facility security plans and procedures for safeguarding the premises, buildings, and any restricted areas are documented and tested.	Very Much Somewhat Not At All Don't Know
There are documented policies and procedures for managing visitors.	Very Much Somewhat Not At All Don't Know
There are documented policies and procedures for controlling physical access to work areas and hardware (computers, communication devices, etc.) and software media.	Very Much Somewhat Not At All Don't Know
Workstations and other components that allow access to sensitive information are physically safeguarded to prevent unauthorized access.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's requirements for physical access control are formally communicated to all contractors and service providers that control physical access to the building and premises, work areas, IT hardware, and software media.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for physical access control.	Very Much Somewhat Not At All Don't Know

7. Physical Access Control

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
Customers are not allowed in warehouse Employees follow code of behaviour towards customers	If customer snuck into warehouse, devices are unprotected Storefront computer may be viewed accidental disclosure of information	area? Red Yellow Green Not Applicable

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8. Monitoring and Auditing Physical Security

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
Maintenance records are kept to document the repairs and modifications of a facility's physical components.	Very Much Somewhat Not At All Don't Know
An individual's or group's actions, with respect to all physically controlled media, can be accounted for.	Very Much Somewhat Not At All Don't Know
Audit and monitoring records are routinely examined for anomalies, and corrective action is taken as needed.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's requirements for monitoring physical security are formally communicated to all contractors and service providers that monitor physical access to the building and premises, work areas, IT hardware, and software media.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for monitoring physical security.	Very Much Somewhat Not At All Don't Know

8. Monitoring and Auditing Physical Security

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	employees can access personal devices through wifi router No documented main- tenance records in warehouse or storefront No documented audit/ monitoring records for warehouse or storefront	 Red Yellow Green Not Applicable

9. System and Network Management

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
There are documented and tested security plan(s) for safeguarding the systems and networks.	Very Much Somewhat Not At All Don't Know
Sensitive information is protected by secure storage (e.g., backups stored off site, discard process for sensitive information).	Very Much Somewhat Not At All Don't Know
The integrity of installed software is regularly verified.	Very Much Somewhat Not At All Don't Know
All systems are up to date with respect to revisions, patches, and recommendations in security advisories.	Very Much Somewhat Not At All Don't Know
There is a documented and tested data backup plan for backups of both software and data. All staff understand their responsibilities under the backup plans.	Very Much Somewhat Not At All Don't Know
Changes to IT hardware and software are planned, controlled, and documented.	Very Much Somewhat Not At All Don't Know
IT staff members follow procedures when issuing, changing, and terminating users' passwords, accounts, and privileges.	Very Much Somewhat Not At All Don't Know
• Unique user identification is required for all information system users, including third-party users.	
• Default accounts and default passwords have been removed from systems.	
Only necessary services are running on systems – all unnecessary services have been removed.	Very Much Somewhat Not At All Don't Know
Tools and mechanisms for secure system and network administration are used, and are routinely reviewed and updated or replaced.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's security-related system and network management requirements are formally communicated to all contractors and service providers that maintain systems and networks.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for security-related system and network management.	Very Much Somewhat Not At All Don't Know

9. System and Network Management

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
Employees should have a unique username and password to use transaction software	<text></text>	 Red Yellow Green Not Applicable

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10. Monitoring and Auditing IT Security

Step 3a	
Statement	To what extent is this statement reflected in your organization?
<i>If staff from your organization is responsible for this area:</i> System and network monitoring and auditing tools are routinely used by the organization. Unusual activity is dealt with according to the appropriate policy or procedure.	Very Much Somewhat Not At All Don't Know
Firewall and other security components are periodically audited for compliance with policy.	Very Much Somewhat Not At All Don't Know
<i>If staff from a third party is responsible for this area:</i> The organization's requirements for monitoring information technology security are formally communicated to all contractors and service providers that monitor systems and networks.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for monitoring information technology security.	Very Much Somewhat Not At All Don't Know

10. Monitoring and Auditing IT Security

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No reported network protections, i.e. firewall, proxy, VPN	Red
	No record of auditing tools being used on existing systems	Yellow
		Green
		Not Applicable

11. Authentication and Authorization

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
Appropriate access controls and user authentication (e.g., file permissions, network configuration) consistent with policy are used to restrict user access to information, sensitive systems, specific applications and services, and network connections.	Very Much Somewhat Not At All Don't Know
There are documented policies and procedures to establish and terminate the right of access to information for both individuals and groups.	Very Much Somewhat Not At All Don't Know
Methods or mechanisms are provided to ensure that sensitive information has not been accessed, altered, or destroyed in an unauthorized manner. Methods or mechanisms are periodically reviewed and verified.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's requirements for controlling access to systems and information are formally communicated to all contractors and service providers that provide authentication and authorization services.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for authentication and authorization.	Very Much Somewhat Not At All Don't Know

11. Authentication and Authorization

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	<text></text>	Red Yellow Green Not Applicable

12. Vulnerability Management

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
There is a documented set of procedures for managing vulnerabilities, including	Very Much Somewhat Not At All Don't Know
 selecting vulnerability evaluation tools, checklists, and scripts 	
 keeping up to date with known vulnerability types and attack methods 	
 reviewing sources of information on vulnerability announcements, security alerts, and notices 	
 identifying infrastructure components to be evaluated 	
• scheduling of vulnerability evaluations	
 interpreting and responding to the evaluation results 	
 maintaining secure storage and disposition of vulnerability data 	
Vulnerability management procedures are followed and are periodically reviewed and updated.	Very Much Somewhat Not At All Don't Know
Technology vulnerability assessments are performed on a periodic basis, and vulnerabilities are addressed when they are identified.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's vulnerability management requirements are formally communicated to all contractors and service providers that manage technology vulnerabilities.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for vulnerability management.	Very Much Somewhat Not At All Don't Know

12. Vulnerability Management

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No documented vulnerability testing requirements	Red
	ability mitigation plan	Yellow
		 Not Applicable

13. Encryption

Step 3a	
Statement	To what extent is this statement reflected in your organization?
<i>If staff from your organization is responsible for this area:</i> Appropriate security controls are used to protect sensitive information while in storage and during transmission (e.g., data encryption, public key	Very Much Somewhat Not At All Don't Know
Encrypted protocols are used when remotely managing systems, routers, and firewalls.	Very Much Somewhat Not At All Don't Know
<i>If staff from a third party is responsible for this area:</i> The organization's requirements for protecting sensitive information are formally communicated to all contractors and service providers that provide encryption technologies.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for implementing encryption technologies.	Very Much Somewhat Not At All Don't Know

		13. Encryption
Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No evidence of advanced security controls.	Red
		Yellow
		Green
		Not Applicable

14. Security Architecture and Design

Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
System architecture and design for new and revised systems include considerations for	Very Much Somewhat Not At All Don't Know
• security strategies, policies, and procedures	
• history of security compromises	
• results of security risk assessments	
The organization has up-to-date diagrams that show the enterprise-wide security architecture and network topology.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's security-related requirements are formally communicated to all contractors and service providers that design systems and networks.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for security architecture and design.	Very Much Somewhat Not At All Don't Know

14. Security Architecture and Design

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No documented system architecture / network topology	Red
		Yellow
		Green
		Not Applicable

15. Incident Management

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Step 3a	
Statement	To what extent is this statement reflected in your organization?
If staff from your organization is responsible for this area:	
Documented procedures exist for identifying, reporting, and responding to suspected security incidents and violations.	Very Much Somewhat Not At All Don't Know
Incident management procedures are periodically tested, verified, and updated.	Very Much Somewhat Not At All Don't Know
There are documented policies and procedures for working with law enforcement agencies.	Very Much Somewhat Not At All Don't Know
If staff from a third party is responsible for this area:	
The organization's requirements for managing incidents are formally communicated to all contractors and service providers that provide incident management services.	Very Much Somewhat Not At All Don't Know
The organization formally verifies that contractors and service providers have met the requirements for managing incidents.	Very Much Somewhat Not At All Don't Know

15. Incident Managemen

Step 3b		Step 4
What is your organization currently doing well in this area?	What is your organization currently <i>not</i> doing well in this area?	How effectively is your organization implementing the practices in this area?
	No contingency plans for notifying law enfo- rcement / recognizing vulnerability exploitation documented	area? Image: Red Image: Problem state Image

5 Critical Asset Selection Worksheet

Phase 1
Process S2
Activity S2.1

Step 5	į

Review the information-related assets that you identified during Step 2 and select up to five (5) assets that are most critical to the organization.

Step 5	
Questions to Consider:	Which assets would have a large adverse impact on the organization if
	• they are disclosed to unauthorized people?
	• they are modified without authorization?
	• they are lost or destroyed?
	• access to them is interrupted?

	Critical Asset
1.	Supplier information/payment> contact and financial info
2.	Transaction/Tax information> financial information disclosure
3.	Employee information/payment> contact and financial info
4.	Customer information/payment> contact and financial info
5.	Warehouse Inventory> product and delivery info

Critical Asset Selection Worksheet

Notes

2 Critical Asset Information Worksheet for Information

	Process S2 Activity S2 1
Step 6	Start a <i>Critical Asset Information worksheet</i> for each critical asset. Record the name of the critical asset on its <i>Critical Asset Information worksheet</i> .
Step 7	Record your rationale for selecting each critical asset on that asset's <i>Critical Asset</i> <i>Information worksheet</i> .
Step 8	Record a description for each critical asset on that asset's <i>Critical Asset Selection worksheet</i> . Consider who uses each critical asset as well as who is responsible for it.
Step 9	Record assets that are related to each critical asset on that asset's <i>Critical Asset Information worksheet</i> . Refer to the <i>Asset Identification worksheet</i> to determine which assets are related to each critical asset.

Phase 1
Process S2
Activity S2.2

DI---- 1

Step 10	Record the security requirements for each critical asset on that asset's <i>Critical Asset</i> Information worksheet.

Step 11	For each critical asset, record the most important security requirement on that asset's <i>Critical Asset Information worksheet</i> .

Step 6	Step 7	
Critical Asset	Rationale for Selection	
What is the critical information?	Why is this information critical to the organization?	

Step 9

Related Assets	
Which assets are related to this information?	
Systems:	Applications:
Other:	

Step 8	
Description	
Who uses the information?	Who is responsible for the information?

Ste	ep 10		Ste	p 11	
See	Security Requirements What are the security requirements for this information? (Hint: Focus on what the security requirements should be for this information, not what they currently are.)			Most Important Security Requirement Which security requirement is most important for this information?	
Wh (Hi					
	Confidentiality	Only authorized personnel can view		Confidentiality	
		·		Integrity	
	Integrity	Only authorized personnel can modify		Availability	
		·		Other	
	Availability	must be available for personnel to perform their jobs.			
		Unavailability cannot exceed hour(s) per every hours.			
	Other				

3 Risk Profile Worksheet for Information – Human Actors Using Network Access

		Phase 1
		Process S2
		Activity S2.3
Step 12	Complete the threat tree for <i>human actors using network access</i> . Mark e tree for which there is a non-negligible possibility of a threat to the asset	ach branch of each
	If you have difficulty interpreting a threat on the threat tree, review the c examples of that threat in the <i>Threat Translation Guide</i> (see pp. 60-63 o	lescription and f this workbook).
Step 13	Record specific examples of threat actors on the <i>Risk Profile worksheet</i> actor-motive combination.	for each applicable
Step 14	Record the strength of the motive for deliberate threats due to human act how confident you are in your estimate of the strength of the actor's mot	tors. Also record ive.
Step 15	Record how often each threat has occurred in the past. Also record how your data are.	accurate you believe

Step 16	Record areas of concern for each source of threat where appropriate. An area of concern is a scenario defining how specific threats could affect the critical asset.

continued

Risk Profile Worksheet for Information: Network Access

	-	
		Phase 3
		Process S4
		Activity S4.1
Step 22	Using the impact evaluation criteria as a guide, assign an impact value (high, m low) to each active threat.	nedium, or

Phase 3
Process S4
Activity S4.3

Step 24	Using the probability evaluation criteria as a guide, assign a probability value (high, medium, or low) to each active threat. Document your confidence level in your probability estimate.

Phase 3
Process S5
Activity S5

Step 26	Transfer the stoplight status for each security practice area from the <i>Security Practices worksheet</i> to the "Security Practice Areas" section (Step 26) of the following worksheet.

Step 27	Select a mitigation approach (mitigate, defer, accept) for each active risk.
	For each risk that you decided to mitigate, circle one or more security practice areas for
	which you intend to implement mitigation activities.

Risk Profile Worksheet for Information: Network Access

Human Act	tors Using	Network A	Access					Basic	: Risk	Profile
Step 12					Step 2	22				
For which the asset? For which no possibil	branches is th Mark these br of the remain ity of a threat	Thr here a non-ne canches on th ing branches to the asset?	eat egligible possibi e tree. is there a negli O Do not mark th	lity of a threat to gible possibility or tese branches.	Impact Values What is the potential impact on the organization in each applicable area?					
Asset	Access	Actor	Motive	Outcome						
					Reputation	Financial	Productivity	Fines	Safety	Other
				disclosure						
			accidental	modification						
				loss, destruction						
		inside	_	interruption						
	_			disclosure						
			deliberate	modification						
	network	-		loss, destruction						
				interruption						
				disclosure						
			accidental	modification						
				loss, destruction						
		outside		interruption						
				disclosure						
			deliberate	modification						
				loss, destruction						
				interruption						
										<u> </u>

Risk Profile Worksheet for Information: Network Access

Basic I	Risk P	rofil	e											Hu	ıma	n A	ctor	s Us	ing N	etwo	rk A	ccess
Step 24				Step	26															Step	o 27	
Probability How likely is the threat to occur in the future? How confident are you in your estimate?			Wha	Security Practice Areas What is the stoplight status for each security practice area?							Approach What is your approach for addressing each risk?											
Value	Cor	nfiden	ice		5	Strate	egic							Ope	ratio	nal						
	Very	Somewhat	Not At All	1. Sec Training	2. Sec Strategy	3. Sec Mgmt	4. Sec Policy & Reg	5. Coll Sec Mgmt	6. Cont Planning		7. Phys Acc Cntrl	8. Monitor Phys Sec	9. Sys & Net Mgmt	10. Monitor IT Sec	11. Authen & Auth	12. Vul Mgmt	13. Encryption	14. Sec Arch & Des	15. Incident Mgmt	Accept	Defer	Mitigate
										[
										[
										[
										[
										[
										[
										[
										[
										[
										[
										[
										[
										[

Human Act	tors Using	Network	Access		Threat Context
					Step 13
					Threat Actors
					Which actors pose the biggest threats to this information via the network?
				disclosure	Insiders acting accidentally:
			accidental	modification loss, destruction	
		inside		interruption	
_				disclosure	Insiders acting deliberately:
	network		deliberate	modification loss, destruction	
				interruption	
				disclosure	Outsiders acting accidentally:
			accidental	modification loss, destructio	
		outside		interruption	
				disclosure	Outsiders acting deliberately:
			deliberate	modification	
				loss, destructio	<u>n</u>
				interruption	

Threat Context		Human Actors Using Network Access								
Step 14		Step 15								
Mot	ive	History								
How strong is the actor's motive?	How confident are you in this estimate?	How often has this threat occurred in the past?	How accurate are the data?							
High Medium Low	Very Somewhat Not At All		Very Somewhat Not At All							
		times in years								
		times in years								
		times in years								
		times in years								
		times in years times in years times in years times in years								
		times in years								
		times in years								
		times in years								
		times in years								
		times in years								
		times in years								

Step 16

uman Actors Using Network Access	Areas of Concerr
Insiders Using Network Access	
Give examples of how insiders acting accidentally could use network access to threaten this information.	
Give examples of how insiders acting deliberately could use network access to threaten this information.	
Outsiders Using Network Access Give examples of how outsiders acting accidentally could use network access to threaten this information.	
Give examples of how outsiders acting deliberately could use network access to threaten this information.	
Insiders Using Network Access	

Outsiders Using Network Access	

Areas of Concern

4 Risk Profile Worksheet for Information – Human Actors Using Physical Access

		Phase 1
		Process S2
		Activity S2.3
Step 12	Complete the threat tree for <i>human actors using physical access</i> . Mark ea tree for which there is a non-negligible possibility of a threat to the asset.	ch branch of each
	If you have difficulty interpreting a threat on the threat tree, review the de examples of that threat in the <i>Threat Translation Guide</i> (see pp. 64-67 of	scription and this workbook).
Step 13	Record specific examples of threat actors on the <i>Risk Profile worksheet</i> for actor-motive combination.	r each applicable
Step 14	Record the strength of the motive for deliberate threats due to human actor how confident you are in your estimate of the strength of the actor's motive	rs. Also record ve.
Step 15	Record how often each threat has occurred in the past. Also record how ad your data are.	ccurate you believe

Step 16	Record areas of concern for each source of threat where appropriate. An area of concern is a scenario defining how specific threats could affect the critical asset.

continued

Risk Profile Worksheet for Information: Physical Access

Phase 3 Process S4

	Phase 3
	Process S4
_	Activity S4.1
Step 22	Using the impact evaluation criteria as a guide, assign an impact value (high, medium, or low) to each active threat.

	Activity S4.3
Step 24	Using the probability evaluation criteria as a guide, assign a probability value (high, medium, or low) to each active threat. Document your confidence level in your probability estimate.

	Phase 3
	Process S5
	Activity S5.2
Step 26	Transfer the stoplight status for each security practice area from the <i>Security Practices worksheet</i> to the "Security Practice Areas" section (Step 26) of the following worksheet.
Step 27	Select a mitigation approach (mitigate, defer, accept) for each active risk.
	For each risk that you decided to mitigate, circle one or more security practice areas for

which you intend to implement mitigation activities.

Risk Profile Worksheet for Information: Physical Access

Step 12	Human Actors Using	Physical A	Access					Basic	: Risk	Profile
Inpact Values For which branches is there a non-negligible possibility of a threat to the asset? Mark these branches is there a negligible possibility or no possibility of a threat to the asset? Do not mark these branches. What is the potential impact on the organization in each applicable area? Asset Access Actor Motive Outcome disclosure	Step 12				Step 2	22				
Asset Access Actor Motive Outcome unit unit <th>For which branches is th the asset? Mark these bra For which of the remaini no possibility of a threat</th> <th>Thre ere a non-ne anches on the ing branches to the asset?</th> <th>eat gligible possibin e tree. is there a neglig Do not mark th</th> <th>lity of a threat to gible possibility or ese branches.</th> <th>What organ</th> <th>is the p ization</th> <th>Impact otential in each</th> <th>Values impact applica</th> <th>s t on the able are</th> <th>ea?</th>	For which branches is th the asset? Mark these bra For which of the remaini no possibility of a threat	Thre ere a non-ne anches on the ing branches to the asset?	e at gligible possibin e tree. is there a neglig Do not mark th	lity of a threat to gible possibility or ese branches.	What organ	is the p ization	Impact otential in each	Values impact applica	s t on the able are	ea?
inside accidental modification inside inside physical ideliberate modification interruption interruption interruption interruption interruption interruption interruption interruption interruption outside interruption interruption interruption interruption interruption	Asset Access	Actor	Motive	Outcome						
inclassion inclassion <th></th> <th></th> <th></th> <th></th> <th>Reputation</th> <th>Financial</th> <th>Productivity</th> <th>Fines</th> <th>Safety</th> <th>Other</th>					Reputation	Financial	Productivity	Fines	Safety	Other
accidental modification Image: Second S				disclosure						
inside loss, destruction interruption interruption interruption interruption physical deliberate modification interruption physical interruption interruption interruption interruption interruption interruption interruption outside interruption interruption interruption			accidental	modification						
inside interruption Image: Image				loss, destruction						
interruption interruption interruption outside outside interruption interruption		inside		interruption						
physical deliberate modification I <td< td=""><td></td><td></td><td></td><td>disclosure</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>				disclosure						
physical physical loss, destruction lose, destruction lose lose interruption lose lose lose lose lose lose interruption lose lose lose lose lose lose lose interruption lose lose lose lose lose lose lose outside outside lose lose lose lose lose lose lose			deliberate	modification						
interruption Image:	physical			loss, destruction						
accidental modification Image: Construction Image: Construction outside interruption Image: Construction Image: Construction				interruption						
accidental modification Image: Construction outside loss, destruction Image: Construction				disclosure						
loss, destruction Image: Construction outside interruption			accidental	modification						
outside interruption				loss, destruction						
		outside	-	interruption						
				1:1			<u> </u>		<u> </u>	
deliberate modification			deliberate	modification		I	<u> </u>	I	I	
loss, destruction				loss, destruction		<u> </u>	<u> </u>		<u> </u>	
interruption				interruption						

Risk Profile Worksheet for Information: Physical Access

Basic I	Risk Profile			Human Actors Using F	Physical Access
Step 24		Step 26			Step 27
P How like occur in confiden estimate	Probability ely is the threat to the future? How t are you in your ?	S What is the stoplight status j	Security Practico	e e Areas y practice area?	Approach What is your approach for addressing each risk?
Value	Confidence	Strategic		Operational	
	Very Somewhat Not At All	 Sec Training Sec Strategy Sec Mgmt Sec Policy & Reg Coll Sec Mgmt 	 Contratming Phys Acc Cutrl Monitor Phys Sec 	 9. Sys & Net Mgmt 10. Monitor IT Sec 11. Authen & Auth 12. Vul Mgmt 13. Encryption 14. Sec Arch & Des 15. Incident Mgmt 	Accept Defer Mitigate
]				
	 				

Human Ac	tors Using	Physical .	Access		Threat Context
					Step 13
					Threat Actors
					Which actors pose the biggest threats to this information via physical means?
				disclosure	Insiders acting accidentally:
			accidental	modification loss, destruction	
		inside		interruption	
			deliberate	disclosure modification	Insiders acting deliberately:
	physical			loss, destruction interruption	
				disclosure	Outsiders acting accidentally:
			accidental	modification loss, destruction	
		outside		interruption	
			deliberate	disclosure modification	Outsiders acting deliberately:
				loss, destruction interruption	

Threat Context		Human Actors Usi	ng Physical Access
Step 14		Step 15	
Mot	ive	History	
How strong is the actor's motive?	How confident are you in this estimate?	How often has this threat occurred in the past?	How accurate are the data?
High Medium Low	Very Somewhat Not At All		Very Somewhat Not At All
		times in years	
		times inyears times inyears times inyears times inyears	
		times in years	

Step 16

Iuman Actors Using Physical Ac	Areas of Concern
Insiders Using Physical Access	
Give examples of how <i>insiders acting accidentally</i> could use physical access to threaten this information.	
Give examples of how insiders acting deliberately could use physical access to threaten this information.	
Outsiders Using Physical Access]
Give examples of how outsiders acting accidentally could use physical access to threaten this information.	
Give examples of how outsiders acting deliberately could use physical access to threaten this information.	

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Insiders Using Physical Access
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Outsiders Using Physical Access
Outsiders Using Physical Access

Areas of Concern

5 Risk Profile Worksheet for Information – System Problems

		Phase 1
		Process S2
		Activity S2.3
Step 12	Complete the threat tree for <i>system problems</i> . Mark each branch of each tree for is a non-negligible possibility of a threat to the asset.	or which there
	If you have difficulty interpreting a threat on the threat tree, review the descript examples of that threat in the <i>Threat Translation Guide</i> (see pp. 68-71 of this sector).	otion and workbook).
Step 15	Record how often each threat has occurred in the past. Also record how accura your data are.	ite you believe

Step 16	Record areas of concern for each source of threat where appropriate. An area of concern is a scenario defining how specific threats could affect the critical asset.

continued

Risk Profile Worksheet for Information: System Problems

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	Phase 3
	Process S4
	Activity S4.1
Using the impact evaluation criteria as a guide, assign an impact value (high, n low) to each active threat.	nedium, or

Phase 3
Process S4
Activity S4.3

Step 24	Using the probability evaluation criteria as a guide, assign a probability value (high, medium, or low) to each active threat. Document your confidence level in your probability estimate.

	Phas	se 3
	Proc	tess S5
	Acti	vity S5.2
Step 26	Transfer the stoplight status for each security practice area from the <i>Security Practic worksheet</i> to the "Security Practice Areas" section (Step 26) of the following worksh	es heet.
Step 27	Select a mitigation approach (mitigate, defer, accept) for each active risk.	
-	For each risk that you decided to mitigate, circle one or more security practice areas which you intend to implement mitigation activities.	for

Step 22

Risk Profile Worksheet for Information: System Problems

stem Problem	IS					Basio	: Risk	Profi
ep 12			Step	22				
For which branc the asset? Mark For which of the no possibility of	What orgar	is the p vization	Impact otentia in each	t Value l impac 1 applic	s t on the able ar	ea?		
Asset	Actor	Outcome						
			Reputation	Financial	Productivity	Fines	Safety	Other
		disclosure						
	software defects	modification	_					
		loss, destruction						
		interruption	_					
		disclosure						
	system crashes	modification						
		loss, destruction						
_		interruption						
		disclosure						
	hardware defects	modification						
		loss, destruction						
		interruption						
		disclosure						
	malicious code	modification						
	(virus, worm, Trojan horse, back door)	loss, destruction						
		interruption						

Risk Profile Worksheet for Information: System Problems

Basic I	Risk P	Profil	e																Sy	stem l	Probl	ems
Step 24				Step	26															Step	27	
P How like	robabi	lity a three	at to	1171.					Se	curit	y Pra	ctice	Area	as						A	pproa	ch
occur in confiden estimate	the futi the futi t are yo ?	e inree ure? H ou in y	low our	wna	t is th	ie stoj	pugn	t stati	us jo	r eac	n seci	irity j	praci	nce a	rea?					appi addi each	a is you roach f ressing n risk?	for '
Value	Cor	nfider	ice		5	Strate	egic							Ope	ratio	nal						
	Very	Somewhat	Not At All	1. Sec Training	2. Sec Strategy	3. Sec Mgmt	4. Sec Policy & Reg	5. Coll Sec Mgmt	6. Cont Planning		7. Phys Acc Cntrl	8. Monitor Phys Sec	9. Sys & Net Mgmt	10. Monitor IT Sec	11. Authen & Auth	12. Vul Mgmt	13. Encryption	14. Sec Arch & Des	15. Incident Mgmt	Accept	Defer	Mitigate
							-															ב
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System Problem	ms			Threat Context
			Step 15	
			History	
			How often has this threat occurred in the past?	How accurate are the data?
				Very Somewhat Not At All
		disclosure	times in years	
	software defects	modification	times in years	
		loss, destruction	times in years	
		interruption	times in years	
		disclosure	times in years	
	system crashes	modification	times in years	
		loss, destruction	times in years	
		interruption	times in years	
		disclosure	times in years	
	hardware defects	modification	times in years	
		loss, destruction	times in years	
		interruption	times in years	
		disclosure	times in years	
	malicious code	modification	times in years	
	horse, back door)	loss, destruction	times in years	
		interruption	times in years	

Risk Profile Worksheet for Information: System Problems

Threat Context	System Problems
Notes	
What additional notes about each threat do you want to r	record?

Step 16	
System Problems	Areas of Concern
Software Defects	
Give examples of how <i>software defects</i> could threaten this information.	
System Crashes	
Give examples of how <i>system crashes</i> could threaten this information.	
Hardware Defects	
Give examples of how <i>hardware defects</i> could threaten this information.	
Malicious Code	
Give examples of how malicious code could threaten this information. (Consider viruses, worms, Trojan horses, back doors, others)	

Software Defects
System Crashes
Hardware Defects
 Malicious Code

Areas of Concern

6 Risk Profile Worksheet for Information – Other Problems

	Phase 1
	Process S2
	Activity S2.3
Step 12	Complete the threat tree for <i>other problems</i> . Mark each branch of each tree for which there is a non-negligible possibility of a threat to the asset.
	If you have difficulty interpreting a threat on the threat tree, review the description and examples of that threat in the <i>Threat Translation Guide</i> (see pp. 72-77 of this workbook).
Step 15	Record how often each threat has occurred in the past. Also record how accurate you believe your data are.
Sten 16	Record areas of concern for each source of threat where appropriate. An area of concern is a

Step 16	Record areas of concern for each source of threat where appropriate. An area of concern is a scenario defining how specific threats could affect the critical asset.

continued

Phase 3 Process S4

	Phase 3
	Process S4
_	Activity S4.1
Step 22	Using the impact evaluation criteria as a guide, assign an impact value (high, medium, or low) to each active threat.
,	

	Activity S4.3
Step 24	Using the probability evaluation criteria as a guide, assign a probability value (high, medium, or low) to each active threat. Document your confidence level in your probability estimate.

	Phase 3
	Process S5
	Activity S5.2
Step 26	Transfer the stoplight status for each security practice area from the <i>Security Practices worksheet</i> to the "Security Practice Areas" section (Step 26) of the following worksheet.
Step 27	Select a mitigation approach (mitigate, defer, accept) for each active risk.
	For each risk that you decided to mitigate, circle one or more security practice areas for

which you intend to implement mitigation activities.

Risk Profile Worksheet for Information: Other

Threat a non-negligible possib es on the tree. ranches is there a negl e asset? Do not mark t ctor	ility of a threat to igible possibility or hese branches. Outcome	Step 2 What organ	2 is the po ization	Impact otential in each	Values impact applice	s on the able are	ea?
Threat a non-negligible possib es on the tree. ranches is there a negl e asset? Do not mark t ctor	ility of a threat to igible possibility or hese branches. Outcome	What i organ] is the po ization	Impact otential in each	Values impact applica	on the able are	ea?
ctor	Outcome						
		Reputation	Financial	Productivity	Fines	Safety	Other
	disclosure						
ower supply	modification						
oblems	loss, destruction						
	interruption						
	disclosure						
lecommunications	modification						
oblems or navailability	loss, destruction						
	interruption						
	disclosure						
ird-party problems	modification						
unavailability of ird-party systems	loss, destruction						
	interruption						
	disclosure						
tural disasters	modification						
.g., flood, fire,	loss, destruction						
(mado)							
	lecommunications oblems or navailability ird-party problems unavailability of ird-party systems tural disasters .g., flood, fire, rnado)	lecommunications modification roblems or loss, destruction havailability loss, destruction interruption disclosure ird-party problems modification runavailability of loss, destruction interruption loss, destruction interruption disclosure disclosure modification unavailability of loss, destruction interruption disclosure disclosure modification g., flood, fire, modification nado) loss, destruction	lecommunications modification oblems or havailability loss, destruction interruption disclosure disclosure modification unavailability of ird-party systems loss, destruction interruption disclosure disclosure disclosure loss, destruction interruption disclosure discl	lecommunications modification roblems or loss, destruction havailability loss, destruction interruption interruption ird-party problems modification · unavailability of ird-party systems loss, destruction · unavailability of interruption interruption interuption interruption <	lecommunications modification oblems or loss, destruction havailability loss, destruction interruption	lecommunications modification oblems or havailability loss, destruction interruption disclosure disclosure unavailability of ird-party problems modification unavailability of ird-party systems disclosure disclosure disclosure disclosure loss, destruction interruption disclosure loss, destruction interruption loss, destruction loss, destruction disclosure disclosur	lecommunications modification Image: state in the image: state in

Basic F	Risk Profile		0	ther Problems
Step 24		Step 26		Step 27
P How like occur in confident estimate	robability ly is the threat to the future? How t are you in your ?	Secu What is the stoplight status for e	rity Practice Areas each security practice area?	Approach What is your approach for addressing each risk?
Value	Confidence	Strategic	Operational	
	Image: Constraint of the second se	1. Sec Training 2. Sec Strategy 3. Sec Mgmt 4. Sec Policy & Reg 5. Coll Sec Mgmt 6. Cont Planning	7. Phys Acc Cutrl 8. Monitor Phys Sec 9. Sys & Net Mgmt 10. Monitor IT Sec 11. Authen & Auth 12. Vul Mgmt 13. Encryption 14. Sec Arch & Des 15. Incident Mgmt	C C Accept C C Defer O C Difigate

Other Problem	15			Thr	eat C	Context
			Step 15			
			History			
			How often has this threat occurred in the past?	<i>How are t</i>	accur he dat	rate ta?
				Very	Somewhat	Not At All
		disclosure	times in years			
	power supply	modification	times in years			
	problems	loss, destruction	times in years			
		interruption	times in years			
	telecommunications	disclosure	times inyears			
	problems or	loss destruction	times in years			
	unavailability	interruption	times in years			
		disclosure	times in years			
	third-party problems	modification	times in years			
	or unavailability of third-party systems	loss, destruction	times in years			
		interruption	times in years			
		disclosure	times in years			
	natural disasters	modification	times in years			
	(e.g., flood, fire, tornado)	loss, destruction	times in years			
		interruption	times in years			

Threat Context	Other Problems
Notes	
What additional notes about each threat do you want to	record?

step 16	
Other Problems	Areas of Concern
Power Supply Problems	
Give examples of how <i>power</i> <i>supply problems</i> could threaten this information.	
Telecommunications Problem	
Give examples of how <i>telecommunications problems</i> could threaten this information.	
Third-Party Problems	
Give examples of how <i>third-</i> <i>party problems</i> could threaten this information.	
Natural Disasters	
Give examples of how <i>natural disasters</i> could threaten this information.	

Power Supply Problems	
Telecommunications Problems	
Thind Donty Duchlong	
Third-Farty Froblems	
Natural Disasters	

Areas of Concern

Other Problems (Other Problems (cont.)					Basic	: Risk	Profile
Step 12			Step	22				
For which branches the asset? Mark the For which of the ren no possibility of a th	Threat For which branches is there a non-negligible possibility of a threat to the asset? Mark these branches on the tree. For which of the remaining branches is there a negligible possibility or no possibility of a threat to the asset? Do not mark these branches.			is the p ization	Impact otential in each	t Value s l impact applica	s t on the able ar	ea?
Asset	Actor	Outcome						
			Reputation	Financial	Productivity	Fines	Safety	Other
		disclosure						
	physical configuration	modification						
	or arrangement of buildings, offices, or	loss, destruction						
	equipment	interruption						
		disclosure						
		modification						
		loss, destruction						
		interruption						
		disclosure						
		modification						
		loss, destruction						
		interruption						
				11		11	1	
		disclosure						
	<u> </u>	modification		1		1		<u> </u>
		loss, destruction					l	
		interruption						

Basic Risk Profile								Other Problems (cont.)											
Step 24			Step	26														Ste	o 27
Probability How likely is the threat to occur in the future? How confident are you in your estimate?			Security Practice What is the stoplight status for each security						e Areas practice area?					A Who app add eaci	pproach at is your roach for ressing h risk?				
Value Confidence		Strategic						Operational											
	Very Somewhat	Not At All	1. Sec Training	2. Sec Strategy	3. Sec Mgmt	4. Sec Policy & Reg	5. Coll Sec Mgmt	6. Cont Planning	7. Phys Acc Cntrl	8. Monitor Phys Sec	9. Sys & Net Mgmt	10. Monitor IT Sec	11. Authen & Auth	12. Vul Mgmt	13. Encryption	14. Sec Arch & Des	15. Incident Mgmt	Accept	Defer Mitigate

Other Problems (cont.)			Threat Context
	\$	Step 15	
		History	
		How often has this threat occurred in the past?	How accurate are the data?
			Very Somewhat Not At All
	disclosure	times in years	
physical configuration	modification	times in years	
or arrangement of buildings, offices, or	loss, destruction	times in years	
equipment	interruption	times in years	
	disclosure	times in years	
	modification	times in years	
	loss, destruction	times in years	
	interruption	times in years	
	disclosure	times in years	
	modification	times in years	
	loss, destruction	times in years	
	interruption	times in years	
	disclosure	times in years	
	modification	times in years	
	loss, destruction	times in years	
	interruption	times in years	

Context	Other Problems
Notes	
What additional notes about each threat d	o you want to record?

Step	16	

Other Problems (cont.)	Areas of Concern
Physical Configuration Prob	ems
Give examples of how physical configuration of buildings, offices, or equipment could threaten this information.	
Give examples of how	
could threaten this information.	
Give examples of how	
could threaten this	
could threaten this information.	
Physical Configuration Problems	

Areas of Concern

7 Network Access Paths Worksheet

	Phase 2
	Process S3 Activity S3.
Step 17	Select the system of interest for each critical asset (i.e., the system most closely related to the critical asset).
Step 18a	Review paths used to access each critical asset, and select key classes of components relate to each critical asset.
	Determine which classes of components are part of the system of interest.
Step 18b	Determine which classes of components serve as intermediate access points (i.e., which components are used to transmit information and applications from the system of interest to people).
Step 18c	Determine which classes of components, both internal and external to the organization's networks, are used by people (e.g., users, attackers) to access the system.
Step 18d	Determine where information from the system of interest is stored for backup purposes.
Sten 18e	Determine which other systems access information or applications from the system of

Step 18e	Determine which other systems access information or applications from the system of interest and which other classes of components can be used to access critical information or services from the system of interest.

Step 17



Note: When you select a key class of components, make sure that you also document any relevant subclasses or specific examples when appropriate.



8 Threat Translation Guide

Phase 1
Process S2
Activity S2.3

Threat Translation Guide	The <i>Threat Translation Guide</i> describes each branch of an asset-based threat tree. If you have difficulty understanding the types of threats represented by a branch, you can use this guide to decipher the meaning of that branch.	
	You will find asset-based threat trees for the fo	ollowing sources of threat:
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Description	Example
A staff member without malicious intent who has legitimate access to the computing infrastructure accidentally views confidential information on an important system.	Incorrect file permissions enable a staff member to accidentally access a restricted personnel database.
A staff member without malicious intent who has legitimate access to the computing infrastructure accidentally modifies information on an important system.	A staff member accidentally enters incorrect financial data into a customer database.
A staff member without malicious intent who has legitimate access to the computing infrastructure accidentally loses or destroys information on an important system.	A staff member deletes an important customer file by mistake.
A staff member without malicious intent who has legitimate access to the computing infrastructure accidentally interrupts access to an important system.	A staff member who is not computer savvy inadvertently crashes an important system.
A staff member with malicious intent who has legitimate access to the computing infrastructure exploits that access to deliberately view confidential information on an important system.	A staff member uses access to a restricted personnel database to deliberately view information in that database that is restricted by policy.
A staff member with malicious intent who has legitimate access to the computing infrastructure exploits that access to deliberately modify information on an important system.	A staff member responsible for data entry deliberately enters incorrect customer information into a database.
A staff member with malicious intent who has legitimate access to the computing infrastructure exploits that access to deliberately lose or destroy information on an important system.	A staff member with access to design documents for a new product deliberately deletes the files that contain those design documents.
A staff member with malicious intent who has legitimate access to the computing infrastructure exploits that access to deliberately interrupt access to an important system.	A staff member uses legitimate access to the computing infrastructure to launch a denial-of-service attack on an important system.



Description	Example
An outsider without malicious intent gains access to your computing infrastructure (legitimately or by accident) and views confidential data on a system.	Temporary employees are given access to your computing infrastructure to help with an increased workload. While performing their job duties, one of them accidentally views confidential personnel data.
An outsider without malicious intent gains access to your computing infrastructure (legitimately or by accident) and accidentally modifies information on a system.	Temporary employees are given access to your computing infrastructure to help with an increased workload. While performing their job duties, one of them accidentally modifies important customer data.
An outsider without malicious intent gains access to your computing infrastructure (legitimately or by accident) and loses or destroys information on a system.	Temporary employees are given access to your computing infrastructure to help with an increased workload. While performing their job duties, one of them accidentally loses or destroys financial data.
An outsider without malicious intent gains access to your computing infrastructure (legitimately or by accident) and accidentally interrupts access to a system.	Temporary employees are given access to your computing infrastructure to help with an increased workload. While performing their job duties, one of them accidentally crashes an important system.
An attacker with malicious intent deliberately exploits vulnerabilities in the computing infrastructure to view confidential information.	A corporate spy exploits vulnerabilities in the computing infrastructure to gain unauthorized access to a key business system. The spy uses that access to view confidential customer information on the system.
An attacker with malicious intent deliberately exploits vulnerabilities in the computing infrastructure to modify information.	A corporate spy exploits vulnerabilities in the computing infrastructure to gain unauthorized access to a key business system. The spy uses that access to modify financial data on the system.
An attacker with malicious intent deliberately exploits vulnerabilities in the computing infrastructure to lose or destroy information.	A corporate spy exploits vulnerabilities in the computing infrastructure to gain unauthorized access to a key business system. The spy uses that access to lose or destroy a new product design on the system.
An attacker with malicious intent deliberately exploits vulnerabilities in the computing infrastructure to interrupt access to a system.	A corporate spy exploits vulnerabilities in the computing infrastructure to gain unauthorized access to an airline's scheduling system. The spy uses that access to crash the system and prevent real-time updates.



Description	Example
A staff member without malicious intent accidentally views confidential information after gaining physical access to a system, one of its components, or a physical copy of the information.	A staff member accidentally sees confidential information on (1) a colleague's computer screen or (2) a printout on a colleague's desk.
A staff member without malicious intent accidentally	A staff member modifies information by (1) accidentally
modifies information after gaining physical access to a	altering information on a colleague's computer while using
system, one of its components, or a physical copy of the	it for another purpose or (2) accidentally taking a page of a
information.	printout on a colleague's desk.
A staff member without malicious intent accidentally loses	A staff member loses or destroys information by (1)
or destroys information after gaining physical access to a	accidentally deleting information from a colleague's
system, one of its components, or a physical copy of the	computer while using it or (2) shredding a paper
information.	accidentally taken from a colleague's desk.
A staff member without malicious intent interrupts access to a system or information by accidentally using physical access to a system, one of its components, or a physical copy of the information to prevent others from accessing the system or information.	A staff member interrupts access to a system by (1) accidentally crashing the system while accessing it from a colleague's computer or (2) locking the keys inside an office where a physical file is stored.
A staff member with malicious intent deliberately views	A staff member uses unauthorized access to a physically
confidential information by breeching physical security and	restricted area of the building to deliberately (1) view
accessing components of the computing infrastructure or a	confidential information on a computer or (2) read a
physical copy of the information.	confidential memo lying on a desk.
A staff member with malicious intent deliberately modifies	A staff member uses unauthorized access to a physically
information by breeching physical security and accessing	restricted area of the building to deliberately (1) modify
components of the computing infrastructure or a physical	information on a computer or (2) modify a physical file
copy of the information.	lying on a desk.
A staff member with malicious intent deliberately loses or	A staff member uses unauthorized access to a physically
destroys information by breeching physical security and	restricted area of the building to deliberately (1) delete
accessing components of the computing infrastructure or a	information on a computer or (2) destroy a physical file
physical copy of the information.	lying on a desk.
A staff member with malicious intent deliberately interrupts access to an important system or information by breeching physical security to a system, one of its components, or a physical copy of the information and using that physical access to prevent others from accessing the system or information.	A staff member uses unauthorized access to a physically restricted area of the building to (1) gain access to and then deliberately crash an important business system or (2) jam the door and prevent others from physically accessing the systems and information located in that area of the building.



An outsider without malicious intent gains physical access to your computing infrastructure or a physical copy of information and uses that access to view confidential information accidentally.	Example A consultant is given access to a staff member's office and accidentally sees confidential information on (1) a staff member's computer screen or (2) a printout on a staff member's desk.
An outsider without malicious intent gains physical access to your computing infrastructure or a physical copy of information and uses that access to modify information accidentally.	A consultant is given access to the computer room and (1) accidentally makes the wrong change to a configuration file on a server or (2) accidentally records the wrong information in a maintenance log.
An outsider without malicious intent gains physical access to your computing infrastructure or a physical copy of information and uses that access to lose or destroy information accidentally.	A consultant configuring one of your servers is given access to the computer room and accidentally (1) destroys an important electronic file or (2) throws away an important piece of system documentation.
An outsider without malicious intent gains physical access to your computing infrastructure or a physical copy of information and uses that access to accidentally prevent others from accessing the information.	A consultant configuring one of your servers is given access to the computer room and accidentally (1) crashes a system while accessing it or (2) locks the keys to the computer room inside it after he or she leaves.
An attacker with malicious intent deliberately views confidential information by breeching physical security and accessing components of the computing infrastructure or a physical copy of the information.	A corporate spy poses as a member of the cleaning crew to gain unauthorized physical access to a competitor's site and view confidential information either (1) on a key business system or (2) in a physical file.
An attacker with malicious intent deliberately modifies information by breeching physical security and accessing components of the computing infrastructure or a physical copy of the information.	A corporate spy poses as a member of the cleaning crew to gain unauthorized physical access to a competitor's site and modify financial information either (1) on a key business system or (2) in a physical file.
An attacker with malicious intent deliberately loses or destroys information by breeching physical security and accessing components of the computing infrastructure or a physical copy of the information.	A corporate spy poses as a member of the cleaning crew to gain unauthorized physical access to a competitor's site and destroy customer information either (1) on a key business system or (2) in a physical file.
An attacker with malicious intent deliberately interrupts access to an important system or information by breeching physical security to a system, one of its components, or a physical copy of the information and by using that physical access to prevent others from accessing the system or information.	A corporate spy poses as a member of the cleaning crew to gain unauthorized physical access to a competitor's site and (1) deliberately crashes an important business system or (2) jams the door to prevent others from physically accessing the systems and information located in an area of the building.



Description	Example*
A software defect results in disclosure of information to unauthorized parties.	A defect in a computer's operating system changes file access permissions to permit world read and write permissions on certain files and directories.
A software defect results in modification of information on a system.	A custom software application incorrectly performs mathematical operations on data, affecting the integrity of the results.
A software defect results in the loss or destruction of information on a system.	A word processing application is known to crash computers periodically because of a problem with a specific command sequence, destroying any information that was not saved.
A software defect results in a system crash, preventing access to the system.	A word processing application is known to crash computers periodically because of a problem with a specific command sequence, preventing access to that computer.
A system crashes for unknown reasons (i.e., it cannot be traced to a software defect, hardware defect, malicious code, or actions by people), resulting in disclosure of information to unauthorized parties.	
A system crashes for unknown reasons (i.e., it cannot be traced to a software defect, hardware defect, malicious code, or actions by people), resulting in modification of information on that system.	A system crashes during a lengthy update of a financial database, corrupting the information in the database.
A system crashes for unknown reasons (i.e., it cannot be traced to a software defect, hardware defect, malicious code, or actions by people), resulting in the loss or destruction of information on that system.	A customer database system frequently crashes, destroying any information that was not saved at the time of the crash.
A system crashes for unknown reasons (i.e., it cannot be traced to a software defect, hardware defect, malicious code, or actions by people), resulting in interruption of access to that output	An email server crashes, resulting in interruption of user access to email.



Description	Example*
A hardware defect results in disclosure of information to unauthorized parties.	
A hardware defect results in modification of information on a system.	A disk drive develops a hardware problem that affects the integrity of a database that is stored on the disk.
A hardware defect results in the loss or destruction of information on a system.	A disk drive develops a hardware problem that ends up destroying the information on the disk. Files can be retrieved only from backups.
A hardware defect results in a system crash, preventing access to the system.	A disk drive develops a hardware problem, preventing access to any information on the disk until the problem is corrected.
A system is affected by malicious code (virus, worm, Trojan horse, back door) that enables unauthorized parties to view information.	A back door on a system enables unauthorized people to access the system and view customer credit card information on that system.
A system is affected by malicious code (virus, worm, Trojan horse, back door) that modifies information on that system.	A system is infected with a virus that modifies a process control application on the computer's disk drive.
A system is affected by malicious code (virus, worm, Trojan horse, back door) that deletes information on that system.	A system is infected with a virus that deletes all information on the computer's disk drive.
A system is affected by malicious code (virus, worm, Trojan horse, back door) that results in the system crashing.	A system is infected with a virus that is spread via email, slowing network traffic and creating a denial-of-services attack.



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Description	Example*
Problems with the power supply lead to disclosure of information to unauthorized parties.	
Problems with the power supply lead to modification of information on a system.	
Problems with the power supply lead to loss or destruction of information on a system.	A power outage results in loss of any information that was not saved at the time of the outage.
Problems with the power supply lead to interruption of access to a system.	A power outage prevents access to all key business systems
Unavailability of telecommunications services leads to disclosure of information to unauthorized parties.	
Unavailability of telecommunications services leads to modification of information on a system.	
Unavailability of telecommunications services leads to loss or destruction of information on a system.	
	The unavailability of the telecommunications link prevents



Description	Example*		
Problems with services provided by third parties (e.g., maintenance of systems) lead to disclosure of information to unauthorized parties.	A staff member from a third-party service provider views confidential information on a key business system that is maintained by that service provider.		
Problems with services provided by third parties (e.g., maintenance of systems) lead to modification of information on a system.	Problems at a third-party service provider lead to the modification of information on a key business system located at that provider's site and maintained by the provider.		
Problems with services provided by third parties (e.g., maintenance of systems) lead to loss or destruction of information on a system.	Problems at a third-party service provider lead to the destruction of information on a key business system located at that provider's site and maintained by the provider.		
Problems with services provided by third parties (e.g., maintenance of systems) lead to interruption of access to a system.	A system maintained by a third-party service provider and located at the provider's site is unavailable due to problems created by that provider's staff.		
Natural disasters (e.g., flood, fire, tornado) lead to disclosure of information to unauthorized parties.	People at the site of a tornado see confidential memos that are dispersed among the debris.		
Natural disasters (e.g., flood, fire, tornado) lead to modification of information.			
Natural disasters (e.g., flood, fire, tornado) lead to loss or destruction of information.	The flooding of a basement area destroys paper records that are stored there.		
Natural disasters (e.g., flood, fire, tornado) lead to interruption of access to a system.	The flooding of a computer room in the basement of a building prevents access to systems in that room.		



Threat Translation Guide

Example*
The layout of an office workspace enables anyone in the area to view customer credit card information displayed on computer screens.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188				
Public reporting burden for this collection of information is estimated to average 1 hour 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, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washinaton. DC 20503.								
1.	AGENCY USE ONLY	2. REPORT DATE		3. REPORT	TYPE AND DATES COVERED			
	(Leave Blank)	January 2005		Final				
4.	TITLE AND SUBTITLE	·		5. FUNDING NUMBERS				
	OCTAVE-S Implementation Guide, Version 1.0, Volume 5			F1962	8-00-C-0003			
6.	. AUTHOR(S)							
	Christopher Alberts, A	udrey Dorofee, James Stevens,	Carol Woody					
7.	 PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Software Engineering Institute Carnegie Mellon University Pittsburgh, PA 15213 			8. PERFORM	VING ORGANIZATION			
				CIVIU/3	DEI-2003-ND-003			
9.	SPONSORING/MONITORING AG	GENCY NAME(S) AND ADDRESS(ES)		10. SPONSO	RING/MONITORING AGENCY			
	HQ ESC/XPK			REPORT	NUMBER			
	5 Eglin Street	701 0116						
11		/31-2110						
11. SUPPLEMENTARY NOTES								
12A	DISTRIBUTION/AVAILABILITY S	STATEMENT		12B DISTRIBUTION CODE				
	Unclassified/Unlimited, DTIC, NTIS							
13.	13. ABSTRACT (MAXIMUM 200 WORDS)							
	The Operationally Criti	ical Threat, Asset, and Vulnerab	ility Evaluation ^s ™	(OCTAVE®)	approach defines a risk-			
	based strategic assess	sment and planning technique fo	or security. OCTA	VE is a self-o	directed approach,			
	meaning that people fr	rom an organization assume res	ponsibility for sett	ing the organ	nization's security			
	strategy. OCTAVE-S is	s a variation of the approach tail		i means and	unique constraints			
	typically found in small organizations (less than 100 people). OUTAVE-5 is led by a small, interdisciplinary							
	protection strategy and	d mitigation plans based on the	organization's unio	nue operatio	nal security risks. To			
	conduct OCTAVE-S effectively, the team must have broad knowledge of the organization's business and							
	security processes, so	it will be able to conduct all acti	vities by itself.	0				
14.	4. SUBJECT TERMS 15. NUMBER OF PAGES							
	information security, risk management, OCTAVE			78				
16.	PRICE CODE							
17.	SECURITY CLASSIFICATION	18. SECURITY CLASSIFICATION OF	19. SECURITY CLASSIFICATION OF 20. LIMITATION OF ABSTRACT		20. LIMITATION OF ABSTRACT			
	OF REPORT	THIS PAGE	ABSTRACT		UL			
	Unclassified	Unclassified	Unclassified					

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. Z39-18 298-102