

# CHAPTER 4 COBIT GOVERNANCE AND MANAGEMENT OBJECTIVES—DETAILED GUIDANCE

Domain: Deliver, Service and Support		Focus Area: COBIT Core Model
Management Objective: DSS02 - Managed Service Requests and Incidents		
<b>Description</b>		
Provide timely and effective response to user requests and resolution of all types of incidents. Restore normal service; record and fulfil user requests; and record, investigate, diagnose, escalate and resolve incidents.		
<b>Purpose</b>		
Achieve increased productivity and minimize disruptions through quick resolution of user queries and incidents. Assess the impact of changes and deal with service incidents. Resolve user requests and restore service in response to incidents.		
The management objective supports the achievement of a set of primary enterprise and alignment goals:		
<b>Enterprise Goals</b>	➡	<b>Alignment Goals</b>
<ul style="list-style-type: none"> <li>EG01 Portfolio of competitive products and services</li> <li>EG08 Optimization of internal business process functionality</li> </ul>		AG05 Delivery of I&T services in line with business requirements
<b>Example Metrics for Enterprise Goals</b>		<b>Example Metrics for Alignment Goals</b>
EG01 <ul style="list-style-type: none"> <li>a. Percent of products and services that meet or exceed targets in revenues and/or market share</li> <li>b. Percent of products and services that meet or exceed customer satisfaction targets</li> <li>c. Percent of products and services that provide competitive advantage</li> <li>d. Time to market for new products and services</li> </ul>		AG05 <ul style="list-style-type: none"> <li>a. Percent of business stakeholders satisfied that I&amp;T service delivery meets agreed service levels</li> <li>b. Number of business disruptions due to I&amp;T service incidents</li> <li>c. Percent of users satisfied with the quality of I&amp;T service delivery</li> </ul>
EG08 <ul style="list-style-type: none"> <li>a. Satisfaction levels of board and executive management with business process capabilities</li> <li>b. Satisfaction levels of customers with service delivery capabilities</li> <li>c. Satisfaction levels of suppliers with supply chain capabilities</li> </ul>		

  

A. Component: Process	
Management Practice	Example Metrics
<b>DSS02.01 Define classification schemes for incidents and service requests.</b> Define classification schemes and models for incidents and service requests.	a. Total number of service requests and incidents per priority level b. Total number of incidents escalated
Activities	Capability Level
1. Define incident and service request classification and prioritization schemes, and criteria for problem registration. Use this information to ensure consistent approaches for handling and informing users about problems and conducting trend analysis.	3
2. Define incident models for known errors to enable efficient and effective resolution.	
3. Define service request models according to service request type to enable self-help and efficient service for standard requests.	
4. Define incident escalation rules and procedures, especially for major incidents and security incidents.	
5. Define knowledge sources on incidents and requests and describe how to use them.	
Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
CMMI Cybermaturity Platform, 2018	IA.IP Implement Incident Investigation Processes
HITRUST CSF version 9, September 2017	11.01 Reporting Information Security Incidents and Weaknesses
ISF, The Standard of Good Practice for Information Security 2016	TM2 Security Incident Management
ISO/IEC 20000-1:2011(E)	8.1 Incident and service request management
ISO/IEC 27002:2013/Cor.2:2015(E)	16. Information security incident management

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A. Component: Process (cont.)		
Management Practice		Example Metrics
DSS02.02 Record, classify and prioritize requests and incidents. Identify, record and classify service requests and incidents and assign a priority according to business criticality and service agreements.		a. Number of types and categories defined for recording service requests and incidents b. Number of service requests and incidents that are not categorized
Activities		Capability Level
1. Log all service requests and incidents, recording all relevant information, so they can be handled effectively and a full historical record can be maintained.		2
2. To enable trend analysis, classify service requests and incidents by identifying type and category.		
3. Prioritize service requests and incidents based on the SLA service definition of business impact and urgency.		
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference
No related guidance for this management practice		
Management Practice		Example Metrics
DSS02.03 Verify, approve and fulfill service requests. Select the appropriate request procedures and verify that the service requests fulfill defined request criteria. Obtain approval, if required, and fulfill the requests.		a. Mean elapsed time for handling each type of service request b. Percent of service requests that fulfill defined request criteria
Activities		Capability Level
1. Verify entitlement for service requests using, where possible, a predefined process flow and standard changes.		2
2. Obtain financial and functional approval or sign-off, if required, or predefined approvals for agreed standard changes.		
3. Fulfill the requests by performing the selected request procedure. Where possible, use self-help automated menus and predefined request models for frequently requested items.		3
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference
ITIL V3, 2011		Service Operation, 4.3 Request Fulfilment
Management Practice		Example Metrics
DSS02.04 Investigate, diagnose and allocate incidents. Identify and record incident symptoms, determine possible causes, and allocate for resolution.		a. Number of identified and recorded incident symptoms b. Number of correctly determined symptom causes c. Number of duplicate problems in the reference log
Activities		Capability Level
1. Identify and describe relevant symptoms to establish the most probable causes of the incidents. Reference available knowledge resources (including known errors and problems) to identify possible incident resolutions (temporary workarounds and/or permanent solutions).		2
2. If a related problem or known error does not already exist and if the incident satisfies agreed criteria for problem registration, log a new problem.		
3. Assign incidents to specialist functions if deeper expertise is needed. Engage the appropriate level of management, where and if needed.		
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference
No related guidance for this management practice		
Management Practice		Example Metrics
DSS02.05 Resolve and recover from incidents. Document, apply and test the identified solutions or workarounds. Perform recovery actions to restore the I&T-related service.		a. Percent of incidents resolved within agreed SLA b. Percent of stakeholder satisfaction with resolution and recovery from incident
Activities		Capability Level
1. Select and apply the most appropriate incident resolutions (temporary workaround and/or permanent solution).		2
2. Record whether workarounds were used for incident resolution.		
3. Perform recovery actions, if required.		
4. Document incident resolution and assess if the resolution can be used as a future knowledge source.		

## CHAPTER 4

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A. Component: Process (cont.)	
Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
ITIL V3, 2011	Service Operation, 4.2 Incident Management
National Institute of Standards and Technology Framework for Improving Critical Infrastructure Cybersecurity v1.1, April 2018	RC.RP Recovery Planning
National Institute of Standards and Technology Special Publication 800-53, Revision 5 (Draft), August 2017	3.9 Incident response (IR-4, IR-5, IR-6)
The CIS Critical Security Controls for Effective Cyber Defense Version 6.1, August 201	CSC 19: Incident Response and Management
Management Practice	Example Metrics
<b>DSS02.06 Close service requests and incidents.</b> Verify satisfactory incident resolution and/or fulfillment of requests, and close.	a. Level of user satisfaction with service request fulfillment b. Percent of incidents resolved within an agreed/acceptable period of time
Activities	Capability Level
1. Verify with the affected users that the service request has been fulfilled satisfactorily or the incident has been resolved satisfactorily and within an agreed/acceptable period of time.	2
2. Close service requests and incidents.	
Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
No related guidance for this management practice	
Management Practice	Example Metrics
<b>DSS02.07 Track status and produce reports.</b> Regularly track, analyze and report incidents and fulfillment of requests. Examine trends to provide information for continual improvement.	a. Mean time between incidents for the I&T-enabled service b. Number and percent of incidents causing disruption to business-critical processes
Activities	Capability Level
1. Monitor and track incident escalations and resolutions and request handling procedures to progress toward resolution or completion.	2
2. Identify information stakeholders and their needs for data or reports. Identify reporting frequency and medium.	3
3. Produce and distribute timely reports or provide controlled access to online data.	4
4. Analyze incidents and service requests by category and type. Establish trends and identify patterns of recurring issues, SLA breaches or inefficiencies.	
5. Use the information as input to continual improvement planning.	5
Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
CMMI Cybermaturity Platform, 2018	MI.IM Ensure Incident Mitigation; IR.IR Incident Reporting
National Institute of Standards and Technology Special Publication 800-53, Revision 5 (Draft), August 2017	3.9 Incident response (IR-7, IR-8)

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## B. Component: Organizational Structures

Key Management Practice	Chief Technology Officer	Business Process Owners	Head Development	Head IT Operations	Service Manager	Information Security Manager
DSS02.01 Define classification schemes for incidents and service requests.	A		R	R	R	
DSS02.02 Record, classify and prioritize requests and incidents.	A			R	R	
DSS02.03 Verify, approve and fulfil service requests.	A	R	R	R	R	
DSS02.04 Investigate, diagnose and allocate incidents.	A	R		R	R	
DSS02.05 Resolve and recover from incidents.	A		R	R	R	R
DSS02.06 Close service requests and incidents.	A			R	R	R
DSS02.07 Track status and produce reports.	A			R	R	
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference				
ISO/IEC 27002:2013/Cor.2:2015(E)		16.1.1 Responsibilities and procedures				

## C. Component: Information Flows and Items (see also Section 3.6)

Management Practice	Inputs		Outputs	
	From	Description	Description	To
DSS02.01 Define classification schemes for incidents and service requests.	AP009.03	SLAs	Criteria for problem registration	DSS03.01
	BAI10.02	Configuration repository	Rules for incident escalation	Internal
	BAI10.03	Updated repository with configuration items	Incident and service request classification schemes and models	Internal
	BAI10.04	Configuration status reports		
	DSS01.03	Asset monitoring rules and event conditions		
	DSS03.01	Problem classification scheme		
	DSS04.03	Incident response actions and communications		
DSS02.02 Record, classify and prioritize requests and incidents.	AP009.03	SLAs	Classified and prioritized incidents and service requests	AP008.03; AP009.04; AP013.03; DSS03.05
	BAI04.05	Emergency escalation procedure	Incident and service request log	Internal; MEA04.07
	DSS01.03	• Asset monitoring rules and event conditions • Incident tickets		
	DSS05.07	Security-related incident tickets		

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C. Component: Information Flows and Items (see also Section 3.6) (cont.)				
Management Practice	Inputs		Outputs	
	From	Description	Description	To
DSS02.03 Verify, approve and fulfil service requests.	APO12.06	Risk-related root causes	Approved service requests	BAI06.01
			Fulfilled service requests	Internal
DSS02.04 Investigate, diagnose and allocate incidents.	BAI07.07	Supplemental support plan	Problem log	DSS03.01
			Incident symptoms	Internal
DSS02.05 Resolve and recover from incidents.	APO12.06	Risk-related incident response plans	Incident resolutions	DSS03.03; DSS03.04; DSS03.05; MEA04.07
	DSS03.03	Known error records		
	DSS03.04	Communication of knowledge learned		
DSS02.06 Close service requests and incidents.	DSS03.04	Closed problem records	User confirmation of satisfactory fulfilment or resolution	AP008.03
			Closed service requests and incidents	AP008.03; AP009.04; DSS03.04
DSS02.07 Track status and produce reports.	APO09.03	OLAs	Incident status and trends report	AP008.03; AP009.04; AP011.04; AP012.01; MEA01.03
	DSS03.01	Problem status reports	Request fulfilment status and trends report	AP008.03; AP009.04; AP011.04; MEA01.03
	DSS03.02	Problem resolution reports		
	DSS03.05	Problem resolution monitoring reports		
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference		
No related guidance for this component				

Deliver, Service and Support

D. Component: People, Skills and Competencies		
Skill	Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
Application support	Skills Framework for the Information Age V6, 2015	ASUP
Customer service support	Skills Framework for the Information Age V6, 2015	CSMG
Incident management	Skills Framework for the Information Age V6, 2015	USUP
Network support	Skills Framework for the Information Age V6, 2015	NTAS
User support	e-Competence Framework (e-CF)—A common European Framework for ICT Professionals in all industry sectors—Part 1: Framework, 2016	C. Run—C.1. User Support

E. Component: Policies and Procedures			
Relevant Policy	Policy Description	Related Guidance	Detailed Reference
Service request policy	States rationale and provides guidance for service and incident requests and their documentation.	ITIL V3, 2011	Service Operation, 3. Service operation principles

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F. Component: Culture, Ethics and Behavior		
Key Culture Elements	Related Guidance	Detailed Reference
Enable employees to identify incidents on a correct and timely basis and implement appropriate escalation paths. Encourage prevention. Respond to and resolve incidents immediately. Avoid a hero culture.		
G. Component: Services, Infrastructure and Applications		
Incident tracking tools and system		