Version 1

July 2015

Incident Management

Stanford University

09/02/2015

Table of Contents

Introduction

The following Incident Management Process has been designed for the Stanford University IT Service Management program. Departments that participate in the University IT Service Management program will adhere to this Incident Process. Procedures developed around this Incident Management process will need to be validated by the Incident Process Owner and Process Manager(s) so as to standardize across the institution. This Process will have relationships with other Processes and those documents should be read and understood along with this, the primary related processes being Problem and Change Management.

Overview

A process is defined as a set of linked activities that transform specified inputs into specified outputs, aimed at accomplishing an agreed-upon goal in a measurable manner. The process definition laid out in this document further breaks down these Activities into Tasks, each of which have a complete set of attributes defined such as data and tool specifications and the role(s) responsible for executing the tasks. The document also includes process goal and objectives, metrics, role definitions, policies and other process related attributes.

Description

This is the process that deals with all Incidents. Incidents can include failures or degradation of your services reported by users of those services; by your own technical staff; or automatically from monitoring tools. The ability to respond to an Incident and restore the level of service as quickly as possible or to what was agreed to with customers or at least alleviate the impact on them is the primary concern of the process.

Scope

The scope of Incident management for Stanford University IT and other University support entities for Production services

Goal

The process goal describes a specific purpose or achievement toward which the efforts of the process are directed. Each ITSM process has a specific focus and when combined with the other ITSM processes, forms a comprehensive framework for delivering and managing services.

Incident Management exists to get the operation of a service back to 'normal' as quickly as possible in order to minimize any adverse affects on the supported Academic, business and research processes. This requires the continuous monitoring of the incident mitigation process through the collecting of heuristic information in order to improve the time to resolution, communicate effectively and eliminate incident re-occurrence.

Objectives

Process objectives describe material outcomes that are produced or achieved by the process. The following is a list of objectives for this process:

To record, categorize, diagnose and resolve Incidents as quickly as possible
To provide workarounds to users that allow them to continue with their work while a resolution is pursued (if necessary)
To escalate Incidents to higher levels of support (functional) as well as management (hierarchical) as required
To create a Problem for an Incident having a new unknown cause to allow the Problem Management process to investigate and identify the root cause and if viable eliminate it.
To keep all affected customers and stakeholders informed on the Status of Incidents throughout their lifecycle
Upon confirmation from the user in receipt of a resolution or a workaround closure of the incident can proceed

Roles

Each process defines at least one role. Each role is assigned to perform specific tasks within the process. The responsibilities of a role are confined to the specific process. They do not imply any functional standing within the hierarchy of an organization. For example, the process manager role does not imply the role is associated with or fulfilled by someone with functional management responsibilities within the organization. Within a specific process, there can be more than one individual associated with a specific role. Additionally, a single individual can assume more than one role within the process although typically not at the same time. The following describes the roles defined for this process:

Name	Description
Incident Process Owner	A senior leader with the ability and authority to ensure the process is rolled out and used by all departments within the Stanford University IT and other supported entities. Specific responsibilities include: Defining the overall mission of the process; establishing and communicating the process mission, goals and objectives to all stakeholders; resolving any cross-functional (departmental) issues; ensuring consistent execution of the process across departments; reporting on the effectiveness of the process to senior management; initiating any process improvement initiatives
Incident Process Manager	Responsible for the day-to-day execution of the process. The Process Manager(s) take direction from the Process Owner in order to ensure consistent execution of the process across all areas of the organization. Specific responsibilities include: managing the day to day activities of the process; gathering and reporting on process metrics; tracking compliance to the process; escalating any issues with the process; acting as chairperson for process meetings
Incident Coordinator	This role is the "point person" within a support group that is accountable for all Incidents assigned to their group. Is responsible for monitoring their respective queues for assigned Incidents, and re-assigning them to the appropriate individuals for further investigation. Also plays a role in escalations to other groups. This role may also be referred to as the queue manager
Incident Support	Responsible for: incident investigation and diagnosis for Incidents escalated from the Service Desk; development of Workarounds; identification and creation of Problems; the resolution and recovery of assigned Incidents; the creation of Incidents where they themselves detect a service failure or quality degradation or a situation that may result in one. Escalation of Incidents where necessary.
Service Desk Agent	Responsible for: incident registration; ownership, monitoring, tracking and communication; Incident investigation and diagnosis; the provision of resolutions and workarounds that can be retrieved from Standard Operating Procedures and existing Problems and Known Errors; escalation of Incidents to Incident Support groups where a resolution or workaround cannot be retrieved from one of those sources; closure of FCR Incidents. Handles transfer of ownership to Incident Support where needed
Service Desk Manager	Provides guidance to Service Desk staff on issues such as escalation and setting Priority. Also ensures that appropriate communications takes place ensuring that all affected stakeholders are kept abreast of Incident status. May have a key role to play in the Major Incident procedures. Often responsible for, or involved in producing management reports for the Incident Management process. Represents the Service Desk at Incident Management meetings.
User	Responsible for bringing Incidents to the attention of the Service Desk along with detailed information as requested by the Desk. May also be required to participate in the implementation of a fix or workaround and verifying correct operation once implemented.
Problem Process Manager	This role relates to the Problem Management Process. It is included here as it may play a part in the handling of a Major Incident

Name	Description
Major Incident Owner (MIO)	A person to manage and co-ordinate the resolution to a Major Incident. The responsibilities are to gather a team to identify and resolve the incident, comply with any required communications, maintain incident alert status, document incident actions and information

Process Control

Process controls represent the policies and guiding principles on how the process will operate along with the metrics for measuring the process and they provide direction over the operation of process by defining constraints or boundaries within which the process must operate.

Controls

The controls listed are those identified by COBIT 5 as important for an Incident Management process.

Name	Description
DSS02.01 Define the Incident Classification Scheme	Define the incident classification scheme and incident models.
DSS02.02 Record, Classify and Prioritize Incidents	Identify, record and classify incidents, and assign a priority according to business criticality and service agreements.
DSS02.04 Investigate, Diagnose and Allocate Incidents	Identify and record incident symptoms, determine possible causes, and allocate for resolution.
DSS02.05 Resolve and Recover from Incidents	Document, apply and test the identified fix or workarounds and perform recovery actions to restore the IT-related service.
DSS02.06 Close Incidents	Verify satisfactory incident resolution and close.
DSS02.07 Track Status and Produce Reports	Regularly track, analyze and report incident trends to provide information for continual improvement.

Metrics

Metrics are used for the quantitative and periodic assessment of a process. They should be associated with targets that are set based on specific business objectives. Metrics provide information related to the goals and objectives of a process and are used to take corrective action when desired results are not being achieved and can be used to drive continual improvement of process effectiveness and efficiency.

First Time Resolution Rate by Category

Description:	The Service Desk resolved the Incident directly by referring to capitalized knowledge without any referral support groups.
Type:	Ratio
Supporting Details:	This can be considered an Efficiency metric as much as an Effectiveness metrics and Service Desk resolution via retrieved Workarounds tends to both resolve the Incident quicker and more consistently AND cost less than escalating it to Incident Support roles in other functional areas. Being able to report on this metric with Category breakdowns and cost breakdowns (if that information is available) will provide invaluable support for further knowledge capitalization initiatives.
Opportunity For Defect:	A target will be set for some point into implementation for a minimum ratio of Service Desk resolved Incidents to total Incidents. As the process matures, this target ratio is likely to increase
Measurement Procedure:	Total Incidents Resolved with no escalations / Total Incidents X 100
Additional Details:	The Service Desk retrieved and employed a Workaround (from a Problem, Known Error or other source) to resolve the Incident, without escalating the Incident to Incident Support
Category:	Efficiency

Average time for Resolving Incidents by Category

Description:	The mean (average) time taken to resolve an Incident. Resolution is attained through the use of a Workaround that will either restore a service to its normal mode of operation or provide some sort of circumvention to (at least partially) alleviate the impact on the user. The workaround will either be retrieved by linking the Incident to an existing Problem or Known Error (or possibly some other repository of Workarounds) or the workaround may be created for this particular Incident
Type:	Mean
Supporting Details:	This is the primary effectiveness metric of Incident Management. Breaking down the metric by Incident Category (at various levels), Incident Priority, etc. then the metric will be of optimal use both for effectiveness reporting and intervention.
Opportunity For Defect:	A Mean time that exceeds a target set for a particular category and/or priority of Incident
Measurement Procedure:	Select all Incidents that were resolved during the period. The time to resolve a given incident is the difference between the Incident Occurred Timestamp and the Incident Resolved Timestamp This metric is the average (mean) of this time for all incidents. The Incident Occurred Timestamp should be a defined field to allow it to be different from the Incident Record Created Timestamp. Closure code filtering might be needed to eliminate noise records
Additional Details:	The time elapsed from the occurrence of the Incident to the time the workaround was applied and verified.
Category:	Effectiveness

Incidents Assigned multiple times by Category (to be validated)

Description:	Re-assignments can result in delays in getting to incident resolution. May speak to inaccurate group assignments; either lack of knowledge or incorrectly defined to the tool.
Type:	Ratio
Supporting Details:	It may be difficult to distinguish between a re-assignment and a subsequent functional escalation. Both may use the same mechanism. Note as well that there are effectiveness aspects and implications to this metric as any delay in resolution impacts the primary "speed of resolution" effectiveness metric. Reporting on re-assignments broken down by Category will provide optimized intervention information
Opportunity For Defect:	An Incident that is re-assigned to another support group after the initial escalation for the Service Desk
Measurement Procedure:	Traverse the Activity Log looking for entries with a category that signifies an assignment to another group or individual after initial escalation. Or if the tool has a assignment count field, that data is immediately available
Additional Details:	An assignment of an Incident to a support group other than the support group that first received the Incident by escalation from the Service Desk
Category:	Efficiency

Average Cost per Incident Workaround

Description:	The expense required resolving an Incident. For repetitive Incidents, this information is also valuable for Problem Management to use when evaluating whether to pursue root cause of the Problem associated with the Incidents or to pursue a fix for a Known Error.
Type:	Mean
Supporting Details:	This is the primary efficiency metric for Incident Management. Having a cost associated with each Incident is also invaluable for Service Costing if you report not on average but on total Incident Cost broken down for a period by Category.
Opportunity For Defect:	Cost targets may be set for different categories or priorities of Incident. A defect would be an Incident whose cost exceeded this target
Measurement Procedure:	In most cases, the only factor that will be significant is the time devoted by staff (or other resources) to the Incident. This implies that people accurately record their time efforts in the Incident record or (more likely) that they track their time in a another tool by charging time to an Incident number (and possibly down to which activity level they were operating in)
Additional Details:	The effective cost in a currency unit to bring an Incident to resolution.
Category:	Efficiency

Percent of Incidents Incorrectly Categorized

Description:	Correct categorization is critical to both Incident Matching and Functional Escalation.
Type:	Ratio
Supporting Details:	There are both efficiency and effectiveness aspects to this metric. Being able to breakdown the report by From values, To values and a combination of both will be invaluable to directing remedial action.
Opportunity For Defect:	An Incident whose Category is changed after initial setting
Measurement Procedure:	A recognition of a change in categorization may be obtained either through an audit log analysis for changes to the Category fields or by testing a flag that would be set if one of these fields is modified after a specified point in the process flow

Additional Details:	An Incident whose initial categorization is later changed
Category:	Effectiveness

Incident Creation Patterns against Time

Description:	A mapping of when Incidents (and various types of Incidents) are created over time. When combined with data about Service Desk staffing patterns this gives the ability to fine-tune the staffing patterns.
Type:	Ratio
Supporting Details:	The mapping of numbers and types of Incidents to staffing patterns of the Service Desk will provide the information required to tune the staffing pattern. Note that other information may be required regarding other Service Desk duties (e.g., Request Fulfillment patterns and involvement in other processes e.g. Change Management)
Opportunity For Defect:	Time periods where Incident Creation rate exceeds handling capability
Measurement Procedure:	Incident Creation Timestamps (plus Categorization information)
Additional Details:	Counts and Categories of Incidents Created with Creation Timestamps
Category:	Efficiency

Closed Incidents this month by Category/Assignee

Description:	The number of incidents closed this month, grouped by category or assignee group. The out of box report called "Closed Incidents this month by Category" may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report called "Closed Incidents this month by Category" may be used for this metric.
Additional Details:	The out of box report called "Closed Incidents this month by Category" may be used for this metric.
Category:	Value

Number of Incidents per Month by Category

Description:	The number of incidents created each month grouped by category. The out of box report called "All Incidents by Category" may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report called "All Incidents by Category" may be used for this metric.
Additional Details:	The out of box report called "All Incidents by Category" may be used for this metric.
Category:	Value

Performance by Category / Tech / Priority (to be revisted when TD is being completed)

Description:	Performance grouped by Category / Tech / Priority
Type:	Number
Category:	Efficiency

Resolved by Known Error

Description:	On resolution, if the incident references a Problem that is a Known Error, create one of these.
Type:	Duration
Measurement Procedure:	ServiceNow script
Category:	Value

Create to Resolve Duration

Description:	When an incident goes into state resolved or closed, calculate the duration from open.
Type:	Duration
Measurement Procedure:	ServiceNow script
Category:	Value

Assigned to Duration

Description:	Assigned to Duration. This metric captures how long the Incident was in the Assigned To state.
Type:	Duration
Measurement Procedure:	ServiceNow script
Category:	Value

Incident State Duration

Description:	Incident State Duration. This metric captures how long the Incident was in any particular state.
Type:	Duration
Measurement Procedure:	ServiceNow script
Category:	Value

First Call Resolution

Description:	Overly simplified definition of first call resolution. If the incident is inactive and the update count (sys_mod_count) is zero, create a First call resolution record using the Service Now Script.
Type:	Duration
Measurement Procedure:	Run the ServiceNow script to create the FCR record
Category:	Value

Assignment Group Duration

Description:	Assignment Group. This metric captures how long the Incident was in the Assigned To Group state.
Type:	Duration
Measurement Procedure:	ServiceNow script
Category:	Value

Total Number of Incidents

Description:	By itself, not terribly useful. Presented (typically) by Period / by Priority and depicted over time will indicate a trend that can be observed and acted upon.
Type:	Number
Measurement Procedure:	Simply a count of all Incidents created during the period. This count may be further grouped by Category, Assignment Group or any other relevant field.
Additional Details:	A subset of this is used for the following ServiceNow reports: All Incidents by Assignment (and All Incidents by Assignment for My Group) All Incidents by Category All Incidents by Location All Incidents by State All Incidents Closed By (and All Incidents Closed By for My Group) Closed Incidents this month by Category Incident Breakdown Incident Trend By Priority (and Incident Trend By Priority for My Group) My Incidents by State Open Incidents by Assignment (and Open Incidents by Assignment for My Group) Open Incidents by Category (and Open Incidents by Category for My Group) Open Incidents by Escalation (and Open Incidents by Escalation for My Group) Open Incidents by Priority Open Incidents by State (and Open Incidents by State for My Group) Opened Incidents this month by Priority Process Exceptions by Month
Category:	Efficiency

All Incidents by Assignment

Description:	All Incidents by Assignment (and All Incidents by Assignment for My Group) - This metric captures a count of all Incidents broken out by Assignment. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

All Incidents by Location

Description:	All Incidents by Location - This metric captures a count of all Incidents broken out by Location. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

All Incidents by State

Description:	All Incidents by State - This metric captures a count of all Incidents broken out by State. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

All Incidents Closed By

Description:	All Incidents Closed By (and All Incidents Closed By for My Group) - This metric captures a count of all Incidents broken out by Closed By. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Incident Breakdown

Description:	Incident Breakdown - This metric captures a count of all Incidents broken out by Assignment and Category. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Incident Trend By Priority

Description:	Incident Trend By Priority (and Incident Trend By Priority for My Group) - This metric captures a count of Closed Incidents broken out by Priority; trended over the last 3 months. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Open Incidents by Assignment

Description:	Open Incidents by Assignment (and Open Incidents by Assignment for My Group) - This metric captures a count of Open Incidents broken out by Assignment. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.

Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Open Incidents by Category

Description:	Open Incidents by Category (and Open Incidents by Category for My Group) - This metric captures a count of Open Incidents broken out by Category. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Open Incidents by Escalation

Description:	Open Incidents by Escalation (and Open Incidents by Escalation for My Group) - This metric captures a count of Open Incidents broken out by Escalation. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Open Incidents by Priority

Description:	Open Incidents by Priority - This metric captures a count of Open Incidents broken out by Priority. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Open Incidents by State

Description:	Open Incidents by State (and Open Incidents by State for My Group) - This metric captures a count of Open Incidents broken out by State. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Opened Incidents this month by Priority

Description:	Opened Incidents this month by Priority - This metric captures a count of Open Incidents opened this month broken out by Priority. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Process Exceptions by Month

Description:	Process Exceptions by Month - This metric captures a count of all Incidents that were caused by Changes; trended month-by-month. The out of box report by the same name may be used for this metric.
Type:	Number
Measurement Procedure:	The out of box report by the same name may be used for this metric.
Additional Details:	There is a ServiceNow out-of-the-box report for this metric.
Category:	Value

Mean time between incidents

Description:	Mean time between incidents - is calculated as the time between incidents occurring. This value is often based on a per service basis; e.g., what is the mean time between incidents related to the email service.
Type:	Number
Supporting Details:	This when analyzed as a trend may indicate how the process is working and how the service is working.
Measurement Procedure:	Broken out by service, what is the mean time between incidents occurring? This may also be calculated for the mean time between any incidents occurring. Calculate the time from when one incident for a service occurred and the next incident for the same service occurred and average it over the historical calculations for the same service instances.
Category:	Effectiveness

Percentage of Incidents resolved within service target

Description:	Percentage of Incidents resolved within agreed-on/acceptable period of time.
Type:	Ratio
Measurement Procedure:	Each incident resolution is compared against its service level agreement objective/level to determine whether it was resolved in the appropriate amount of time (or not). The total within the appropriate time frame is compared against the total incidents and stated as a percentage.
Category:	Effectiveness

Percentage of Major incidents for which Problems were Logged

Description:	Percentage of Major incidents for which Problems were Logged.
Type:	Ratio

Measurement Procedure:	Each Major Incident is counted and compared against how many of these had a Problem record logged and related to it.
Additional Details:	This value may be redundant if the process forces a Problem record to be created automatically when it identifies a Major Incident has occurred. It will always be 100% if this is enforced.
Category:	Compliance

Percentage of Incidents responded to within service target

Description:	Percentage of Incidents responded to within agreed-on/acceptable period of time.
Type:	Ratio
Measurement Procedure:	Each incident response time is compared against its service level objective level to determine whether it was responded to in the appropriate amount of time (or not). The total within the appropriate time frame is compared against the total incidents and stated as a percentage.
Category:	Effectiveness

# of Closed Incidents without Problems

Description:	Closed Incidents Sorted by Priority and are not FCR (First Call Resolution)
Type:	Number
Category:	Compliance

Policies

Policies outline a set of plans or courses of action that are intended to influence and determine decisions or actions of a process. Policies provide an element of governance over the process that provides alignment to business vision, mission and goals.

Single Tool - Service-Now

Statement:	There will be a single tool (Service-Now) to be used consistently by all Stanford University IT teams.
Rationale:	To ensure consistency in process execution, as well as ease in exchanging information and generating reports on an enterprise wide basis

Prioritization

Statement:	All incidents must be prioritized based on impact to the business and urgency. Incidents shall be managed in priority sequence
Rationale:	A group may have numerous incidents assigned to them. People need to know what to work on first.

Incident Escalation

Statement:	Incidents must be escalated as defined in related SLAs and SLOs, or in accordance with operational policies and procedures
Rationale:	Failure to escalate in a timely manner can result in unnecessary delays in incident resolution

Service Interruption

Statement:	High impact incidents for which the cause is unknown shall be flagged as problem candidates for further investigation
Rationale:	Getting to the root cause of these incidents will aid in ensuring that they do not reoccur

Review

Statement:	Prior to closure, all incidents causing a service breach or failure to meet the Service Level Agreement should be reviewed by management for accuracy, completeness and compliance to the process.
Rationale:	Such incidents may become the focus of attention after the fact and need to contain accurate and thorough information for subsequent reviews.

Major Incident

Statement:	University IT intends to carefully and consistently manage critical system outages in order to minimize down time for business users, ensure timely response by UIT staff, keep management, business users and the Stanford community informed, and provide appropriate escalation paths while providing excellent support.

Incident communication

Statement:	The Incident progress will be communicated to the relevant stakeholders in a timely manner

Workflow

Inputs

Process inputs are used as triggers to initiate the process and to produce the desired outputs. Users, stakeholders or other processes provide inputs. The following is a list of inputs for this process:

Name	Description	Supplier	Is Trigger	Task
Details	Incident details from various sources	Users, Service Desk, network or computer operations, systems management tools	No	
Configuration	Configuration Details	Configuration Management Database (CMDB)	No	
Incident Matching	Response from matching an Incident against other Incidents, Problems and Known Errors	Problem Management, Incident Management	No	
Resolution	Resolution details	Incident Management Support Groups, Knowledge Management	No	
Request for Status	A query from a user or stakeholder on the status of an Incident or Problem	User or stakeholder	No	
A Newly Detected Incident	Detection, through automated or manual means, of a new Incident	Anyone, systems management tools, Event Management	Yes	
Progress Updates	Ongoing updates to the Incident - captured in the Activity Log	Users, Service desk, network or computer operations, systems management tools	No	
Call Record	Call Record will determine the type of record needed Incident/Request		Yes	Open New Incident

Outputs

Each process produces tangible outputs. These outputs can take the form of products or data and can be delivered to a user or stakeholder, or, they can be used as inputs to other processes. Outputs are measurable in terms of quantity and quality. The following is a list of outputs for this process:

Name	Description	Recipient	Task
Change Request	CR for Incident resolution; updated Incident record (including resolution and/or workarounds)	Change Management	
Resolutions	Resolved and closed Incidents	Service Desk, Problem Management, Users	
Communication	Communication to Customers and stakeholders	Customers	
Management Information	Reports	Identified stakeholders	
Status Update	An update on the status/progress of an Incident or a Problem	Requester	
A Problem Record	For Incidents with an unknown root cause, a Problem record is created if one does not already exist.	Problem Management	
Incident Model	A pre-determined, optimized way of approaching and diagnosing a specific type or class of Incidents. Will often include tailored screens for information capture and specific instructions for the Service Desk an/or Incident Support	Service Desk, Incident Support	
Workaround	A Workaround is a means of alleviating the effect of an Incident on a user without eliminating the root cause of that Incident. Incident Management is solely responsible for creating Workarounds. Incident Management cannot create a fix as that implies understanding and eliminating the root cause of the Incident. That is solely within the scope of Problem Management. Note however, that Problem Management IS responsible for reviewing Workarounds created by Incident Management and where applicable optimizing them for re-use.	User, Incident Management, Problem Management	

Activities

ID	Name	Description
INC 1.0	Detect & Record	It is within this activity that Incidents are detected, either by human means or through systems management tools that monitor the system for events. Capturing all of the relevant information at the time of the creation of the Incident is a key focus of this activity. Categorization (what is failing and the symptom) is determined here, and if it is determined that we are dealing with a Service Request rather than an Incident, the Incident is re-designated as a Service Request and steered to the Request Fulfillment process.
INC 2.0	Initial Support	During this activity the Incident is associated with a relevant Service Level Agreement. Impact, Urgency and Priority parameter values are determined, and Major Incident procedures will be invoked where applicable. Incident Matching is performed in an attempt to identify duplicate Incidents and locate a fix or Workaround. Appropriate stakeholders are notified as mandated by parameters such as Priority.
INC 3.0	Investigate & Diagnose	This activity is where Workarounds are located or developed. Escalations to other support groups may occur during this activity. If the Incident cannot be related to an existing Problem, one is created.
INC 4.0	Resolve & Recover	This activity includes those tasks required to implement the fix or Workaround located or developed in the previous activity. A CR will be submitted if required and, if so, the Change Management process will manage the implementation. Depending on the damage done by the Incident, recovery actions may also take place.
INC 5.0	Close Incident	Having implemented a Workaround or fix, it is now time to close the Incident. The affected user(s) should be contacted to solicit their acceptance of the Workaround or fix, and to obtain any additional feedback on the handling of their issue. Details of the resolution and an appropriate closure and cause code should be captured.

INC 1.0: Detect & Record

It is within this activity that Incidents are detected, either by human means or through systems management tools that monitor the system for events. Capturing all of the relevant information at the time of the creation of the Incident is a key focus of this activity. Categorization (what is failing and the symptom) is determined here, and if it is determined that we are dealing with a Service Request rather than an Incident, the Incident is re-designated as a Service Request and steered to the Request Fulfillment process.

INC 1.1: Start

An Incident record to recognize and track the incident may created by the Service Desk or Incident Support, whichever role is first aware of the Incident.
If the record is created by Incident Support then Incident Support must then provide all the details required for the record and not rely on Service desk to 'pick up' the pieces

INC 1.2: Generate Record

It is entirely possible (and indeed desirable) that an Incident (Level N) Support group will discover the Incident and create an Incident record before any users are aware of it. This is especially desirable if Incident Support finds a defect or trend in a Configuration Item (CI) that if dealt with in a timely manner will prevent a Service outage.

Annotation:	Incident Support generated records will have all details entered at generation time

INC 1.3: Open New Incident

For all reported Incidents, it is essential that an Incident record be created to capture the details of it and track it to resolution. An Incident record must be created for all situations (even those for which the Service Desk is already aware). Failure to do so will result in inaccurate management reports as well as the inability to contact affected users for follow-up and closure. Additionally, users and other stakeholders may at times during the Incident lifecycle call to request a status (progress) update. This information should be readily available within the Incident record and can be provided to the requester. A log of the request should be made in the Incident record.

Annotation:	New Incidents may be opened in a number of ways, e.g., though Event Management, Self-Service portal, email, etc.

INC 1.4: Verify User's Information

The purpose of this task is to ensure that user information is accurate. This includes not only personal information such as phone number and location, but possibly organizational and entitlement information. This task affords the Service Desk the opportunity to ensure that this information is kept current and may aid in categorizing or resolving the Incident.

INC 1.5: Capture Incident Details/Categorize

Capturing sufficient and relevant detail at this stage is very important, as it will aid in diagnosis should the Incident require escalation. Additionally, others looking for similar situations can use the details to locate this Incident. The basic information that should be collected must be defined as part of the process and made available to the Service Desk. A description of the Incident in the caller's own words should be recorded, so that future contact with the user can be made in their terms. At this point Service Category and Symptom can be determined. This categorization can be used to generate Heads Up alerts to certain support groups and also to trigger category/symptom specific data recording screens to help the Service Desk Agent obtain and format the required data effectively and efficiently.

Annotation:	ITIL® says Categorization occurs in "Initial Support". As the information is available now and categorization may drive Incident Model use we do it here

INC 1.6: Provide Unique Number

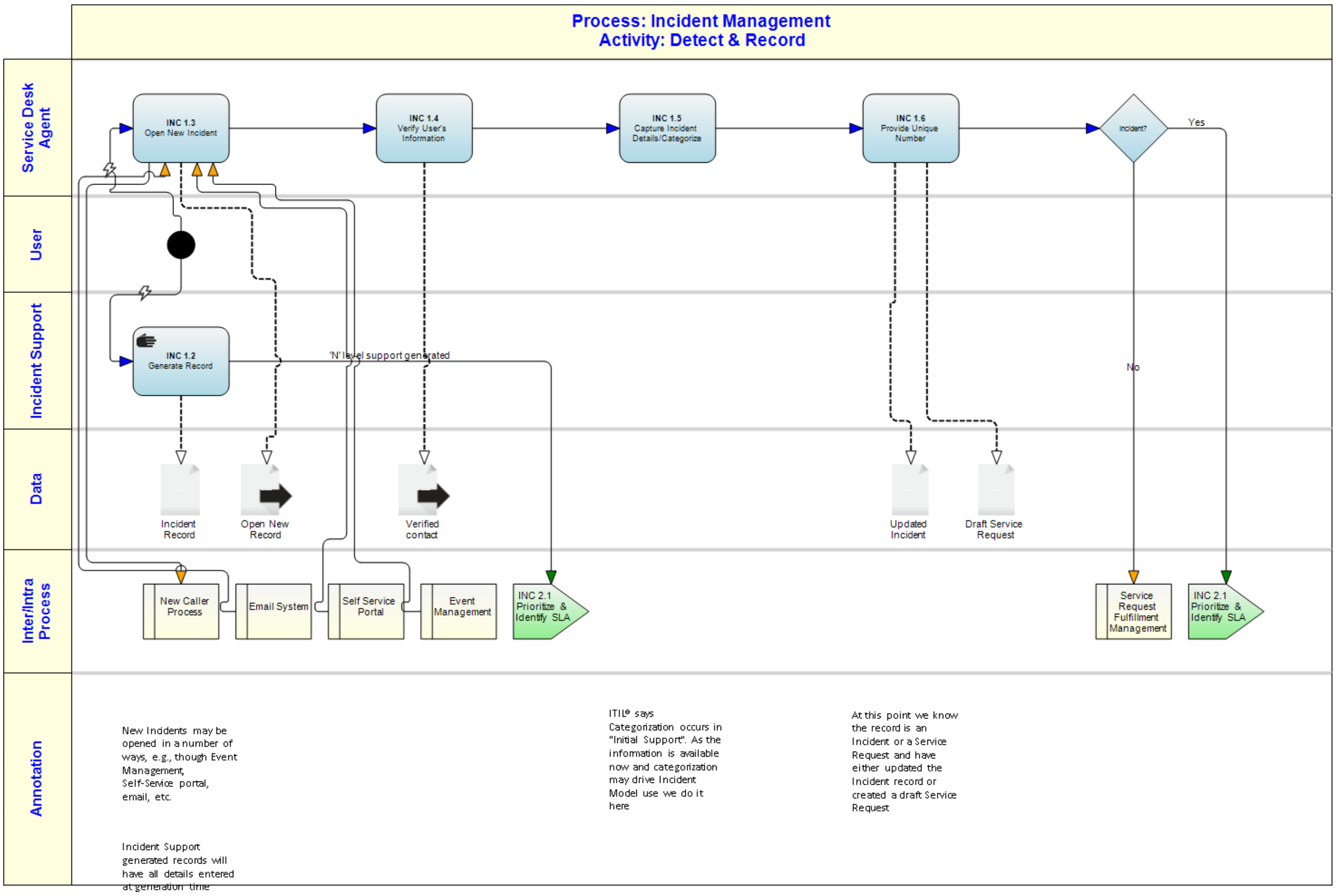
Although the expectation was we were dealing with an incident a request for service may be initiated through the Incident Management process. Although the actual handling of the request falls within another process (Service Request Management), if the request is initiated here the basic details of the request are captured. The nature of the request will dictate the actual information that is gathered from the user. Once the Service Request has been entered, the user should be provided with a record number for future reference.
At this point the agent will know whether this is an Incident or a Service Request. The user is provided with the reference number for all future calls regarding the Incident /request.

Annotation:	At this point we know the record is an Incident or a Service Request and have either updated the Incident record or created a draft Service Request

INC 1.7: Incident?

Direct the record to the correct process for handling

Cross-Functional Flow Diagram



INC 1.1: Start

An Incident record to recognize and track the incident may created by the Service Desk or Incident Support, whichever role is first aware of the Incident.
If the record is created by Incident Support then Incident Support must then provide all the details required for the record and not rely on Service desk to 'pick up' the pieces

INC 1.1: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label

Successors

Task ID	Task Name	Diagram Label
INC 1.3	Open New Incident	
INC 1.2	Generate Record	

INC 1.1: Task Roles

Name	Duties	RACI
User		R

INC 1.2: Generate Record

It is entirely possible (and indeed desirable) that an Incident (Level N) Support group will discover the Incident and create an Incident record before any users are aware of it.   This is especially desirable if Incident Support finds a defect or trend in a Configuration Item (CI) that if dealt with in a timely manner will prevent a Service outage.

INC 1.2: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.1	Start	

Successors

Task ID	Task Name	Diagram Label
INC 2.1	Prioritize & Identify SLA	'N' level support generated

INC 1.2: Task Roles

Name	Duties	RACI
Incident Support	Create a new Incident record with all the details and mandatory fields completed	R/A

INC 1.2: Task Notes

Task Notes

Description
The "user" information in the case of an Incident created by Incident Support should be auto-filled from the identity of the person who opens the Incident.
Incidents created by Incident Support are routed to the Service Desk so that the Service Desk can apply the same Prioritization methods and search for existing Workarounds and fix as for Incidents identified by Users.

INC 1.3: Open New Incident

For all reported Incidents, it is essential that an Incident record be created to capture the details of it and track it to resolution. An Incident record must be created for all situations (even those for which the Service Desk is already aware). Failure to do so will result in inaccurate management reports as well as the inability to contact affected users for follow-up and closure. Additionally, users and other stakeholders may at times during the Incident lifecycle call to request a status (progress) update. This information should be readily available within the Incident record and can be provided to the requester. A log of the request should be made in the Incident record.

INC 1.3: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Event Management		Create a record automatically.		In
Self Service Portal		Create an Incident record automatically from a self service portal.		In
Email System		Create a new Incident record via email transposed into the record data.		In
New Caller Process		Record created via the New Call Management process.		Out

INC 1.3: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.1	Start	

Successors

Task ID	Task Name	Diagram Label
INC 1.4	Verify User’s Information	

INC 1.3: Task Inputs

Task Inputs

Name	Description	Supplier	Is Trigger
Call Record	Call Record will determine the type of record needed Incident/Request		Yes

INC 1.3: Task Roles

Name	Duties	RACI
Service Desk Agent	Identify that the user does in fact have an Incident, and proceed to create a new Incident record.	R/A
User	Articulate their issue so that the Service Desk agent can ascertain that an Incident is being raised.	C

INC 1.4: Verify User's Information

The purpose of this task is to ensure that user information is accurate. This includes not only personal information such as phone number and location, but possibly organizational and entitlement information. This task affords the Service Desk the opportunity to ensure that this information is kept current and may aid in categorizing or resolving the Incident.

INC 1.4: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.3	Open New Incident	

Successors

Task ID	Task Name	Diagram Label
INC 1.5	Capture Incident Details/Categorize	

INC 1.4: Task Roles

Name	Duties	RACI
Service Desk Agent	The user's contact & entitlement information is retrieved and verified with the user. Appropriate actions are taken if the information is found to be inaccurate. Depending on the perceived urgency of the incident, this step may involve verifying only minimal information (e.g., phone number).	R/A
User	Confirming that the information on record is accurate and providing corrections as appropriate.	C

INC 1.5: Capture Incident Details/Categorize

Capturing sufficient and relevant detail at this stage is very important, as it will aid in diagnosis should the Incident require escalation. Additionally, others looking for similar situations can use the details to locate this Incident. The basic information that should be collected must be defined as part of the process and made available to the Service Desk. A description of the

Incident in the caller's own words should be recorded, so that future contact with the user can be made in their terms. At this point Service Category and Symptom can be determined. This categorization can be used to generate Heads Up alerts to certain support groups and also to trigger category/symptom specific data recording screens to help the Service Desk Agent obtain and format the required data effectively and efficiently.

INC 1.5: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.4	Verify User's Information	

Successors

Task ID	Task Name	Diagram Label
INC 1.6	Provide Unique Number	

INC 1.5: Task Roles

Name	Duties	RACI
Incident Support	A "Heads Up" alert may be sent under some circumstances to a Support Group that may need to be involved later.	I
Service Desk Agent	Ensure that all relevant details about the Incident are captured.	R/A
User	Provides the Service Desk with all details of the Incident, which may include sending relevant information via email (e.g., screenshots, logs).	C

INC 1.6: Provide Unique Number

Although the expectation was we were dealing with an incident a request for service may be initiated through the Incident Management process. Although the actual handling of the request falls within another process (Service Request Management), if the request is initiated here the basic details of the request are captured. The nature of the request will dictate the actual information that is gathered from the user. Once the Service Request has been entered, the user should be provided with a record number for future reference.

At this point the agent will know whether this is an Incident or a Service Request. The user is provided with the reference number for all future calls regarding the Incident /request.

INC 1.6: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.5	Capture Incident Details/Categorize	

Successors

Task ID	Task Name	Diagram Label
INC 1.7	Incident?	

INC 1.6: Task Roles

Name	Duties	RACI
Service Desk Agent	Provide the user with the unique identifier/number of the Incident record. If this is not an incident then generate the service request record draft, inform the user that a service request has been generated and provide them with that identifier/number instead.	R/A
User	If this is not an incident, provide the Service Desk with the details of the service that they are requesting. Receives the newly created Incident or Service Request identifier/number.	C

INC 1.7: Incident?

Direct the record to the correct process for handling

INC 1.7: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Service Request Fulfillment Management		Determine nature of Service Request	No	Out

INC 1.7: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.6	Provide Unique Number	

Successors

Task ID	Task Name	Diagram Label
INC 2.1	Prioritize & Identify SLA	Yes

INC 1.7: Task Roles

Name	Duties	RACI
Service Desk Agent	Provide the user with the unique identifier/number of the Incident record. If this is not an Incident then generate the service request record draft, inform the user that a service request has been generated and provide them with that identifier/number instead.	R/A
User	Provide the Service Desk with the details of the service that they are requesting.	C

INC 2.0: Initial Support

During this activity the Incident is associated with a relevant Service Level Agreement. Impact, Urgency and Priority parameter values are determined, and Major Incident procedures will be invoked where applicable. Incident Matching is performed in an attempt to identify duplicate Incidents and locate a fix or Workaround. Appropriate stakeholders are notified as mandated by parameters such as Priority.

INC 2.1: Prioritize & Identify SLA

The purpose of this task is to use the Service Categorization and Affiliation established earlier to determine if an SLA is associated with the Incident, and also identify the Priority of the Incident through the Impact (scope of user community affected) and the Urgency (how fast this must be resolved). This will determine the position in the work queue for this Incident. The SLA may dictate or influence escalation patterns.

INC 2.2: Known Alert?

Verify if there is an active alert for this issue.

INC 2.3: Attempt SOP Use

Many incidents may be resolved through the use of Standard Operating Procedures (SOP's), and require no further workflow other than closure of the incident. SOPs may be found in the Knowledge database

INC 2.4: Resolved?

Did the SOP resolve the incident?

INC 2.5: Major Incident?

For Incidents at or above a specific Priority, the agent should alert the Service Desk Manager. Policies and procedures will guide the agent in this task.

INC 2.6: Notify Stakeholders/Declare Major Incident

An entry should be made in the Incident record to reflect the time that this escalation was made. These procedures should also clearly specify when a Major Incident is to be declared, how to do it, and the Roles and Responsibilities for a Major Incident.

Annotation:	A major incident requires special handling and will have a predefined procedure that must be followed. Once the procedure is completed the process advances to the Close activity

INC 2.7: Perform Incident Matching

The purpose of the task is to attempt to locate possible workarounds or resolutions from existing Incidents, Problems, Known Errors, and to determine if this Incident is just a duplicate report of another open Incident. The primary basis of the search is Service Categorization and Symptom. Other information, such keywords that may be found in the description or incident details may be used in the search.

Annotation:	The preferred search order should be: 1) Knowledge Database 2) Problem Database 3) Incident Database

INC 2.8: Matched

Which path to take

INC 2.9: Escalate

The Incident has to be escalated to Level N for additional investigation, the appropriate Support Group should be identified in the Incident.
Control now passes to incident Support.

Annotation:	There is nothing more Service Desk can do to resolve the incident and the record will be escalated to Incident Support based on the Categorization for the affected service

INC 2.10: Handle Duplicate Incident

If the current incident is found to be a duplicate report of a currently open incident and refers to the same instance, then the duplicate report incident should be linked to the original one. Since this is just a duplicate report of the same event, no additional action is required now. When the incident is resolved, all additional reporters may need to be notified

INC 2.11: Link Incident to Problem

If a Problem was found that matches the current Incident, then a bi-directional link is created between the two records. If a Workaround is specified in the Problem record, it will be provided at this point. The increase in Incident count may cause the Priority of the problem to be adjusted. Depending on the Priority of the Incident (or if the Priority changes), the current assignee of the Problem may be notified.

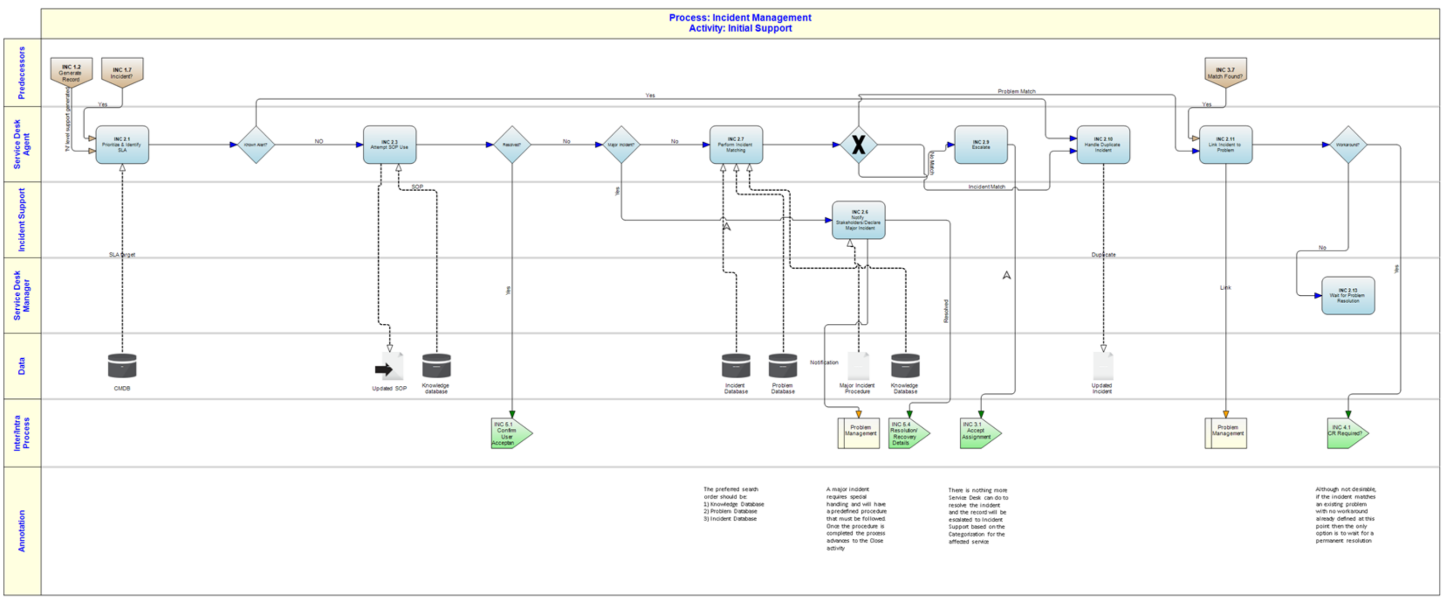
INC 2.12: Workaround?

INC 2.13: Wait for Problem Resolution

It may not be feasible to develop a workaround for all Incidents and hence, we may have to wait for a resolution from the Problem Management process.

Annotation:	Although not desirable, if the incident matches an existing problem with no workaround already defined at this point then the only option is to wait for a permanent resolution

Cross-Functional Flow Diagram



INC 2.1: Prioritize & Identify SLA

The purpose of this task is to use the Service Categorization and Affiliation established earlier to determine if an SLA is associated with the Incident, and also identify the Priority of the Incident through the Impact (scope of user community affected) and the Urgency (how fast this must be resolved). This will determine the position in the work queue for this Incident. The SLA may dictate or influence escalation patterns.

INC 2.1: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 1.7	Incident?	Yes
INC 1.2	Generate Record	'N' level support generated

Successors

Task ID	Task Name	Diagram Label
INC 2.2	Known Alert?	

INC 2.1: Task Roles

Name	Duties	RACI
Service Desk Agent	Set the impact and urgency based on User information. Determine and set the Priority based on the impact and urgency. Determine if there is an SLA support target associated with the impacted service and relate it to the incident record.	R/A
Service Desk Manager	Provide the agent with assistance in setting the Impact and/or Urgency.	C
User	Provide the Service Desk with information regarding the scope of the issue and how quickly they need to have it resolved.	C

INC 2.2: Known Alert?

Verify if there is an active alert for this issue.

INC 2.2: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.1	Prioritize & Identify SLA	

Successors

Task ID	Task Name	Diagram Label
INC 2.3	Attempt SOP Use	NO
INC 2.10	Handle Duplicate Incident	Yes

INC 2.2: Task Roles

Name	Duties	RACI
Service Desk Agent		R

INC 2.3: Attempt SOP Use

Many incidents may be resolved through the use of Standard Operating Procedures (SOP's), and require no further workflow other than closure of the incident. SOPs may be found in the Knowledge database

INC 2.3: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.2	Known Alert?	NO

Successors

Task ID	Task Name	Diagram Label
INC 2.4	Resolved?	

INC 2.3: Task Roles

Name	Duties	RACI
Service Desk Agent	Search the Knowledge database to find an SOP that relates to the incident description, Service and symptom. Using available SOPs, attempt to resolve the Incident. If successful, update the Incident with the identifier of the SOP that was used.	R/A
User	The user may be required to participate in the SOP execution.	R

INC 2.4: Resolved?

Did the SOP resolve the incident?

INC 2.4: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.3	Attempt SOP Use	

Successors

Task ID	Task Name	Diagram Label
INC 2.5	Major Incident?	No
INC 5.1	Confirm User Acceptance	Yes

INC 2.4: Task Roles

Name	Duties	RACI
Service Desk Agent		R

INC 2.5: Major Incident?

For Incidents at or above a specific Priority, the agent should alert the Service Desk Manager. Policies and procedures will guide the agent in this task.

INC 2.5: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.4	Resolved?	No

Successors

Task ID	Task Name	Diagram Label
INC 2.7	Perform Incident Matching	No
INC 2.6	Notify Stakeholders/Declare Major Incident	Yes

INC 2.5: Task Roles

Name	Duties	RACI
Incident Support	Verify with ITOC if major Incident	A
Service Desk Agent	Based on the criteria defined determine if this incident qualifies as a Major Incident	R

INC 2.6: Notify Stakeholders/Declare Major Incident

An entry should be made in the Incident record to reflect the time that this escalation was made. These procedures should also clearly specify when a Major Incident is to be declared, how to do it, and the Roles and Responsibilities for a Major Incident.

INC 2.6: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Problem Management		Problem Manager notification required	Notification	Out

INC 2.6: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label

Task ID	Task Name	Diagram Label
INC 2.5	Major Incident?	Yes

Successors

Task ID	Task Name	Diagram Label
INC 5.4	Resolution/Recovery Details	Resolved

INC 2.6: Task Roles

Name	Duties	RACI
Incident Process Manager	Perform tasks as defined in the Major Incident Procedure	I
Incident Support	Notify Major stakeholders and coordinate tasks defined in the Major Incident Procedure.	I
Problem Process Manager	Perform tasks as defined in the Major Incident Procedure	I
Major Incident Owner (MIO)	MIO to setup up DOC activities	A

INC 2.6: Task Notes

Task Notes

Description
Stakeholders may include any person/group who needs to be informed of an Incident e.g. Application Development
If the Incident meets the criteria for a Major Incident, the Major Incident procedures would be invoked at this point. Criteria specifications for declaring a Major Incident and the procedures to be followed need to be clear and unequivocal.
The Service Desk usually owns the incidents through to closure. For Major Incidents, a specific individual may be assigned to the Incident to drive it through to resolution.
For most Incidents, Problem Management usually lags Incident Management. In other words, effort is made to provide a workaround for the Incident before root cause is investigated. For Major Incidents, Problem Management may be asked to pursue root cause immediately if there is a concern that a workaround is not viable or not adequate. ITIL® specifies that the Problem Manager should be involved immediately.

INC 2.7: Perform Incident Matching

The purpose of the task is to attempt to locate possible workarounds or resolutions from existing Incidents, Problems, Known Errors, and to determine if this Incident is just a duplicate report of another open Incident. The primary basis of the search is Service Categorization and Symptom. Other information, such keywords that may be found in the description or incident details may be used in the search.

INC 2.7: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.5	Major Incident?	No

Successors

Task ID	Task Name	Diagram Label
INC 2.8	Matched	

INC 2.7: Task Roles

Name	Duties	RACI
Service Desk Agent	Perform searches of open Problems and Known Errors in an attempt to locate a resolution or Workaround, and other open Incidents, as this may be a duplicate report of an existing Incident currently being managed.	R/A

INC 2.8: Matched

Which path to take

INC 2.8: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.7	Perform Incident Matching	

Successors

Task ID	Task Name	Diagram Label
INC 2.9	Escalate	No Match
INC 2.10	Handle Duplicate Incident	Incident Match
INC 2.11	Link Incident to Problem	Problem Match

INC 2.8: Task Roles

Name	Duties	RACI
Service Desk Agent		R

INC 2.9: Escalate

The Incident has to be escalated to Level N for additional investigation, the appropriate Support Group should be identified in the Incident.
Control now passes to incident Support.

INC 2.9: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.8	Matched	No Match

Successors

Task ID	Task Name	Diagram Label
INC 3.1	Accept Assignment	

INC 2.9: Task Roles

Name	Duties	RACI
Service Desk Agent	Ensure that the Incident is placed on the appropriate support group queue for further investigation.	R/A

INC 2.10: Handle Duplicate Incident

If the current incident is found to be a duplicate report of a currently open incident and refers to the same instance, then the duplicate report incident should be linked to the original one. Since this is just a duplicate report of the same event, no additional action is required now. When the incident is resolved, all additional reporters may need to be notified

INC 2.10: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.2	Known Alert?	Yes
INC 2.8	Matched	Incident Match

Successors

Task ID	Task Name	Diagram Label

INC 2.10: Task Roles

Name	Duties	RACI
Service Desk Agent	Create a link (or relationship) from the new Incident to the original one that was found during Incident Matching.	R/A

INC 2.10: Task Notes

Task Notes

Description
Floods of calls involving duplicate reports can severely hamper the ability of the Service Desk to handle non-related calls and frustrate those people attempting to make the duplicate reports. As soon as the extent of a widespread Incident is known, mechanisms that can expedite the dissemination of information on widespread service impacts (usually outages, feature failures or capacity issues) to the right people with minimal effort by the Service Desk can have dramatic payoffs. Both system-supported mechanisms (e.g., banners, emails) and less automated procedures (a tree of local contacts) may be employed.

INC 2.11: Link Incident to Problem

If a Problem was found that matches the current Incident, then a bi-directional link is created between the two records. If a Workaround is specified in the Problem record, it will be provided at this point. The increase in Incident count may cause the Priority of the problem to be adjusted. Depending on the Priority of the Incident (or if the Priority changes), the current assignee of the Problem may be notified.

INC 2.11: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Problem Management		Match the incident to an open Problem or Known error	Link	Out

INC 2.11: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.7	Match Found?	Yes
INC 2.8	Matched	Problem Match

Successors

Task ID	Task Name	Diagram Label
INC 2.12	Workaround?	

INC 2.11: Task Roles

Name	Duties	RACI
Service Desk Agent	Ensure that the identified Problem record is noted in and/or related to the current Incident record.	R/A

INC 2.12: Workaround?

INC 2.12: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.11	Link Incident to Problem	

Successors

Task ID	Task Name	Diagram Label

Task ID	Task Name	Diagram Label
INC 2.13	Wait for Problem Resolution	No
INC 4.1	CR Required?	Yes

INC 2.12: Task Roles

Name	Duties	RACI
Service Desk Agent		R

INC 2.13: Wait for Problem Resolution

It may not be feasible to develop a workaround for all Incidents and hence, we may have to wait for a resolution from the Problem Management process.

INC 2.13: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.12	Workaround?	No

Successors

Task ID	Task Name	Diagram Label

INC 2.13: Task Roles

Name	Duties	RACI
Service Desk Manager	Periodically monitor (or receive notification) for an available resolution. All Incidents Pending Problem Resolution should be reviewed and the appropriate support group contacted to determine the status of the resolution development.	R/A

INC 2.13: Task Notes

Task Notes

Description
Use of this path should be minimal. Incident Management should always endeavor to come up with some mechanism of allowing the users to workaround the Incident and in some way alleviate the pain experienced. Even a minimal Workaround has more value than not providing any at all.

INC 3.0: Investigate & Diagnose

This activity is where Workarounds are located or developed. Escalations to other support groups may occur during this activity. If the Incident cannot be related to an existing Problem, one is created.

INC 3.1: Accept Assignment

It is now up to the assigned group's Incident Coordinator to review the incident and either accept it or re-queue it to another group. The Coordinator must also select an appropriate individual within their group and assign the record to that individual in the role of Incident Support. The status of the record should be changed accordingly and the assignee notified.

INC 3.2: Acknowledge Assignment

Once the Incident Coordinator has designated a suitable individual to fill the initial role of Incident Support for the incident, the individual must acknowledge their acceptance. Doing so signifies that the individual is ready to assume the responsibilities of Incident Support.

INC 3.3: Acquire Additional Information if Required

The details captured thus far in the Incident record are now reviewed. Additionally, relevant error logs, dumps, journals, and other sources of information are reviewed to gain a full appreciation of the events leading to the Incident. If necessary, the user (s) and other parties may be contacted to provide additional information and clarifications. The Incident record should be updated with any relevant findings and additional information.

Annotation:	Access additional sources of information and additional information from the impacted user

INC 3.4: Re-evaluate Category/Priority

The initial categorization is reviewed and verified. If it is incorrect it is updated and the incident is re-queued to the appropriate support group. Conditions may also have changed that would merit a change in the Impact or Urgency and therefore priority of the incident.

INC 3.5: Categorization Change?

INC 3.6: Additional Searches

The purpose of this task is to search the Problem and Knowledge databases in a greater breadth and depth than was done in Initial Diagnosis and Escalation. If a match is found, the Incident flow is returned to the Service Desk to implement the workaround. If no matching Problem record can be found, one will be created in the next task.

Annotation:	Incident Support will have a greater depth of knowledge to draw on than Service Desk and may be able to formulate better search criteria

INC 3.7: Match Found?

INC 3.8: Create Problem

The purpose of this task is to create a Problem record and queue the Problem to the appropriate support group when necessary based on Problem management Policies. The Problem Management process is now responsible for identifying the root cause and ensuring that a permanent fix is implemented to avoid subsequent incidents. Problem Management will also look at any workaround created in Incident Management and optimize it (if required) for re-use.

INC 3.9: Workaround Possible?

Is there a real possibility of coming up with a viable workaround?

INC 3.10: Develop Workaround

The purpose of this task is to develop a Workaround.

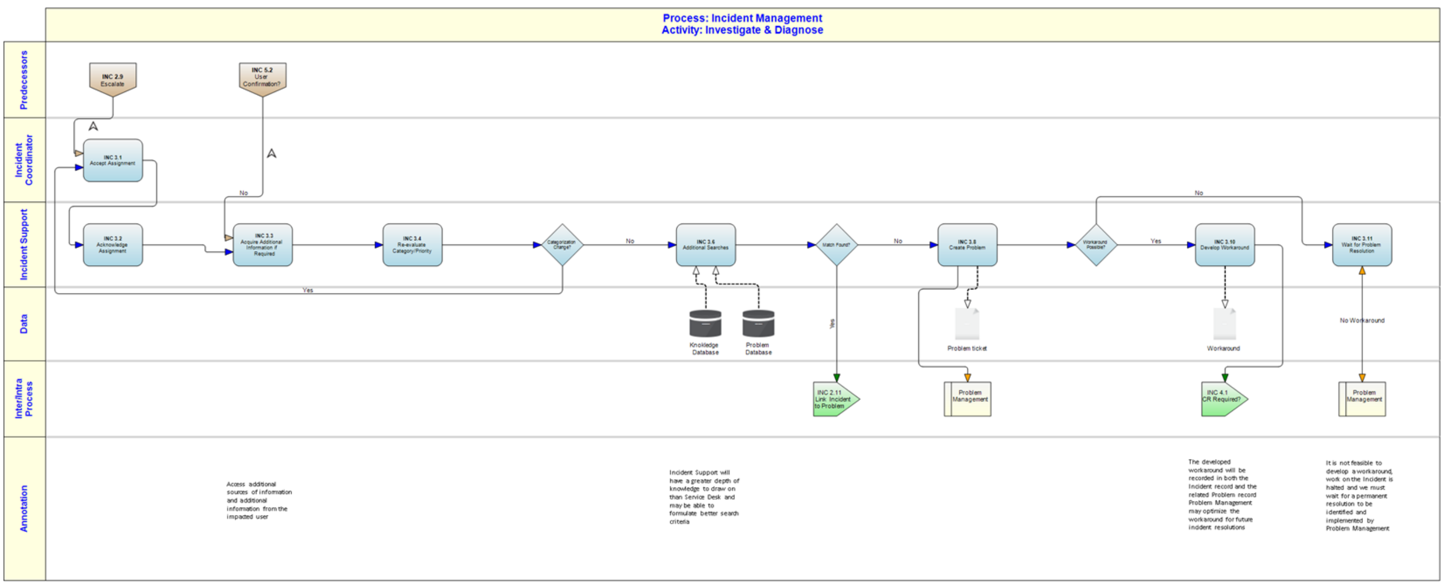
Annotation:	The developed workaround will be recorded in both the Incident record and the related Problem record Problem Management may optimize the workaround for future incident resolutions

INC 3.11: Wait for Problem Resolution

It may not be feasible to develop a workaround for all incidents and hence, we may have to wait for a resolution from the Problem Management process.

Annotation:	It is not feasible to develop a workaround, work on the Incident is halted and we must wait for a permanent resolution to be identified and implemented by Problem Management

Cross-Functional Flow Diagram



INC 3.1: Accept Assignment

It is now up to the assigned group's Incident Coordinator to review the incident and either accept it or re-queue it to another group. The Coordinator must also select an appropriate individual within their group and assign the record to that individual in the role of Incident Support. The status of the record should be changed accordingly and the assignee notified.

INC 3.1: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.9	Escalate	
INC 3.5	Categorization Change?	Yes

Successors

Task ID	Task Name	Diagram Label
INC 3.2	Acknowledge Assignment	

INC 3.1: Task Roles

Name	Duties	RACI
Incident Coordinator	Monitors their respective queues for Incidents assigned to their group. Responsible for assigning Incidents to the most suitable individuals for investigation. If the Incident was incorrectly assigned to the group, the Incident Coordinator will re-queue it accordingly.	R/A

INC 3.2: Acknowledge Assignment

Once the Incident Coordinator has designated a suitable individual to fill the initial role of Incident Support for the incident, the individual must acknowledge their acceptance. Doing so signifies that the individual is ready to assume the responsibilities of Incident Support.

INC 3.2: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.1	Accept Assignment	

Successors

Task ID	Task Name	Diagram Label
INC 3.3	Acquire Additional Information if Required	

INC 3.2: Task Roles

Name	Duties	RACI
Incident Support	The individual must acknowledge the assignment and signify that they are ready to start working on a resolution.	R/A

INC 3.3: Acquire Additional Information if Required
The details captured thus far in the Incident record are now reviewed. Additionally, relevant error logs, dumps, journals, and other sources of information are reviewed to gain a full appreciation of the events leading to the Incident. If necessary, the user (s) and other parties may be contacted to provide additional information and clarifications. The Incident record should be updated with any relevant findings and additional information.

INC 3.3: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 5.2	User Confirmation?	No
INC 3.2	Acknowledge Assignment	

Successors

Task ID	Task Name	Diagram Label
INC 3.4	Re-evaluate Category/Priority	

INC 3.3: Task Roles

Name	Duties	RACI
Incident Support	Requests additional information necessary to proceed with Incident investigation. The Incident record must be updated to reflect the nature of the information requested.	R/A
Service Desk Agent	Depending on the Incident and established procedures, the Service Desk may play in role in obtaining the additional information from the user.	C
User	Provides any additional information requested.	C

INC 3.3: Task Notes
Task Notes

Description
It is important that any findings, suspicions and relevant information be captured in the Incident record, so that subsequent investigation by others (if required) can leverage such information.

INC 3.4: Re-evaluate Category/Priority
The initial categorization is reviewed and verified. If it is incorrect it is updated and the incident is re-queued to the appropriate support group. Conditions may also have changed that would merit a change in the Impact or Urgency and therefore priority of the incident.

INC 3.4: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.3	Acquire Additional Information if Required	

Successors

Task ID	Task Name	Diagram Label
INC 3.5	Categorization Change?	

INC 3.4: Task Roles

Name	Duties	RACI
Incident Coordinator	May assist Incident Support with re-categorizing the Incident.	C
Incident Support	Based on the current situation, the person now assigned to the Incident needs to re-evaluate the categorization, impact, urgency and priority and update the Incident accordingly. Should the categorization be changed they will re-assign the incident to the correct support group	R/A

INC 3.4: Task Notes

Task Notes

Description
The number of times an Incident is re-queued should be monitored. Re-queuing may mean an incident is being 'bounced' from support group to support group with no group taking responsibility for attempting to resolve the incident and, consequently, no real work on the resolution happening.

INC 3.5: Categorization Change?

INC 3.5: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.4	Re-evaluate Category/Priority	

Successors

Task ID	Task Name	Diagram Label
INC 3.6	Additional Searches	No
INC 3.1	Accept Assignment	Yes

INC 3.5: Task Roles

Name	Duties	RACI
Incident Coordinator	Responsible for ensuring that escalation occurs within identified timeframes and to the correct group or individual.	R
Incident Support		R

INC 3.6: Additional Searches

The purpose of this task is to search the Problem and Knowledge databases in a greater breadth and depth than was done in Initial Diagnosis and Escalation. If a match is found, the Incident flow is returned to the Service Desk to implement the workaround. If no matching Problem record can be found, one will be created in the next task.

INC 3.6: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.5	Categorization Change?	No

Successors

Task ID	Task Name	Diagram Label
INC 3.7	Match Found?	

INC 3.6: Task Roles

Name	Duties	RACI
Incident Support	Search for potential matching Problems, Known Errors and Knowledge articles for the Incident.	R/A

INC 3.7: Match Found?

INC 3.7: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.6	Additional Searches	

Successors

Task ID	Task Name	Diagram Label
INC 3.8	Create Problem	No
INC 2.11	Link Incident to Problem	Yes

INC 3.7: Task Roles

Name	Duties	RACI
Incident Coordinator	May be consulted by Incident Support to ensure proper group assignment and the viability of developing a Workaround.	C
Incident Support		R

INC 3.8: Create Problem

The purpose of this task is to create a Problem record and queue the Problem to the appropriate support group when necessary based on Problem management Policies. The Problem Management process is now responsible for identifying the root cause and ensuring that a permanent fix is implemented to avoid subsequent incidents. Problem Management will also look at any workaround created in Incident Management and optimize it (if required) for re-use.

INC 3.8: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Problem Management		Create new Problem Record		Out

INC 3.8: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.7	Match Found?	No

Successors

Task ID	Task Name	Diagram Label
INC 3.9	Workaround Possible?	

INC 3.8: Task Roles

Name	Duties	RACI
Incident Coordinator	May be consulted by Incident Support to ensure proper group assignment and the viability of developing a Workaround.	C
Incident Support	Create a Problem record. Relevant info from the Incident should be copied to the Problem (may be executed automatically by the tool). Ensure that the Problem is assigned to the correct group. Should make a determination about whether developing a Workaround is worthwhile.	R/A
Problem Process Manager	May be consulted by Incident support to clarify if a Problem Record needs to be created	C

INC 3.9: Workaround Possible?

Is there a real possibility of coming up with a viable workaround?

INC 3.9: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.8	Create Problem	

Successors

Task ID	Task Name	Diagram Label
INC 3.10	Develop Workaround	Yes
INC 3.11	Wait for Problem Resolution	No

INC 3.9: Task Roles

Name	Duties	RACI
Incident Support		R

INC 3.10: Develop Workaround

The purpose of this task is to develop a Workaround.

INC 3.10: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.9	Workaround Possible?	Yes

Successors

Task ID	Task Name	Diagram Label
INC 4.1	CR Required?	

INC 3.10: Task Roles

Name	Duties	RACI
Incident Coordinator	May be required to provide additional resources or aid in developing the workaround	C
Incident Support	Take actions to develop an appropriate Workaround. May involve escalating to or consulting with another individual or group with the requisite skills to accomplish. Incident should be updated to reflect that a Workaround is under development.	R/A

INC 3.11: Wait for Problem Resolution

It may not be feasible to develop a workaround for all incidents and hence, we may have to wait for a resolution from the Problem Management process.

INC 3.11: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Problem Management		Problem record updated that no workaround will be developed	No Workaround	Both

INC 3.11: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 3.9	Workaround Possible?	No

Successors

Task ID	Task Name	Diagram Label

INC 3.11: Task Roles

Name	Duties	RACI
Incident Support	Incident support retains ownership of the Incident while waiting on information to be returned from Problem Management.	R/A

INC 4.0: Resolve & Recover

This activity includes those tasks required to implement the fix or Workaround located or developed in the previous activity. A CR will be submitted if required and, if so, the Change Management process will manage the implementation. Depending on the damage done by the Incident, recovery actions may also take place.

INC 4.1: CR Required?

Change Management Policies will identify when a CR is required.

Annotation:	Does implementing the workaround require changing something that is under Change Management control? If so a CR is required to trigger actions from Change Management.

INC 4.2: Create CR

The purpose of this task is to create a Change Request. If a change to the environment is required to resolve the Incident then the Change Management Process is responsible for managing the Change.

Annotation:	Change Management will facilitate the implementation of the workaround

INC 4.3: Implement Resolution/Workaround

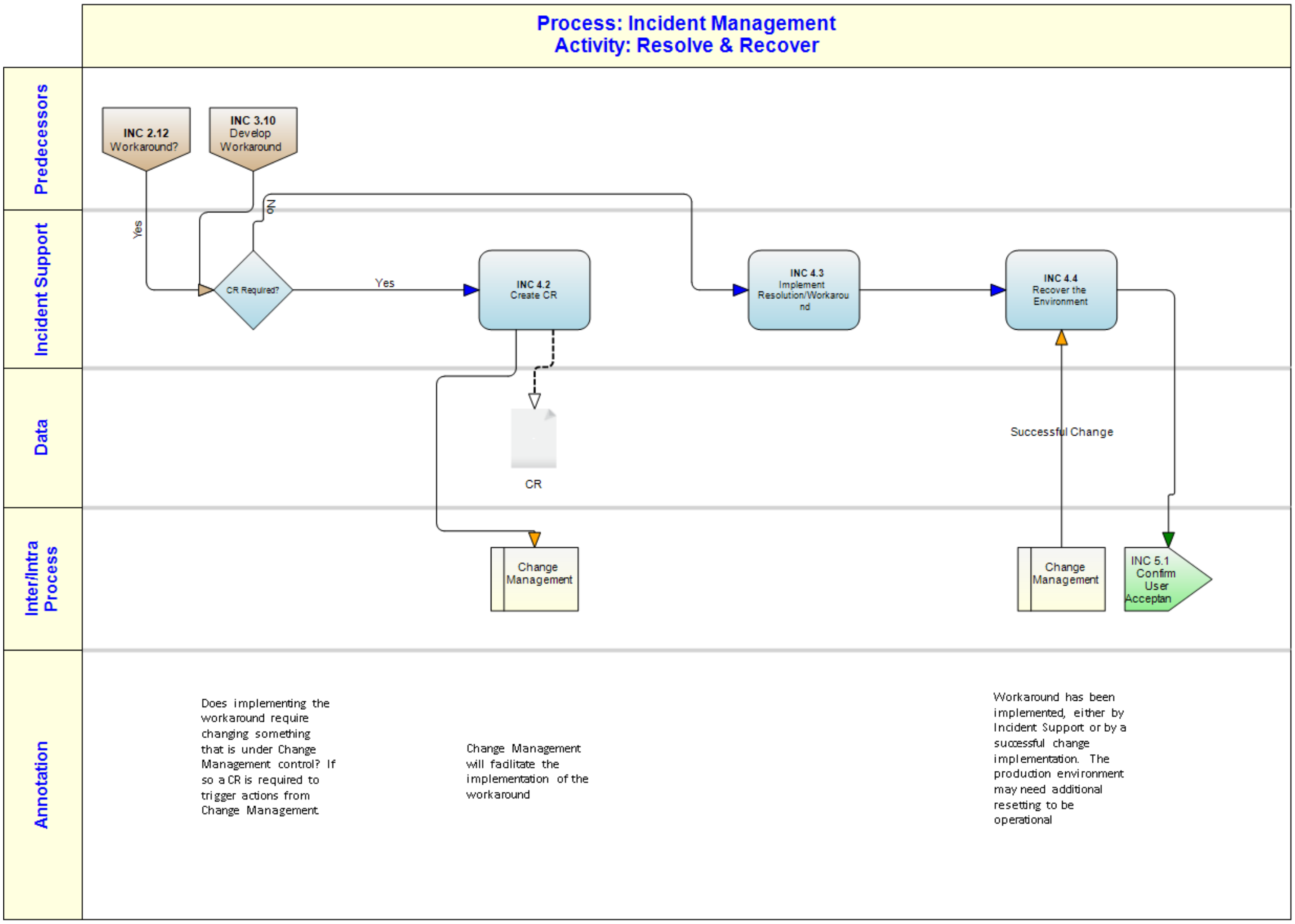
The purpose of this task is to implement the Resolution or Workaround. The Workaround or Resolution may be approved, scheduled and executed by the Change Management process.

INC 4.4: Recover the Environment

The purpose of this task is to recover after the Resolution or Workaround has been implemented. For example, after a disk drive is replaced (the resolution), the data may need to be restored (the recovery) from a backup.

Annotation:	Workaround has been implemented, either by Incident Support or by a successful change implementation. The production environment may need additional resetting to be operational

Cross-Functional Flow Diagram



INC 4.1: CR Required?

Change Management Policies will identify when a CR is required.

INC 4.1: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.12	Workaround?	Yes
INC 3.10	Develop Workaround	

Successors

Task ID	Task Name	Diagram Label
INC 4.2	Create CR	Yes
INC 4.3	Implement Resolution/Workaround	No

INC 4.1: Task Roles

Name	Duties	RACI
Incident Support	Determine the need for an CR	R

INC 4.2: Create CR

The purpose of this task is to create a Change Request. If a change to the environment is required to resolve the Incident then the Change Management Process is responsible for managing the Change.

INC 4.2: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Change Management		Change Management will implement the resolution		Out

INC 4.2: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 4.1	CR Required?	Yes

Successors

Task ID	Task Name	Diagram Label

INC 4.2: Task Roles

Name	Duties	RACI
Incident Coordinator	May provide guidance in determining if a CR is required or if restoration of service would be accomplished thru established SOPs.	C
Incident Support	Create and submit a CR for the restoration of service.	R/A

INC 4.3: Implement Resolution/Workaround

The purpose of this task is to implement the Resolution or Workaround. The Workaround or Resolution may be approved, scheduled and executed by the Change Management process.

INC 4.3: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 4.1	CR Required?	No

Successors

Task ID	Task Name	Diagram Label
INC 4.4	Recover the Environment	

INC 4.3: Task Roles

Name	Duties	RACI
Incident Support	Participate as required in the implementation of the Workaround or resolution. May need to solicit the assistance of team members, or re-assign the incident.	R/A
Service Desk Manager	Is notified of the planned implementation so that they can in turn notify affected users, or make their staff aware should users call with queries regarding the status of the Incident.	I
User	The user may be asked to participate in the implementation or verification of the Change.	C
User	Depending on the nature of the Incident, individual user(s) may be notified of the planned implementation.	I

INC 4.3: Task Notes

Task Notes

Description
The Service Desk must coordinate the implementation of the Workaround or Resolution with all affected users.

INC 4.4: Recover the Environment

The purpose of this task is to recover after the Resolution or Workaround has been implemented. For example, after a disk drive is replaced (the resolution), the data may need to be restored (the recovery) from a backup.

INC 4.4: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Change Management		Close Change Request	Successful Change	In

INC 4.4: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 4.3	Implement Resolution/Workaround	

Successors

Task ID	Task Name	Diagram Label
INC 5.1	Confirm User Acceptance	

INC 4.4: Task Roles

Name	Duties	RACI
Incident Support	Performs the steps necessary to recover the environment to its previous good state (e.g., restoring a database from a checkpoint or backup). May solicit assistance or escalate Incident in order to accomplish this task.	R/A

INC 5.0: Close Incident

Having implemented a Workaround or fix, it is now time to close the Incident. The affected user(s) should be contacted to solicit their acceptance of the Workaround or fix, and to obtain any additional feedback on the handling of their issue. Details of the resolution and an appropriate closure and cause code should be captured.

INC 5.1: Confirm User Acceptance

The purpose of this task is to confirm that the User is satisfied that the workaround or resolution has made it possible for them to do what they need to do.

Annotation:	The affected user should confirm that the workaround or permanent resolution (Problem Management) is able to get what they need to continue to work

INC 5.2: User Confirmation?

Results of User Confirmation

INC 5.3: Capture User Feedback

The purpose of this task is to capture User feedback. Satisfaction surveys are important in order to measure the effectiveness of the Service Desk and the Incident Management Process

Annotation:	This is not a Customer Satisfaction survey. Simply capture any comments the user has about how this incident was handled

INC 5.4: Resolution/Recovery Details

The purpose of this task is to ensure all details of the Resolution, as well as a suitable Closure Code and Cause Code are identified and recorded in the Incident.

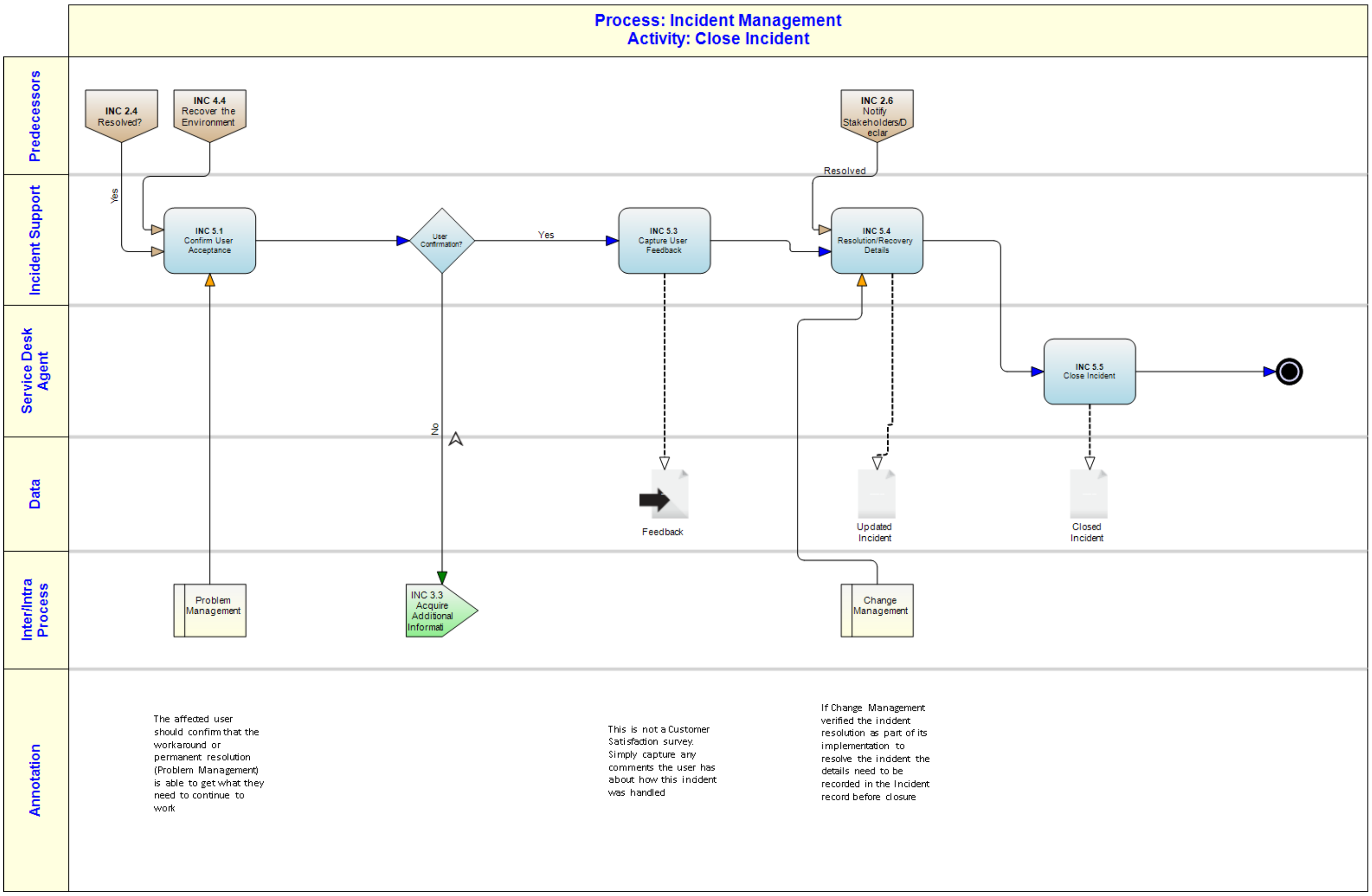
Annotation:	If Change Management verified the incident resolution as part of its implementation to resolve the incident the details need to be recorded in the Incident record before closure

INC 5.5: Close Incident

The purpose of this task is to close the Incident

INC 5.6: Process End

Cross-Functional Flow Diagram



INC 5.1: Confirm User Acceptance

The purpose of this task is to confirm that the User is satisfied that the workaround or resolution has made it possible for them to do what they need to do.

INC 5.1: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Problem Management		Known error closed, incident resolution to be verified		In

INC 5.1: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.4	Resolved?	Yes
INC 4.4	Recover the Environment	

Successors

Task ID	Task Name	Diagram Label
INC 5.2	User Confirmation?	

INC 5.1: Task Roles

Name	Duties	RACI
Incident Support	Contacts the affected user(s) to confirm that the implemented Workaround/resolution has in fact addressed their original Incident.	R
User	Takes any steps necessary to verify that their incident has been resolved to their satisfaction.	C

INC 5.1: Task Notes

Task Notes

Description
It may not be practical or feasible – depending on the nature of the Incident and its resolution or Workaround – to contact all the affected users. However, every attempt should be made to do so where it makes sense, even if that is only a subset of the affected users (e.g., a user from each region).
Contact with the User will be attempted 3 times before the incident is placed into Resolved status either by email or Telephone

INC 5.2: User Confirmation?

Results of User Confirmation

INC 5.2: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 5.1	Confirm User Acceptance	

Successors

Task ID	Task Name	Diagram Label
INC 3.3	Acquire Additional Information if Required	No
INC 5.3	Capture User Feedback	Yes

INC 5.2: Task Roles

Name	Duties	RACI
Incident Support		R

INC 5.3: Capture User Feedback

The purpose of this task is to capture User feedback. Satisfaction surveys are important in order to measure the effectiveness of the Service Desk and the Incident Management Process

INC 5.3: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 5.2	User Confirmation?	Yes

Successors

Task ID	Task Name	Diagram Label
INC 5.4	Resolution/Recovery Details	

INC 5.3: Task Roles

Name	Duties	RACI
Incident Support	Solicits /accepts feedback from the user and enters it into the Incident record.	R
User	Provides feedback either to the Service Desk Agent or via the electronic survey they received.	C

INC 5.4: Resolution/Recovery Details

The purpose of this task is to ensure all details of the Resolution, as well as a suitable Closure Code and Cause Code are identified and recorded in the Incident.

INC 5.4: Task Inter Process

Inter Process defines the connections between external Processes.

Process	Task ID	Description	Label	Direction
Change Management		Successful change implementation to resolve incident, Incident resolution with user verified at Change close		In

INC 5.4: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 2.6	Notify Stakeholders/Declare Major Incident	Resolved
INC 5.3	Capture User Feedback	

Successors

Task ID	Task Name	Diagram Label
INC 5.5	Close Incident	

INC 5.4: Task Roles

Name	Duties	RACI
Incident Support	Captures or ensures that all of the necessary closure information is recorded in the Incident. If the Incident had been escalated to 2nd or 3rd level support groups, they may have completed this information.	R

INC 5.5: Close Incident

The purpose of this task is to close the Incident

INC 5.5: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 5.4	Resolution/Recovery Details	

Successors

Task ID	Task Name	Diagram Label
INC 5.6	Process End	

INC 5.5: Task Roles

Name	Duties	RACI
Service Desk Agent	Close the incident record with the appropriate closure code	R/A
Service Desk Manager	For high-priority service-impacting Incidents, reviews the quality and completeness of the information captured in the Incident record.	C

INC 5.5: Task Notes

Task Notes

Description
Records will be automatically closed after 5 days

INC 5.6: Process End

INC 5.6: Task Workflow

Predecessors

Task ID	Task Name	Diagram Label
INC 5.5	Close Incident	

Successors

Task ID	Task Name	Diagram Label

INC 5.6: Task Roles

Name	Duties	RACI
Service Desk Agent		R

States

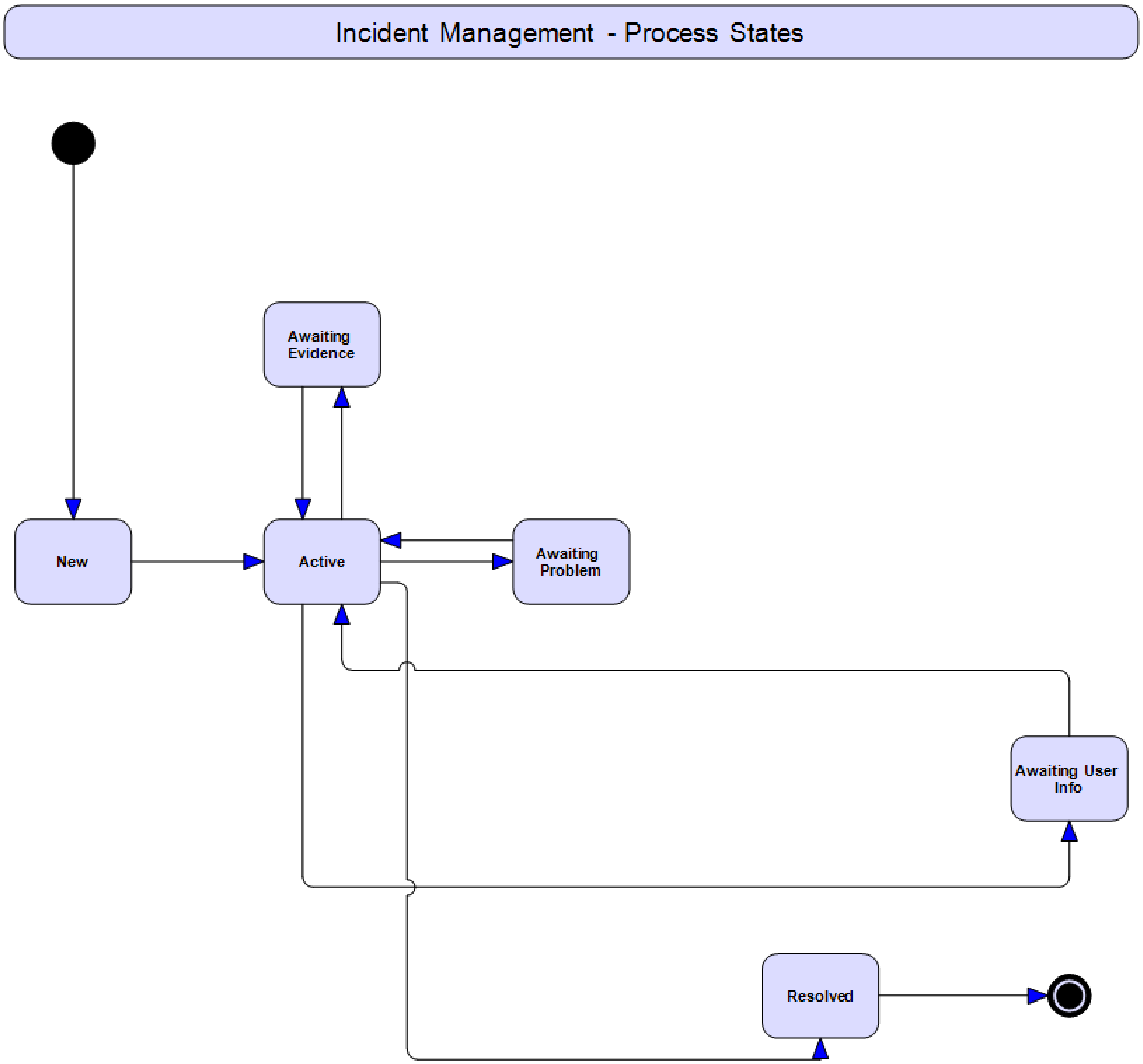
States are used to indicate points of progress of an instance through the lifecycle of the process.

Process States

The following lists the discrete State values that can be assumed by a specific instance in this process.

Name	Description
New	The first state of the Incident. The incident has been created and assigned but is not being worked on yet.
Active	The incident has been acknowledged by Incident support and is being actively worked on
Awaiting Problem	A problem has been created to determine root cause before the incident can be resolved. This puts the incident in a wait mode and the clock may be stopped
Awaiting User Info	Support is waiting for the user to provide additional information before the incident can be resolved. The clock may be stopped at this time
Awaiting Evidence	Support is waiting for confirmation or evidence that the implemented resolution has fixed the issue
Resolved	The incident has been resolved and the user has been notified. The user may choose to re-open the incident if they are still experiencing problems.

Process State Diagram



Appendix

Attachments and Links

Definitions

Term	Definition
RACI Model	The RACI-method is based on the principle that people act in one of four ways when executing a task. It accounts for the fact that more than one role may be active in performing a specific task while clearly defining specific responsibilities for that role. While many roles may be involved in a task only one is Accountable for the results. The actions are: R Responsible for the action (may do the task) A Accountable for the action (including approval) C Required to be Consulted on the action I Required to be Informed of the action If a task does not have an Accountable role indicated then the Responsible role is assumed to be accountable for the task.
Resolved	An incident may be placed into Resolved when a proposed technical resolution has been provided or implemented and the Technician believes has restored the service
Closed	TBA