DEPARTEMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
3000 MARINE CORPS PENTAGON
WASHINGTON, DC 20350-3000

IN REPLY REFER TO:
IRM 2300-11A
C4
4 Aug 16

From: Director, Command, Control, Communications and Computers (C4)

Subj: ENTERPRISE INFORMATION TECHNOLOGY SERVICE MANAGEMENT KNOWLEDGE MANAGEMENT PROCESS GUIDE

Ref: (a) MCO 5271.1B

Encl: (1) IRM-2300-11A Enterprise Information Technology Service Management Knowledge Management Process Guide

1. PURPOSE. The purpose of the Enterprise Information Technology Service Management (E-ITSM) Knowledge Management Process Guide is to update the previously defined foundation for process implementation and execution across the Marine Corps Enterprise Network (MCEN). Process implementation and execution at lower levels (e.g., Regional, Local and Programs of Record) must align and adhere to directives and schema documented within this guide. This guide enables USMC Information Technology (IT) activities through promoting standardization of work instructions and operating procedures across a continuum of document specificity.

2. CANCELLATION. IRM 2300-11

3. AUTHORITY. The information promulgated in this publication is based upon policy and guidance contained in reference (a).

4. APPLICABILITY. This publication is applicable to the Marine Corps Total Force.

5. SCOPE.

a. Compliance. Compliance with the provisions of this publication is required unless a specific waiver is authorized.

b. Waivers. Waivers to the provisions of this publication will be authorized by the Director, Command, Control, Communications and Computers (C4).

6. SPONSOR. The sponsor of this technical publication is HQMC C4, Netowrk Plans and Policy Division (CP).

D. W. MCMORRIES
By direction

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.
DISTRIBUTION: PCN 18623000300

Enterprise IT Service Management
Knowledge Management
Process Guide

Release Date:
15 June 2016

Document Approval/Major Revision Change History Record

This table is used for initial release and subsequent revisions. Major revisions are indicated by the number to the left of the decimal point while minor revisions are indicated by the number to the right. Major revisions are required when the intent or process is changed rendering the prior version obsolete or when the number of minor releases total twenty (20). Changes to this document shall be recorded, described and approved using the table below:

Release Date (MM/DD/YY)	Release No.	Approvals		Change Description
		Author	Process Owner/Approver	
06/26/13	1.0	Printed Name	Printed Name	Initial Release
06/15/16	2.0	Printed Name	Printed Name	Reviewed and updated per CRMs
		Printed Name	Printed Name	
		Printed Name	Printed Name	
		Printed Name	Printed Name	
		Printed Name	Printed Name	
		Printed Name	Printed Name	
		Printed Name	Printed Name	
		Printed Name	Printed Name	

Table of Contents

List of Tables

List of Figures

Enterprise IT Service Management Knowledge Management Process Guide

1.0 INTRODUCTION

1.1 Purpose

The purpose of this process guide is to establish a documented and clear foundation for process implementation and execution across the Marine Corps Enterprise Network (MCEN). Process implementation and execution at lower levels (e.g., Regional, Local, and Programs of Record (PORs)) must align with and adhere to directives and schema documented within this guide. The use of this guide enables United States Marine Corps (USMC) Information Technology (IT) activities through promoting standardization of work instructions and operating procedures across a continuum of document specificity as represented in Figure 1.

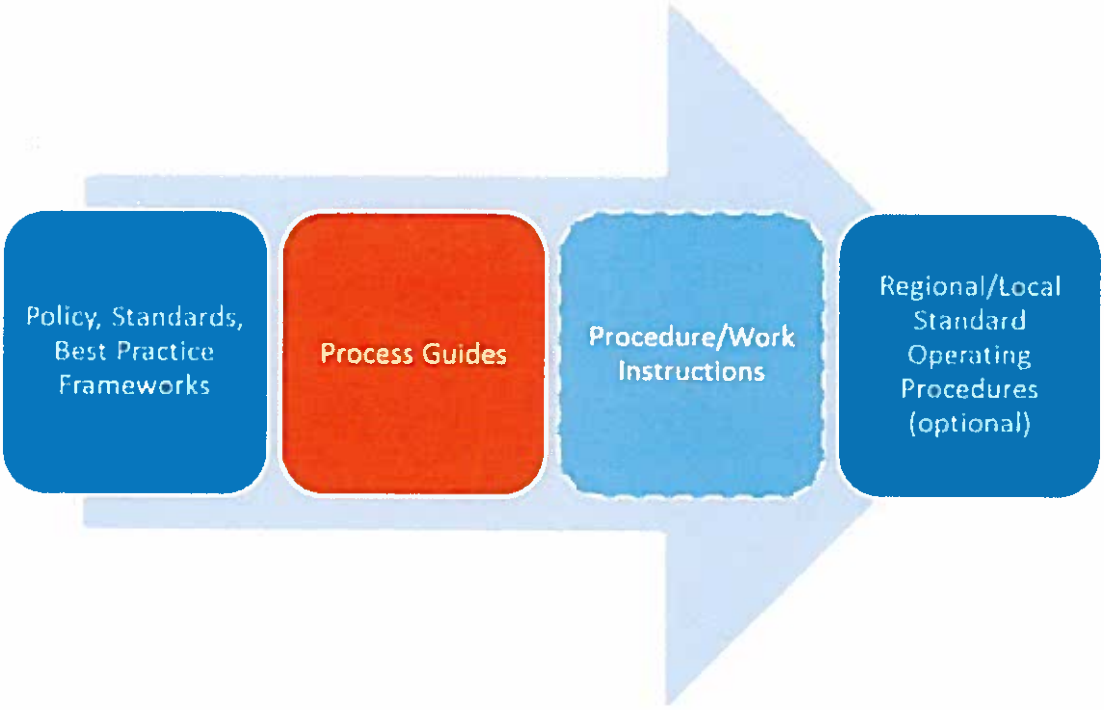

Figure 1. Process Document Continuum

The scope of this document covers all services provided in support of the MCEN for both the Secret Internet Protocol Router Network (SIPRNET), and the Non-Secure Internet Protocol Router Network (NIPRNET). Information remains relevant for the global operations and defense of the MCEN as managed by Marine Corps Forces Cyberspace Command (MARFORCYBER) including all Marine Air Ground Task Force Information Technology Support Center (MITSC) assets and supported Marine Expeditionary Forces (MEF), Supporting Establishment (SE) organizations, and Marine Corps Installation (MCI) commands.

Table 1 depicts the various layers of document design. Each layer has discrete entities, each with their own specific authority when it comes to promulgating documentation. This enterprise process operates at Level B, sub processes such as procedures and work instructions are not included within the scope of this document.

Table 1. Document Design Layers

	ENTITIES	DOCUMENTS GENERATED
LEVEL A	Federal Government Department of Defense (DOD) Department of the Navy (DoN) Marine Corps Headquarters	Statutes/Laws DoD Issuances DoN Policies Marine Corps Orders/IRMS
LEVEL B	MARFORCYBER HQMC C4 Marine Corps System Command (MCSC)	MCOs IRMs (Process Guides) Directives MARADMINS
LEVEL C	Marine Corps Cyberspace Operations Group (MCCOG) MITSC	Regional Procedures Work Instructions
LEVEL D	Marine Corps Bases Marine Corps Posts Marine Corps Stations	Locally Generated SOP's

1.2 Process and Document Control

This document will be reviewed annually for accuracy by the Enterprise Process Owner with designated team members. Questions pertaining to the conduct of the process should be directed to the Enterprise Process Owner. Suggested changes to the process should be directed to USMC C4 CP in accordance with MCO 5271.1C Information Resource Management (IRM) Standards and Guidelines Program.

2.0 PROCESS OVERVIEW

2.1 Purpose, Goals and Objectives

The U.S. Marine Corps views Knowledge Management (KM) as a holistic organizational goal, containing many different, yet interrelated aspects such as strategy, culture, process, technology, performance and learning. The goal is for KM practices and principles to be operationalized and institutionalized within all organizations and programs across the enterprise, including IT. In accordance with MCO 5400.52, the Combat Development & Integration (CD&I)/Marine Corps Combat Development Command (MCCDC) is the Advocate for KM in the Marine Corps. The process ownership (i.e., accountability) for KM specific to IT Service Management (ITSM) comes from the Headquarters Marine Corps (HQMC) C4, who is strategically partnered and aligned with CD&I in order to leverage and incorporate KM practices to enable effective Enterprise ITSM operations.

The scope of ITSM KM in this Process Guide is focused specifically on knowledge to support delivery of IT Services, as shown in Figure 2-1 below. The ITSM KM is targeted on the more holistic management of ITSM knowledge artifacts across all IT teams. It is relevant to all service management life cycle phases and processes because it provides secure and controlled access to ITSM data, information and knowledge that is needed to manage and deliver services. The scope of KM in this Process Guide does not extend beyond ITSM. As mentioned above, there are other broader enterprise KM initiatives that are setting strategy for the USMC.

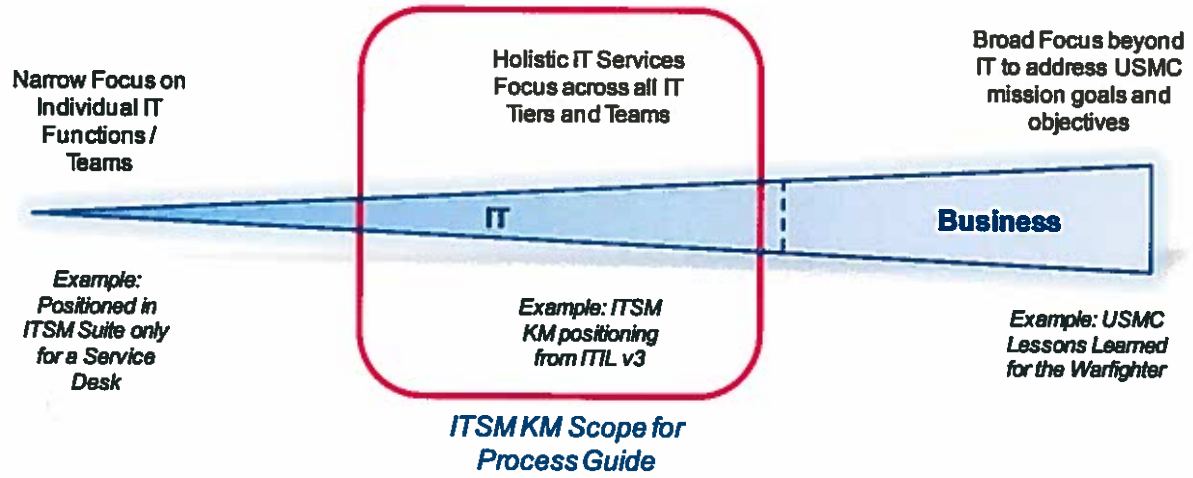

Figure 2-1. Positioning of ITSM

The purpose of ITSM KM is to leverage shared information and experience to ensure the right information is delivered to the right person or place at the right time in order to enable informed decisions on IT services.

The objectives of ITSM KM include:

- Improve the quality of management decision making by ensuring that reliable and secure ITSM data, information and knowledge is available throughout the service life cycle

- Gather, analyze, store, share, use and maintain ITSM data, information and knowledge throughout the service provider organization, i.e., the USMC ITSM organization which is a virtual community composed of regions, installations, acquisition organizations, governance and policy organizations across multiple chains of command
- Enable the service provider organization to be more efficient, improve quality of service, increase satisfaction and reduce the cost of service by reducing the need to rediscover knowledge
- Ensure that service provider staff have a clear and common understanding of the value their services provide to the customers and the ways in which benefits are realized from the use of those services
- Maintain a Service Knowledge Management System (SKMS) that provides controlled access to ITSM data, information and knowledge that is appropriate for each audience

As depicted in Figure 2-2 below, when ITSM KM is successful, operational users and other stakeholders are able to make correct judgments and decisions using available ITSM data, information and knowledge. Conversely, sub-optimal decisions are made when stakeholders are forced to make decisions based on information alone.

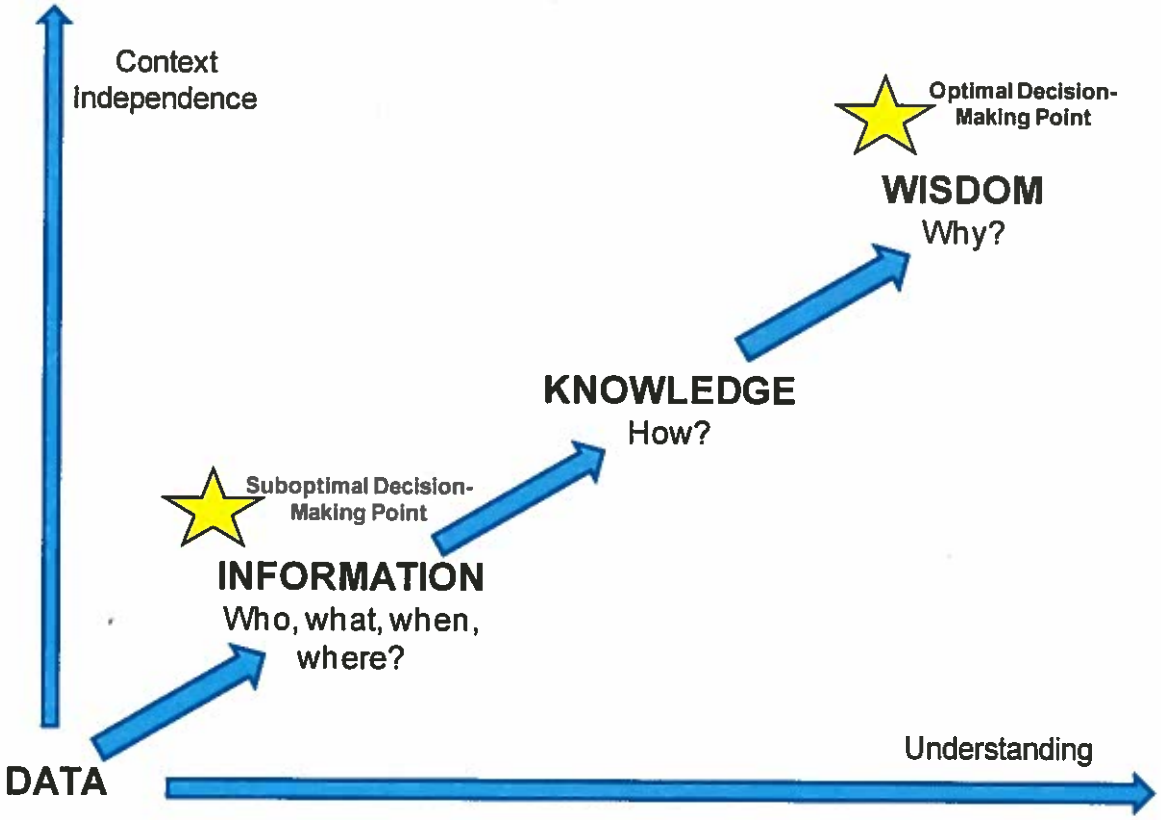

Figure 2-2. Path from Data to Wisdom

In this document, the ITSM KM process is described using roles and responsibilities, process business rules, high level process flows, key process interfaces and process performance indicators that USMC will implement. The IT processes and business rules within this document

support delivery and consistent service improvement to ensure quality of IT services for all USMC IT users.

The Enterprise ITSM (E-ITSM) KM Process Owner ensures that the Marine Corps Information Environment (MCIE) ITSM community can collect, analyze, store and share information, situational awareness and knowledge affecting the IT community. The process owner's mission is to ensure MCIE accessibility and reliability of information for operational users and reduce the need to rediscover knowledge; as well as facilitate the exchange of operationally relevant information and expertise in order to maintain and enhance MCIE ITSM processes and functions.

2.2 Relationships with Other Processes

All ITSM processes are interrelated. The E-ITSM processes in Figure 2-3 were selected due to the strength of the relationships and dependencies between them and the degree to which they underpin USMC near-term objectives. While any one of the ITSM processes can operate in the presence of an immature process, the efficiency and effectiveness of each is greatly enhanced by the maturity and integration of all ITSM processes. Figure 2-3 depicts key relationships that exist between ITSM KM and the other ITSM processes.

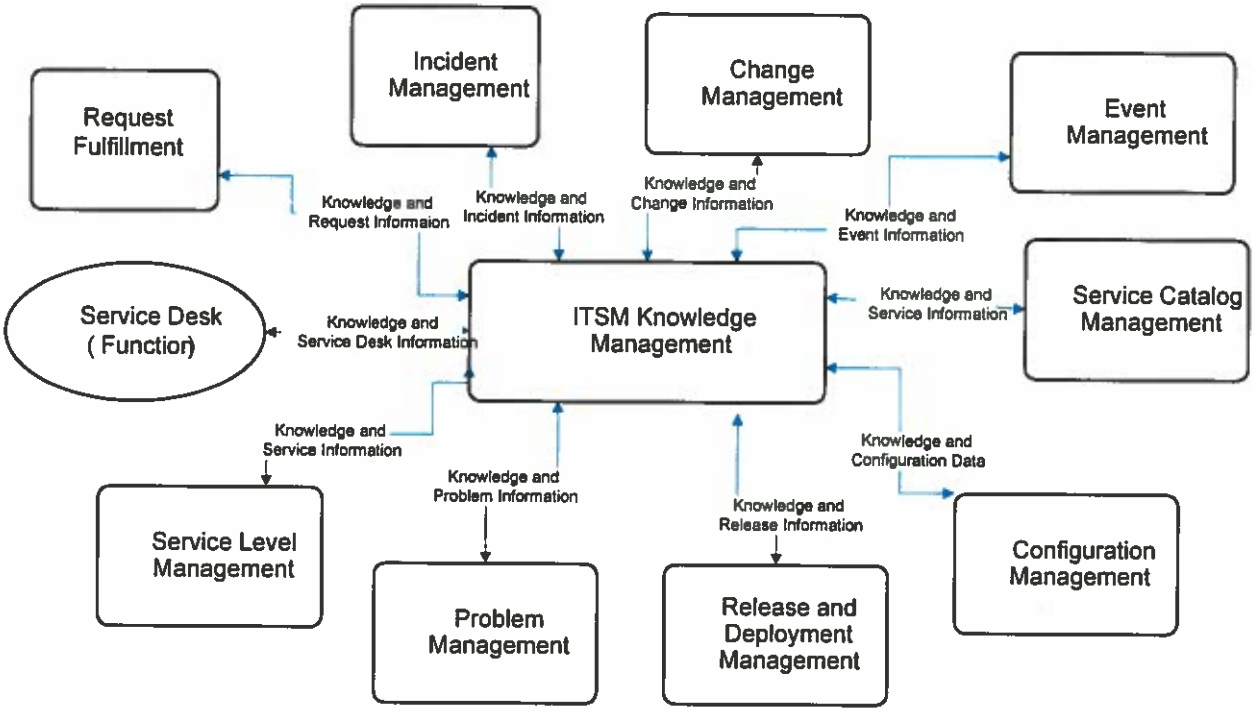

Figure 2-3. ITSM KM Relationships with other Processes

The following list contains descriptions of the ITSM KM relationships (inputs or outputs) depicted in Figure 2-3.

Service Desk (SD) Function

- Knowledge: ITSM KM integrates with SD so that end-users using IT self-service and all tiers of IT support responding to SD activity can leverage ITSM KM for similar activities with solutions.
- SD Information: SD support provides information into the SKMS which becomes widely reusable knowledge. For example, workarounds or resolutions can be captured by the SD team for reuse.

Request Fulfillment (RqM)

- Knowledge: Provides ITSM information for fulfillment of requests, along with broader knowledge and guidance for related service considerations.
- Request Information: Request records, history, status and relationships are provided to the ITSM KM process for insights and broader connection to other processes.

Incident Management (IM)

- Knowledge: Standard methods for addressing incidents are documented in Knowledge Artifacts, ensuring efficient and effective resolution of incidents. Careful documentation of steps needed to resolve incidents can result in lower tier analysts being able to resolve incidents, reducing overall costs.
- Incident Information: All data, metrics and information useful for Incident Management activities must be properly gathered, stored and accessible.

Change Management (ChM)

- Knowledge: Provides information for history, impact and risk analysis to assist with change assessment.
- Change Information: Provides information available regarding Enterprise Change Advisory Board (EntCAB) schedule, agenda, members and decision documents. ChM can also inform the status of changes implemented so that related services and Knowledge Artifacts can be updated.

Event Management (EM)

- Knowledge: Provides information for relationships, impact and integration with other processes and services.
- Event Information: Event data is important input for providing trend analysis and identification knowledge data to assist within proactive Problem Management and Incident Management.

Service Catalog Management (SCM)

- Knowledge: Provides information to support decisions on services, the service catalog content and consumption of services.
- Service Catalog Information: The service catalog along with supporting service information is provided to ITSM KM (e.g., service definition, customers, service tiers, etc.).

Configuration Management (CfM)

- Knowledge: Supports the Configuration Management System (CMS) by linking new and updated Knowledge Artifacts to configuration items.
- Configuration Data: Configuration data, present in the CMS, enables effective decision support and reduces the risks that arise from the lack of proper control of data.

Release and Deployment Management (RDM)

- Knowledge: Provides information on release relationships/integrations with other processes. This includes integration with the definitive media library (DML) to understand licensing and usage requirements.
- Release Information: Provides notice of release activity, outcomes, schedules and detail.

Problem Management (PbM)

- Knowledge: Reliable and accurate information retrieved from the SKMS database is essential to the Problem Management process. PbM staff will be key users and contributors to the Known Error Data Base (KEDB) and the Solutions Database. They are also responsible for ensuring that the information contained in the KEDB and Solutions Database is accurate, timely and uniformly presented across the enterprise.
- Problem Information: Updates and edits of the articles presented in the KEDB will be key to ensuring that the operational forces receive information that is not only dependable but can be used to resolve issues more quickly. This will reduce incident closure times and ensure that customer satisfaction is enhanced. Entry of data into the KEDB and the Solutions Database will be restricted to specific personnel that have received proper training in the content, format and criteria for creating and maintaining Known Errors and Solutions.

Service Level Management (SLM)

- Knowledge: Provides insights to performance, changes in services and makes information available to the service stakeholders.
- Service Knowledge: Existing Service Level Agreements (SLAs), Service Level Requirements (SLRs), Operational Level Agreements (OLAs), Operating Level Objectives (OLOs), Underpinning Contracts (UCs) and past service reports and other historical service information used as input for SLM decisions for a service.

2.3 High-Level Process Model

The following Figure 2-4 illustrates the high level process model for ITSM KM. See Section 4.0 for complete descriptions of the sub-process activities.

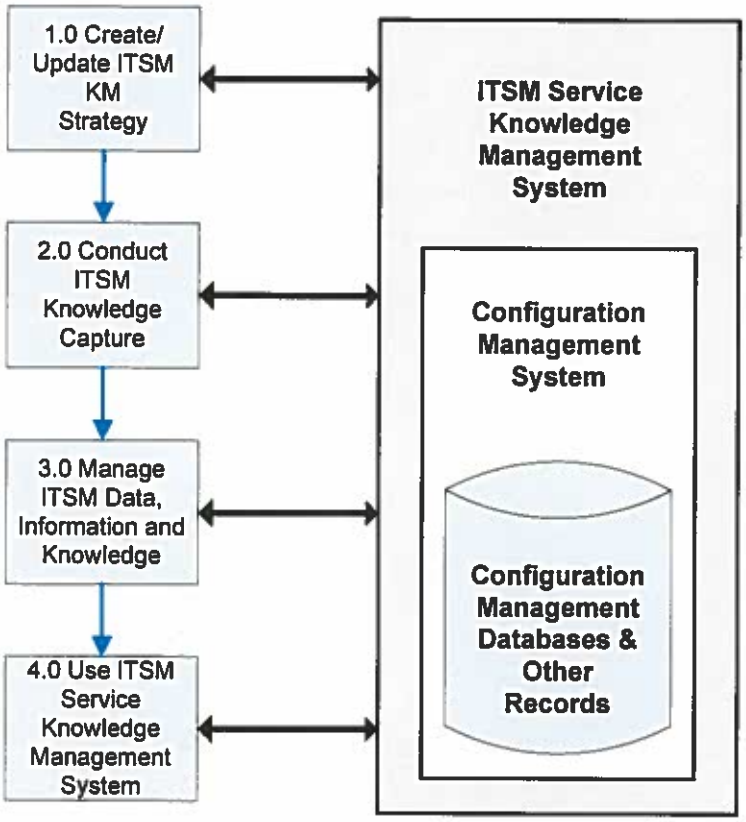

Figure 2-4. High-Level ITSM KM Process Model

Table 2 contains descriptions of each sub-process. Each sub-process number is hyperlinked to its detailed description in Section 4.0, Sub-Processes.

Table 2. ITSM KM Sub-Process Descriptions

Number	Sub-Process	Description
1.0	Create/Update ITSM KM Strategy	An ITSM KM strategy is required for life cycle guidance. The strategy view should cover direct IT staff, users, third party support and others likely to contribute or make beneficial use of the knowledge. The strategy should address the governance model, organizational roles and responsibilities, funding, policies and processes, technology and performance requirements.
2.0	Conduct ITSM Knowledge Capture	During the ITSM KM service life cycle the USMC needs to focus on retrieving, sharing and utilizing their knowledge through problem solving, dynamic learning, strategic planning and decision making. To achieve this, ITSM knowledge needs to be available to other parts of the organization at specific points in the life cycle. Its format must be applicable for those using it and achieve a positive rating of 'ease of use'. ITSM Knowledge capture techniques may include learning styles, knowledge visualization, driving behavior, seminars, webinars and eLearning, etc.
3.0	Manage ITSM Data, Information and Knowledge	ITSM Knowledge rests on the management of the information and data that underpins it. To be efficient this process requires an understanding of some key process inputs such as how the data will be used.
4.0	Use ITSM Service Knowledge Management System	Providing services to customers across time zones, work cycles and geographies requires good ITSM knowledge sharing across all locations and time periods of Service Operations. A service provider must first establish an ITSM SKMS that can be shared, updated and used by its operating entities, partners and customers.

2.3.1 Process Description

ITSM KM is the pivotal process responsible for providing knowledge to all other ITSM processes within the MCIE. ITSM KM is the process for gathering, analyzing, storing and sharing knowledge and information within an organization.

2.4 Key Concepts

The following key concepts describe concepts unique to KM:

2.4.1 Commander's Critical Information Requirements

Commander's Critical Information Requirements (CCIR) is the commander's "need to know immediately" information and response requirements. From MCWP 3-40.2 Information Management, "CCIR are tools for the commander to reduce information gaps generated by uncertainties that he may have concerning his own force, the threat, and/or the environment. They define the information required by the commander to better understand the battle-space, identify risks and to make sound, timely decisions in order to retain the initiative. CCIRs focus the staff on the type and form of quality information required by the commander, thereby reducing information needs to manageable amounts." In the context of KM, CCIRs are a basis for setting knowledge priorities.

All commands are required to produce command specific CCIR guidance with detailed ITSM requirements and are required to adhere to the current CCIR guidance of their superior commands. Common CCIR categories are Enterprise Service Management, Network Defense,

Content Management and MCIE, but others may be applicable based upon the commander's requirements.

2.4.2 Service Knowledge Management System (SKMS)

The following Figure 2-5 illustrates the broader aspects of ITSM KM and how it creates knowledge from data in order to facilitate decision making.

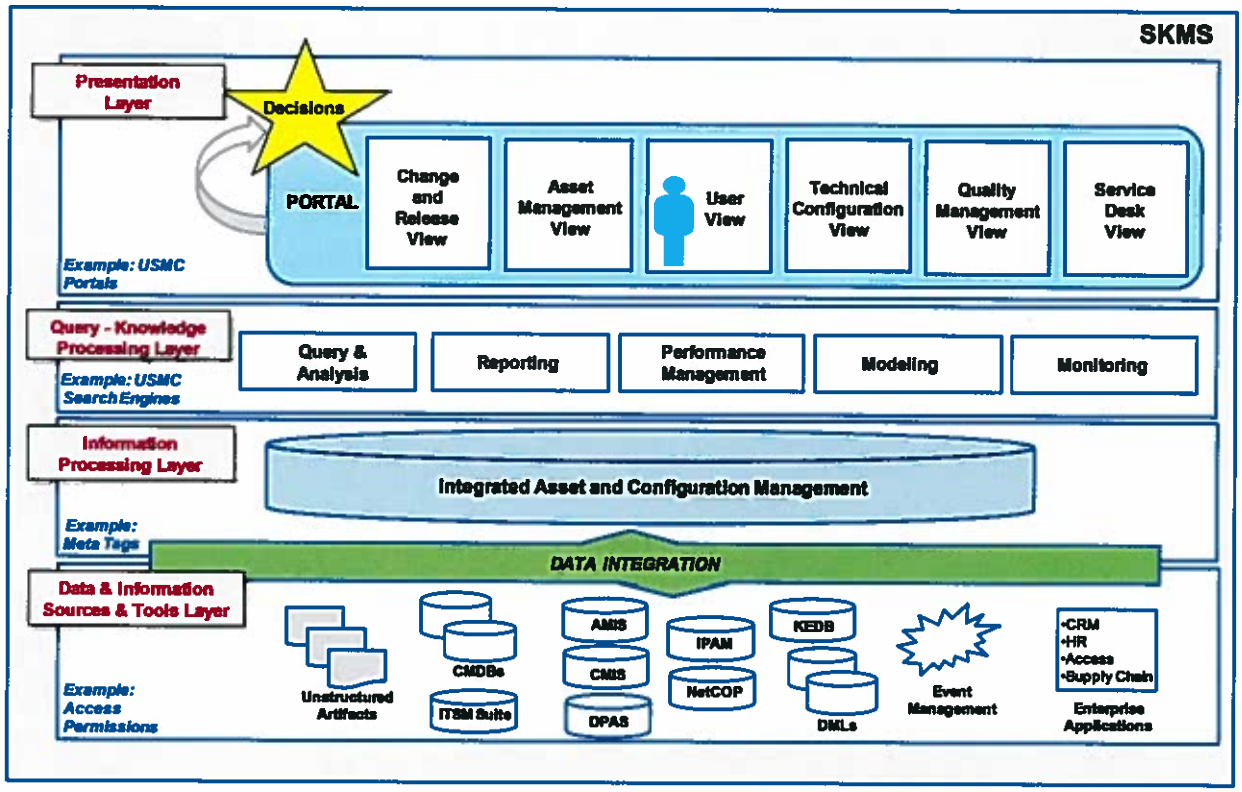

Figure 2-5. MCEN Service Knowledge Management System

The SKMS refers to a collective set of policies, processes, standards and tools designed to manage ITSM knowledge and information. The SKMS stores, manages, updates and presents all information that an IT service provider needs to manage the full life cycle of IT Services. Considerable data may be stored in a central logical repository or Configuration Management System (CMS) and Configuration Management Database (CMDB), which must be managed and presented to the IT service provider (internal or external) to deliver a capability.

2.4.3 ITSM Knowledge Artifact

ITSM Knowledge is stored in units known as ITSM Knowledge Artifacts. Each artifact captures a key facet of knowledge using the appropriate attributes and documents the relevant information for aiding in decisions or actions. For example, an ITSM Knowledge Artifact could be linked to a key issue and contains information for defining a solution to a problem; provides reference data detailing a process, or answers a question. ITSM Knowledge Artifacts will follow a standard

format and will be available and accessible by USMC staff based on the appropriate roles and controls.

2.4.4 ITSM Knowledge Artifact Attributes

ITSM Knowledge Artifacts should have standard attributes and details in the database for easy access and search. Typical details that should be included with each ITSM Knowledge Artifact are shown in Table 3:

Table 3. Sample ITSM Knowledge Artifact Attributes

Status	Description
Artifact ID	Unique identifier for artifact in the database
Artifact Title	Name of the artifact
Artifact Version	Artifact identifier for latest version to enable versioning history capabilities
Author	One who creates or writes content
Assignee or Owner/Group	Name of owner/group who is responsible for artifact across the life cycle for regular review, updates and maintenance
Status	Current status of the artifact
Creation/Modification Date	Timestamps to track dates that artifact was created and last modified
Keywords	Select words and phrases in the content of the artifact that someone is most likely to use when searching, following a controlled vocabulary and appropriate taxonomy
Weighted Score	Score assigned to artifact by users for usefulness and value, as determined by formal weighting algorithm
Type	Indication of the kind of artifact e.g., How To, Reference,, Training, etc.

2.4.5 ITSM Knowledge Life Cycle Status

As ITSM Knowledge Artifacts progress through the process, status codes identify the stages of work toward publishing. Status codes are critical for reporting and for continual process improvement. Guidance for the status designations is shown in Table 4.

Table 4. Sample ITSM Knowledge Life Cycle Status Designations

Status	Designations
In Progress	Initial status assigned to at time of creation
Draft	The first status in the workflow
SME Review	Review and edit of artifact by the subject matter expert (SME)
Optional Reviews	Additional review/edits subsequent to SME review
Publish Approval	Final approval status before publication
Published	Published and available to appropriate users
Retired	No longer available for use, but searchable
Closed Version	Earlier version of an artifact that is no longer searchable
Canceled	Artifact not usable or not searchable

2.4.6 ITSM Knowledge Base

An ITSM Knowledge Base is a special kind of database for KM. It is an information repository that provides a means for information to be collected, organized, shared, searched and utilized. It can be either machine-readable or intended for human use.

2.4.7 ITSM Knowledge Strategy

The ITSM Knowledge strategy will identify and plan for the capture of the consequential data and information that will support it. The steps to delivering this include the following:

- Assistance to operations to identify ITSM Knowledge that will be useful
- Design a systematic process for organizing, distilling, storing and presenting information in a way that improves staff comprehension in a relevant area
- Accumulate ITSM Knowledge through processes and workflow
- Generate new ITSM knowledge
- Access to valuable ITSM Knowledge from outside sources
- Capture external ITSM Knowledge and adapt it (data, information and knowledge from diverse sources such as databases, websites, employees, suppliers and partners)

2.4.8 ITSM Knowledge Capture

During the service life cycle, the USMC needs to focus on retrieving, sharing and utilizing their ITSM knowledge through problem solving, dynamic learning, strategic planning and decision making. Traditionally knowledge is made available through formal classroom training and documentation. Other techniques include:

- Learning styles — defining the best method of sharing knowledge with different, diverse audiences
- Knowledge visualization — using visuals such as diagrams, images, photographs, etc. to improve sharing and utilization of knowledge
- Driving behavior — ensuring that staff are able to decide on correct actions for retrieval, sharing and utilization that are appropriate for different audiences
- Seminars, webinars and eLearning — using technology-based events tools such as webinars for retrieval and sharing knowledge
- Journal and newsletters — allowing for retrieval, sharing and utilization of knowledge in smaller units

2.4.9 Transforming ITSM Data and Information into Knowledge

Efficient ITSM KM of the information relies on the data and information that underpins it. During data and information management it is important to consider how the data and information will be used:

- What ITSM knowledge is necessary based on what decisions are to be made?
- What conditions need to be monitored?
- What data is available and what is feasible to capture?
- What is the cost of capturing and maintaining data and the value of the data?
- What are the applicable policies, legislation, standards and other requirements?

2.5 Quality Control

2.5.1 Metrics, Measurements and Continual Process Improvement

Continual service improvement depends on accurate and timely process measurements and relies upon obtaining, analyzing and using information that is practical and meaningful to the process

at-hand. Measurements of process efficiency and effectiveness enable the USMC to track performance and improve overall end user satisfaction. Process metrics are used as measurements of how well the process is working, whether or not the process is continuing to improve, or where improvements should be made. When evaluating process metrics, the direction of change is more important than the magnitude of the metric.

Effective day-to-day operation and long-term management of the process requires the use of metrics and measurements. Reports need to be defined, executed and distributed to enable the managing of process-related issues and initiatives. Daily management occurs at the process manager level. Long-term trending analysis and management of significant process activities occurs at the process owner level.

The essential components of any measurement system are Critical Success Factors (CSFs) and Key Performance Indicators (KPIs).

2.5.2 Critical Success Factors with Key Performance Indicators

CSFs are defined as process or service-specific objectives that must be achieved if a process (or IT service) is to succeed. KPIs are the metrics used to measure service performance or progress toward stated goals. Not all CSFs will be focused on at the same time.

The effectiveness and performance of processes are measured using metrics-based KPIs which support high level CSFs. The metrics should be monitored and reported in order to judge the efficiency and effectiveness of the process and its operation. To the maximum extent possible, metrics should be broken down by service, customer, priority level, etc. and compared with previous reporting periods.

The following CSFs and KPIs can be used to judge the efficiency and effectiveness of the process. Results of the analysis provide input to improvement programs (i.e., continual service improvement).

Table 5. ITSM KM Critical Success Factors with Key Performance Indicators

CSF #	Critical Success Factors	KPI #	Key Performance Indicators	Benefits
1	Effective acquisition and capture of ITSM knowledge	1	Decreased life cycle time to capture and publish new ITSM knowledge **Method:** 100% inspection **Calculation:** Average time to capture and publish an artifact (end-to-end) in current measuring period/Average time to capture and publish an artifact (end-to-end) in last measuring period X100	Provides visibility to efficiency of ITSM knowledge process for capture and updates

		2	Improvement in efficiency and usefulness of artifacts **Method:** 100% inspection **Calculation:** Number of artifacts that were rated high (2-5) in current measuring period/Number of artifacts that were rated high (2-5) in last measuring period X100	
		3	Increased number of ITSM Knowledge submissions by group **Method:** 100% inspection **Calculation:** Number of artifacts submitted by group in current measuring period/Number of artifacts that were submitted by group in last measuring period X 100	
2	Effective delivery and leverage of up-to-date data ITSM knowledge to add value	4	Increased percentage of incidents solved using available ITSM Knowledge Artifacts **Method:** 100% inspection **Calculation:** Number of artifacts accessed and linked for incident resolutions in current measuring period/Number of artifacts accessed for incident resolutions in last measuring period X 100	Establishes value of ITSM knowledge by showing SKMS usage and accuracy
		5	Increased number of times that SKMS is accessed **Method:** 100% inspection **Calculation:** Number of times SKMS is accessed in current measuring period/Number of times SKMS is accessed in last measuring period X 100	
		6	Increased accuracy of ITSM Knowledge Artifacts submitted **Method:** 100% inspection **Calculation:** Number of times newly submitted artifacts were tagged as "inaccurate" in current measuring period/Number of times newly submitted artifacts were tagged as "inaccurate" in last measuring period X 100	

3	Effective monitoring, accessing and reporting of KM	7	Increased scores in regular customer satisfaction surveys for use of KM **Method:** 100% inspection **Calculation:** Average customer satisfaction scores on artifacts in current measuring period/Average customer satisfaction scores in last measuring period X 100	Provides accountability of ITSM knowledge related to customer and system performance effectiveness
		8	Increase in accessing and using reports on KM **Method:** 100% inspection **Calculation:** Number of times reports are accessed in current measuring period/Number of time reports are accessed in last measuring period X 100	
		9	Increase in ITSM Knowledge Artifact timely review and updates **Method:** 100% inspection **Calculation:** Number of artifacts that were reviewed and updated within requested time period in current measuring period/Number of artifacts that were reviewed and updated within requested time in last measuring period X100	

3.0 ROLES AND RESPONSIBILITIES

Each process has roles and responsibilities associated with the design, development, execution and management of the process. A role within a process is defined as a set of responsibilities, activities and authorities granted to a person or a team. A role is not necessarily equivalent to a billet or full-time equivalent (FTE). Factors such as Area of Responsibility (AOR), size of user base and size of the process support team dictate which roles require a dedicated person(s) and instances where one person is responsible for performing multiple roles and identify the total number of people performing each role.

The hierarchy of the figure depicted below is not intended to be a chain of command; however, all of these roles must collectively work together to execute the ITSM KM processes and activities. All of the ITSM KM processes and activities are intended for the use and support of USMC stakeholder and user needs.

The process ownership (i.e., accountability) for ITSM KM comes from Headquarters Marine Corps (HQMC) C4. Management (i.e., responsibility) of a process may be shared; a single Enterprise ITSM KM Process Manager exists at the MCCOG level who works with Regional ITSM KM Coordinators to support the overall ITSM KM Process. There may be additional support roles to execute these processes.

This process guide defines all *mandatory* roles.

3.1 Roles

The following Figure 3-1 depicts process roles for the USMC, followed by a description of these roles (Table 6).

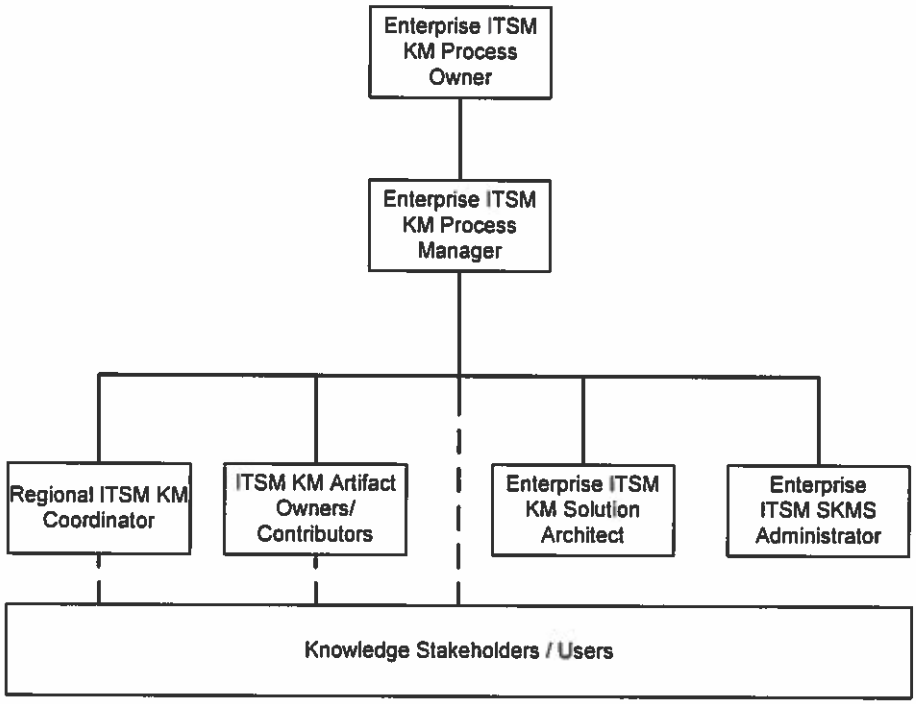

Figure 3-1. ITSM KM Roles

Table 6. ITSM KM Defined Roles and Responsibilities

Description	Overall Responsibility
Role #1 Enterprise ITSM KM Process Owner	
The Enterprise ITSM KM Process Owner owns the process and the supporting documentation for the process. The primary functions of the Enterprise ITSM KM Process Owner are oversight and continuous process improvement. To these ends, the Enterprise ITSM KM Process Owner oversees the process, ensuring that the process is followed by the organization. When the process isn't being followed or isn't working well, the Process Owner is responsible for identifying and ensuring required actions are taken to correct the situation. In addition, the Process Owner is responsible for the approval of all proposed changes to the process and development of process improvement plans.	• Accountable for the development and communication of the ITSM KM strategy. • Reviews and understands all references pertaining to process ownership. • Documents and publicizes the process. • Establishes and communicates the process roles and responsibilities. • Ensures updates to the Process Guide are performed according to the Change Management Process. • Defines the KPIs to evaluate the effectiveness and efficiency of the process. • Reviews KPIs and takes action required following the analysis. • Assists with and is ultimately responsible for the process design. • Ensures the effectiveness and efficiency of the ITSM KM Process and working practices through continuous improvement. • Reviews any proposed enhancements to the process • Reviews and updates functional requirements for SKMS solution. • Ensures all relevant staff is aware of their role in the process. • Ensures that the process, roles, responsibilities and documentation are regularly reviewed and audited.

Description	Overall Responsibility
	• Interfaces with appropriate organizations to ensure that the process receives the necessary staff resources. • Ensures all stakeholders are sufficiently involved in the ITSM KM Process. • Ensures tight linkage between the ITSM KM Process and other related processes. • Ensures organizational adherence to the process including ITSM knowledge approval and maintenance. • Accountable for the identification and review of life cycle of ITSM data, information and knowledge management. • Accountable for continuous service improvement of strategy, processes and SKMS. • Approves (or disapproves) functional requirements for SKMS capabilities, SKMS design and release of SKMS solution into a production environment.
Role #2 Enterprise ITSM KM Process Manager	
The Enterprise ITSM KM Process Manager ensures effective coordination of activities for service quality. The Enterprise ITSM KM Process Manager manages and coordinates all activities necessary to manage ITSM KM activities. The Enterprise ITSM KM Process Manager will communicate and coordinate with their regional counterparts (e.g., Regional ITSM KM Process Coordinators) when required/beneficial. The Enterprise ITSM Knowledge Process Manager manages the entire ITSM KM life cycle.	• Works with the Enterprise ITSM KM Process Owner for creating and drafting requirements for strategy and policy. • Assists Enterprise ITSM KM Process Owner with implementation of the ITSM KM communications plan. • Works with the Enterprise ITSM KM Process Owner to plan and coordinate all process activities. • Ensures that all activities are carried out as required throughout the ITSM KM life cycle. • Plans and manages support for ITSM KM tools and processes. • Ensures that all ITSM Knowledge Artifacts are made accessible to those who need them in an efficient and effective manner. • Works with service owners and other process managers to ensure the smooth running of services. • Monitors and reports on process performance and SKMS performance. • Identifies and recommends opportunities for continuous improvements to the Enterprise ITSM KM Process Owner. • Implements improvements to the ITSM KM process. • Facilitates and participates in the ITSM knowledge approval process as appropriate through the life cycle of ITSM Knowledge Artifacts. • Responsible for the identification, review, analysis and formulation of an Improvement Plan for ITSM knowledge gaps as part of Continuous Life Cycle Improvement. • Participates in peer review of draft artifacts and with the Regional ITSM KM Coordinator, facilitates and participates in artifact approvals as part of the Conduct ITSM Knowledge Capture process. • Assists Enterprise ITSM KM Process Owner with development and refinement of information and information management plan. • Responsible for publishing and archiving information and ITSM Knowledge management plan. • Assists with review and implementation of SKMS to

Description	Overall Responsibility
	include review/update of functional requirements. • Ensures that all relevant ITSM KM roles have the required training requirements identified and communicated to the appropriate organizations. • Ensures technical and non-technical risks are captured and effectively mitigated.
Role #3 Enterprise ITSM KM Solution Architect	
This role provides the overall technical strategy, guidance and definition of the ITSM KM solution to effectively support USMC's mission. This role is responsible for the overall design of the ITSM information architecture, across multiple data types (structured, semi-structured and unstructured), balancing the need for access against security and performance requirements. This role focuses primarily on ITSM information requirements: design, access, usage and stewardship. The position also requires an understanding of emerging regulatory issues surrounding information assets (such as federal regulations, privacy laws, data retention policies and outsourced data). Also included is the development or use of process models, creation or use of information or target data models, interface designs and development of internal and external checks and controls to ensure proper governance, security and quality of ITSM information and data assets.	• Analyzes IT processes and services to gather applicable ITSM knowledge requirements and approaches. • Defines the workflow for ITSM knowledge capture, storage, retrieval, presentation and archival of information assets. • Participates in the review and update of functional requirements for the SKMS solution. • Translates strategic and functional requirements into a usable ITSM information architecture and detailed design, which may include an ITSM data model, associated metamodels, common vocabulary and taxonomies, which will then be used to guide the ITSM KM solution(s) development and achieve consistency of information assets across the application portfolio. • Validates that new and/or enhanced components of the SKMS solution are operating as designed and reports findings to the Enterprise ITSM KM Process Owner and Enterprise ITSM KM Process Manager. • Releases new and/or enhanced components of the SKMS solution into the production environment in accordance with the Change Management and other processes. • Ensures a focus on information/data quality by developing and publishing ITSM data standards such as a common vocabulary, naming conventions, data standards, transformation rules and related enterprise consistency specifications. • Develops a metadata management and repository strategy to manage all ITSM information architecture project artifacts. • Facilitates the mapping of information assets from multiple sources to ensure optimal transparency, quality and consistency across the organization. • Analyzes information to evaluate the effectiveness of controls, determine the accuracy of reports and monitor the efficiency and security of operations. • Assists in post-implementation continuous-improvement efforts to enhance performance. • Integrates ITSM Knowledge across the organization using tools and technologies.
Role #4 Regional ITSM KM Coordinator	
The Regional ITSM KM Coordinator is responsible for supporting the Enterprise ITSM KM Process Owner and Process Manager in the development and implementation of the enterprise's ITSM KM strategy. The Regional ITSM KM Coordinator serves as the point of contact for ITSM KM requirements within the region and supports Knowledge Artifact gap identification and helps develop the improvement plan.	• Assists in the development and implementation of the Enterprise ITSM KM plan to capture, organize, archive, index and make accessible the ITSM knowledge resources of the enterprise. • Provides input to the Enterprise ITSM KM Process Manager for the identification, review, analysis and formulation of an Improvement Plan for ITSM knowledge gaps as part of Continuous Service

Description	Overall Responsibility
	Improvement. • Assists the Enterprise ITSM KM Process Manager with the peer review and approval of artifacts before ITSM Knowledge Artifact Owner/Contributor finalizes input. • Coordinates and consolidates, when appropriate, Regional ITSM KM Contributors' inputs for review, approval and publishing by the Artifact Owner and/or approval by the Enterprise ITSM KM Process Manager (for newly requested artifacts) for inclusion within the SKMS. • Provides feedback to the Enterprise ITSM KM Process Manager on ITSM knowledge that is required to be made available to the region at the enterprise level. • Responds to inquiries and in-depth requests. • Encourages people to contribute knowledge to the SKMS.
Role #5 ITSM KM Artifact Owner/Contributor	
The ITSM KM Artifact Owner/Contributor is accountable for the content within the ITSM Knowledge Artifact. The content development may be delegated to others or the artifact owner may develop the content herself/himself. This role is also responsible for maintaining the ITSM Knowledge Artifact. It should be noted that not all Contributors will end up as the ITSM KM Artifact Owner for the specific ITSM Knowledge Artifact submitted.	• Accountable for artifact capture life cycle — data gathering, draft and final submission. • Maintains controlled ITSM Knowledge Artifacts to ensure that they are current, relevant and valid. • Creates or revises ITSM Knowledge Artifacts, as appropriate. • Reviews ITSM Knowledge Artifact (if they are not the primary author) and participates in the approval process. • Submits draft artifact and assigns status of "Draft" • Inputs artifact attributes and meta tags. • After approval from ITSM KM Regional Coordinator, changes status to 'Published'. • Maintains version control of the ITSM Knowledge Artifact. • Ensures ITSM Knowledge Artifacts are up-to-date and reflect accurate information. • Approves ITSM Knowledge Artifact for publishing. • Provides input on the content of the ITSM Knowledge Artifact. • Provides feedback and input to ITSM knowledge capture process and SKMS functionality.
Role #6 Enterprise ITSM SKMS Administrator	
The Enterprise ITSM SKMS Administrator is responsible for the operations and maintenance of the KM/SKMS solutions. This role also works with the Enterprise ITSM KM Solution Architect to implement requirements, enforce standards and generate reports.	• Supports the Enterprise ITSM KM Solution Architect in the design of the SKMS solution. • Responsible for operational availability of the ITSM Knowledgebase. • Develops and/or configures the SKMS solution in accordance to the agreed upon architecture and design. • Tests SKMS solutions in a non-production environment to ensure fit for use to users and stakeholders • Releases new and/or enhanced components of the SKMS solution into the production environment in accordance with the Change Management and other processes. • Identifies opportunities for improvement. • Assists in the definition of technical standards along with vendor configuration requirements to ensure

Description	Overall Responsibility
	cross- platform data interoperability. • Maintains integrity of ITSM knowledgebase by ensuring controls are enabled as per policy. • Supports interfaces to other relevant applications and databases. • Provides user administration support including user rights, views, etc. • Responds to user requests and acts as tier 2/3 support for the service desk.
Role #7 Knowledge Stakeholders/Users	
The Knowledge Stakeholders/Users are essential to the life cycle of the ITSM Knowledge Management process as they will be the actual users and contributors of the ITSM Knowledge Artifacts. They fill the dual roles of applying knowledge in their work tasks and contributing their own knowledge and insight to the enterprise's ITSM knowledge content.	• Adheres to the identified ITSM KM policy and follow the protocols as laid out by the Enterprise ITSM KM Process Manager. • Responds to input and other solicitation requests by the Enterprise ITSM KM Process Manager and Regional Coordinator to close ITSM knowledge gaps and augment the ITSM knowledgebase. • Provides feedback on problems with ITSM Knowledge Article usage. • Reports issues with current ITSM Knowledge Artifacts and suggests ways to resolve. • Proactively articulates the gaps (missing artifacts) based on process execution. • Provide feedback on SKMS operations.

3.1.1 Responsibilities

Processes may span organizational boundaries; therefore, procedures and work instructions within the process need to be mapped to roles within the process. These roles are then mapped to job functions, IT staff and departments. The process owner is accountable for ensuring process interaction by implementing systems that allow smooth process flow.

The Responsible, Accountable, Support, Consulted, Informed (RASCI) model is a method for assigning the type or degree of responsibility that roles (or individuals) have for specific tasks. Table 7 displays the RASCI model for ITSM KM by process roles.

- Responsible — Completes the process or activity; responsible for action/implementation. The degree of responsibility is determined by the individual with the 'A'.
- Accountable — Approves or disapproves the process or activity. Individual who is ultimately answerable for the task or a decision regarding the task.
- Support — Provides resources or a supporting role in the process or activity. Resources allocated to *responsible*. Unlike *consulted*, who may provide input to the task, *support* helps complete the task.
- Consulted — Gives needed input about the process or activity. Prior to final decision or action, these subject matter experts or stakeholders are consulted.
- Informed — Needs to be informed after a decision or action is taken. May be required to take action as a result of the outcome. This is a one-way communication.

Table 7 shows process responsibilities by role.

Table 7. Process Responsibilities by Role

KM-Processes	Enterprise ITSM KM Process Owner	Enterprise ITSM KM Process Manager	Regional ITSM KM Coordinators	ITSM KM Artifact Owner/Contributor	Enterprise ITSM KM Solution Architect	Ent. ITSM SKMS Administrator(s)	Knowledge Stakeholders/Users
1.0 Create/Update ITSM KM Strategy	A	R	C		S		
2.0 Conduct ITSM Knowledge Capture	I	A	S	R			C
3.0 Manage ITSM Data, Information and Knowledge	A	R			S		C
4.0 Use SKMS	A	R			S	S	S

4.0 SUB-PROCESSES

To fully implement the ITSM KM process, four sub-processes must be executed: (1) Create/Update ITSM Knowledge Strategy, (2) Conduct ITSM Knowledge Capture, (3) Manage ITSM Data, Information and Knowledge and (4) Use ITSM SKMS.

USMC ITSM KM is a continuous and connected life cycle in which the establishment of an ITSM KM strategy is the first sub-process for an initial rollout of KM. An overall strategy for ITSM KM is required to support the mission needs. This ITSM KM strategy and other sub-processes should be established with a view as wide as practicable to ensure the span of ITSM KM is covering direct IT staff, users, third party support and others likely to contribute to or make beneficial use of the knowledge. The establishment of an ITSM knowledge capture sub-process is critical to creating and making available ITSM Knowledge Artifacts to stakeholders and users on an ongoing basis. The management of ITSM data, information and knowledge sub-process puts the appropriate controls in place to facilitate the use of the SKMS by the appropriate users and stakeholders.

All of these processes can stand-alone as discrete processes and continue their own individual ongoing iterative activities for continuous service improvements. These activities can be performed sequentially as noted in the Figure 4-1 below for an initial ITSM KM process rollout. ITSM KM's effectiveness can be measured by how well its strategy and operations goals are being met.

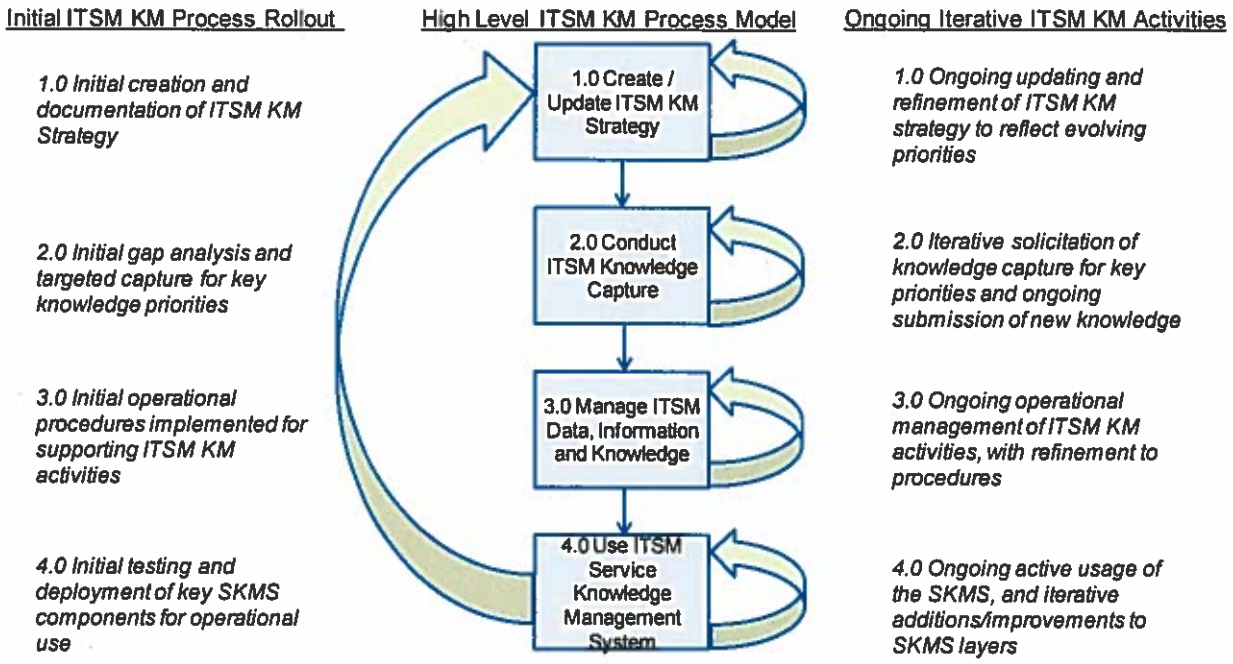

Figure 4-1. Initial and Iterative ITSM KM Sub-Processes

The USMC ITSM KM process consists of four sub-processes. The following is a description of the ITSM KM sub-processes.

4.1 Create/Update ITSM KM Strategy

The purpose of the Create/Update ITSM KM Strategy is to develop the vision to shape the USMC into a knowledge-based organization by creating a strategic plan that describes how the Marines will manage its ITSM data and information for the benefit of its users and stakeholders. The ITSM KM strategy will need to incorporate the key needs of its stakeholders and users while it also improves the quality of decision making by ensuring that accurate, reliable information is available. In this strategy, a plan must be outlined that helps USMC build the capability to not only create, store, share and use its documented knowledge, but also to continuously monitor and maintain to ensure the ITSM knowledge content is reusable by multiple stakeholders. The ITSM KM strategy will address the governance model, organizational roles and responsibilities, funding, policies and processes, technology and performance requirements. The ITSM KM strategy will be developed collaboratively with the C4 Enterprise ITSM KM Process Owner and MCCOG Enterprise ITSM KM Process Manager. As with the scope mentioned earlier, the focus of the ITSM KM strategy is on the management of ITSM knowledge needed to support IT services.

Why ITSM KM Strategy (1.0)?

Enables people collaborations and connections by sharing expertise

The following Figure 4-2 depicts process activities and the role performing the activity for the USMC, followed by a description of these process activities (Table 8).

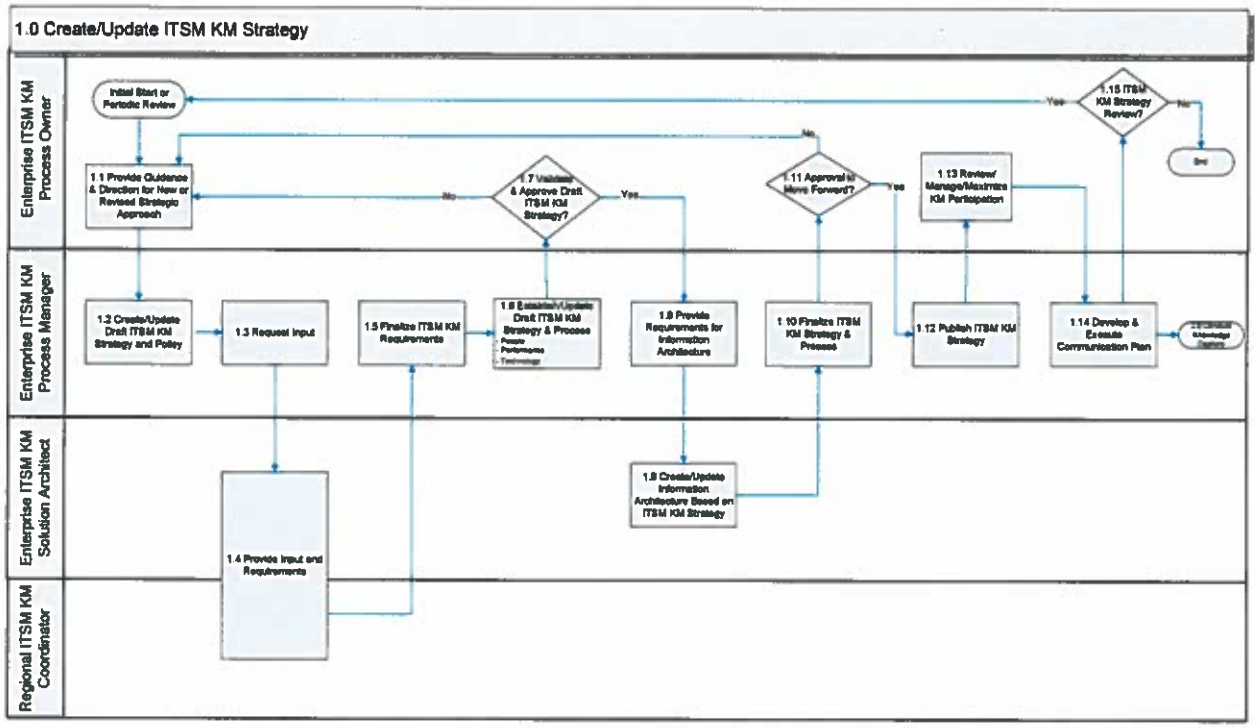

Figure 4-2. Create/Update ITSM KM Strategy

Table 8 describes the activities in the Create/Update ITSM KM Strategy sub-process.

Table 8. Create/Update ITSM KM Strategy

1.0 Create/Update ITSM KM Strategy		
Number	**Process Activity**	**Description**
1.1	Provide Guidance and Direction for New or Revised Strategic Approach	The Enterprise ITSM KM Process Owner will provide the initial guidance based on evaluation of the current and future information and knowledge requirements that align with the mission goals. Guidance must be provided to develop a well thought out ITSM KM strategy. The Enterprise ITSM KM Process Owner will provide the direction to the Enterprise ITSM KM Process Manager for how the ITSM KM strategy should be positioned. The Enterprise ITSM KM Process Owner will also provide guidance to any updates to be made to the ITSM KM strategy to reflect evolving ITSM KM priorities.
1.2	Create/Update Draft ITSM KM Strategy and Policy	The Enterprise ITSM KM Process Manager will lead the development of a draft ITSM KM strategy that outlines the current state of KM, identifies the future direction of how USMC can use its multiple data sources to make informed decisions and makes the expertise available to many stakeholders. This strategy will set the long-term objectives, or a vision for the ITSM Knowledge Management and draws boundaries around the options for attaining them. This would include answers to key questions such as what knowledge is required by which users to address specific needs, the funding that will be required to implement the strategy and the governance model that will need to be established including the organizational roles and responsibilities. A directive or policy is also created that articulates the ITSM KM strategy for adherence. Both the ITSM KM strategy and policy may be updated based on evolving ITSM KM priorities.
1.3	Request Input	The Enterprise ITSM KM Process Manager will request input and requirements from the Enterprise ITSM KM Solution Architect and Regional ITSM KM Coordinators to support the overall ITSM KM strategy but also to develop actionable and implementable plans.
1.4	Provide Input and Requirements	The Enterprise ITSM KM Solution Architect and the Regional ITSM KM Coordinators will provide input and requirements that support the ITSM KM strategy in the areas of people (resources), technology needs and the performance measurements that must be employed to actualize the ITSM KM strategy. A key area of input for the ITSM KM strategy is the identification of knowledge that will be useful across the enterprise.
1.5	Finalize ITSM KM Requirements	The Enterprise ITSM KM Process Manager will collaboratively finalize the ITSM KM requirements by cohesively bringing together the unique needs of each of the constituents. All of these requirements will be an input into finalizing the ITSM KM strategy.

1.0 Create/Update ITSM KM Strategy		
Number	**Process Activity**	**Description**
1.6	Establish/Update Draft ITSM KM Strategy and Process (People, Performance, Technology)	The Enterprise ITSM KM Process Manager will further refine the draft ITSM KM strategy and policy to ensure that all requirements and needs have been addressed and an actionable road map has been developed to help achieve the strategy. This draft ITSM KM strategy may be refined iteratively according to priority guidance provided by the Enterprise ITSM KM Process Owner.
1.7	Validate and Approve Draft ITSM KM Strategy?	The draft ITSM KM strategy is sent to the Enterprise ITSM KM Process Owner for approval and validation. Yes: Go to 1.8 Provide Requirements for Information Architecture (for additional input) No: Go to 1.1 Provide Guidance and Direction for New or Revised Strategic Approach (for rework)
1.8	Provide Requirements for Information Architecture	The Enterprise ITSM KM Process Manager will provide input and requirements to develop the information architecture based on the requirements received from the regions.
1.9	Create/Update Information Architecture based on ITSM KM Strategy	The Enterprise ITSM KM Solution Architect will develop an information architecture that supports the ITSM KM strategy. The information architecture will be a representation of the relevant data and information relationships, information sources both internal and external and taxonomy of how the data and information will be defined and specified. This architecture may include audience-specific needs to maximize usability and manageability of data.
1.10	Finalize ITSM KM Strategy and Process	The Enterprise ITSM KM Process Manager will need to finalize the ITSM KM strategy that includes the actionable road map and the architecture required to support the overall data and information needs.
1.11	Approval to Move Forward?	The finalized draft of the ITSM KM strategy including the implementation road map is sent to the Enterprise ITSM KM Process Owner for approval. Yes: Go to 1.12 Publish ITSM KM Strategy (for publication) No: Go to 1.1 Provide Guidance and Direction for New or Revised Strategic Approach (for updates.)
1.12	Publish ITSM KM Strategy	The Enterprise ITSM KM Process Manager will publish finalized ITSM KM strategy and policy to ensure that all stakeholders have access to the ITSM KM strategy and policy.
1.13	Review/Manage/Maximize ITSM KM Participation	The Enterprise ITSM KM Process Owner will encourage active solicitation of Knowledge Artifacts across the enterprise and review any existing types of incentives that can motivate people to maximize ITSM KM participation and ITSM Knowledge Artifact contributions. These incentives may be in the form of letters of commendation, recognition and/or citation for the number of ITSM Knowledge Articles submitted, etc.
1.14	Develop and Execute Communication Plan	The Enterprise ITSM KM Process Manager will review and develop a communication strategy and plan to ensure ITSM KM strategy is communicated to all Knowledge Stakeholders/Users and other interested parties. The Enterprise ITSM KM Process Manager will be responsible for the execution of the ITSM KM communication plan. The Enterprise ITSM KM Process Manager then also begins the next ITSM KM sub-process — 2.0 Conduct ITSM

1.0 Create/Update ITSM KM Strategy		
Number	**Process Activity**	**Description**
		Knowledge Capture
1.15	ITSM KM Strategy Review?	On an ongoing basis, the Enterprise ITSM KM Process Manager will review feedback received on the ITSM KM Strategy and forward to the Enterprise ITSM KM Process Owner as input to decisions on whether the ITSM KM strategy will be updated. Yes: Go to "Initial Start or Periodic Review" (for updates) No: Go to End (no iterative activities)

4.2 Conduct ITSM Knowledge Capture

Sub-process Conduct ITSM Knowledge Capture identifies the necessary activities to identify knowledge gaps and capture and share the ITSM Knowledge Artifacts. To ensure that knowledge is being captured and shared, a plan must be developed and refined for the capture of ITSM knowledge and the consequential data and information that will support it. After the initial gap identification under the guidance of the Enterprise ITSM KM Process Manager, the capture of the artifacts should be advanced via peer and Regional ITSM KM Coordinators' reviews for final release into the system.

Why ITSM Knowledge Capture (2.0)?

Ensures sharing and utilization of ITSM knowledge

The following Figure 4-3 depicts process activities and role performing the activity for the USMC, followed by a description of these process activities (Table 9).

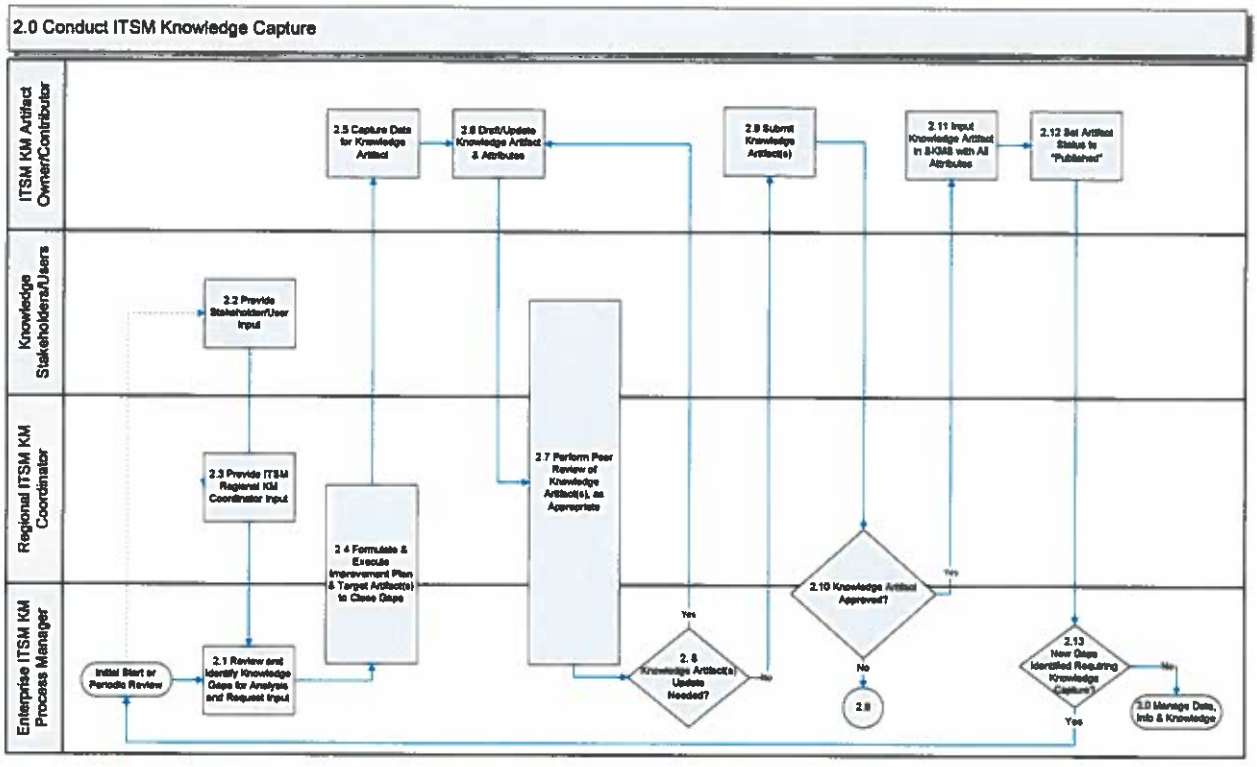

Figure 4-3. Conduct ITSM Knowledge Capture

Table 9 describes the activities in the Conduct ITSM Knowledge Capture sub-process.

Table 9. Conduct ITSM Knowledge Capture

2.0 Conduct ITSM Knowledge Capture		
Number	**Process Activity**	**Description**
2.1	Review and Identify ITSM Knowledge Gap Analysis and Request Input	The Enterprise ITSM KM Process Manager will gather and review relevant ITSM knowledge and data and identify gaps, if any, in the existing base of ITSM Knowledge Artifacts. The gap identification and analysis may also include input from the Knowledge Stakeholders/Users and the Regional ITSM KM Coordinators. This enterprise approach of ITSM Knowledge Management will result in capture process improvement and innovation.
2.2	Provide Stakeholder/User Input	All Knowledge Stakeholders/Users will provide their feedback, requirements and suggestions as input to the Regional ITSM KM Coordinator This feedback may be solicited by the Enterprise ITSM KM Process Manager and coordinated through the Regional ITSM KM Coordinators.
2.3	Provide Regional ITSM KM Coordinator Input	The Regional ITSM KM Coordinators will gather and consolidate the requirements, gaps and feedback for each region prior to sending it onward to the Enterprise ITSM KM Process Manager. The Regional ITSM KM Coordinator may supplement this information with additional input to analyze for gaps and/or areas of ITSM knowledge interest.
2.4	Formulate and Execute Improvement Plan and Target Artifact(s) to Close Gaps	The Enterprise ITSM KM Process Manager will lead the development of an ITSM knowledge capture Improvement Plan with the support of the Regional ITSM KM Coordinator which will detail the approach to the implementation of missing or needed ITSM Knowledge Artifacts. Considerations for the execution and communication of the Improvement Plan for capture should include opportunities to address: - Learning styles - Knowledge visualization - Driving behaviors - Seminars, webinars and eLearning - Journals and newsletters
2.5	Capture Data for ITSM Knowledge Artifact	The ITSM KM Artifact Owner/Contributor will gather all data needed for new artifact(s) submissions. This could be initiated directly from requests by the Enterprise ITSM KM Process Manager as part of the improvement plan, or could also be proactively identified and captured by ITSM KM Artifact Owners/Contributors themselves.
2.6	Draft/Update ITSM Knowledge Artifact & Attributes	The ITSM KM Artifact Owner/Contributor will initiate a new draft or update existing artifact(s) and associated attributes and submit for peer review.
2.7	Perform Peer Review of ITSM Knowledge Artifact(s), as Appropriate	The Enterprise ITSM KM Process Manager, the Regional ITSM KM Coordinator(s) and the Knowledge Stakeholders/Users will review the new draft or updated artifact(s) for validity of content and attributes. Depending on the content, attributes and nature of the submitted artifact, different roles may be involved in the peer review.

2.0 Conduct ITSM Knowledge Capture		
Number	**Process Activity**	**Description**
2.8	ITSM Knowledge Artifact Update Needed?	The Enterprise ITSM KM Process Manager will review the draft artifact and update the draft, if needed, based on the input from the peer review. Yes: Go to 2.6 Draft/Update ITSM Knowledge Artifact & Attributes (for rework) based on notes from Enterprise ITSM KM Process Manager review. No: Go to 2.9 Submit ITSM Knowledge Article (for draft submission).
2.9	Submit ITSM Knowledge Artifact(s)	The ITSM KM Artifact Owner/Contributor will submit the artifact(s) into the SKMS and set status to "Draft."
2.10	ITSM Knowledge Artifact Approved?	The Enterprise ITSM KM Process Manager and/or Regional ITSM KM Coordinator will make the decision that the artifact(s) has been entered correctly and has been approved for system input. The Enterprise ITSM KM Process Manager and/or Regional ITSM KM Coordinator will reject ITSM Knowledge Artifact(s) if it is not entered correctly or content is questioned and attach rejection notes for ITSM KM Artifact Owner/Contributor to review. The Enterprise ITSM KM Process Manager has the overarching authority to resolve any approval conflicts should any arise. Yes: Go to 2.11 Input ITSM Knowledge Artifact in SKMS with All Attributes (for final submission). No: Go to 2.6 Draft/Update ITSM Knowledge Artifact & Attributes. Forward draft back to ITSM KM Artifact Owner/Contributor with rejection notes (for rework and re-submission).
2.11	Input ITSM Knowledge Artifact in SKMS with All Attributes	The ITSM KM Artifact Owner/Contributor, after approval, will ensure ITSM Knowledge Artifact(s) has been properly input in the SKMS and ready for publication.
2.12	Set Artifact Status to "Published"	The ITSM KM Artifact Owner/Contributor will change ITSM Knowledge Artifact(s) status to "Publish" and artifacts will be available for access.
2.13	New Gaps Identified Requiring ITSM Knowledge Capture?	As an ongoing activity for Continuous Life Cycle Improvement, the Enterprise ITSM KM Process Manager will periodically perform an ITSM Knowledge Artifact gap review. Yes: Go to "Initial Start or Periodic Review" for review of gaps. No: Go to 3.0 Manage Data, Information and Knowledge.

4.3 Manage ITSM Data, Information and Knowledge

The purpose of the Manage ITSM Data, Information and Knowledge sub-process is to provide ongoing support and maintenance required for the ITSM KM process to remain in control. This includes the development and execution of procedures to ensure the artifacts are properly managed. In addition to the procedures and requirements for managing ITSM knowledge across the life cycle, this sub-process also includes evaluation and improvement to enable continual improvement for how the process is managed.

Why ITSM Data, Information and Knowledge Management (3.0)?

Ensures that proper operational management and control of ITSM data, information

The following Figure 4-4 depicts process activities and the role performing the activity for the USMC, followed by a description of these process activities (Table 10).

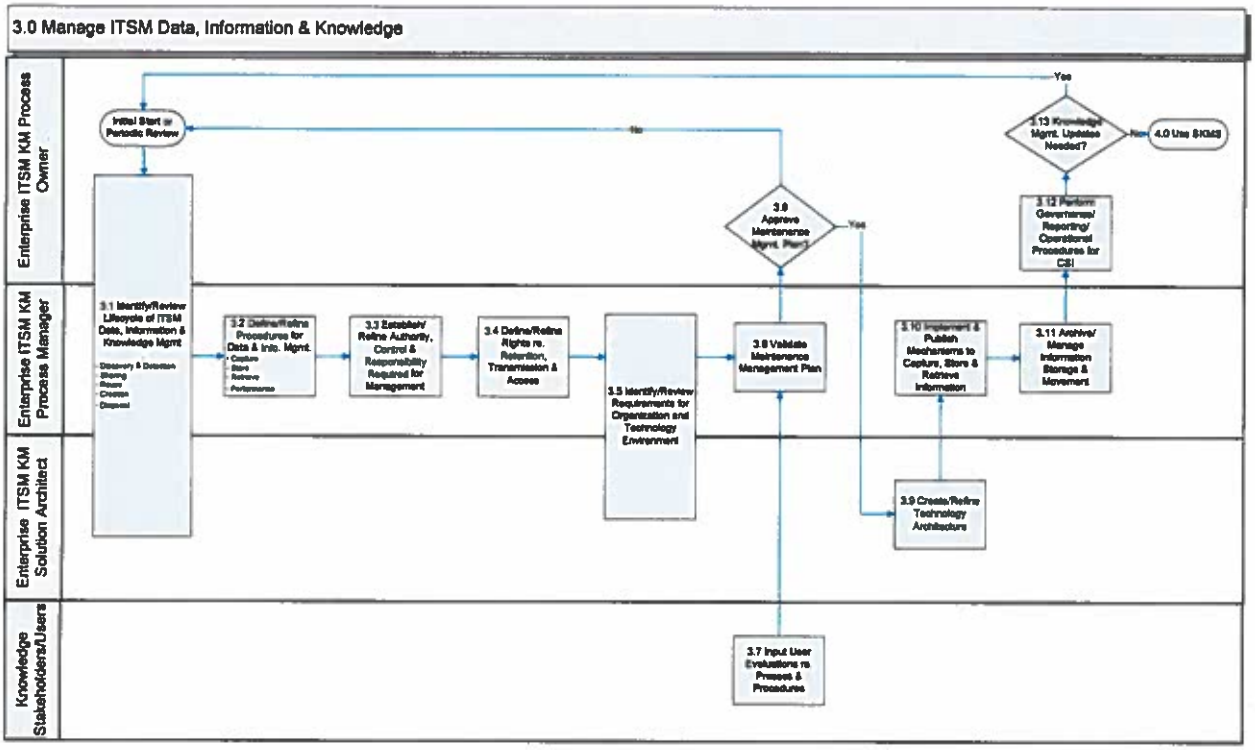

Figure 4-4. Manage ITSM Data, Information and Knowledge

Table 10 describes the activities in the Manage ITSM Data, Information and Knowledge sub-process.

Table 10. Manage ITSM Data, Information and Knowledge

3.0 Manage ITSM Data, Information and Knowledge		
Number	**Process Activity**	**Description**
3.1	Identify/Review Life Cycle of Data, Information and ITSM Knowledge Mgmt.	The Enterprise ITSM KM Process Manager will facilitate the definition and review of the broader life cycle for management of ITSM data, information and knowledge with input from Enterprise ITSM KM Process Owner and Enterprise ITSM KM Solution Architect. This includes life cycle stages from discovery through disposal and should address what needs to be monitored and supported across creation, sharing, reuse and other stages.
3.2	Define/Refine Procedures for Data and Information Mgmt.	Based on the life cycle requirements, the Enterprise ITSM KM Process Manager defines and documents the appropriate procedures to maintain the ITSM data and information so that it can be available for those who need to use it. Procedures for capturing, converting and transforming data and information will also be defined and updated as needed. Backup and recovery procedures will also be documented.

3.0 Manage ITSM Data, Information and Knowledge		
Number	**Process Activity**	**Description**
3.3	Establish/Refine Authority, Control & Responsibility Required for Management	The Enterprise ITSM KM Process Manager will establish protocol for the authority, controls and responsibility required to properly manage the data, information and ITSM knowledge governed by the ITSM KM process. This includes ownership responsibilities for ITSM Knowledge Artifacts and procedural controls for ensuring timely maintenance.
3.4	Define/Refine Rights Regarding Retention, Transmission and Access	The Enterprise ITSM KM Process Manager will define rights and policies regarding the retention, transmission and access of ITSM data, information and knowledge managed by the ITSM KM Process to ensure compliance with USMC policies and legal requirements. These rights will include any rules for supporting security and sensitivity obligations.
3.5	Identify/Review Requirements for Organization and Technology Environment	The Enterprise ITSM KM Process Manager and the Enterprise ITSM KM Solution Architect will identify and review any changing organizational and technology requirements for how the ITSM data, information and knowledge requirements need to be managed. These requirements could include additional tools or automation to streamline manual procedures or refinement of current architecture based on any previously agreed upon procedures, controls and rights definitions.
3.6	Validate Maintenance Management Plan	After the different requirements, procedures and policies are completed for managing ITSM data, information and knowledge artifacts, the collective set of materials are assembled and validated by the Enterprise ITSM KM Process Manager for completeness. These maintenance plan materials are readied for review and sign-off by the Enterprise ITSM KM Process Owner.
3.7	Input User Evaluations Regarding Process and Procedures	The Enterprise ITSM KM Process Manager will facilitate soliciting formal periodic feedback from users via satisfaction surveys and other means to provide input to the Enterprise ITSM KM Process Manager for efficiency and effectiveness of how the ITSM KM process and artifacts are being managed. This input is factored into the validation of the maintenance plan for improvement opportunities and additional requirements.
3.8	Approve Maintenance Management Plan?	The Enterprise ITSM KM Process Owner reviews the maintenance plan for approval and evaluates the documented procedures and materials for completeness and how the ITSM KM process will be managed for ongoing operational control. If the maintenance management plan is not approved, the Enterprise ITSM KM Process Owner notes the rationale for not approving along with the notes needed to address open issues or updates. This is then passed back to the Enterprise ITSM KM Process Manager to refine the procedures accordingly. Yes: Go to 3.9 Create/Refine Technology Architecture (for architecture) No: Go to "Initial Start or Periodic Review" (for rework)
3.9	Create/Refine Technology Architecture	The Enterprise ITSM KM Solution Architect creates or refines any changes required to the technology architecture for supporting the operational procedures to manage the process and will provide any feedback to the Enterprise ITSM KM Process Manager of any new changes or feedback.

3.0 Manage ITSM Data, Information and Knowledge		
Number	**Process Activity**	**Description**
3.10	Implement and Publish Mechanisms to Capture, Store & Retrieve Information	After the approval is received from the Enterprise ITSM KM Process Owner, the Enterprise ITSM KM Process Manager publishes the procedures within the maintenance plan and implements the mechanisms to operationally support the capture and retrieval of ITSM data, information and knowledge stored.
3.11	Archive/Manage Information Storage and Movement	The Enterprise ITSM KM Process Manager will ensure that the appropriate information movement between storage, archiving and purging are executed and follow the defined procedures and protocol.
3.13	Perform Governance/Reporting/Operational Procedures for CSI	The Enterprise ITSM KM Process Owner will perform required governance, review reports and operational activities required to enable ongoing continual service improvement. This ensures ongoing evaluation and improvement is occurring as part of the broader management of the ITSM data, information and knowledge. The evaluation should include regular review of report relevancy, measurements of ITSM KM usage and identification of any obsolete components.
3.14	ITSM Knowledge Management Updates Needed?	As an ongoing activity, the Enterprise ITSM KM Process Owner will periodically review the reports to identify continuous improvement opportunities. Yes: Go to "Initial Start or Periodic Review (for updates). No: Go to 4.0 Use SKMS (for implementation of solution).

4.4 Use ITSM Service Knowledge Management System

Why ITSM Service Knowledge Management System (4.0)?

Provides controlled access to ITSM data, information and knowledge that is appropriate for each audience

The purpose of the ITSM Use Service Knowledge Management System sub-process is to provide the capabilities required by stakeholders and users to store, manage, update and present ITSM data, information and knowledge. In this sub-process, a holistic solution for the SKMS is designed and implemented based upon the functional requirements needed to deliver the desired capabilities. Beyond tools, the holistic solution also includes the policies, processes and standards leveraged in the design, implementation and use of the SKMS. This includes ongoing enhancements and extensions to the capabilities and knowledge offered within the SKMS. As Knowledge Stakeholders/Users use the SKMS, the solution is monitored and feedback is requested to obtain an understanding of usage patterns as well as the degree to which the SKMS is delivering the required capabilities. Based on this feedback, subsequent updates may be made to the overarching ITSM KM Strategy defined in sub-process 1.0 Create/Update ITSM KM Strategy and to the SKMS solution itself.

The following Figure 4-5 depicts process roles for the USMC, followed by a description of these roles (Table 11).

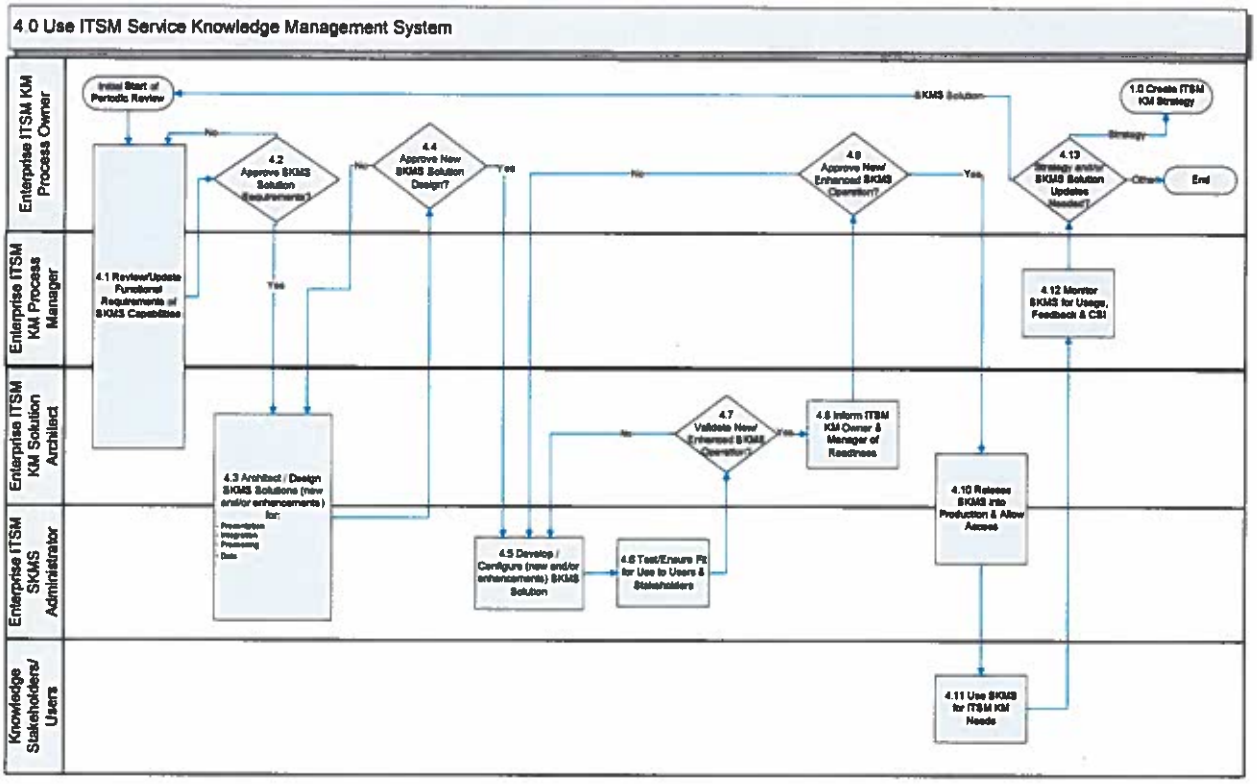

Figure 4-5. Use ITSM Service Knowledge Management System

Table 11 describes the activities in the Perform Data, Information and Knowledge Management sub-process.

Table 11. Use ITSM Service Knowledge Management System

4.0 Use ITSM Service Knowledge Management System		
Number	**Process Activity**	**Description**
4.1	Review/Update Functional Requirements of SKMS Capabilities	The Enterprise ITSM KM Process Owner, Enterprise ITSM KM Process Manager and Enterprise ITSM KM Solution Architect will collaboratively review the functional requirements needed for an initial design of a SKMS solution or enhancements to the existing SKMS solutions.
4.2	Approve SKMS Solution Requirements?	The Enterprise ITSM KM Process Owner will review and evaluate the requirements and provide approval to move forward with the design of a technical solution for the SKMS requirements. Yes: Go to 4.3 Architect/Design SKMS Solutions (new and/or enhancements) for: Presentation, Integration, Processing and Data (for design) No: Go to 4.1 Review/Update Functional Requirements of SKMS Capabilities (for rework.)

4.0 Use ITSM Service Knowledge Management System		
Number	**Process Activity**	**Description**
4.3	Architect/Design SKMS Solutions (new and/or enhancements) for - Presentation - Integration - Processing - Data	Based on the review of functional requirements, the Enterprise ITSM KM Solution Architect will collaborate with the Enterprise SKMS Administrator to design a comprehensive SKMS solution to provide the needed capabilities at each of the architectural layers (i.e., presentation, integration, processing and data). They will identify what existing components of the SKMS solution may be leveraged as well as any new components required. As part of this analysis, they will scan the market to determine what components may be acquired from vendors. If additional products or services outside of USMC are required, the Acquisition process will be initiated by the Enterprise ITSM KM Process Owner.
4.4	Approve New SKMS Solution Design?	The Enterprise ITSM KM Process Owner will evaluate the new or refined SKMS solution design and approve for implementation. Yes: Go to 4.5 Develop/Configure (new and/or enhancements) SKMS Solution (for implementation.) No: Go to 4.3 Architect/Design SKMS Solutions (new or enhancements) for: Presentation, Integration, Processing and Data (for rework.)
4.5	Develop/Configure (new and/or enhancements) SKMS Solution	The Enterprise SKMS Administrator develops and/or configures the SKMS solution in a non-production environment.
4.6	Test/Ensure Fit for Use to Users & Stakeholders	To ensure the solution meets the requirements, the Enterprise ITSM SKMS Administrator, as well as an independent test team, will test new/enhanced capabilities of the SKMS solution. Testing should address knowledge-sharing and access methods and include end user/stakeholder participation. Testing should also include technical requirements (e.g., performance, security, etc.) to validate delivery of the desired capabilities. Testing details and results will be captured and documented. Other stakeholders such as the Enterprise ITSM KM Process Manager and end users may also be engaged in testing.
4.7	Validate New/Enhanced SKMS Operation?	The Enterprise ITSM KM Solution Architect will review the test results to determine whether or not the new functionality is operating as intended. Yes: Go to 4.8 Inform Enterprise ITSM KM Process Owner & Enterprise ITSM KM Process Manager of Readiness No: Go to 4.5 Develop/Configure (new and/or enhancements) SKMS Solution (for rework)
4.8	Inform Enterprise ITSM KM Process Owner & Enterprise ITSM KM Process Manager of Readiness	Upon completion of the testing in the prior steps, the Enterprise ITSM KM Solution Architect informs both the Enterprise ITSM KM Process Owner and Enterprise ITSM KM Process Manager of the test results.
4.9	Approve New/Enhanced SKMS Operation?	The Enterprise ITSM KM Process Owner will review the test results and approve or disapprove for release into production. Yes: Go to 4.10 Release SKMS into Production & Allow Access No: Go to 4.5 Develop/Configure (new and/or enhancements) SKMS Solution (for rework)

4.0 Use ITSM Service Knowledge Management System		
Number	**Process Activity**	**Description**
4.10	Release SKMS into Production & Allow Access	The Enterprise ITSM KM Solution Architect and Enterprise SKMS Administrator release the solution into the production environment and allow access to the appropriate individuals (in accordance with the Change Management and other relevant processes).
4.11	Use SKMS for ITSM KM Needs	End users and stakeholders with the appropriate rights will use the SKMS to meet their ITSM data, information and knowledge needs and provide feedback.
4.12	Monitor SKMS for Usage, Feedback & CSI	The Enterprise ITSM KM Process Manager will monitor the SKMS and corresponding usage reports on an ongoing basis to determine whether or not the solutions are meeting the stakeholder needs. The Enterprise ITSM KM Process Manager will also review and solicit feedback from end users and key stakeholders on a regular basis.
4.13	Strategy and/or SKMS Solution Updates Needed?	The Enterprise ITSM KM Process Owner will use results of the user feedback and monitoring to drive the next iteration of updates to the ITSM KM Strategy refresh and additional enhancements to the SKMS solution as part of the ongoing continual service improvement cycle. If no updates to the strategy or SKMS solution are identified, the process will end. Strategy: Go to 1.0 Create ITSM KM Strategy SKMS Solution: Go to "Initial Start or Periodic Review" for updates Other: End

Appendix A — ACRONYMS

The official list of E-ITSM acronyms can be found through the link referenced below:

https://mcscviper.usmc.mil/sites/mcnispi/USMC_ITSM/USMC%20ITSM/E-ITSM_Acronyms_List_23%20December%202010.pdf

Appendix B — GLOSSARY

Term	Definition
Asset Management	Asset Management is the process responsible for tracking and reporting the financial value and ownership of assets throughout their life cycle.
Back-out Plan	A Back-out Plan is developed in the Release planning phase. This plan provides a recovery plan to return to the original configuration or process if the release fails to achieve the planned outcome.
Backup	Backup is copying data to protect against loss of integrity or availability of the original data.
Capture	The activity ensures reliable and accurate ITSM Knowledge Artifact(s) needed are identified, input and accessible for sharing.
Change Schedule	A Change Schedule is a document that lists all approved changes and their planned implementation dates.
Configuration Control	Configuration Control is a sub-process of Configuration Management. Configuration Control is a set of processes and approval stages required to change a CI attribute. Configuration Control encompasses the oversight to ensure that a CI is changed through the Change Management process.
Configuration Identification	A sub-process of Configuration Management, Configuration Identification is the selection, identification and labeling of the configuration structures and CIs including their respective technical owner and the relationships between them. CIs become the manageable unit that is planned for release into a configuration controlled environment. The CIs consist of hardware, software, services and documentation.
Configuration Item	A Configuration Item (CI) is any component that needs to be managed in order to deliver an IT Service. Information about each CI is recorded in a Configuration Record within the Configuration Management System (CMS) and is maintained throughout its life cycle by Configuration Management. CIs are under the control of Change Management. CIs typically include IT services, hardware, software, buildings, people and formal documentation such as process documentation and SLAs.
CI Type	CI Type is a category used to Classify CIs. The CI Type identifies the required attributes and relationships for a configuration record. Common CI Types include: server, document, user, etc.
Configuration Management Database	A Configuration Management Database (CMDB) is a database used to store configuration records throughout their life cycle. The Configuration Management System (CMS) maintains one or more CMDBs and each CMDB stores attributes of CIs and relationships with other CIs.
Configuration Management Plan	Document defining how configuration management will be implemented (including policies and procedures) for a particular acquisition or program. (Source: MIL HDBK-61A)
Configuration Management System	A Configuration Management System (CMS) is a set of tools and databases used to manage an IT service provider's configuration data. The CMS also includes information about incidents, problems, known errors, changes and releases and may contain data about employees, suppliers, locations, units, customers and users. The CMS includes tools for collecting, storing, managing, updating and presenting data about all CIs and their relationships. The CMS is maintained by Configuration Management and is used by all IT Service Management processes.
Data	A collection of facts. An n example of data is the date and time at which an incident was logged.
Definitive Media Library (DML)	A DML is single logical storage area that can be in one or more locations in which the definitive and approved versions of all software CIs are securely stored. The DML may also contain associated CIs such as licenses and documentation. All software in the DML is under the control of Change and Release Management and is recorded in the Configuration Management System.
Deployment	Deployment is the activity responsible for movement of new or changed hardware, software, documentation, process, etc. to the live environment. Deployment is part of the Release and Deployment Management Process.

Term	Definition
Deployment Readiness Test	A Deployment Readiness Test is conducted to ensure that the deployment processes, procedures and systems can deploy, install, commission and decommission the release package and resultant new or changed service in the production/deployment environment.
Deployment Verification Test	A Deployment Verification Test is conducted to ensure the service capability has been correctly deployed for each target deployment group or environment.
Early Life Support	Early Life Support (ELS) involves Technical Management or IT Operations providing support for a new or changed IT service for a period of time after it is released. During ELS, the IT service provider may review the KPIs, service levels and monitoring thresholds and provide additional resources for incident management and problem management (when implemented).
EM System	The EM System (EMS) is composed of tools which monitor CIs and provide event notifications. It is a combination of software and hardware which provides a means of delivering a message to a set of recipients. The EMS often requires real-time interaction, escalation and scheduling.
Environment	Environment is a subset of the IT infrastructure used for a particular purpose (e.g., live environment, test environment or build environment). It is possible for multiple environments to share a CI (e.g., test and live environments may use different partitions on a single mainframe computer). In the term physical environment, environment can be defined as the accommodation, air conditioning, power system, etc. Environment can be used as a generic term defined as the external conditions that influence or affect something.
Error	An Error is a design flaw or malfunction that causes a failure of one or more CI or IT services. A mistake made by a person or a faulty process that affects a CI or IT service is also an error.
Escalation	Escalation is an activity that obtains additional resources when needed to meet service-level targets or customer expectations.
Event	An Event is a piece of data that provides information about one or more system resources. Most events are benign. Some events show a change of state which has significance for the management of a CI or IT service. The term 'event' is also used to define an alert or notification created by any IT service, CI, or monitoring tool. Events typically require IT operations personnel to take actions and often lead to incidents being logged.
Event Correlation	Event correlation involves associating multiple related events. Often, multiple events are generated as a result of the same infrastructure fault. Events need correlation to prevent duplication of effort in resolving the original fault.
Exit and Entry Criteria (Pass/Fail)	These are criteria (defined well in advance and accepted by the stakeholders) defined at authorized points in the Release and Deployment Process to set expectations of acceptable/unacceptable results.
Fault	Fault is the deviation from *normal* operation of a CI or a series of CIs. A fault is a design flaw or malfunction that causes a failure of one or more CIs or IT services. Fault is also referred to as an error.
Governance	Governance is the process of ensuring policies and strategy are actually implemented and that required processes are correctly followed. Governance includes defining roles and responsibilities, measuring and reporting and taking actions to resolve any issues identified.
Information	Data + Context. In terms of data, it can be defined as a collection of facts from which conclusions may be drawn
Innovation	The process of translating an idea or invention into a good or service that creates value for customers
Key Performance Indicator	A Key Performance Indicator (KPI) is a metric used to help manage a process, IT service, or activity. Many metrics may be measured, but only the most important of these are defined as KPIs and used to actively manage and report on the process, IT service, or activity. KPIs are selected to ensure that efficiency, effectiveness and cost-effectiveness are all managed.
Knowledge	Information + Rules. Information combined with experience, context, interpretation and reflection.

Term	Definition
ITSM Knowledge Artifact	ITSM knowledge is stored in units known as ITSM Knowledge Artifacts. Each artifact captures a key facet of knowledge and using the appropriate attributes, documents the relevant information for aiding in decisions or actions. They can include any piece of documentation, work-arounds, notes, emails, directories, articles, white papers, case studies, etc. which exists within an ITSM.
Knowledge Management — Enterprise	Enterprise Knowledge Management is the process which is responsible for the management of enterprise data, information and knowledge across the full life cycle. The Enterprise KM process includes the integration of people and processes, enabled by technology, to facilitate the exchange of operationally relevant information and expertise to increase organizational performance. Reference: • MCO 5400.52 (DON DCIO USMC Roles and Responsibilities) • Forthcoming revision to MCWP 3040.2 (Information Management)
Knowledge Management — ITSM	ITSM Knowledge Management is the process which is responsible for the management of IT Service Management data, information and knowledge across the full life cycle. The ITSM KM process includes the integration of people and processes, enabled by technology, to facilitate the exchange of operationally relevant information and expertise to increase ITSM performance.
Known Error	A Known Error is a problem that has a documented root cause and a work-around. Known errors are created and managed throughout their life cycle by Problem Management. Known errors may also be identified by SIE or suppliers.
Monitoring	Monitoring is the process of repeated observation of a CI, IT service, or process to detect events and to ensure that the current status is known.
Notification	Notification is a communication that provides information.
Pilot	A Pilot is a limited deployment of an IT service, a release, or a process to the live environment. A pilot is used to reduce risk and to gain user feedback and acceptance.
Process	A Process is a structured set of activities designed to accomplish a specific objective. A process takes one or more defined inputs and turns them into defined outputs. A process may include any of the roles, responsibilities, tools and management controls required to reliably deliver the outputs. A process may define policies, standards, guidelines, activities and work instructions, if needed.
Quality Assurance	Quality Assurance (QA) is the process responsible for ensuring the quality of a product and also ensuring it will provide its intended value.
Role	A Role refers to a set of connected behaviors or actions that are performed by a person, team, or group in a specific context.
Severity	Severity refers to the level or degree of intensity.
Service Design Package	A Service Design Package (SDP) is composed of document(s) defining all aspects of an IT service and its requirements through each stage of its life cycle. An SDP is produced for each new IT service, major change, or IT service retirement.
Service Improvement Plan	A Service Improvement Plan (SIP) is a formal plan to implement improvements to a process or IT service.
Service Knowledge Management System	A Service Knowledge Management System (SKMS) is a set of tools and databases used to manage ITSM knowledge and information. The SKMS includes the Configuration Management System (CMS) as well as other tools and databases. The SKMS stores, manages, updates and presents all information that an IT service provider needs to manage the full life cycle of IT services.
Service Level Agreement	A Service-Level Agreement (SLA) is an agreement between an IT service provider and a customer. The SLA describes the IT service; documents service-level targets and specify the responsibilities of the IT service provider and the customer. A single SLA may cover multiple IT services or multiple customers.
Service Validation and Testing	Service Validation and Testing is the process responsible for validation and testing of a new or changed IT service. Service Validation and Testing ensures an IT service matches the design specification and will meet the needs of the business. Service Validation and Testing during release conducts testing in the pre-production System Integration Environment (SIE) and during deployment in the pilot production environment.

Term	Definition
Single Point of Contact	A Single Point of Contact (SPOC) is an agreement used to assign a single, consistent way to communicate within an organization or unit. For example, the Service Desk will be the SPOC for a service provider.
Snapshot	A Snapshot is the baseline as captured by a discovery tool. A snapshot can also be called a benchmark.
Test	A Test is an activity that verifies that a CI, IT service, or process meets its specification or agreed requirements.
Test Environment	A Test Environment is a controlled environment used to test CIs, builds, IT services and processes.
Throttling	Some events do not need to be acted on until they have occurred a number of times within a given time period. This is called Throttling. Once a repeated event has reached its limit for repetition, forward that event to be acted upon.
User Acceptance Testing	User Acceptance Testing is a testing activity conducted by the user intended to verify a CI, IT service, or process meets a specification. It is also used to validate whether agreed requirements have been met.
Wisdom	Knowledge + Experience. The ability to make correct judgments and decisions by making the best use of available knowledge
Work-around	Work-arounds for problems are documented in known error records and are intended to reduce or eliminate the impact of an incident or problem for which a full resolution is not yet available. Work-arounds for incidents that do not have associated problem records are documented in the incident record.
Work Instruction	The Work Instruction is a document containing detailed instructions that specify exactly what steps are followed to carry out an activity. A work instruction contains much more detail than a procedure and is only created if very detailed instructions are needed.