servicenow.

Master the knowledge management process

Focus on knowledge as a key asset of your organization

Introduction

This process guide is a detailed explanation of how you can use ServiceNow® Knowledge Management to manage your knowledge efficiently.

Knowledge management process scope

Knowledge management includes:

- **Capturing knowledge –** When a customer request comes in, those answering the request create an article as a byproduct of solving the customer's problem.

- **Structuring knowledge –** Using a template or form for writing an article keeps the knowledge base (KB) consistent, making it easier for users.

- **Reusing knowledge –** When users find multiple KB articles that helped them solve a customer issue, they can link those articles together.

- **Improving knowledge –** Users are regularly reviewing the knowledge as they research articles to solve a problem so they can provide feedback on their usefulness.

Knowledge management objectives

Your knowledge management process should:

- Be efficient

- Improve your quality of service

- Increase customer satisfaction

- Reduce service costs

The knowledge hierarchy includes these four levels:

- **Data –** Turning metrics into quality information

- **Information –** Combining that quality information with context, experience, and interpretation so it becomes knowledge

- **Knowledge –** Using that knowledge to make appropriate decisions, which is perceived as wisdom

- **Wisdom –** The culmination of the three previous levels

Regardless of your level of maturity with ServiceNow, follow this guide as closely as possible. At ServiceNow, we encourage using the same simple, lean ITSM processes that are reflected in our out-of-the-box (OOTB) designs.

In this guide, you'll find additional recommendations from ServiceNow Professional Services beyond the specific OOTB functionality. You may add additional functionality to what's offered, but you should only do so in scenarios when you will achieve a required business outcome that can't be achieved using an OOTB method. When you follow this approach, your upgrade paths will be smoother, and you'll be better able to expand your use of the Now Platform®.

This process guide will help you create and maintain an effective knowledge base by explaining:

- The knowledge management lifecycle
- Structuring and implementing your knowledge management approach
- Integrating with external knowledge content
- Maintaining your knowledge health

BEFORE YOU START, YOU NEED:

- A process owner who is the authoritative voice for the organization and is able to make decisions
- A willingness to critically examine your current working practices
- To identify who the consumers of the content in your knowledge bases are
- To identify who the writers, editors, and managers for your knowledge base articles should be

Terms and definitions

Knowledge management – The goal of knowledge management is to gather, analyze, store, and share knowledge and information within an organization. The primary purpose of this ITIL process is to improve efficiency by reducing the need to rediscover knowledge. Knowledge is therefore seen as a key asset of the organization implementing it.

Knowledge-Centered Service – Knowledge-Centered Service (KCS) is a key principle in the implementation of knowledge management. To get the most value from this service delivery method, the tools that support it must be integrated with other support and business systems, including the incident management, change management, and service level management processes. How deeply you integrate your use of the knowledge base into your processes dictates the benefits KCS provides.[1]

KCS strives to:

- Integrate the reuse, improvement, and (if it doesn't exist) creation of knowledge into the problem-solving process
- Evolve content based on its demand and usage
- Develop a knowledge base of collective experience to date
- Reward learning, collaboration, sharing, and improving

---

[1] See http://www.serviceinnovation.org/ for further information on KCS methodologies.

Note: This guide doesn't cover KCS in detail but does cover elements of the KCS Solve Loop.

Roles and responsibilities

Knowledge user
The knowledge users are the people who consume your organization's knowledge articles.

Responsibilities
- Review and use knowledge in day-to-day activities.
- Identify any missing knowledge required for day-to-day activities.
- Identify knowledge that needs to be updated.

ServiceNow role – No role is required, but knowledge users need a login.

Knowledge manager
The knowledge manager assigns other managers, defines category structures, configures who has read-only or contributor status, moves and pins articles, and modifies most fields on the Knowledge Base form. They can also approve publishing or retiring knowledge articles when necessary.

Responsibilities
- Manage and coordinate all of the day-to-day knowledge management process activities.
- Define knowledge categories.
- Review submitted knowledge articles to ensure the content is valid and that the quality standards are respected.
- Obtain the appropriate subject matter expert (SME) validation when needed.
- Identify any new content and/or solutions required to support the end users' needs.
- Encourage people to contribute knowledge articles.
- Create and maintain knowledge templates.
- Pin important knowledge articles to appear at the top of search results.
- Gather and report on process metrics.

ServiceNow role – The **knowledge_manager** role is required.

Knowledge contributor
Knowledge contributors are those who create and edit knowledge articles to share information across the organization within a KB.

Responsibilities
- Submit new knowledge articles.
- Update the content of their submitted articles.

ServiceNow role – No role is required, but contributors need a login. Note: Some KBs are configured to allow only certain users to contribute.

Knowledge management lifecycle

The states in every ServiceNow application serve a specific purpose. They're designed to make it clear where a particular record currently resides in a process and to display progress. States should represent a unique phase in a process when a specific set of related activities are grouped together and designed to achieve a particular outcome so you can move to the next phase of the process.

For example, in the knowledge management process, the **Published** state should contain all activities required to understand what was done to publish the article—and those activities wouldn't occur during any of the other states. OOTB ServiceNow Knowledge Management has the following state model:

- Draft

- Review

- Published

- Retired

Implementation considerations

When you implement a knowledge management process in ServiceNow, consider these elements as they apply to implementation:

- Structuring knowledge:

  – Allow for multiple KBs.

  – Create separate, customizable workflows for each KB.

  – Create a unique category taxonomy with the appropriate number of levels for each KB.

  – Define the permissions for each KB using user criteria.

  – Define how users will request a KB.

- Capturing knowledge:

  – Create KB articles.

  – Use external content integration.

  – Create knowledge from incidents and problems.

  – Import Word documents into knowledge articles.

- Reusing knowledge:

  – Subscribe to knowledge categories.

  – Search for knowledge articles.

- Improving knowledge:

  – Provide feedback and rate articles.

- Ask and answer questions in the KB.
- Maintaining content health:
  - Report on the usage of articles.
  - Use the Article Quality Index.

Structure knowledge

Structuring knowledge is critical to creating, sharing, using, and managing knowledge and information within your organization.

Steps to structuring the KB

With the participation of the different service and business stakeholders:

- Determine the number and names of your KBs, what content will be in each, and who will have access to each.
  - The primary knowledge manager is the owner of that KB. Each KB must have one owner. There may be any number of additional knowledge managers for each KB.
  - Each KB can have a publish and retire workflow that incorporates the appropriate required approval levels. These may differ depending on the article's content type. For example, HR and marketing might have different required approvals than your technical team does.
  - Determine content ownership, security, and access rights.
- Determine how you'll organize the KB content by topic and category to make the content easy to find. Each KB can have its own multilevel taxonomy that is independent of the other KBs.
  - When considering the taxonomy and number of KBs, consider the search use case, which is likely the most common one.
- Determine the various views you'll need (for example, one for end users, service desk, network support, or others).
- Determine the various configurable aspects, including:
  - *Templates to aid in knowledge creation* – The Knowledge Management Advanced plugin includes four OOTB templates: How To, What Is, KCS Article, and FAQ.
  - *The differing types of feedback available for articles* – You need to have a process in place to accept and take action on this feedback. This will help develop your KB on collective experience.

Request a KB

Users can request a KB through the ServiceNow Service Catalog. When you're deciding whether your organization needs a new KB, consider all the steps required to structure one.

Additionally, an article can only appear in a single KB. As such, if the information is required in multiple knowledge bases, you must create multiple knowledge articles. Keep in mind how this affects the user experience and article maintenance.
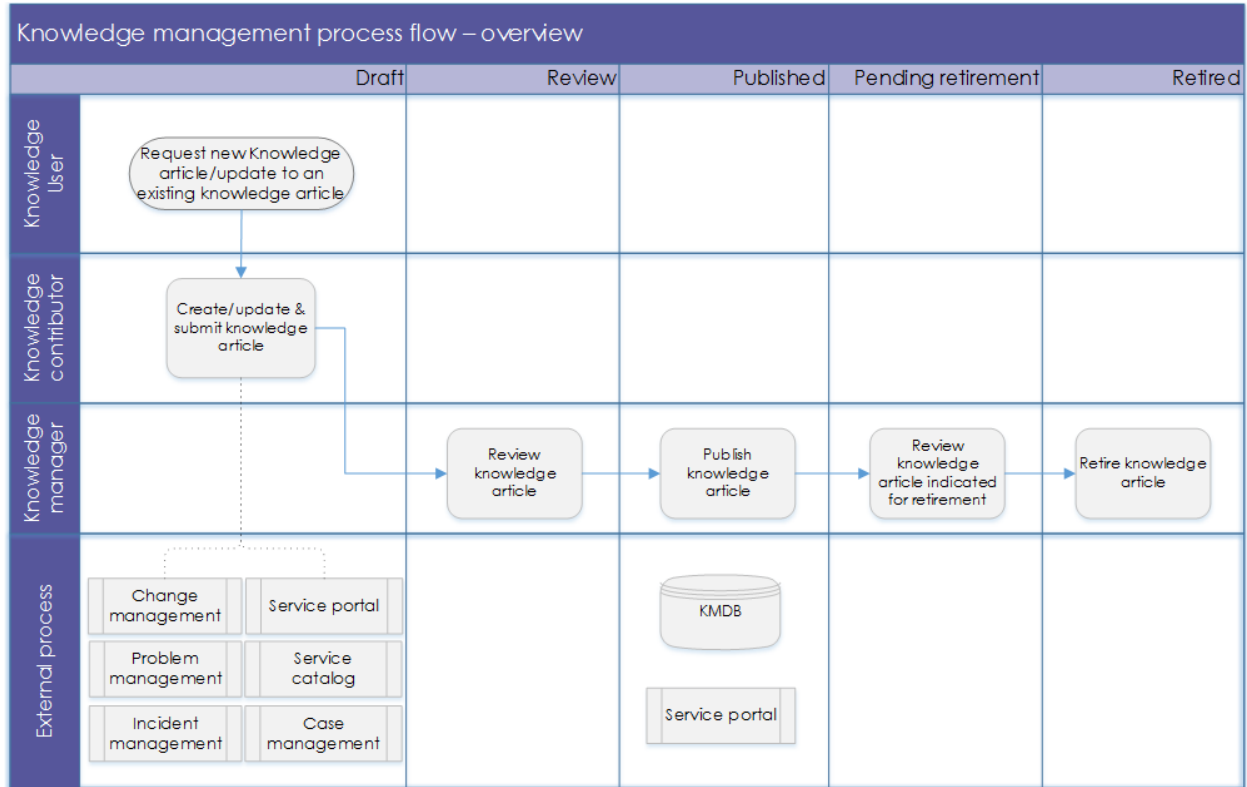
Process overview

Figure 1: The knowledge management process flow

State – Draft

When you first create an article, it is in the **Draft** state and does not appear in the KB for users until it's reviewed and published.

> **Expert tip**
>
> Before you create a new article, always search to see if it already exists. This is a time saver, and it gives you the option to create a new article or to update the existing one.

The mandatory fields for a draft are:

- **Knowledge base –** You can select a category from the **Category** list after you select a KB.

- **Short description**

If the article relates to another task within ServiceNow, the **Source task** field will automatically populate. For example, the **Source task** field might show the incident that the knowledge article was created from. What happens after a contributor submits an article depends on the workflow that was selected for that KB. The possible workflows are:

- **Approval Publish –** The article moves to the **Review** state so a knowledge manager can review and publish it.

- **Instant Publish –** The article moves to the **Published** state.

> **Expert tip**
>
> Use templates in ServiceNow for consistency in style for particular types of articles. This makes the information easier for readers to consume.

As you create an article, you can set up encryption for specified fields if you want to hide the information in those fields from viewers who don't have appropriate access.

State – Review

In the **Review** state, the KB article is available to review. The KB manager and owner may choose to:

- **Update –** Keeps the article in the **Review** state
- **Approve –** Moves the article to the **Publish** state
- **Reject –** Moves the article back to the **Draft** state
- **Delete –** Moves the article back to the **Draft** state

As part of the review process, the approvers are able to provide comments relating to the article and their decision.

State – Published

In this state, the article is available to users who have appropriate permissions. These permissions are best determined through user criteria.

State – Retired

Moving an article to the **Retired** state removes it from the KB. Depending on your KB, you may have an approval process for retiring articles.

External content integration

The information that's required to solve issues often exists outside of formal KBs. For example, it might exist within documentation, internal project files, or error databases.

When you use federated search solutions that rely on "search engines" of the individual sources and combine user interfaces, users will have a poor experience that leads to less-than-relevant results. These sources often have different process owners within the enterprise and have different classifications and standards.

For effective external content integration, link ServiceNow to the external content to make it searchable within ServiceNow. Your KB configuration determines whether the article a user selects from the search results will display within ServiceNow or the system of record. The external content cannot be modified within ServiceNow and is read only.

Knowledge creation within processes

Reusing knowledge you already have to solve a case means your KB users don't have to "reinvent the wheel" while they're solving cases.

Capture knowledge

To follow KCS methodology, users must be able to capture knowledge from cases. They can be captured in the:

- Context of solving an issue

- Customer's language

OOTB, ServiceNow Knowledge Management supports creating articles from an incident or a problem. The short description in the incident or problem record becomes the knowledge article title, and the article is added to the KB specified in the configuration. Depending on your configuration, knowledge articles created from incidents or problems may require additional approval.

Create a submission record

Users can also create a submission record instead of a knowledge article. This process requires that a user with the knowledge manager role approves the submission to create a knowledge article. Once the knowledge manager approves a submission, the action creates a new knowledge article using the submission record's content.

Retire knowledge

Review knowledge articles at least annually to ensure their usefulness and relevancy. During these reviews, you may identify updates or articles that need to be retired.

Some knowledge articles were created with a "valid to" date or are time bound, such as articles specific to a public holiday. It's always clear when you should retire these articles.

Improve knowledge

Use closed-loop feedback with your knowledge articles to support the health of your KB and to direct further work.

Provide feedback and rate articles

You can submit feedback for knowledge articles in these ways:

- Flag an article as incorrect or inappropriate.

- Provide a rating value for the article.

- Mark an article as helpful or not helpful.

- View comments, add a new comment, or reply to existing comments.

To provide—or limit—these feedback options, configure them within Knowledge Management, but always act on the feedback provided.

Ask and answer questions

If you have Social Q&A activated for a KB, users can ask questions associated with that KB and respond to questions from other users. You can also vote on helpful questions and answers. Social Q&A uses knowledge access controls, search, and the Knowledge homepage where you can browse and search for questions.

Questions appear along with knowledge articles organized by KB, category, and tags. Click a question to view its details, responses, and comments. From the question's details, you can:

- Add responses and comments
- Vote on existing responses
- Share questions
- Edit your own questions and answers

You are automatically subscribed to any question you ask, so you receive notifications when another user votes on, comments on, or answers the question. If you want to receive notifications for a question asked by another user, you can manually subscribe to the question.

Content health

Content health is critical to getting users to adopt and use your KB. Critical success factors (CSFs) identify key process objectives the content must meet for your KB to be successful.

Key performance indicators (KPIs) evaluate the success of a particular activity toward meeting the CSF. Successfully managing KPIs can be either by repeatedly meeting an objective (maintaining the KPI) or by making progress toward an objective (increasing or decreasing the KPI). Here are some examples:

- Knowledge management delivery:
  - Reduce the mean time to repair (MTTR) due to improved knowledge availability.
  - Increase the use of documented knowledge articles.
  - Improve the value of documented knowledge articles.
  - Increase your maintenance of the knowledge articles.
- Standardized knowledge procedures:
  - Maintain or increase your number of knowledge articles.
  - Maintain or increase knowledge articles created from an incident or a problem record.
  - Increase your first-time approval rate on submitted knowledge articles.

- Knowledge management process:
    - Maintain or increase the effectiveness of the knowledge management process.
    - Maintain or increase the efficiency of the knowledge management process.
    - Continually improve the knowledge management process.

Other processes

Incident management

You can create knowledge articles from an incident to ensure other knowledge users can see its diagnosis and resolution activity details.

The Incident form displays contextual search results based on the text you entered in the **Short Description** field. These search results provide targeted knowledge for incident analysts.

Problem management

Problem management is the subsequent process for incidents that require further investigation for the root cause. You can generate problem records directly from the incident record, which will copy over key data. To do this, select **Create Problem** from the drop-down menu.

Users can create knowledge from a problem or known error to ensure the diagnosis, workaround, and resolution activity details are communicated to other knowledge users.

Use knowledge in the problem management process to identify potential workarounds that others have used to resolve incidents or identify change implementation activities in problem analysis.

Change management

Your change management process can include knowledge in order to:

- Help with risk assessment as well as obtain information on the activities that need to be performed to implement a change

- Track change plans (testing, implementation, backout, etc.)

- Keep details of the activities to be performed on standard changes

Request fulfillment

Use knowledge to document the activities required to fulfil service requests.

Process governance

Measurement

The effectiveness of a process is defined by how useful the process output is in relation to the customer's expectations and needs. Process KPIs need to:

- Provide information on the effectiveness of the process and the impact of continuous improvement efforts

- Be represented as trend lines and tracked over time

- Monitored by the process owner

Item	Purpose
Percentage of knowledge articles viewed vs. used	This KPI measures the usefulness and value of the content and helps you understand the article's usefulness.
Average article rating (if used)	This KPI is a subjective measurement of the quality of the output of the knowledge management process.
Number of new articles contributed	This KPI measures the organization's commitment to knowledge support.
Number and percentage of articles not accessed for X (amount of time)	This KPI measures how well the KB content is being maintained.

Table 1: Some process KPIs and their purpose

Operational data

Track knowledge articles that need attention and/or intervention on a dashboard or homepage that's monitored by the knowledge manager.

Item	Purpose
List of articles in **Draft**	This shows a quick view of the articles that need to be reviewed.
List of user feedback to be reviewed	(Depends on **Feedback** options selected) All user feedback must be reviewed and follow-up action determined.
List of articles not accessed for X (amount of time)	This shows the articles that are not used and must be reviewed for deletion or relevance.

Table 2: Some operational KPIs and their purpose

Reports and homepages

There are numerous default reports available in ServiceNow that you can use to generate charts, publish to a URL, and schedule to run and distribute at regular intervals. You can also create custom reports.

In addition to reports, each user can create a personal homepage and add gauges containing up-to-the-minute information about the current status of the records that exist in the ServiceNow tables.

Article Quality Index (AQI)

KCS methodology encourages agents to contribute to the process of article creation as part of their case resolution. Given that, all authors may not be professional content editors.

To maintain a high quality of content in the KBs, you must use an article quality evaluation mechanism, such as the AQI, that lets customers review and evaluate the articles' quality and the authors' performance. By doing so, your content and your authors' content editing skills are constantly improving.

To put an article quality evaluation mechanism into use, follow this process:

1. The knowledge admin creates the AQI checklist, adding true/false questions and defining the order and weight of the questions.

2. The checklist is assigned to the KB. The knowledge coach and knowledge domain expert perform AQI reviews and an automatic notification is sent to the author.

3. The author reviews the scores and comments and corrects the article as required.

The takeaway

Knowledge management should be a continuous process if it's to be of value to your organization. Also remember to:

- Seek and act on feedback to drive adoption and gain trust

- Target the users through style, structure, and content