NORTHSTAR HEALTH CLINICS – EHR DISRUPTION SCENARIO

PREPARED FOR

ITSM FINAL PROJECT PART 2

PRESENTED BY

GROUP 3 - MLTI B

KNOWLEDGE MANAGEMENT ASSIGNMENT

7 DECEMBER 2025

servicenow

CONTENT

Transforming real EHR incidents into clear, reusable knowledge for clinical staff and IT support

INTRODUCTION

This section of the project focuses on converting the operational experience from Part 1 into reusable Knowledge Base articles for both clinical end users and IT support staff. After resolving EHR-related incidents using Incident, Problem, Change, and CMDB processes, the next step is to document these learnings in a clear, standardized format. By creating Knowledge Articles in ServiceNow, our group ensures that common EHR issues can be understood, prevented, and resolved more efficiently by doctors, nurses, clinic staff, Service Desk teams, and Application Support teams.

LEARNING OBJECTIVES

By completing this activity, we will be able to:

1. Create Standard Knowledge Articles for clinical end users using non-technical, easy-to-follow language.
2. Develop Known Error Articles for IT support teams that explain root causes, workarounds, and permanent fixes.
3. Translate real incidents from Part 1 into structured, reusable knowledge assets.
4. Apply correct ServiceNow templates and publish articles properly within the shared PDI.
5. Strengthen organizational knowledge sharing by documenting recurring EHR issues and their solutions.

Group Roles

To complete Part 2, our group collaborated without assigned ITIL-specific roles, focusing instead on jointly creating the required Knowledge Articles in ServiceNow. Each member contributed to drafting, structuring, and refining both Standard Knowledge Articles and Known Error Articles, ensuring that the content accurately reflected the incidents and problems analyzed in Part 1. We worked together to organize article templates, craft clear explanations, link related incidents and problems, and publish the final articles within the shared PDI.

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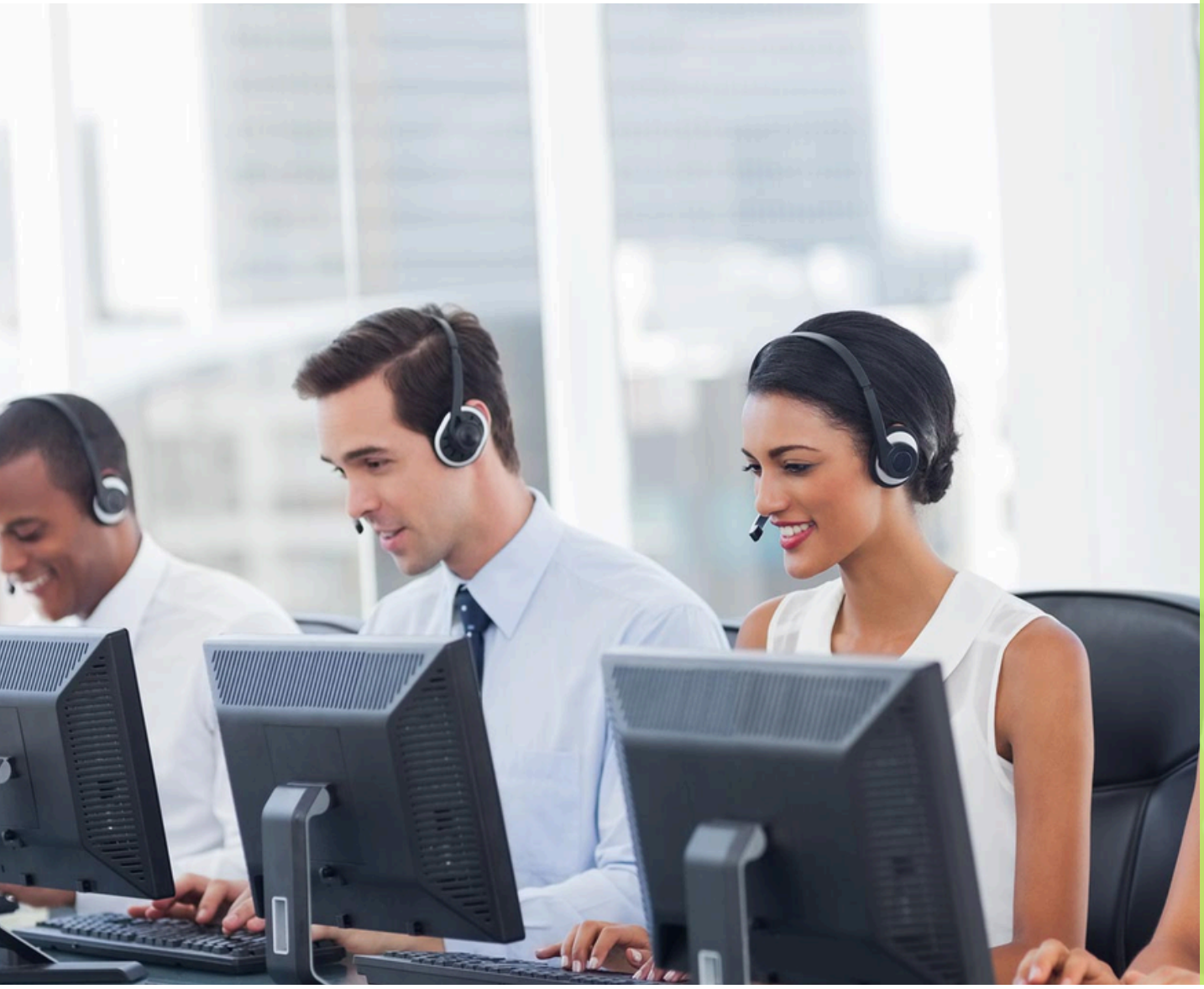
While responsibilities were shared, we coordinated closely throughout the process to maintain consistency in writing style, accuracy in technical details, and alignment with Knowledge Management best practices.

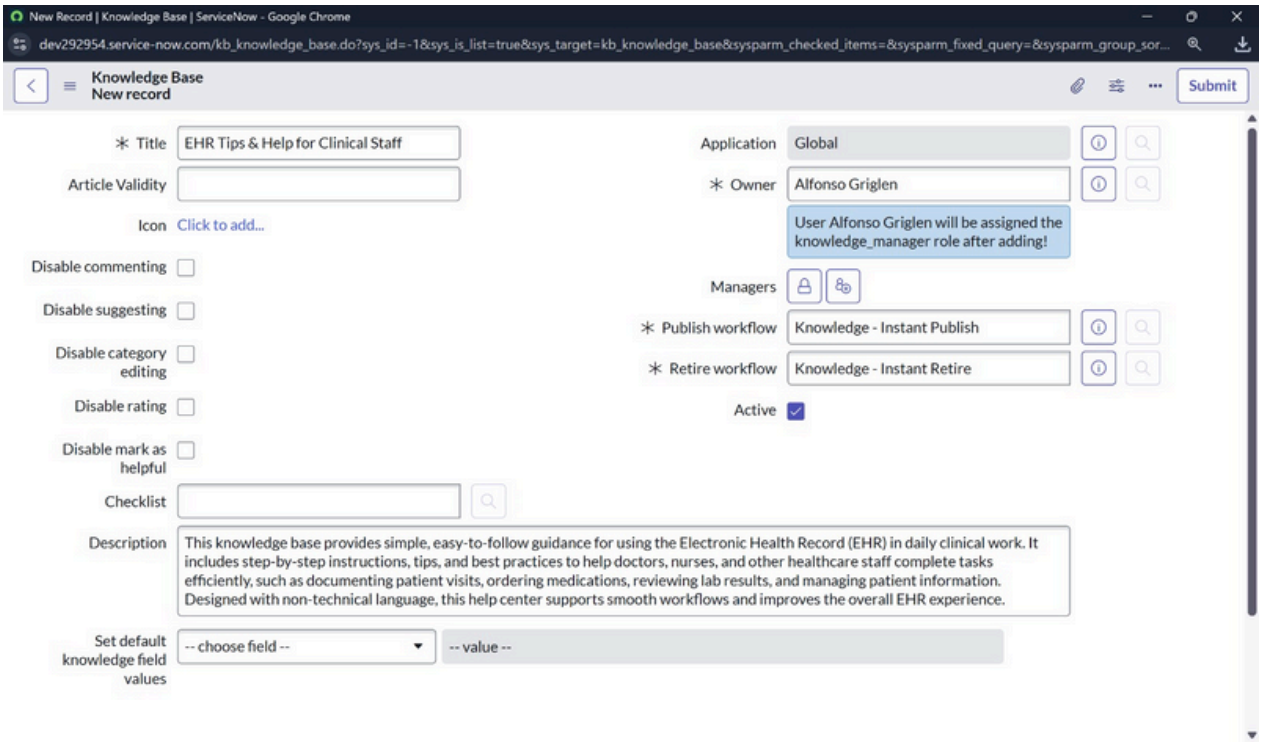
Through collective effort and collaborative editing, our team successfully produced a complete and coherent set of Knowledge Articles that can be reused by clinical staff and IT support.

Standard Knowledge Article



A standard knowledge article provides clear, structured guidance to help clinical staff quickly understand and resolve common issues related to the EHR system by using simple, non-technical language. It summarizes essential steps, best practices, and practical instructions that support doctors, nurses, and clinic personnel in navigating system errors, preventing recurring problems, and maintaining smooth clinical workflows. By presenting information in a concise and accessible format, a knowledge article ensures that staff can easily follow recommended actions during system slowdowns, login issues, or other incidents, ultimately improving efficiency, reducing downtime, and supporting consistent patient care.

Standard Knowledge Base Setting



When setting up the Knowledge Base for Standard Knowledge Articles, ensure that all configurations support non-technical, end-user content by choosing a clear and relevant title that reflects practical **EHR tips for clinical staff**. Since Standard Knowledge is intended for doctors, nurses, and clinic teams, always select the Standard Template when creating each article, ensuring the format stays simple and easy to read.

During the Knowledge Base creation process, we will be asked to assign an owner, all articles must list **Alfonso Griglen** as the **owner**, as this role is required for consistent management and publishing oversight. In the Description field, provide a concise explanation of the Knowledge Base's purpose, highlighting that it contains straightforward, user-friendly guidance designed to help clinical staff navigate the EHR effectively without technical language, supporting smooth workflows and improving daily operations.

Selected Topic

3

HOW TO REPORT AN EHR SYSTEM ISSUE PROPERLY

Linked incidents : All incidents from Part 1

This topic is connected to all incidents because every issue in the EHR system—whether it involves slow pages, freezing, login failures, or short outages—requires proper reporting to ensure quick resolution. Clear reporting helps the support team identify what happened, when it occurred, and how it affected staff. Since every incident depends on accurate information from users, this topic teaches staff how to describe problems in a way that makes troubleshooting faster and more effective.

4

HOW TO AVOID SESSION TIMEOUTS IN THE EHR

Linked incidents :

- Incident 3 - Login failures
- Incident 4 - EHR freezing

This topic relates to login failures and freezing because both issues can cause or worsen session timeouts. When the system freezes or repeatedly fails to log in, users may be logged out automatically due to inactivity. The topic explains simple steps to reduce the chances of timeouts, such as staying active in the system, avoiding long idle periods, and recognizing early signs of freezing. By following these steps, staff can keep their sessions active and avoid losing progress.

5

HOW TO USE THE EHR DURING TEMPORARY SYSTEM SLOWNESS

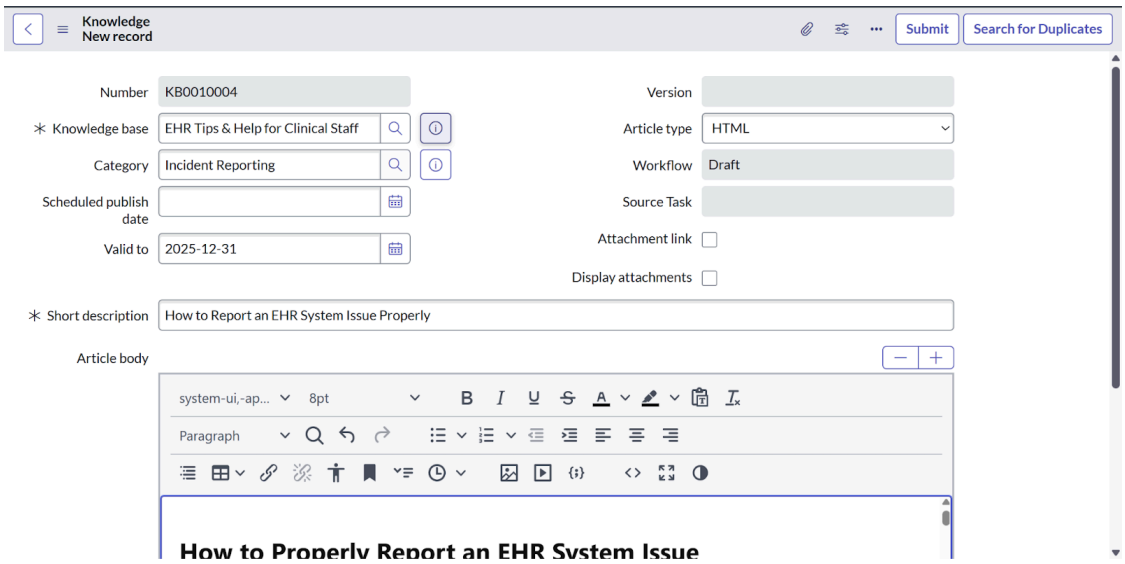
Linked incidentsc:

- Incident 1 - Slow system/pages
- Incident 5 - Short outage

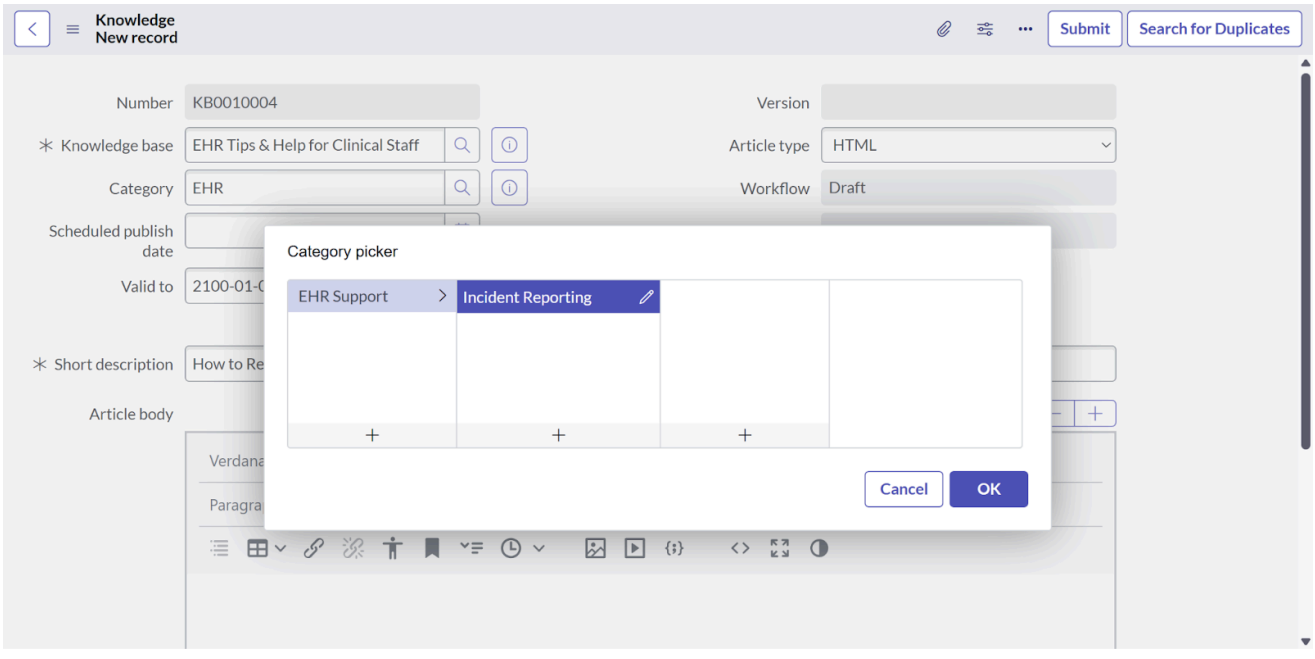
This topic is linked to incidents involving slowness and short outages because both situations require staff to continue working carefully while the system is unstable. The guidance helps users understand what they should do—such as being patient with loading times—and what they should avoid—such as clicking buttons repeatedly or refreshing too often. These behaviors help prevent additional system strain and reduce the risk of errors. The topic prepares staff to stay productive and protect patient information even during brief system disruptions.

Standard Article 3: How to Report an EHR System Issue Properly

Step 1 – Create New Record for Knowledge Article
Create a new Standard Knowledge Article record in the same EHR Support knowledge base used in Part 1, and fill in the basic information such as short description, template, and audience.

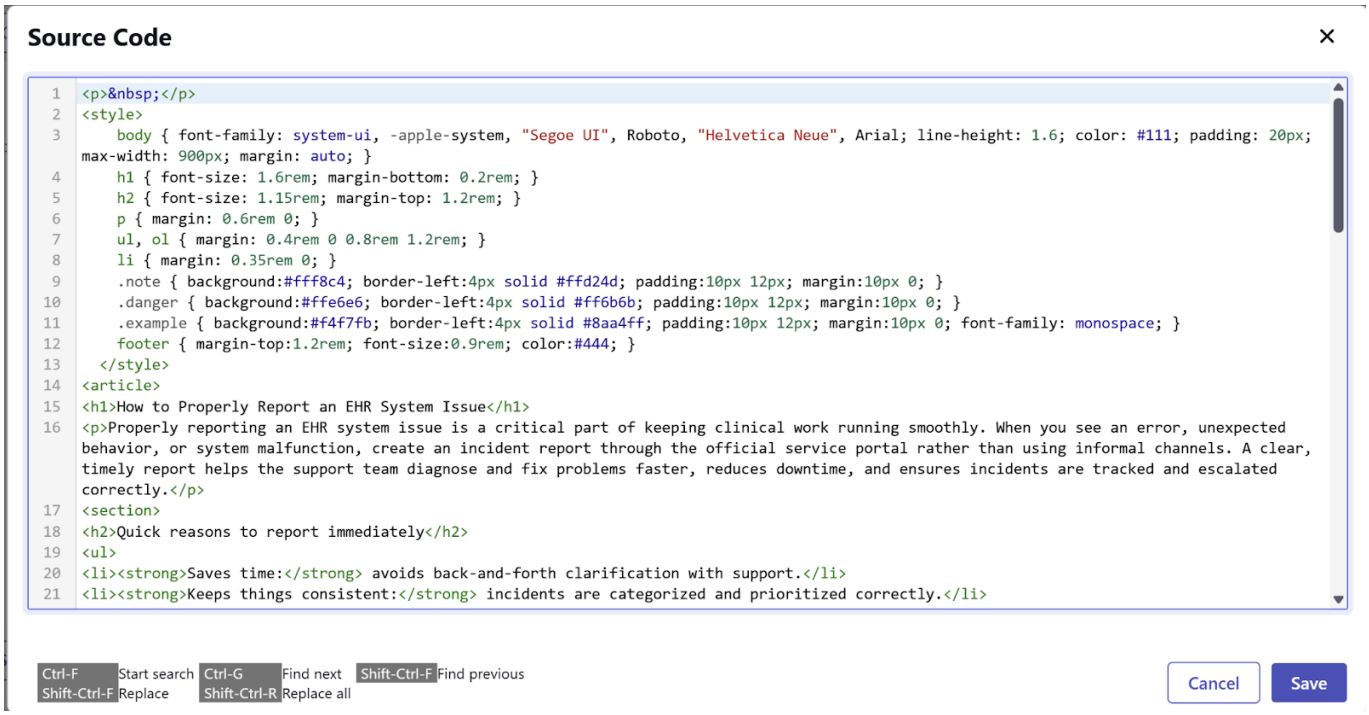


Step 2 – Add Category and Sub-category
Assign the article to a clear category and sub-category (EHR Support → Incident Reporting) so clinical staff can easily find it in the Knowledge Portal.

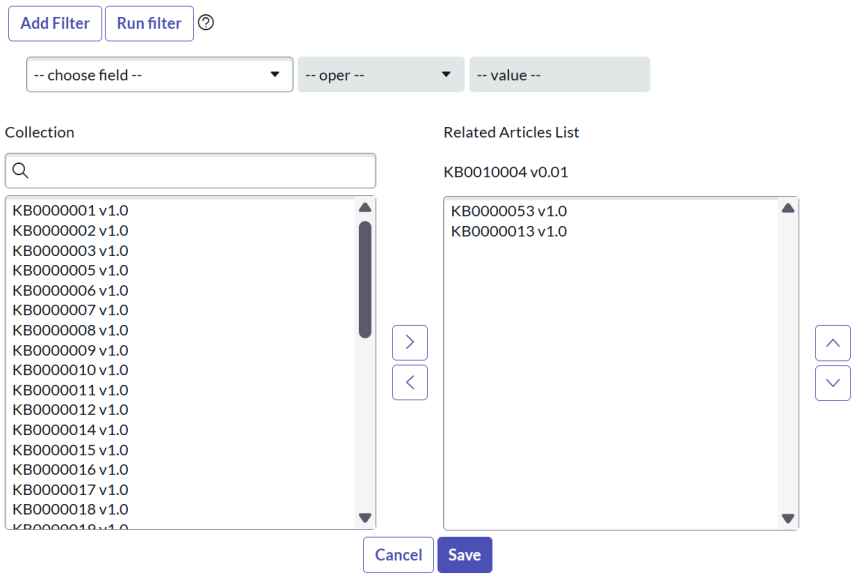


Standard Article 3: How to Report an EHR System Issue Properly

Step 3 – Create Article Body Using Source Code
Build the full article body using the Source Code editor, formatting the content into simple, non-technical sections that guide end users step by step.

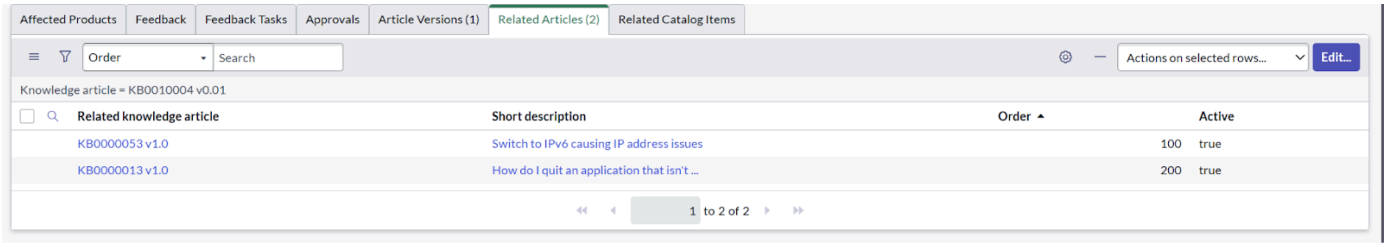


Step 4 – Link to Related Articles
Connect the new article to other relevant knowledge articles so users can quickly access additional background information, standards, or supporting guidance.

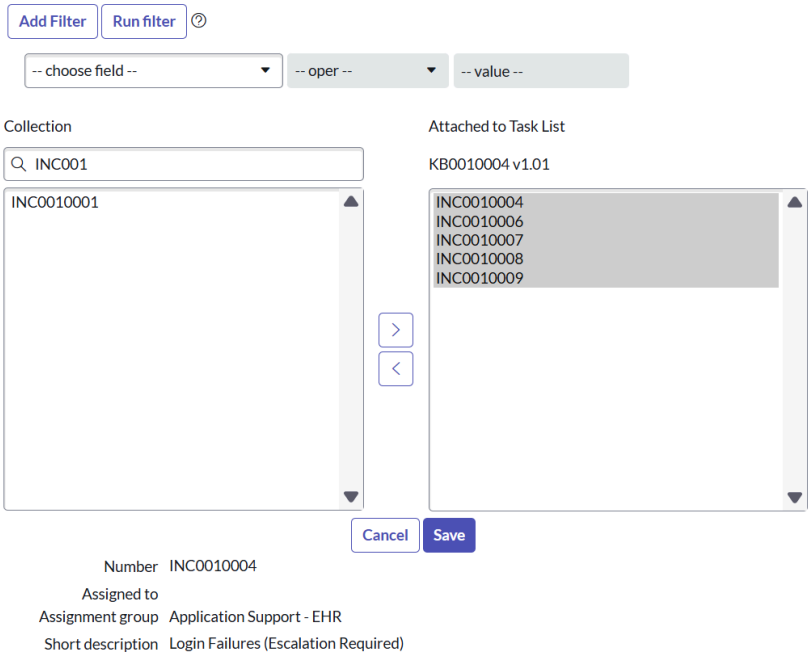


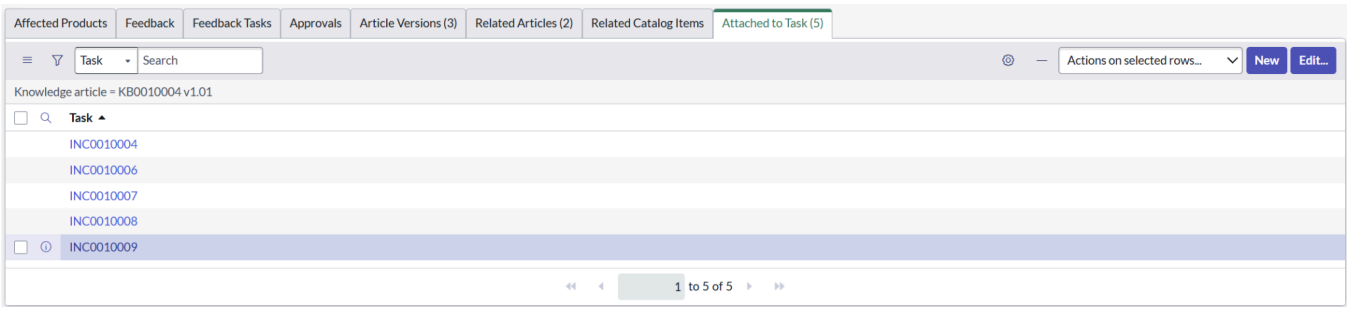
Standard Article 3: How to Report an EHR System Issue Properly

Step 5 – Add Relevant Related Articles as Supporting References
Select and link two existing knowledge articles, one about IPv6-related IP address issues and another about handling unresponsive applications to provide end users with real examples of system behaviors that may require proper incident reporting.



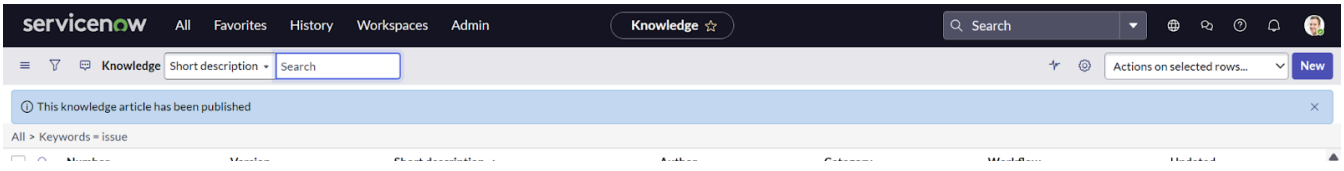
Step 6 – Link to Related Incidents (from Part 1)
On the Related Incidents section, link all relevant EHR incidents from Part 1 (slow system, short outage, login failures, database not responding, freezing during patient care) to show that this article is based on real cases.





Standard Article 3: How to Report an EHR System Issue Properly

Step 7 – Publish Knowledge Article
Change the article state from Draft to Published and verify that it appears in the EHR Support knowledge base so clinical staff can reuse it when reporting new system issues.



Link to Article

https://dev292954.service-now.com/kb/en/how-to-report-an-ehr-system-issue-properly?id=kb article view&sysparm article=KB0010004

Incidents Linked (From part 1)

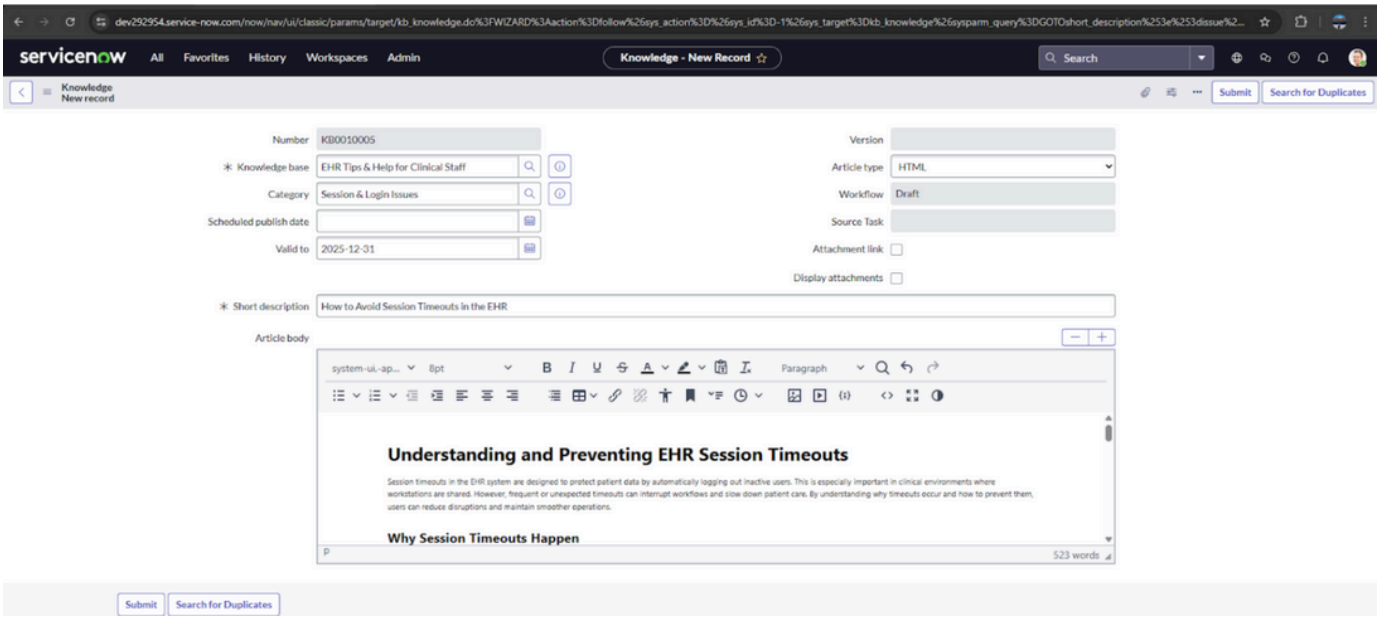
- INC0010004 - Login Failures
- INC0010006 - Five-Minute Outage
- INC0010007 - EHR running very slow
- INC0010008 - Database not responding
- INC0010009 - EHR Freezes During Patient Care

Articles Linked

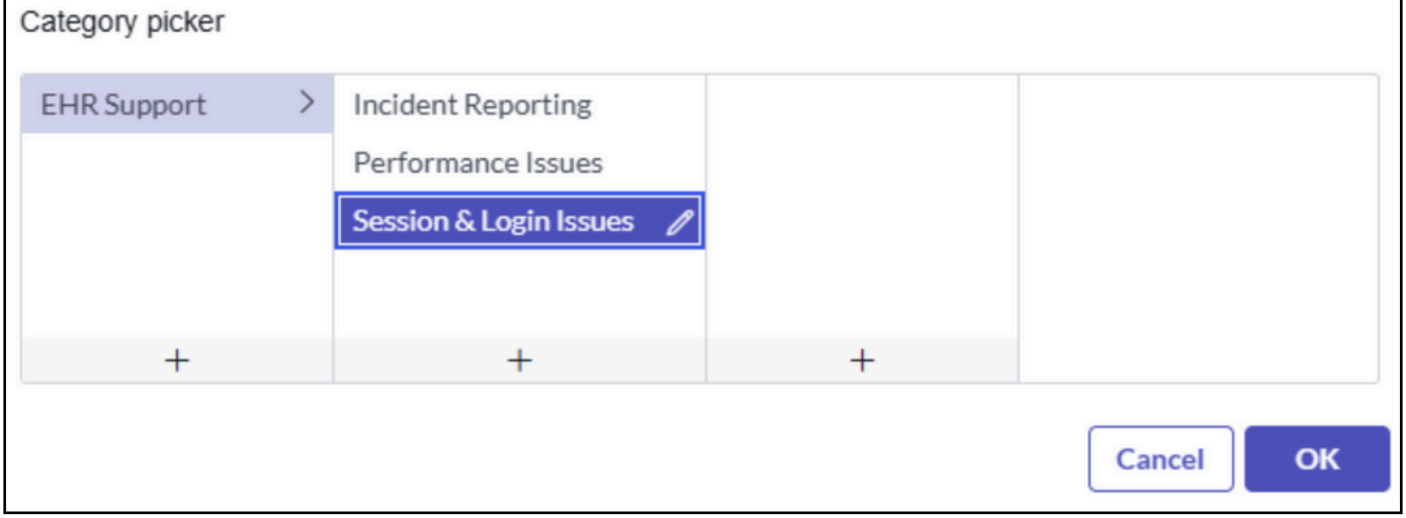
- KB0000053 v1.0 - Switch to IPv6 causing IP address issues
- KB0000013 v1.0 - How do I quit an application that isn't responding?

Standard Article 4: How to Avoid Session Timeouts in the EHR

Step 1 – Create New Knowledge Article Record
Create a new Standard Knowledge Article titled “How to Avoid Session Timeouts in the EHR” using the Standard template, ensuring the article is written in simple, non-technical language for clinical staff.

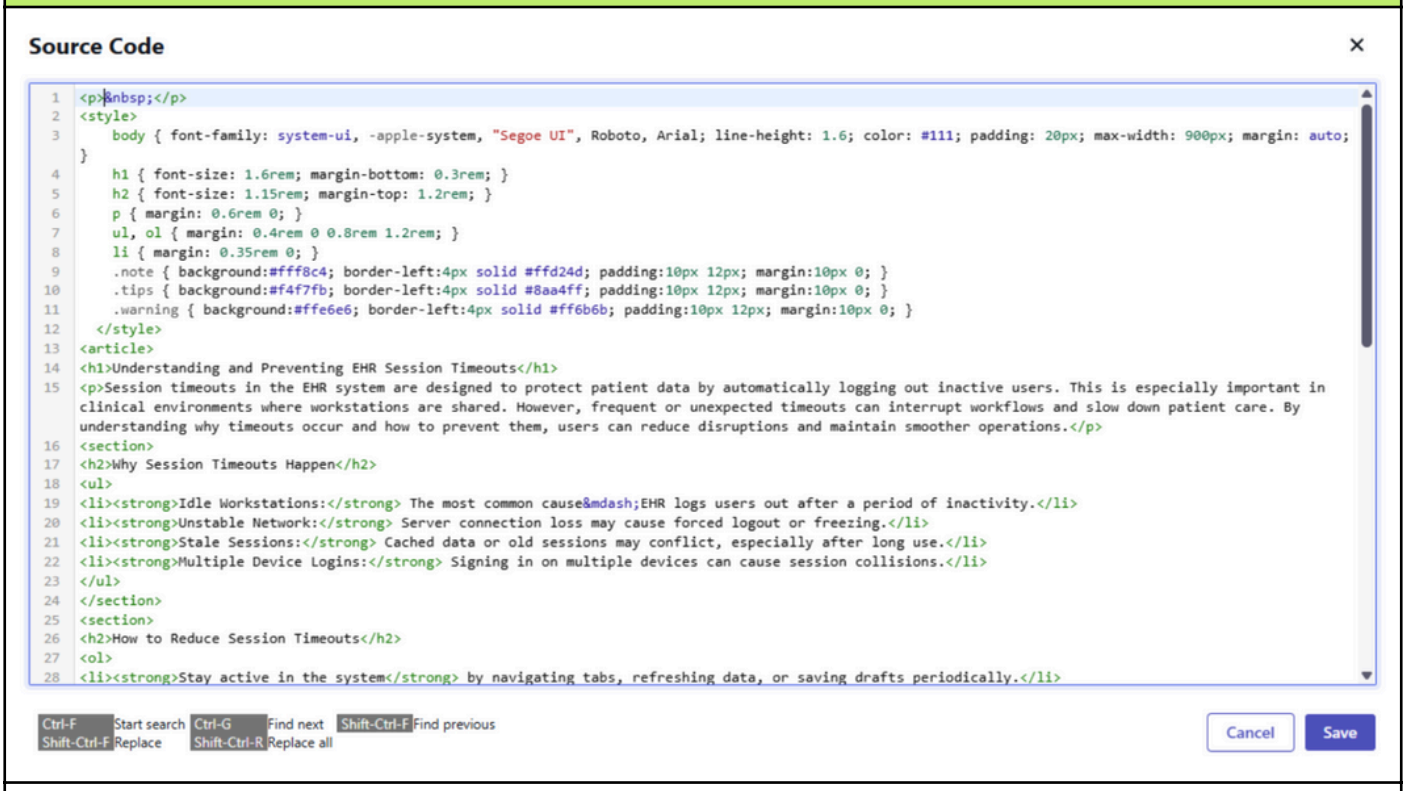


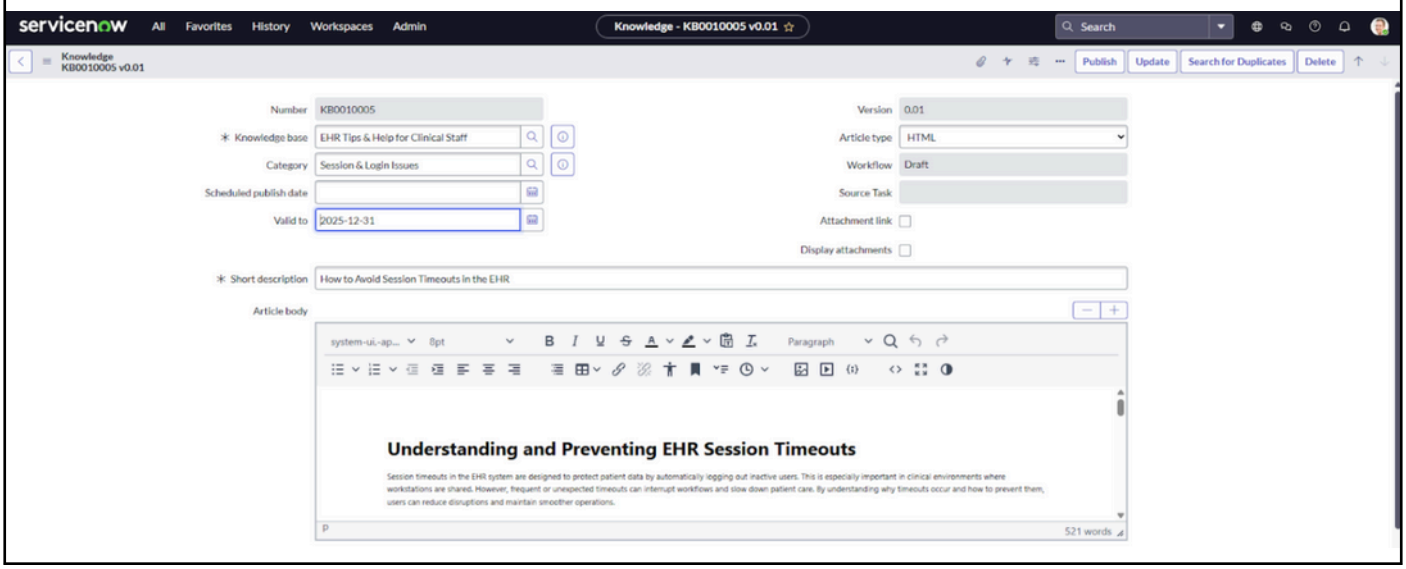
Step 2 – Add Category and Sub-category
Assign the article to a clear category such as EHR Support → Session & Login Issues so users can easily locate the guidance when they experience sudden logouts or inactivity warnings.



Standard Article 4: How to Avoid Session Timeouts in the EHR

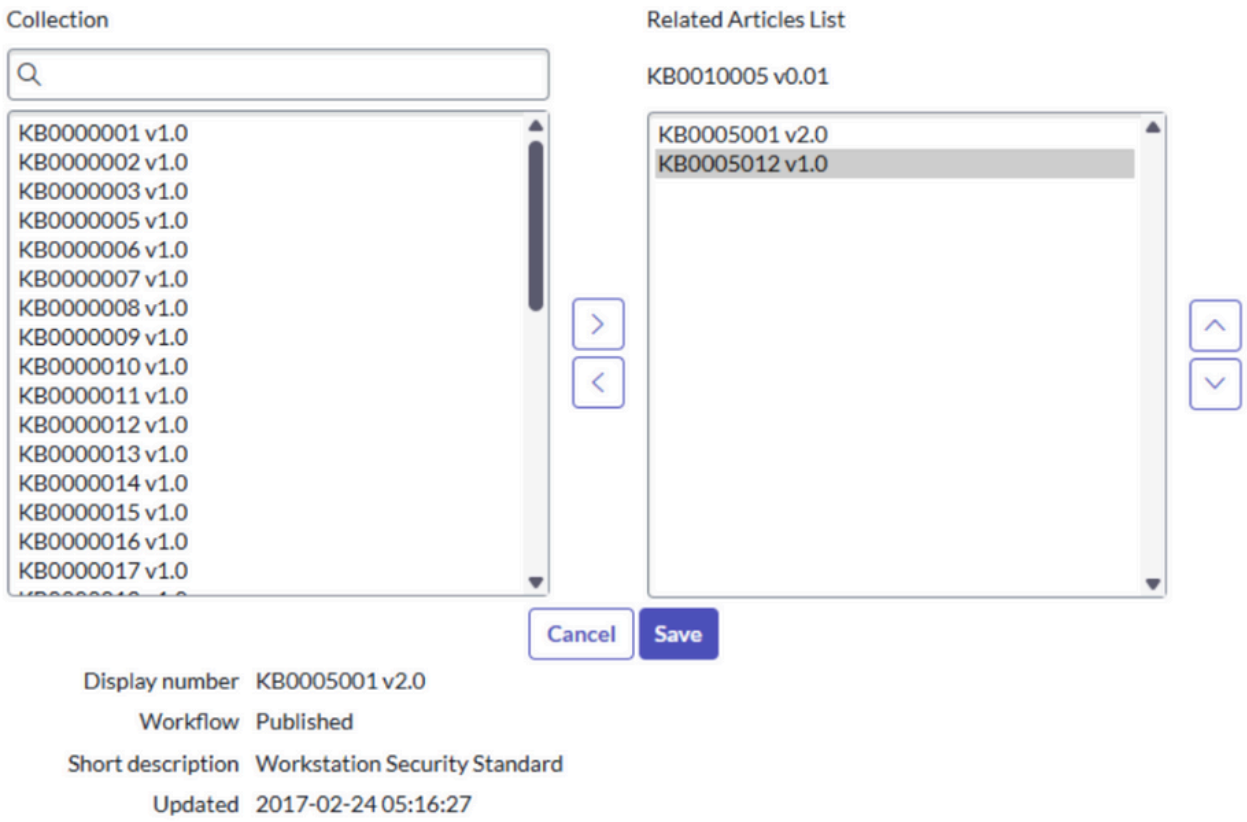
Step 3 – Create Article Body Using Source Code
Develop the article body in the Source Code editor by explaining, in plain language, what causes session timeouts and offering practical steps users can take to prevent them during patient care activities.



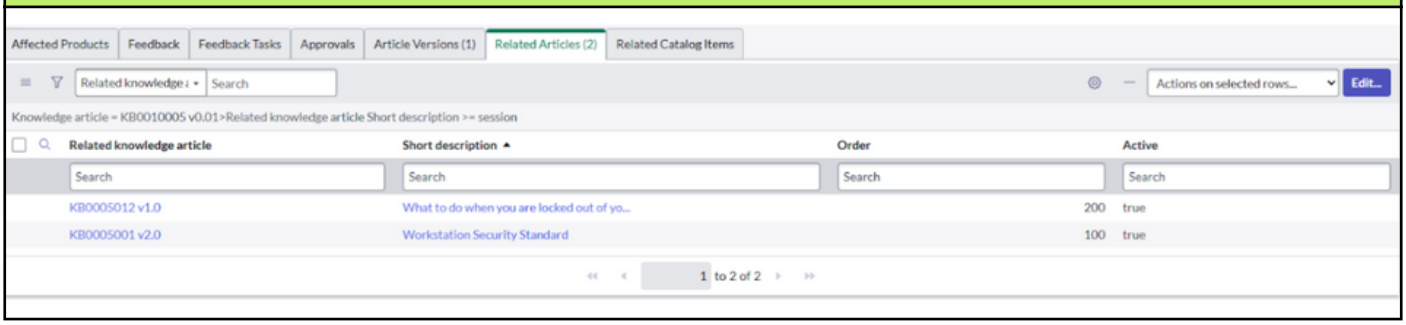


Standard Article 4: How to Avoid Session Timeouts in the EHR

Step 4 – Link to Related Articles
Select and link the related knowledge articles KB0005001 v2.0 and KB0005012 v1.0 to provide users with additional guidance on workstation security and system stability, helping them understand conditions that may contribute to unexpected session timeouts.

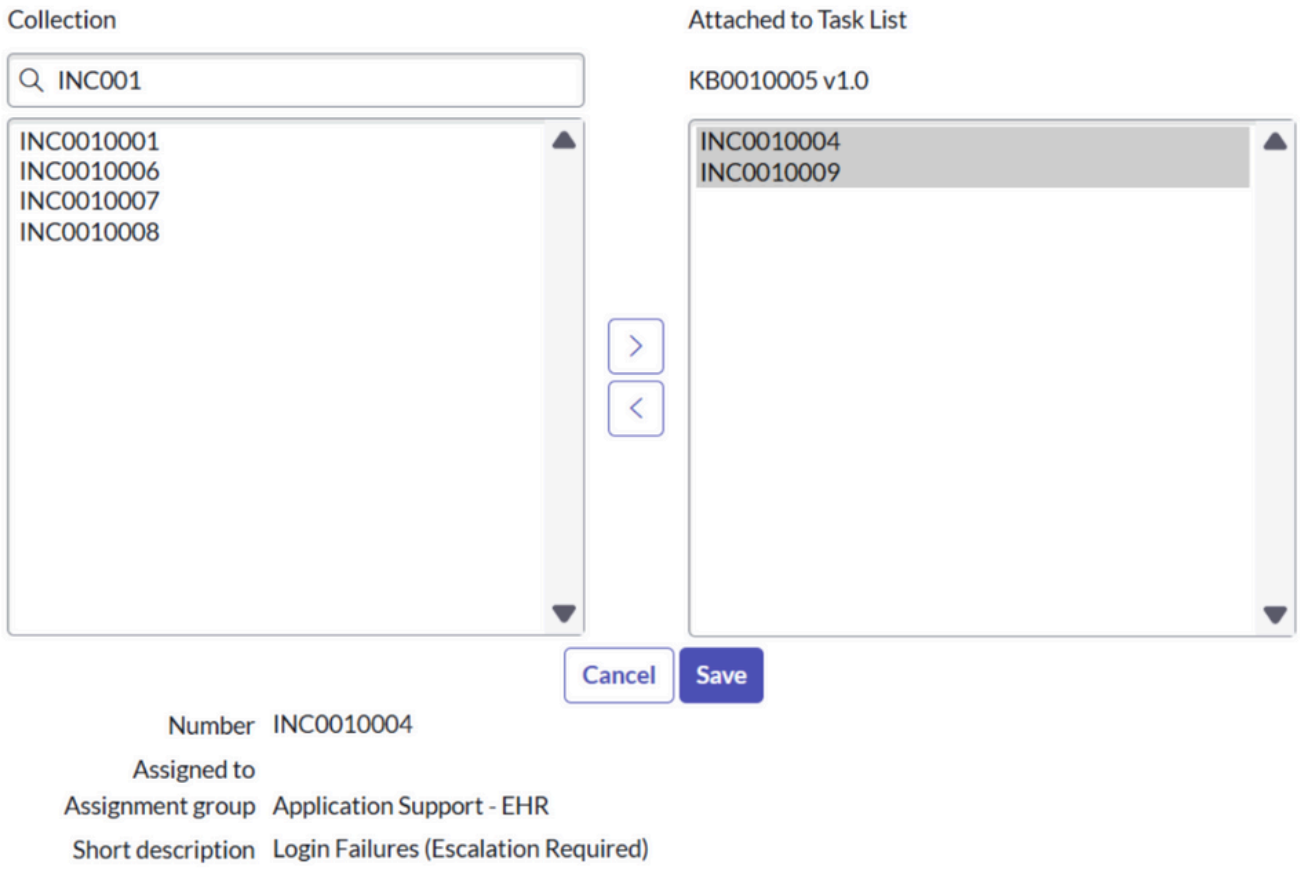


Step 5 – Verify Related Articles Output
Review the Related Articles tab to confirm that the selected items (KB0005012 v1.0 and KB0005001 v2.0) appear correctly in the list, ensuring the article is properly linked to supporting guidance on lockout issues and workstation security.



Standard Article 4: How to Avoid Session Timeouts in the EHR

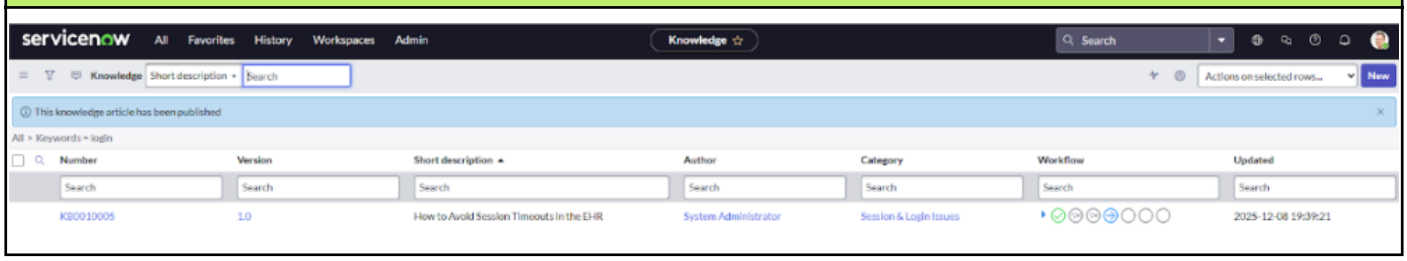
Step 6 – Link to Related Incidents
Select and attach the relevant EHR incidents (INC0010004 and INC0010009) to show that this article is based on real session timeout–related cases from Part 1, helping IT teams trace how knowledge is used to address recurring issues.



Step 7 – Verify Output of Related Incidents
Review the Attached to Task tab to confirm that both incidents appear correctly in the list, ensuring the article is fully linked to the operational records that justify its creation.

Standard Article 4: How to Avoid Session Timeouts in the EHR

Step 8 – Publish the Standard Knowledge Article
Set the article state to Published and verify that it appears in the Knowledge Base with the correct version, short description, category, and author, confirming that it is now available for clinical staff to use.



Link to Article

https://dev292954.service-now.com/kb/en/how-to-avoid-session-timeouts-in-the-ehr?id=kb_article_view&sysparm_article=KB0010005

Incidents Linked (From part 1)

INC0010004 - Login Failures

INC0010009 - EHR Freezes During Patient Care

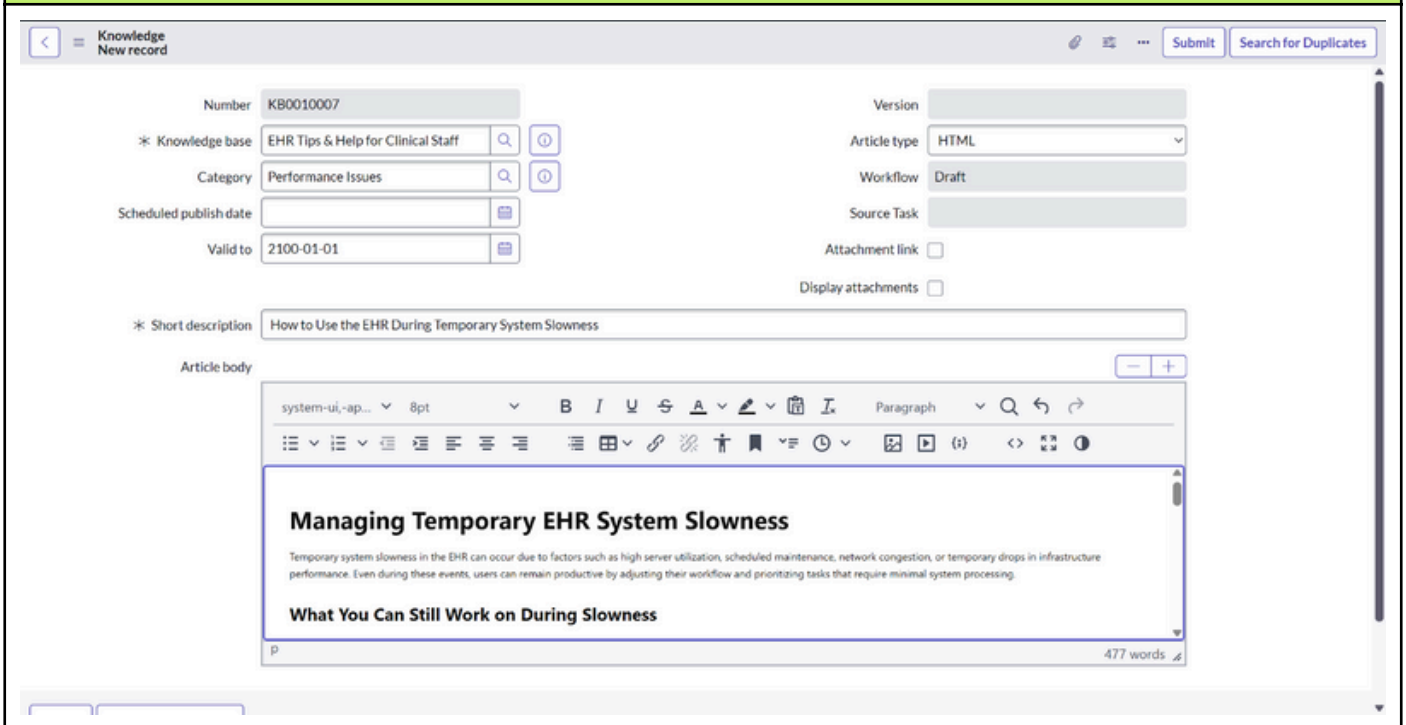
Articles Linked

KB0005001 v2.0 - Workstation Security Standard

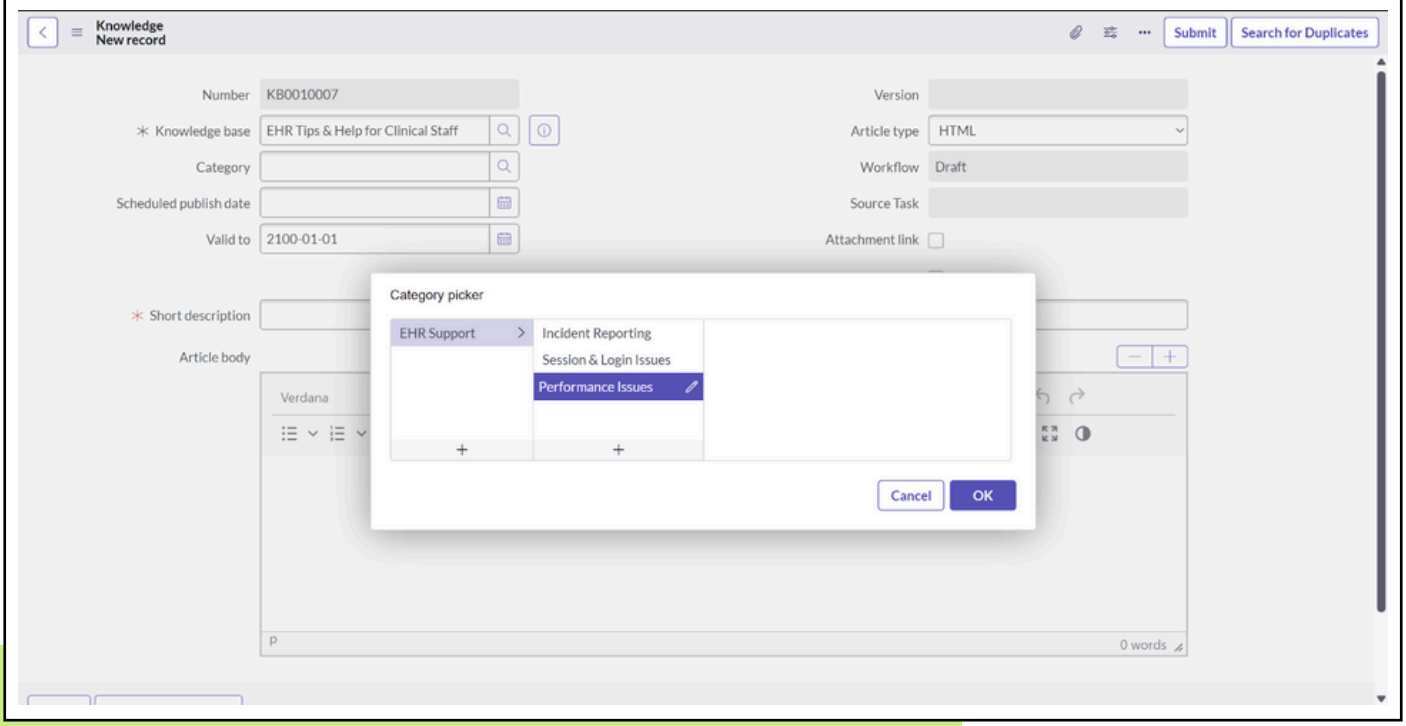
KB0005012 v1.0 - What to do when you are locked out of you computer ?

Standard Article 5 : How to Use the EHR During Temporary System Slowness

Step 1 – Create New Record for Knowledge Article
Create a new Standard Knowledge Article titled “How to Use the EHR During Temporary System Slowness,” ensuring the content is written in simple, non-technical language for clinical staff who may experience slow system response.

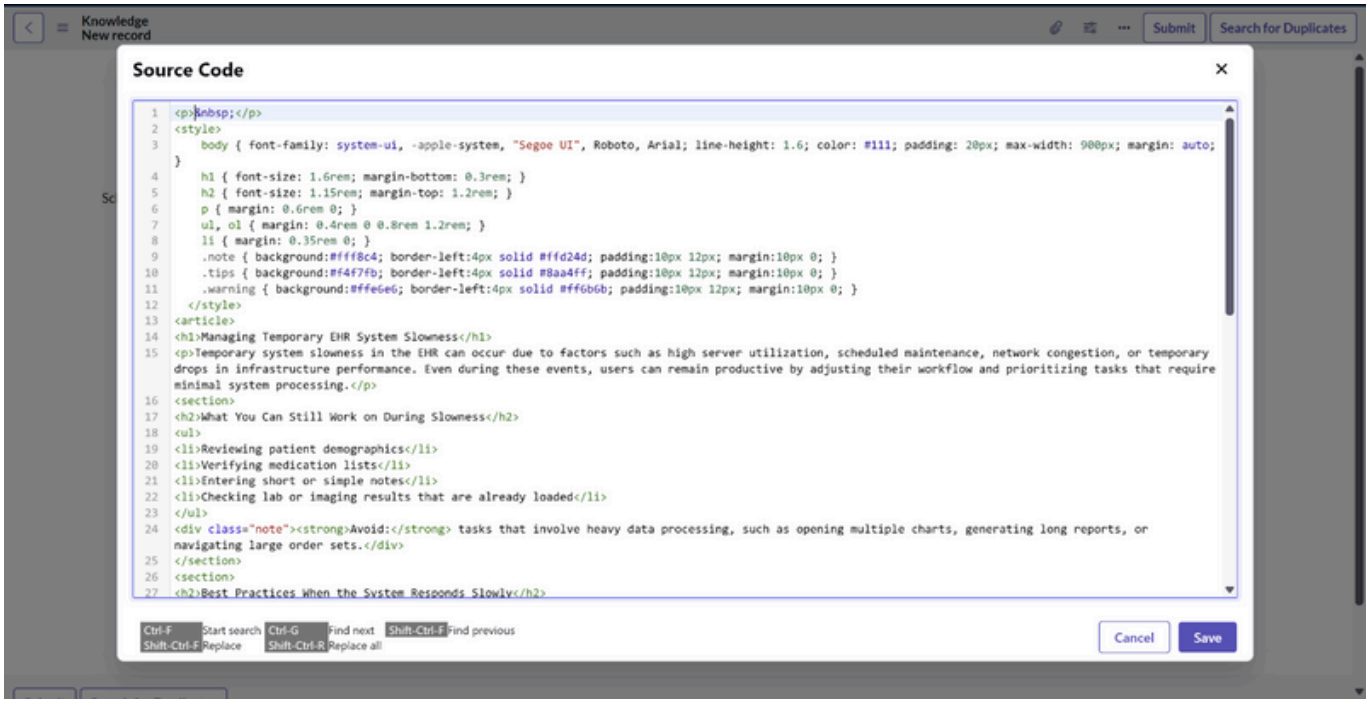


Step 2 – Add Category (EHR Support) and Sub-category (Performance Issues)
Assign the article to the EHR Support category and the Performance Issues sub-category so users can easily find guidance when they encounter slow loading pages or temporary system delays.

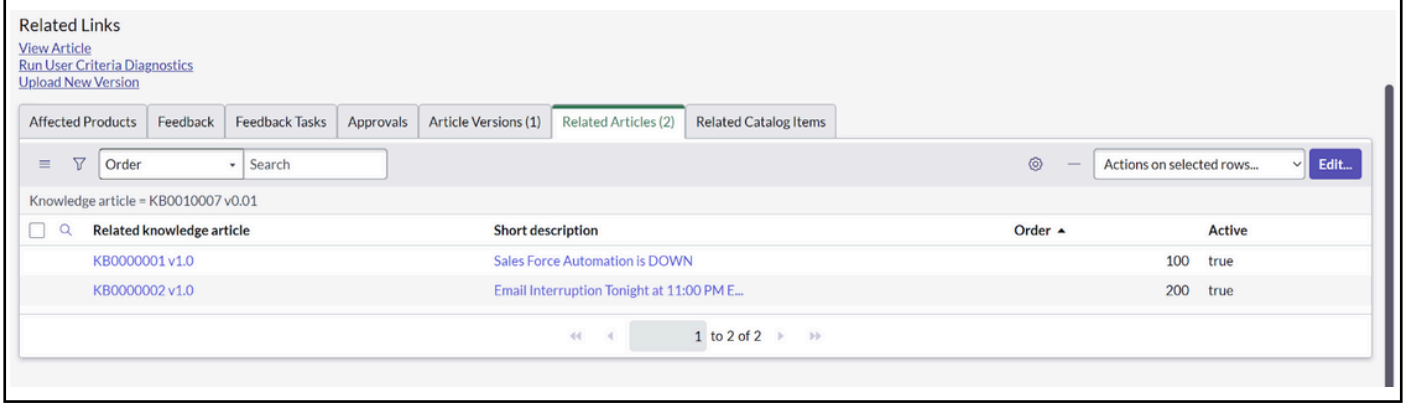


Standard Article 5: How to Use the EHR During Temporary System Slowness

Step 3 – Create Article Body Using Source Code
Write the article content in the Source Code editor by providing clear, non-technical instructions that help clinical staff understand what temporary system slowness looks like and how they can continue working safely while the EHR stabilizes.

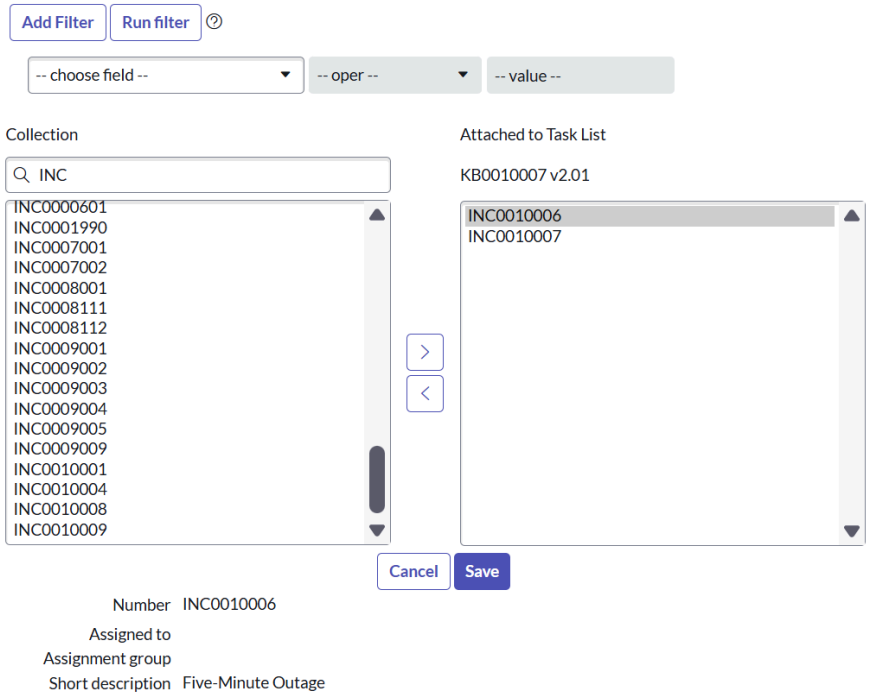


Step 4 – Link to Related Articles
Add the related knowledge articles KB00000001 v1.0 and KB00000002 v1.0 to provide users with examples of broader system interruptions that may coincide with temporary EHR slowness, helping them understand when slowness is part of a larger performance issue.

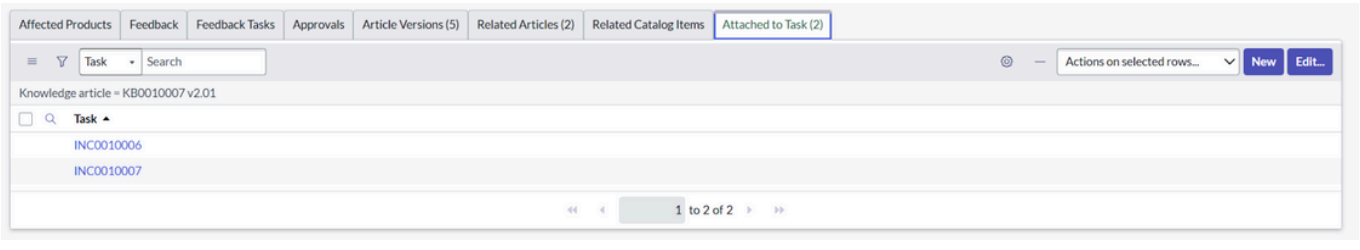


Standard Article 5: How to Use the EHR During Temporary System Slowness

Step 5 – Link to Related Incidents
Select and attach incidents INC0010006 and INC0010007 to show that this article is based on real EHR performance issues from Part 1, such as short outages and temporary slowdowns.

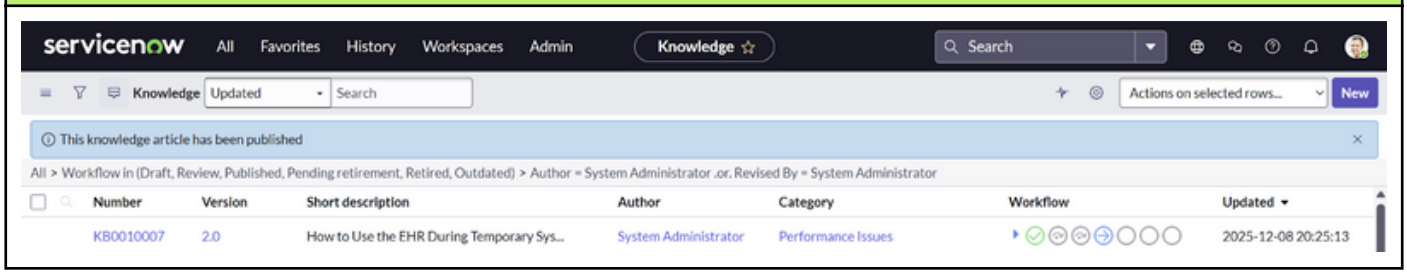


Step 6 – Verify Output of Related Incidents
Review the Attached to Task tab to confirm that both related incidents appear correctly, ensuring the article is fully connected to the operational cases that justify its creation.



Standard Article 5: How to Use the EHR During Temporary System Slowness

Step 7 – Publish the Standard Knowledge Article
Set the article state to Published and verify that it appears in the Knowledge Base with the correct short description, category, workflow status, and version, confirming it is now available for clinical staff to use during periods of system slowness.



Link to Article

https://dev292954.service-now.com/kb/en/how-to-use-the-ehr-during-temporary-system-slowness?id=kb_article_view&sysparm_article=KB0010007

Incidents Linked (From part 1)

INC0010006 - Five-Minute Outage

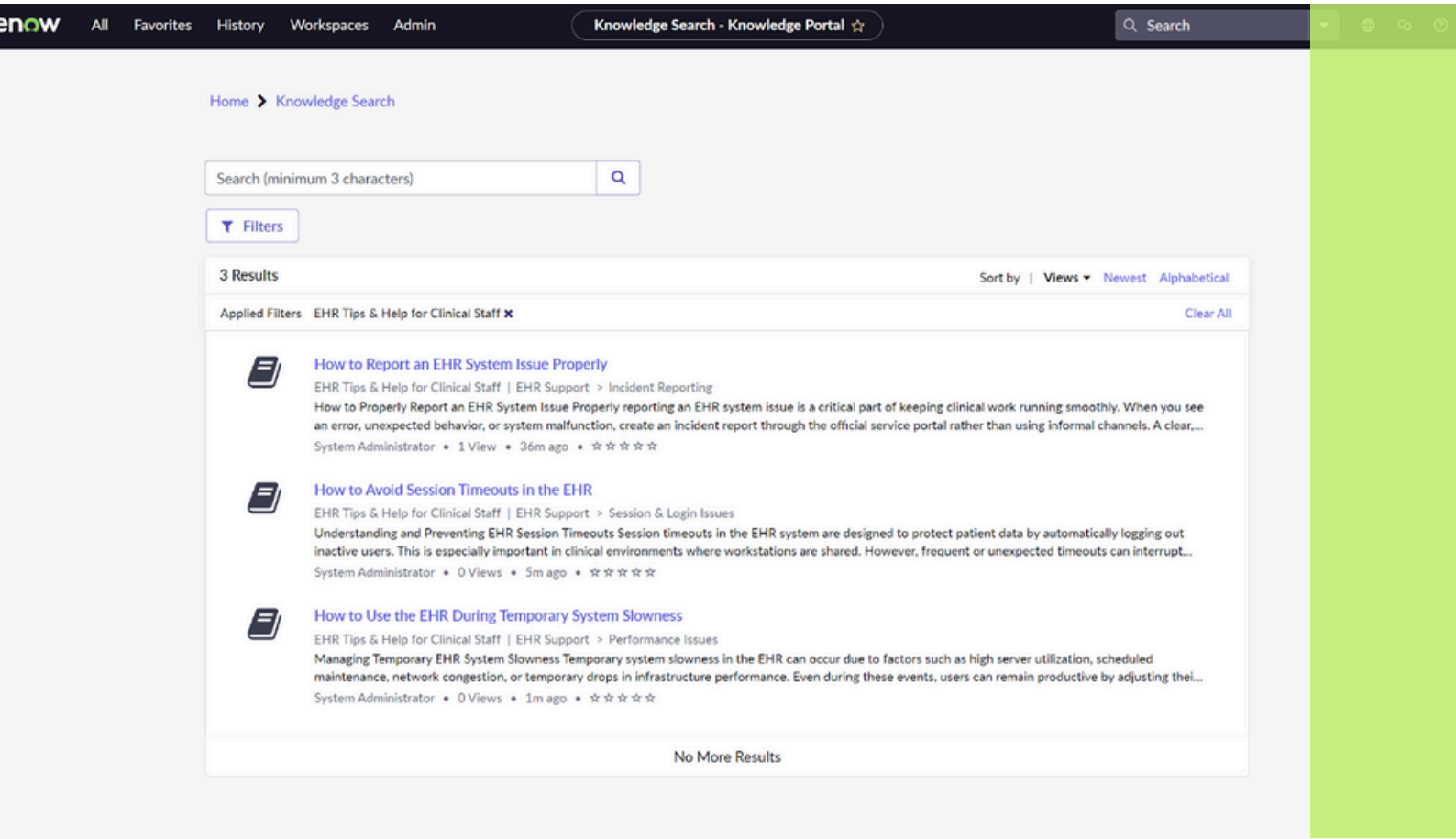
INC0010007 - EHR running very slow

Articles Linked

KB0000002 v1.0 - Email Interruption Tonight at 11:00 PM Eastern

KB0000001 v1.0 - Sales Force Automation is DOWN

Clear guidance to help clinical staff work confidently with everyday EHR issues.

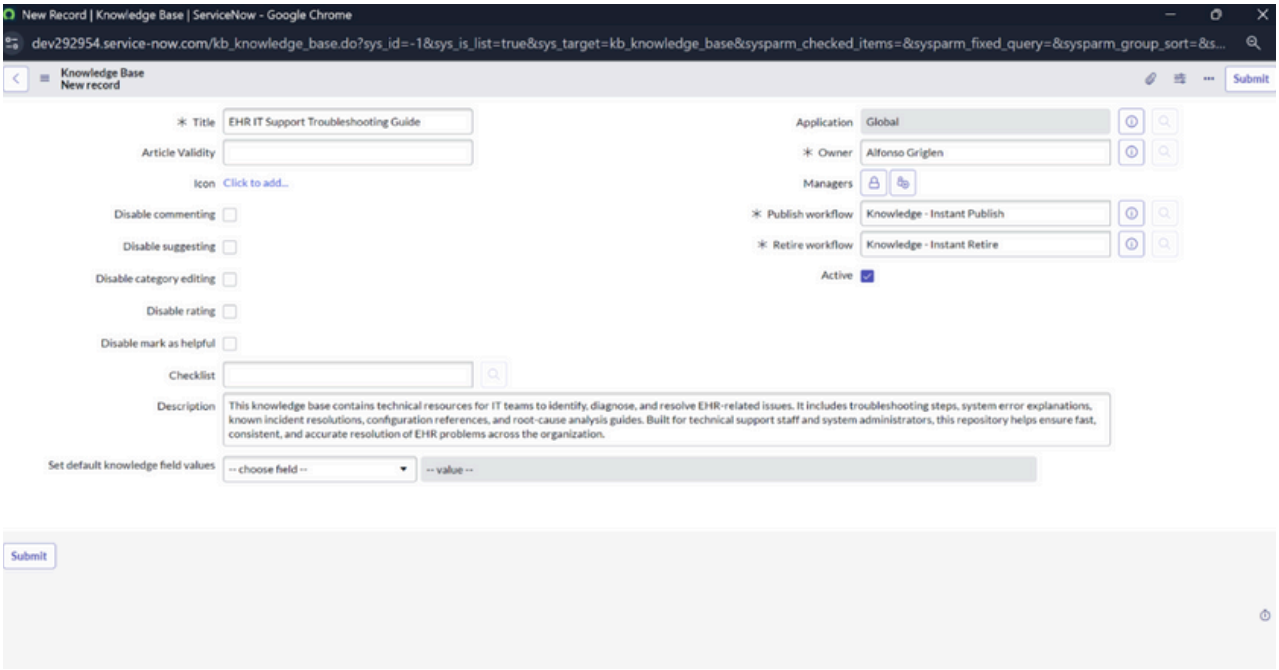


These articles aim to support clinical staff by providing simple, easy-to-understand guidance for addressing common EHR issues.

Known Error Knowledge Article

A Known Error knowledge article provides a detailed, technical explanation intended for Service Desk and IT Support teams to quickly identify, diagnose, and resolve recurring issues within the EHR system. Unlike standard articles written for clinical staff, Known Error articles use the Known Error Template and focus on documenting the root cause, technical conditions, and underlying system behavior that led to the failure. Each article must include a clear short description, a full description of the problem, the confirmed workaround that IT can apply immediately, and the verified technical cause gathered from incident trends, logs, or problem investigations. By presenting this information in a structured, technical format, a Known Error article helps IT teams resolve issues such as multi-user login failures, database non-responsiveness, or short outages more efficiently, reducing troubleshooting time and preventing repeated disruptions during high-impact EHR events.

Known Error Knowledge Base Setting



When setting up the Knowledge Base for Known Error Articles, ensure that all configurations support technical troubleshooting and problem-resolution workflows by selecting a title that clearly reflects its purpose as an **IT support resource**. Because Known Error content is designed for Service Desk analysts and system administrators, always use the Known Error Template when creating each article so that the required fields, Short Description, Description, Workaround, and Cause are consistently documented.

During the Knowledge Base setup, you will be asked to assign an owner, and all Known Error articles must list **Alfonso Griglen** as the **owner** to maintain centralized oversight and ensure that technical content is reviewed, updated, and published correctly. In the Description field, provide a clear statement explaining that this Knowledge Base contains technical references, root-cause documentation, system error explanations, and approved workarounds to help IT teams quickly diagnose and resolve recurring EHR issues, ensuring accuracy, consistency, and faster service restoration across the organization.

Selected Topic

2

EHR LOGIN FAILURES FOR MULTIPLE USERS

Linked Incidents & Problem:

- Incident 3 – Login failures
- Problem – Authentication impact

This Known Error focuses on recurring EHR login failures affecting multiple users, caused by authentication issues that prevent successful system access. By documenting the technical cause, workaround, and permanent fix, IT support can quickly recognize the pattern of symptoms and restore access for impacted users during future occurrences.

3

"DATABASE NOT RESPONDING" ERROR IN EHR

Linked Incidents:

- Incident 2 – Database error during scheduling

This Known Error documents the root cause behind the "Database Not Responding" message that appears during scheduling operations. The issue typically stems from underlying database latency or temporary unavailability. By capturing the error details, diagnostic steps, and recovery method, IT teams can rapidly respond when this error reappears and minimize downtime for clinical users.

4

SHORT EHR OUTAGE DURING HIGH LOAD

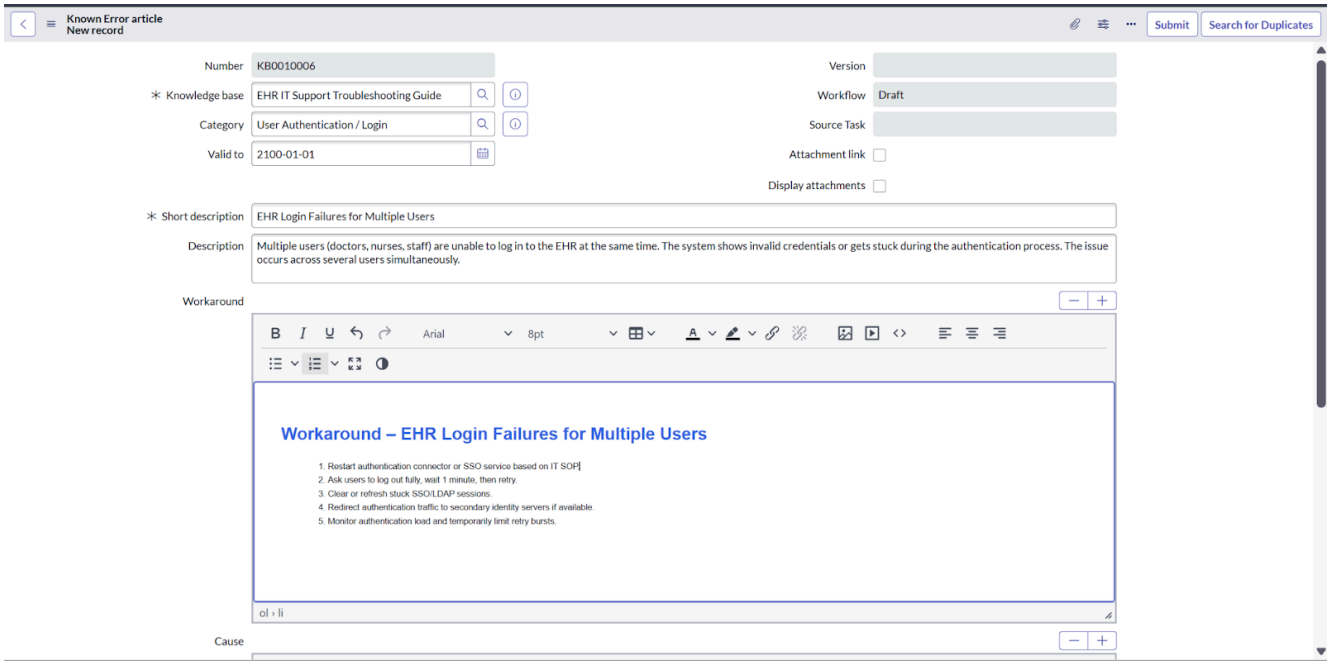
Linked Incidents:

- Incident 5 – Five-minute outage

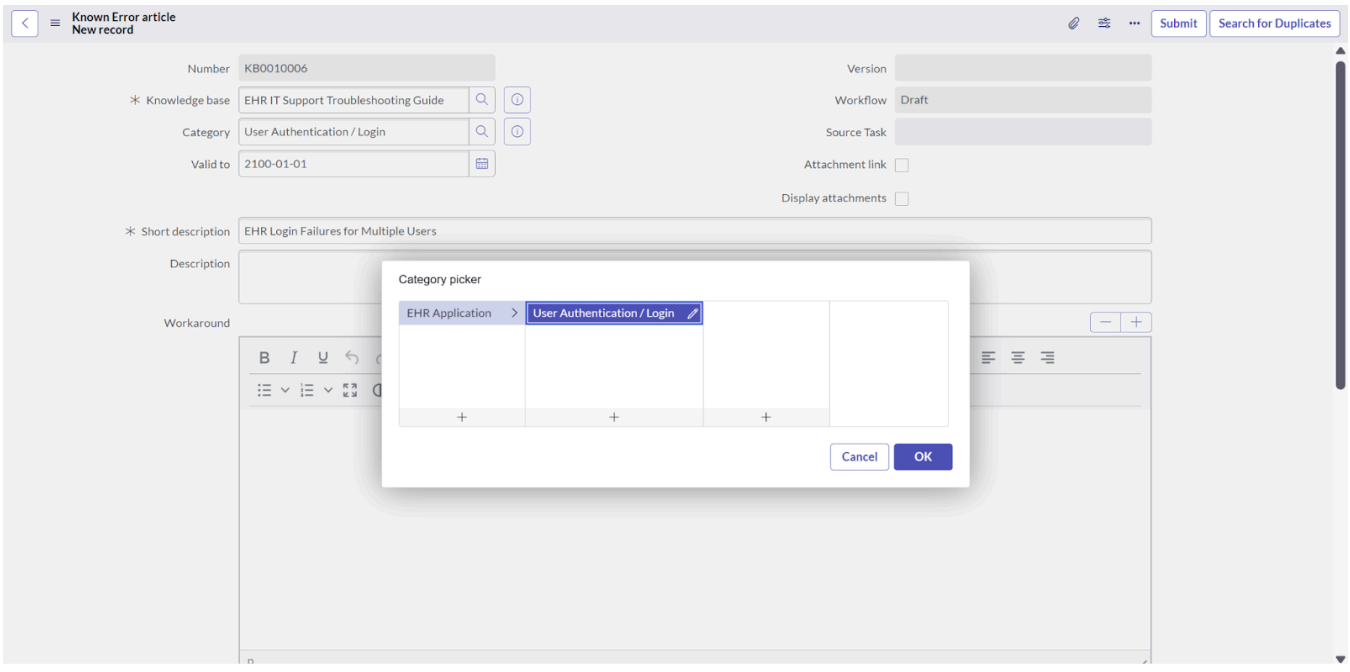
This Known Error addresses short, high-load–related outages in the EHR system, such as the five-minute downtime captured in the linked incident. The article outlines the technical trigger behind the outage, provides immediate recovery actions, and documents long-term remediation to prevent recurrence during future peak load conditions.

Known Error Article 2: EHR Login Failures for Multiple Users

Step 1 – Create New Record Known Error Article
Create a new Known Error article using the Known Error template, enter a clear short description about multi-user EHR login failures, and ensure the article is stored in the EHR IT Support knowledge base for technical use.

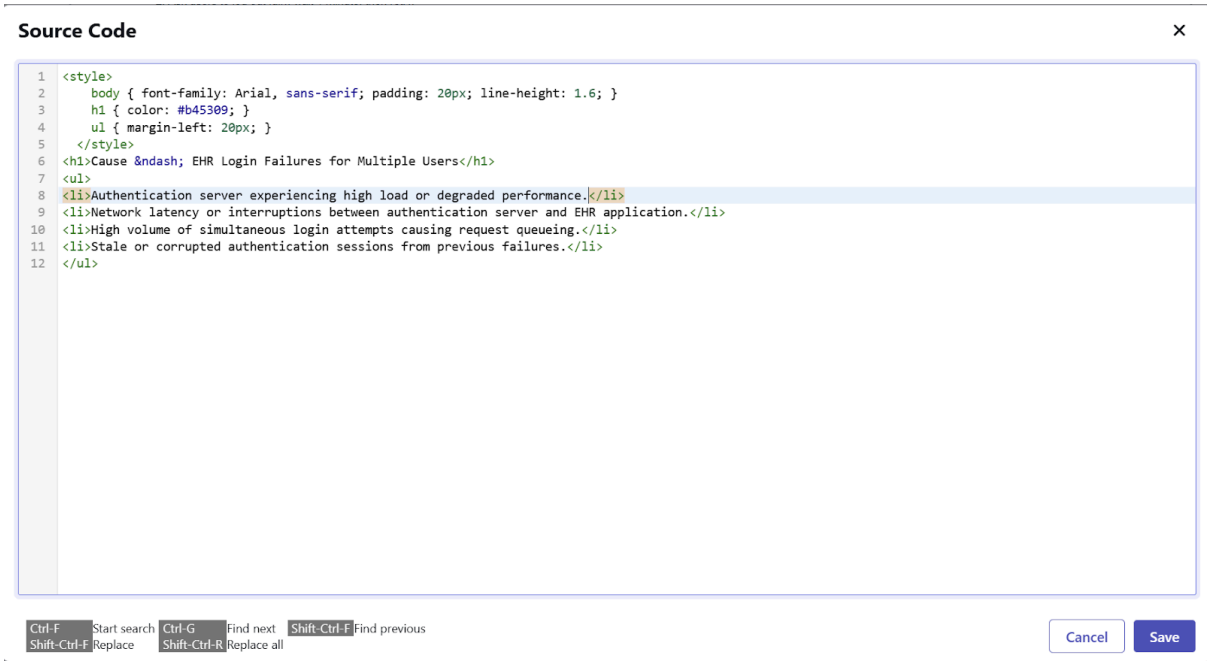


Step 2 – Add Category and Sub-Category (EHR Application → User Authentication / Login)
Assign the Known Error article to the EHR Application category and the User Authentication / Login sub-category so IT support teams can quickly locate technical guidance related to multi-user login failures and authentication issues.

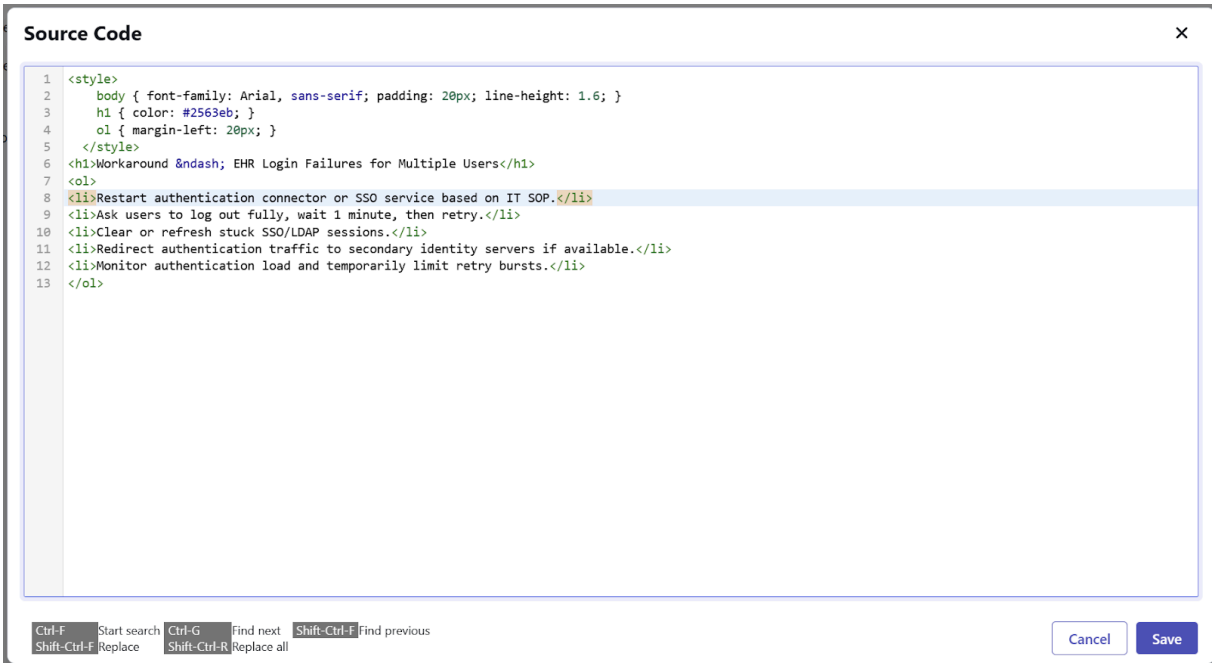


Known Error Article 2: EHR Login Failures for Multiple Users

Step 3 – Create Cause Using Source Code
Document the confirmed technical causes in the Source Code editor, outlining factors such as high authentication server load, network latency between the authentication service and the EHR application, simultaneous login attempts, and stale authentication sessions from previous failures.

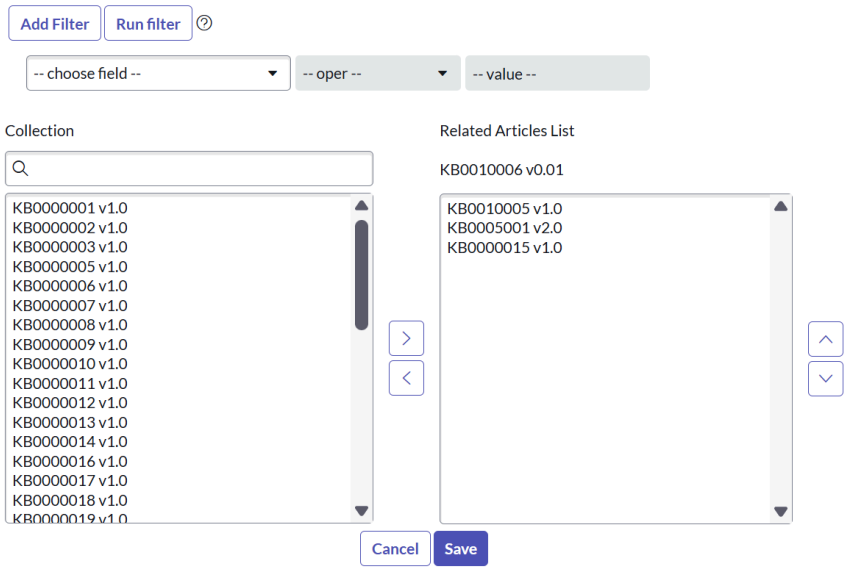


Step 4 – Create Workaround Using Source Code
Write the immediate workaround steps in the Source Code editor, including restarting the authentication connector or SSO service, instructing users to fully log out before retrying, clearing stuck sessions, redirecting authentication to secondary servers, and temporarily limiting retry bursts to reduce system strain.

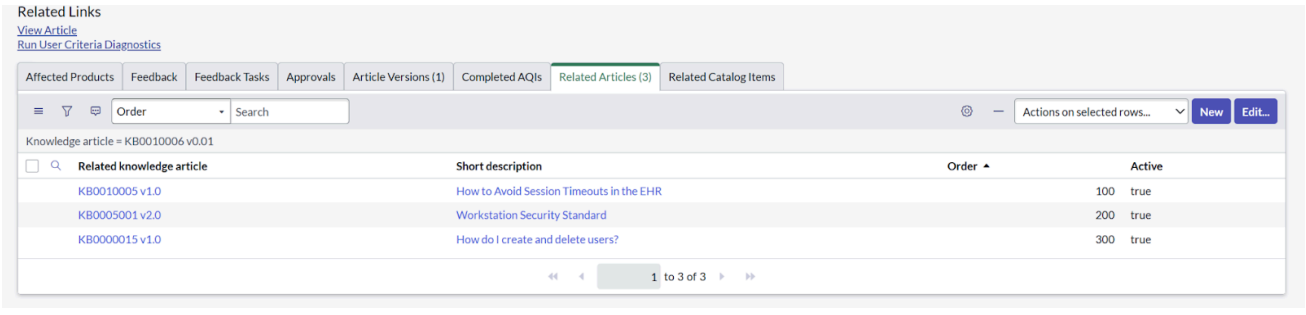


Known Error Article 2: EHR Login Failures for Multiple Users

Step 5 – Link to Related Articles
Select and attach the related knowledge articles KB0010005 v1.0, KB0005001 v2.0, and KB0000015 v1.0 to provide IT support with additional references on EHR timeouts, workstation security, and account management procedures that may influence login failures.

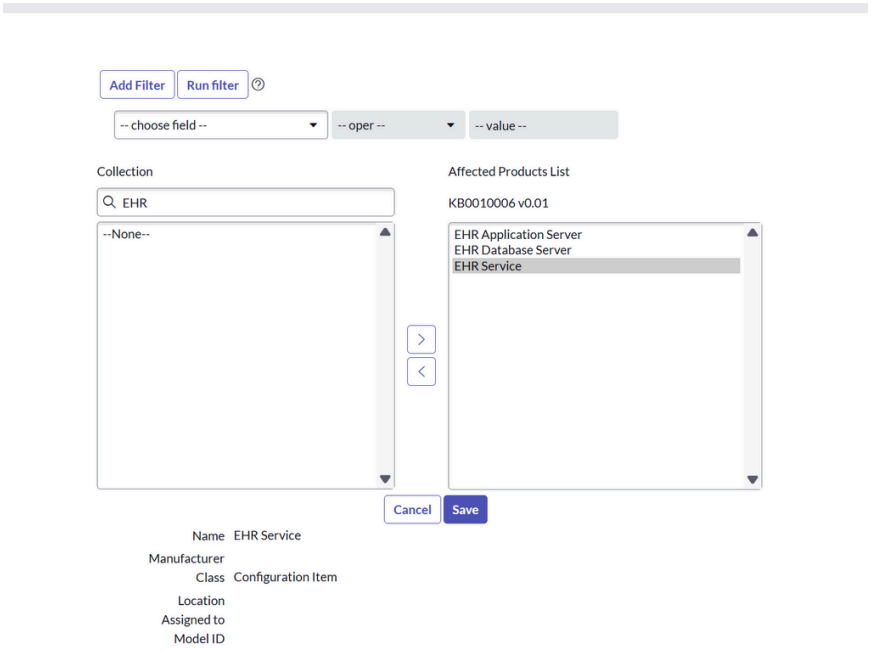


Step 6 – Verify Output of Related Articles
Review the Related Articles tab to confirm that all three selected items appear correctly, ensuring the Known Error is fully connected to supporting technical documentation for troubleshooting authentication issues.

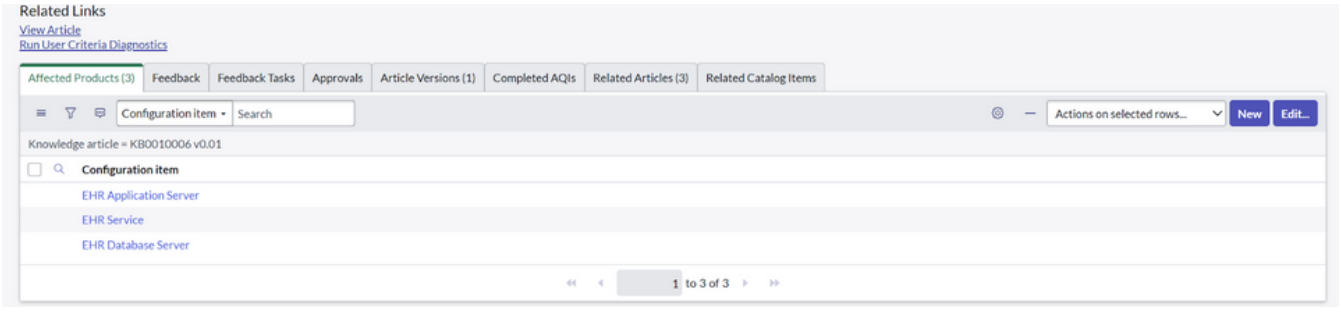


Known Error Article 2: EHR Login Failures for Multiple Users

Step 7 – Link to Related Configuration Items
Attach the relevant EHR Configuration Items EHR Application Server, EHR Database Server, and EHR Service to identify which technical components are impacted during multi-user login failures and to guide IT support during root-cause analysis.

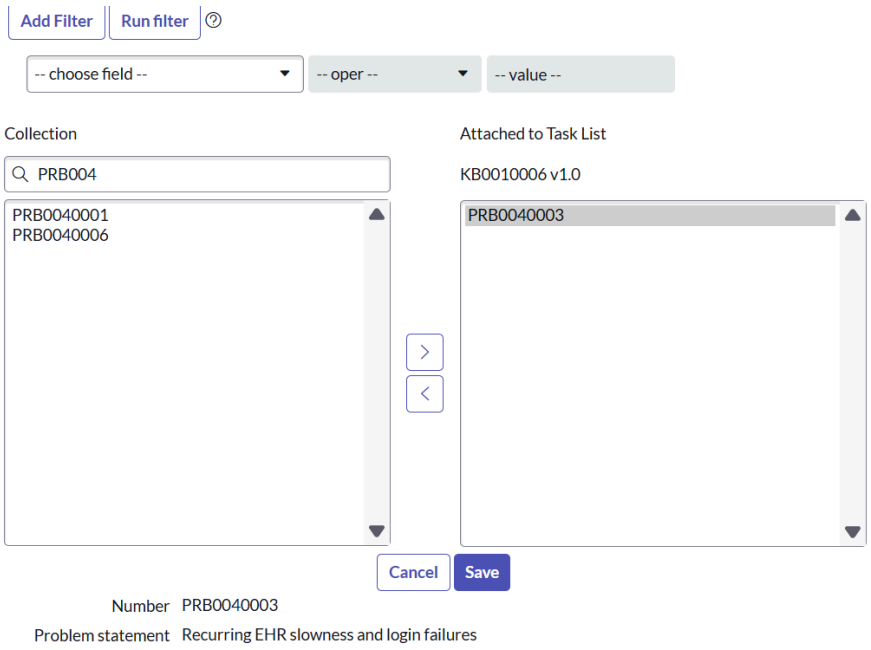


Step 8 – Verify Output of Related Configuration Items
Review the Affected Products/Configuration Items tab to ensure all three CIs appear correctly, confirming that the Known Error is fully mapped to the infrastructure components involved in authentication issues.

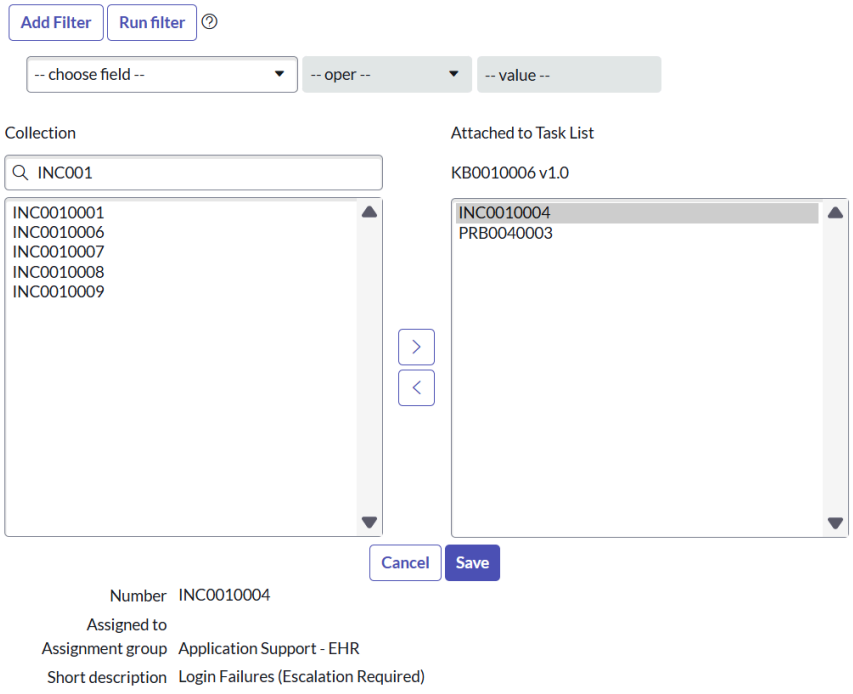


Known Error Article 2: EHR Login Failures for Multiple Users

Step 9 – Link to Related Problem
Attach the underlying Problem record PRB0040003 to show that the multi-user login failures stem from a recurring issue involving EHR slowness and authentication errors, ensuring future incidents can be traced back to the same root cause.



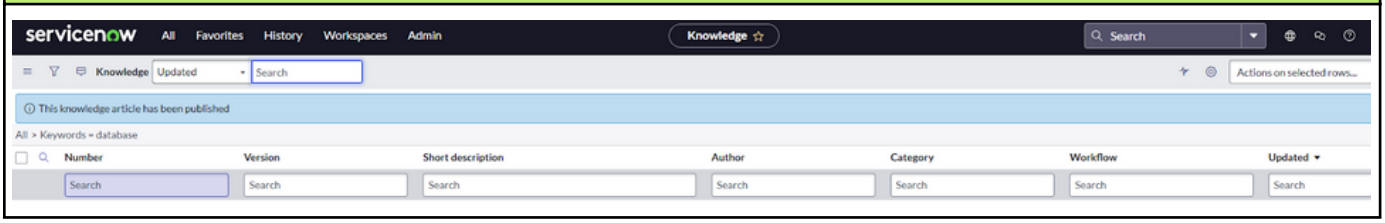
Step 10 – Link to Related Incident
Link the primary incident INC0010004 to document the real case that exposed the login failure pattern, giving IT support a concrete reference for how this Known Error appears operationally.



Known Error Article 2: EHR Login Failures for Multiple Users

Step 11 – Link to Related Task (Problem and Incident)
Verify in the Attached to Task tab that both the related Incident (INC0010004) and the related Problem (PRB0040003) are correctly linked, ensuring the Known Error is fully integrated into the incident–problem resolution workflow.

Step 12 – Publish Article
Set the workflow state to Published and confirm the article appears in the Knowledge Base with the correct version, short description, and category, making it available for IT support teams to reference during future login failure events.



Link to Article

https://dev292954.service-now.com/kb/en/ehr-login-failures-for-multiple-users id=kb_article_view&sysparm_article=KB0010006

Incident & Problem Linked (From part 1)

- INC0010004 - Login Failures
- PRB004003 - Recurring EHR slowness and login failures

CI Linked (From part 1)

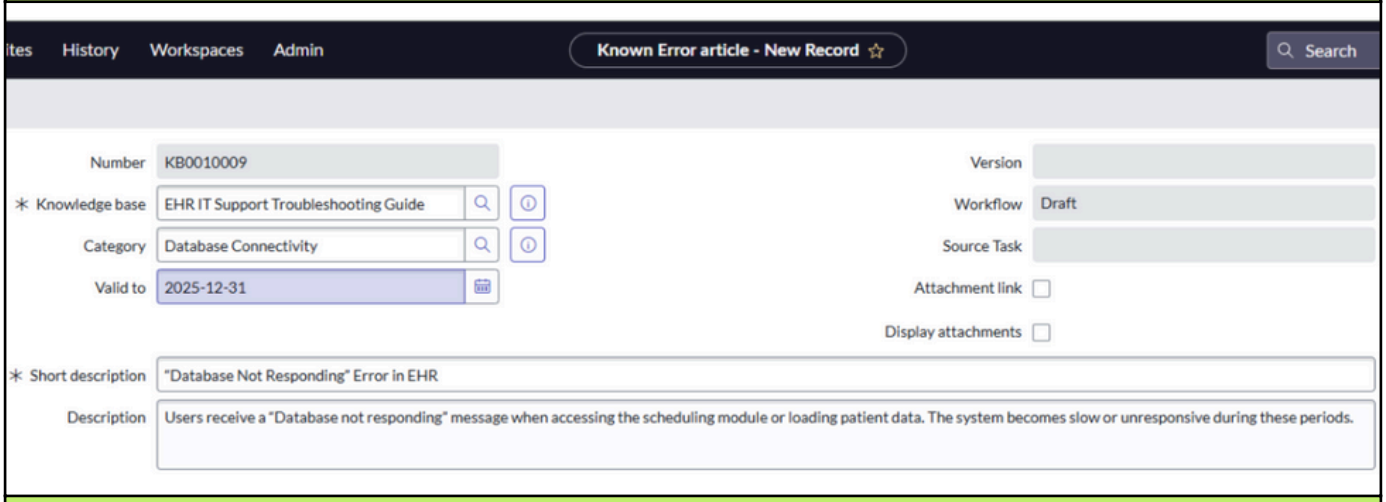
- EHR Application Server
- EHR Database Server
- EHR Service

Articles Linked

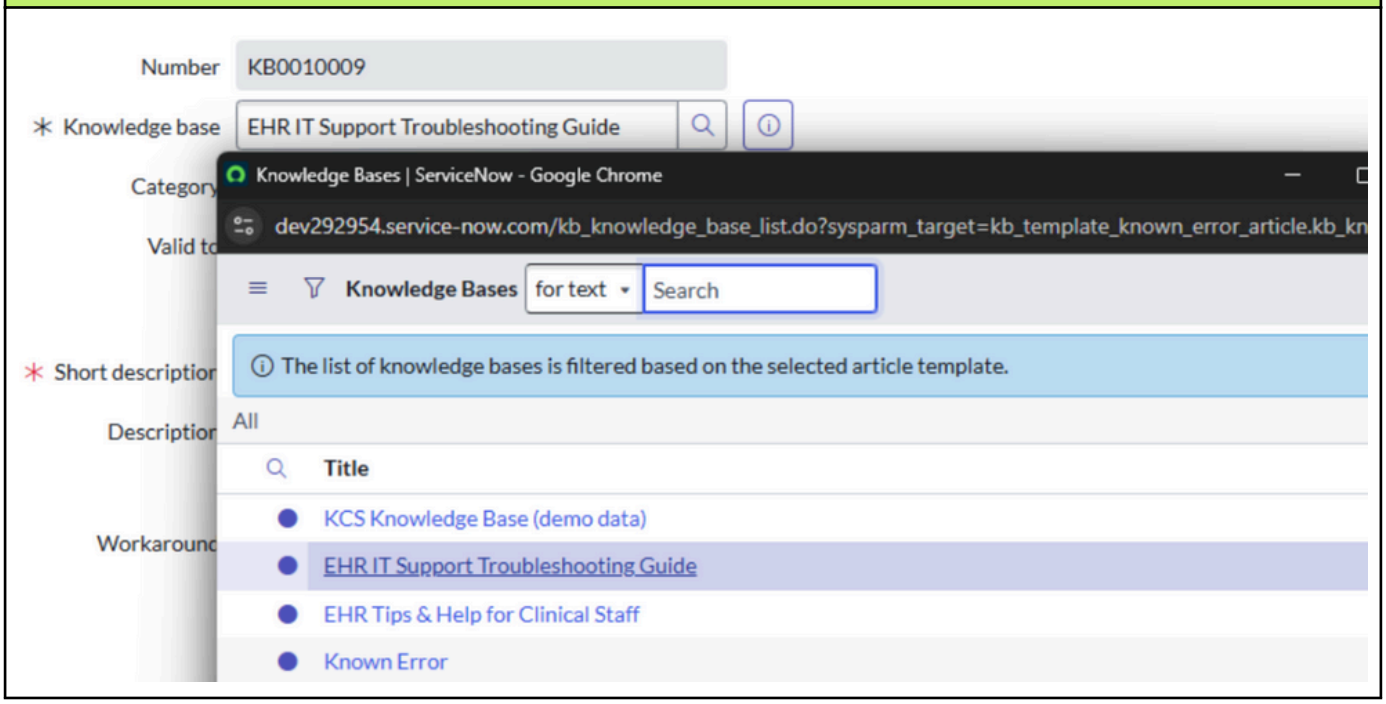
- KB0000015 v1.0 - How do I create and delete users?
- KB0010005 v1.0 - How to Avoid Session Timeouts in the EHR
- KB0005001 v2.0 - Workstation Security Standard

Known Error Article 3: "Database Not Responding" Error in EHR

Step 1 – Create New Record for Known Error Article (KB0010009)
Create a new Known Error article and enter the key details including short description, category, and validity date to document recurring "Database Not Responding" errors observed during scheduling or patient data loading in the EHR system.

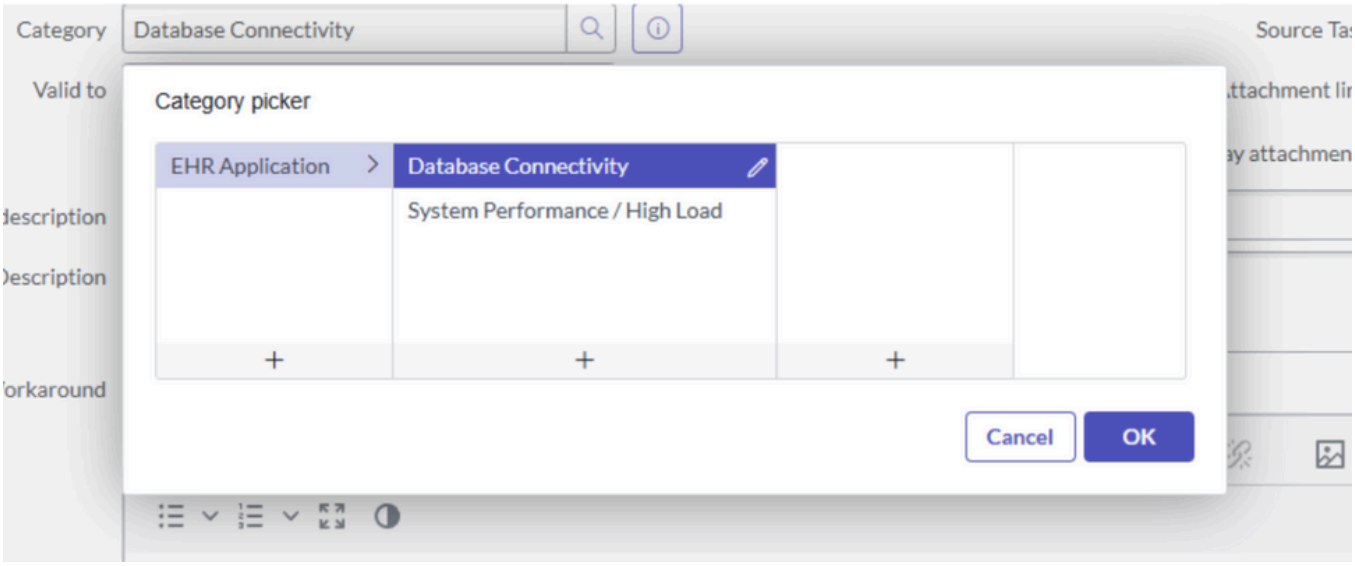


Step 2 – Add Knowledge Base (EHR IT Support Troubleshooting Guide)
Assign the article to the EHR IT Support Troubleshooting Guide knowledge base so that technical teams can access the root cause, workaround steps, and resolution guidance specific to EHR backend and database-related failures.

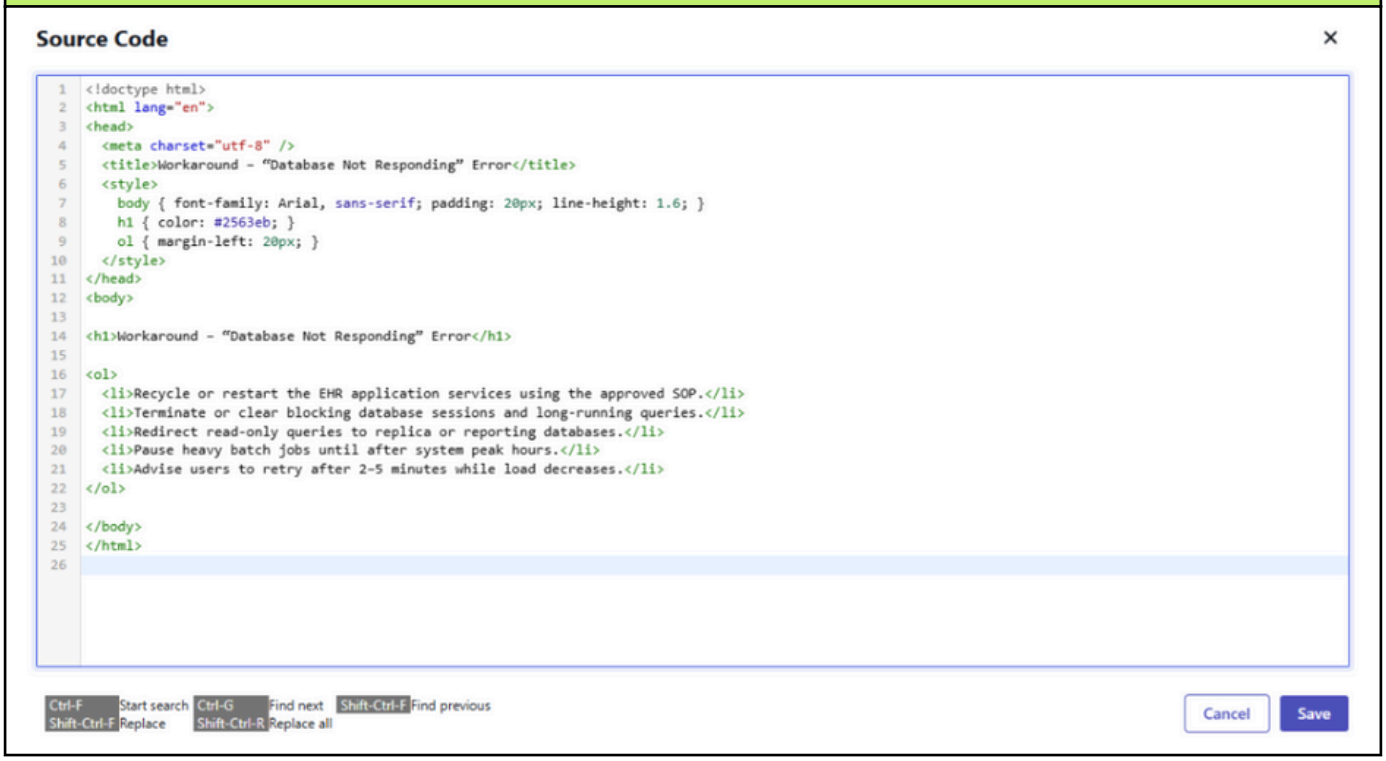


Known Error Article 3: "Database Not Responding" Error in EHR

Step 3 – Add Category (EHR Application) & Sub-Category (Database Connectivity)
Assign the Known Error article to the EHR Application category and the Database Connectivity sub-category so IT support teams can quickly identify that this issue relates to backend database communication and system performance during high load.

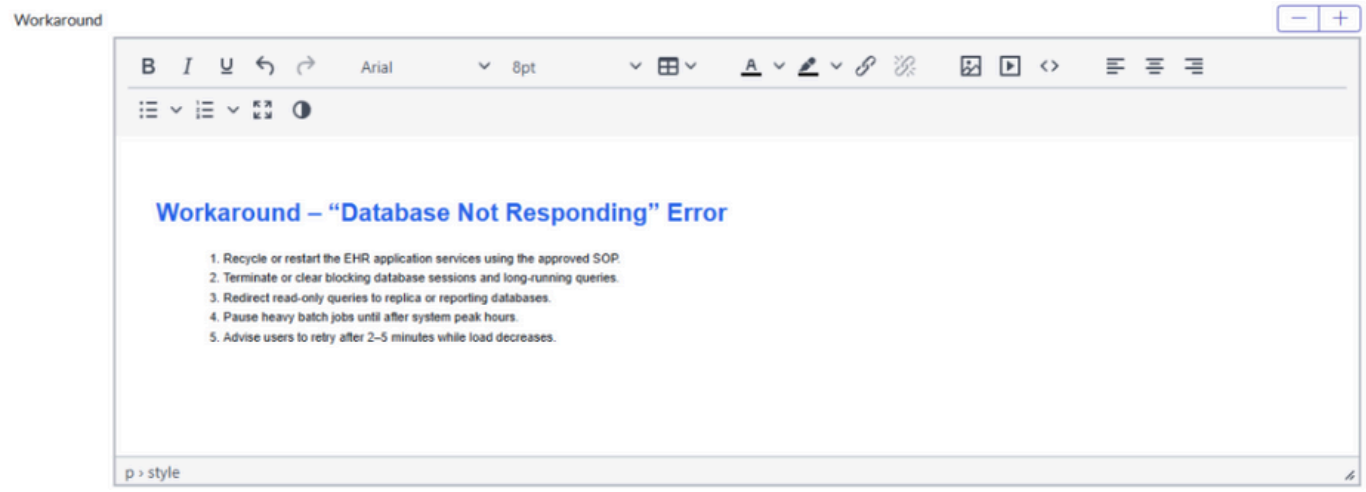


Step 4 – Create Workaround Using Source Code
Document the immediate workaround steps in the Source Code editor, including restarting EHR application services, terminating or clearing blocked database sessions, redirecting read-only queries, delaying batch jobs until after peak hours, and instructing users to retry after load decreases.

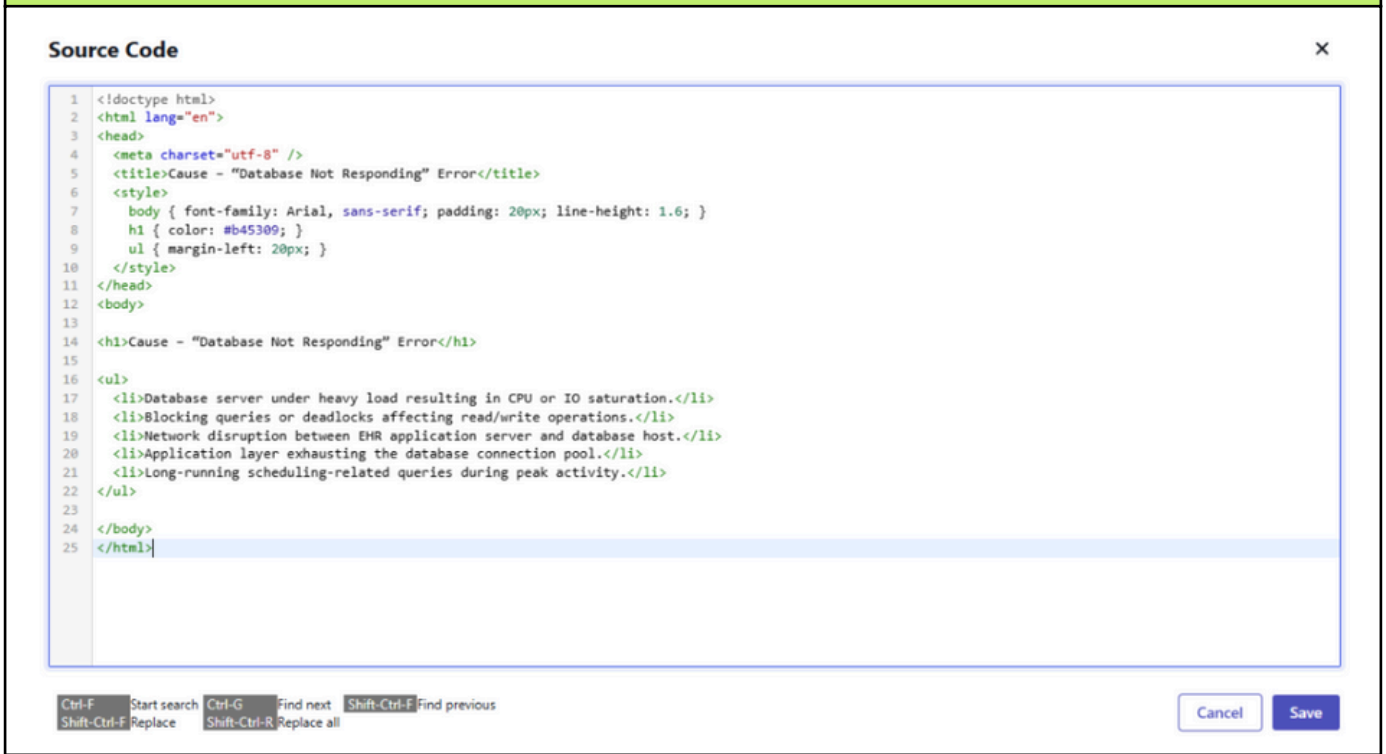


Known Error Article 3: "Database Not Responding" Error in EHR

Step 5 – Verify Output of Workaround
Review the Workaround field to ensure that all documented steps appear correctly in the formatted output, confirming that IT support can clearly follow the immediate actions required when the database becomes unresponsive.

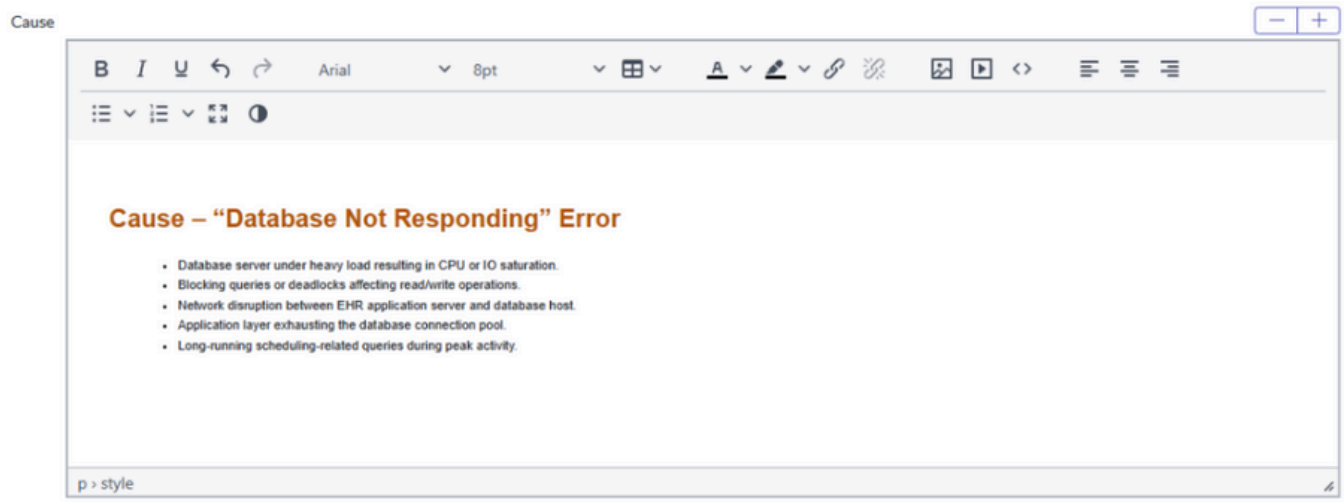


Step 6 – Create Cause Using Source Code
Document the underlying technical causes in the Source Code editor, including heavy database load, blocking queries, network disruptions, connection pool exhaustion, and long-running scheduling queries that typically trigger the "Database Not Responding" error.

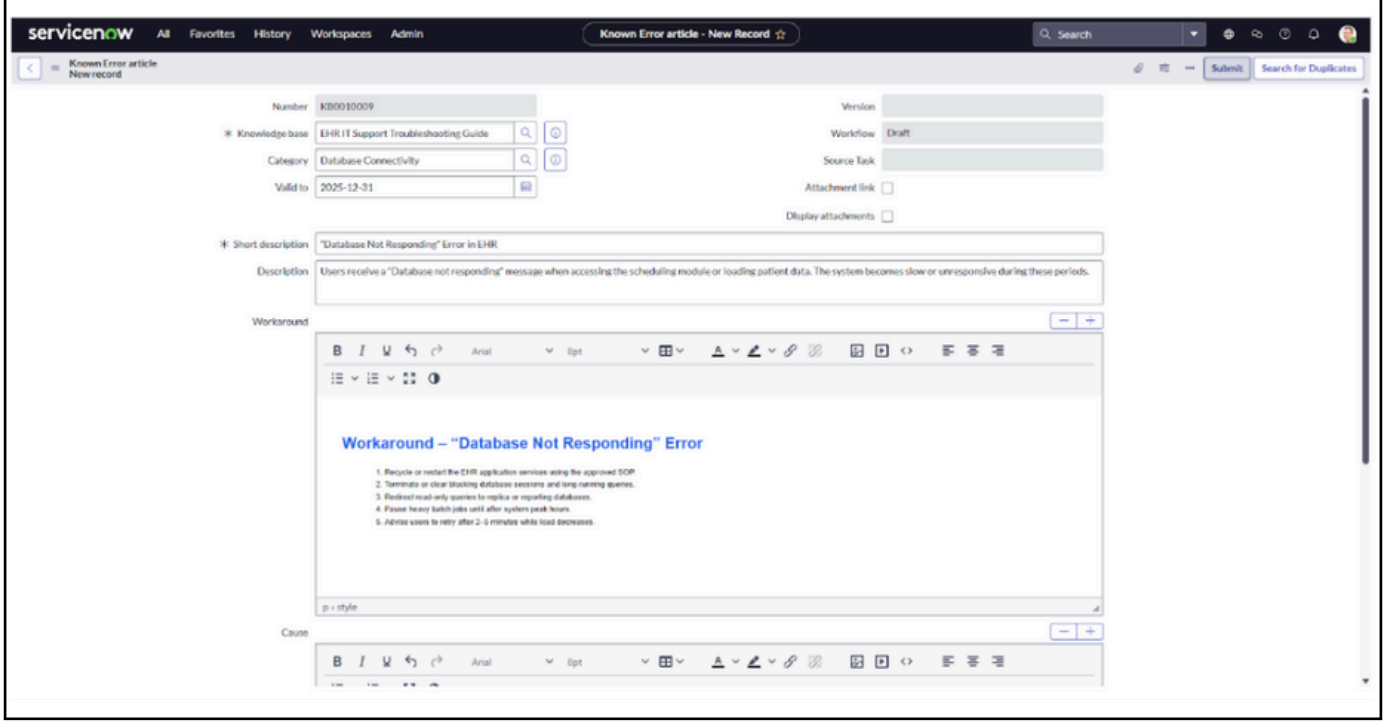


Known Error Article 3: "Database Not Responding" Error in EHR

Step 7 – Verify Output of Cause
Review the Cause field to ensure the documented root causes are displayed clearly and formatted correctly, allowing IT support to quickly understand the technical factors that trigger the "Database Not Responding" error.

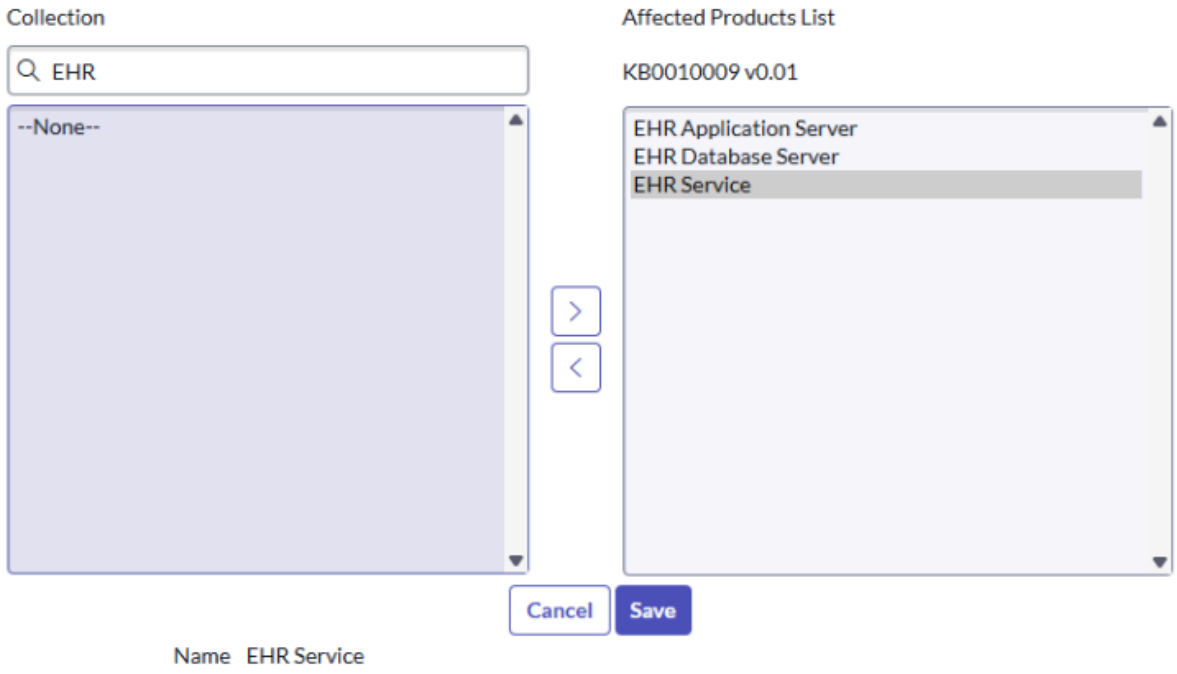


Step 8 – Submit Known Error Article
Finalize the Known Error article by submitting the record, ensuring that the short description, workaround, cause, and category fields are complete so the article can move forward for publication and technical review.



Known Error Article 3: "Database Not Responding" Error in EHR

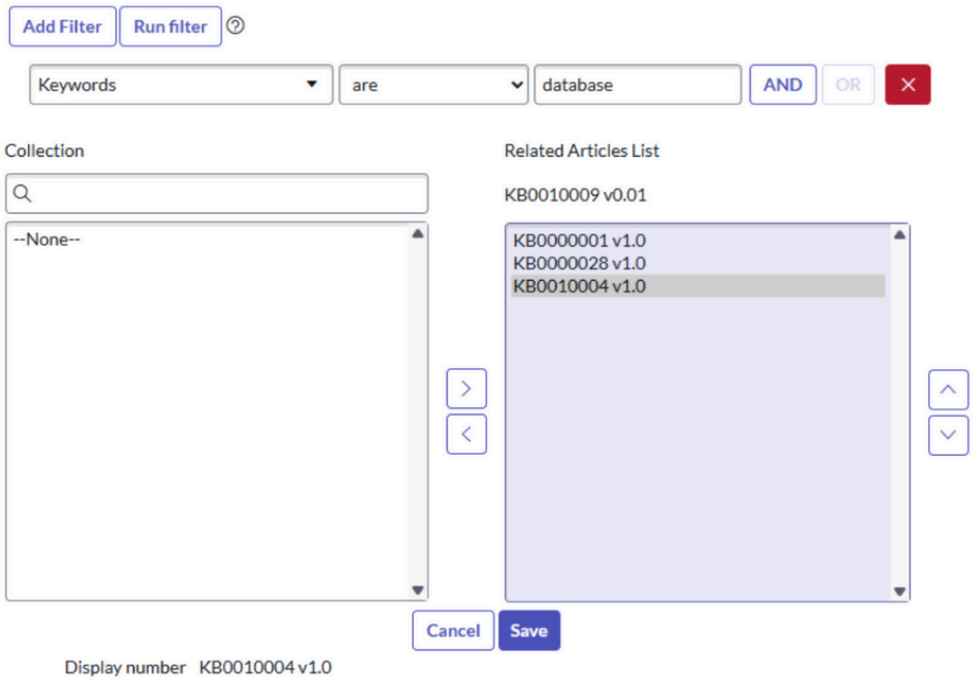
Step 9 – Link to Related Configuration Items
Attach the relevant EHR Configuration Items EHR Application Server, EHR Database Server, and EHR Service to clearly identify which system components contribute to or are impacted by the recurring database connectivity failures.



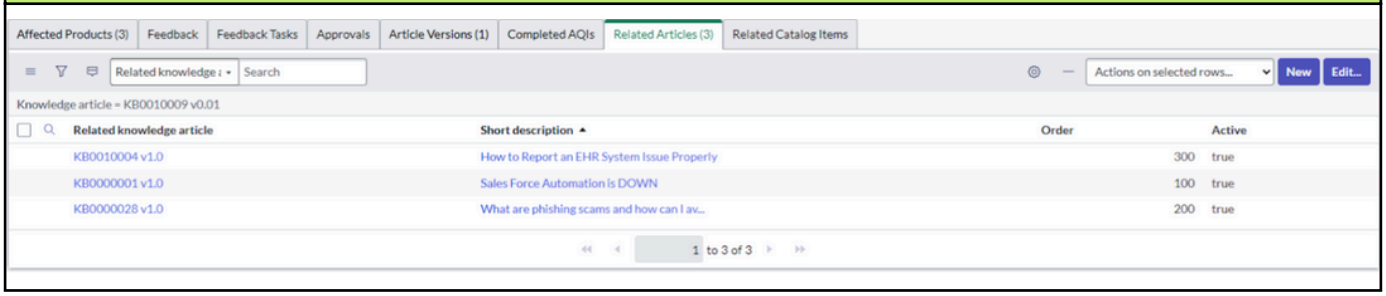
Step 10 – Verify Output of Related Configuration Items
Review the Affected Products/Configuration Items tab to ensure all selected CIs appear correctly, confirming that the Known Error is fully mapped to the backend infrastructure involved in the "Database Not Responding" issue.

Known Error Article 3: "Database Not Responding" Error in EHR

Step 11 – Link to Related Articles
Associate this Known Error with other relevant knowledge articles—including login issues, performance degradation, and reporting errors—to help IT staff quickly access context and supporting information that may relate to or contribute to the database connectivity failure.

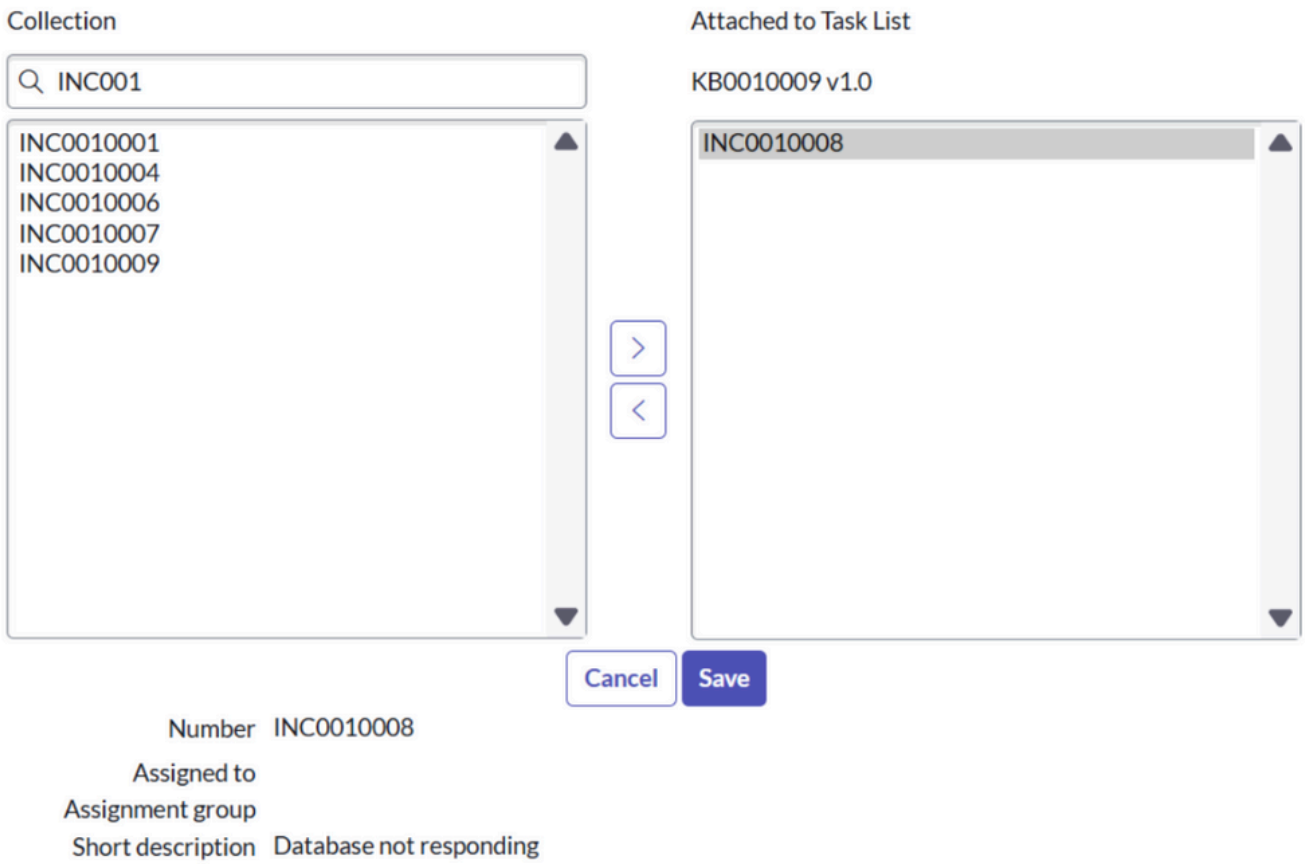


Step 12 – Verify Output of Related Articles
Review the Related Articles tab to confirm that all selected articles appear correctly, ensuring complete cross-reference coverage for troubleshooting and escalation workflows.



Known Error Article 3: "Database Not Responding" Error in EHR

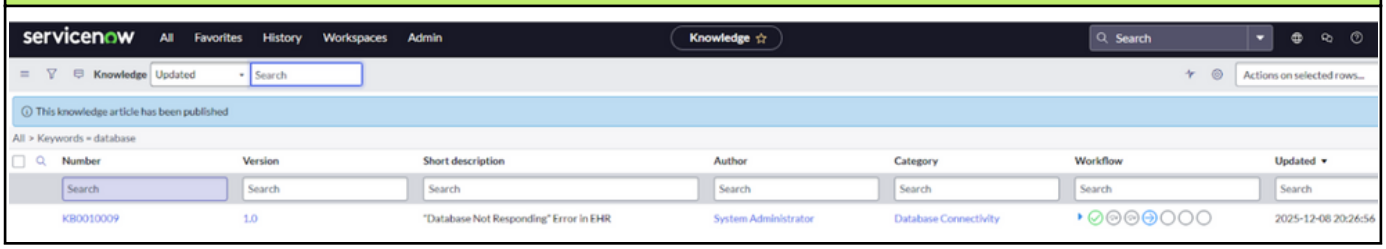
Step 13 – Link to Related Incident
Attach the incident record INC0010008 to the Known Error to establish a direct relationship between the documented database failure and the real operational event where users encountered the "Database not responding" issue.



Step 14 – Verify Output of Related Incident
Review the Attached to Task tab to confirm that the linked incident appears correctly, ensuring the Known Error is fully connected to the supporting operational evidence for troubleshooting and root cause tracking.

Known Error Article 3: "Database Not Responding" Error in EHR

Step 15 – Publish Known Error Article
Submit and publish the Known Error article to make it officially available for IT Support teams. This ensures the workaround, cause analysis, and related records (CI, Problem, Incident, and related articles) are accessible for future troubleshooting and faster resolution of similar database connectivity issues.



Link to Article

https://dev292954.service-now.com/kb/en/database-not-responding-error-in-ehr?id=kb_article_view&sysparm_article=KB0010009

Incident Linked (From part 1)

INC0010008 - Database Not Responding

CI Linked (From part 1)

EHR Application Server

EHR Database Server

EHR Service

Articles Linked

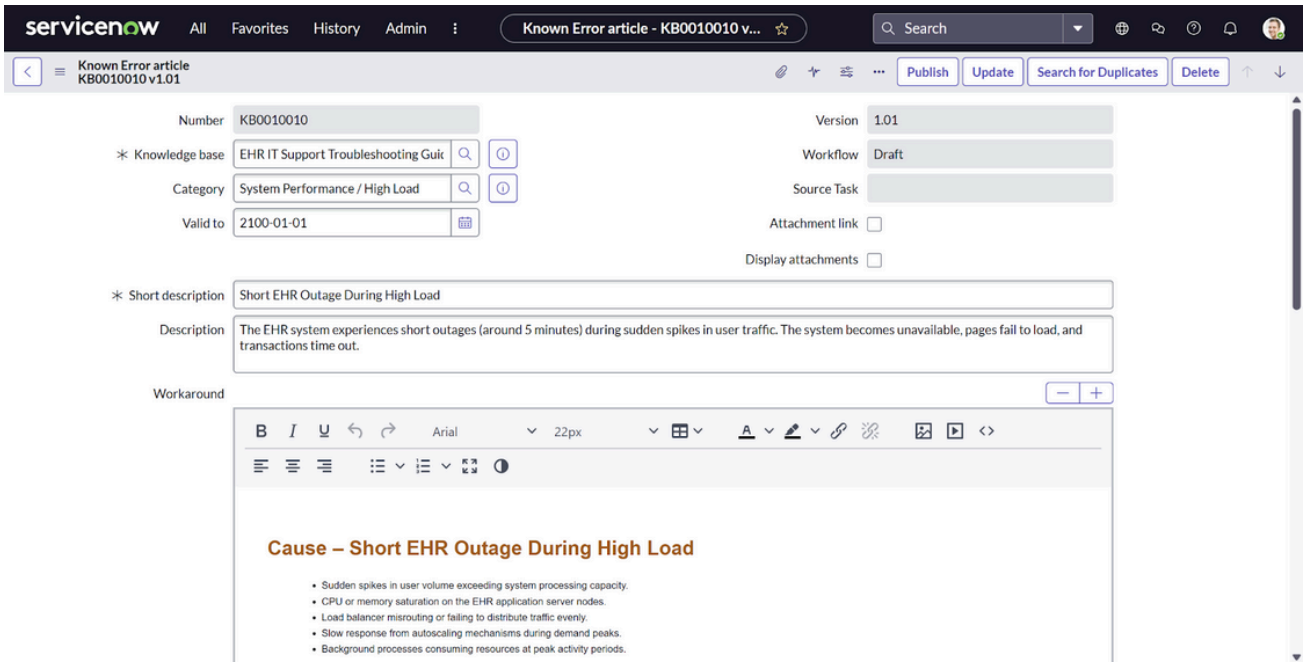
KB0010004 v1.0 - How to report an EHR System Issue Properly

KB0000001 v1.0 - Sales Force Automation is DOWN

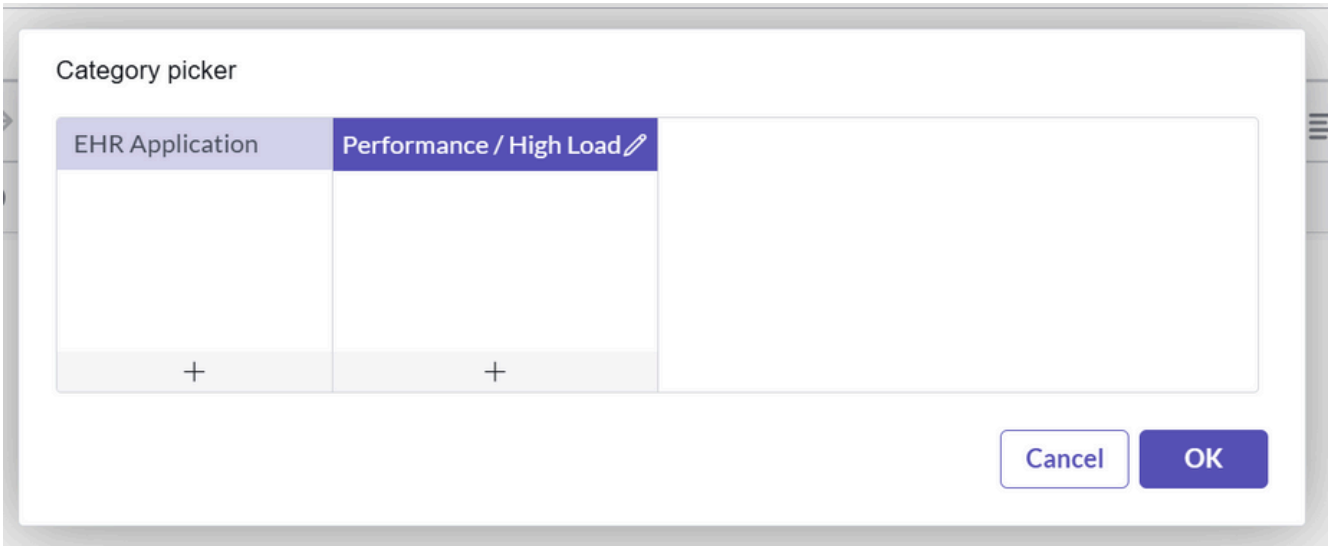
KB0000028 v1.0 - What are phishing scams and how can I avoid them?

Known Error Article 4: Short EHR Outage During High Load

Step 1 – Create New Record for the Known Error Article
Create a new Known Error article using the Known Error template. Fill in the required fields such as the Knowledge Base, Category, Valid To date, short description, and initial explanation of the outage.

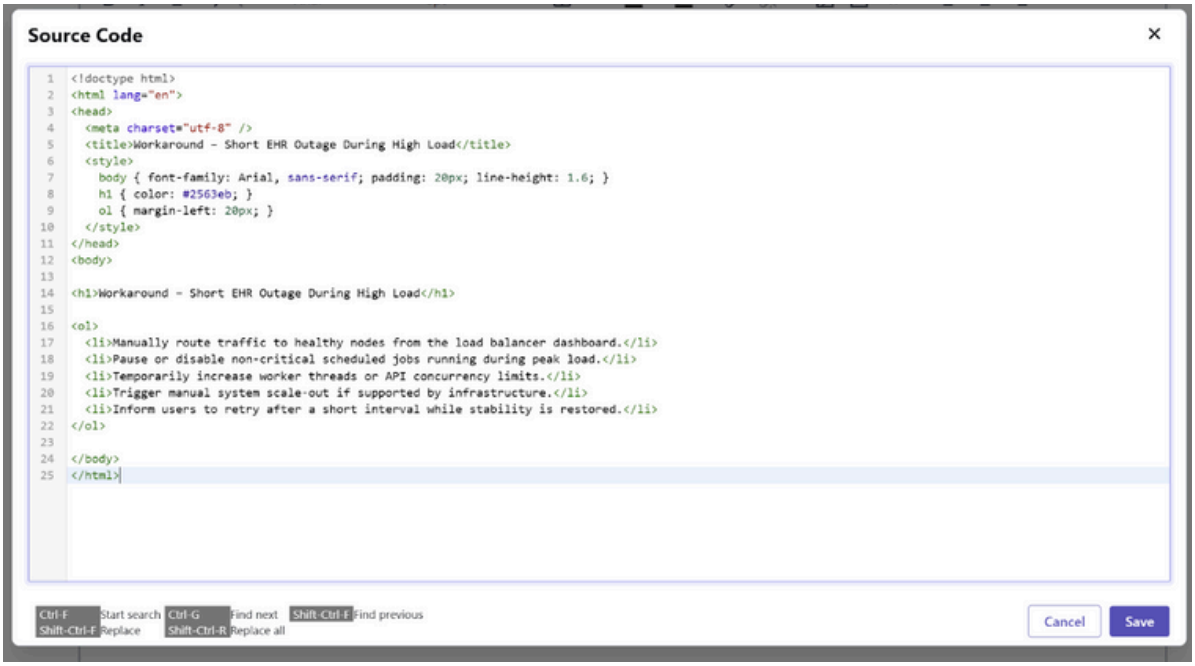


Step 2 – Add Category and Sub-Category
Assign the article to the EHR Application category and the Performance / High Load sub-category so IT support teams can quickly find it when troubleshooting short outages caused by heavy system load.

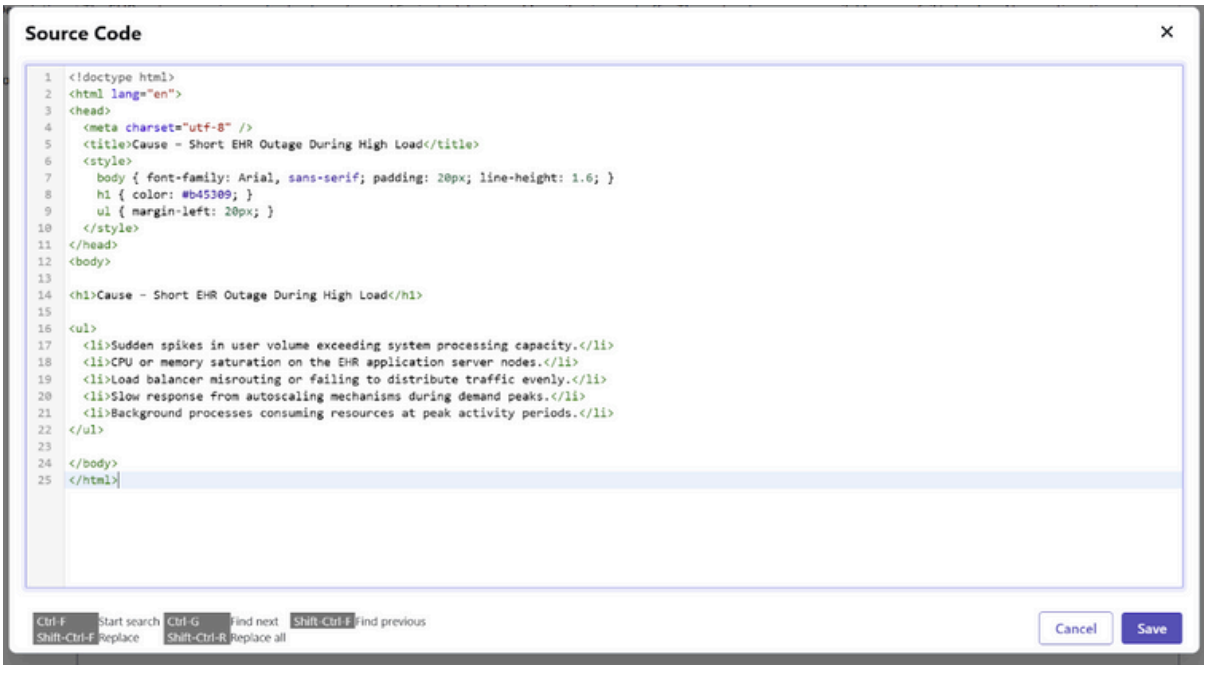


Known Error Article 4: Short EHR Outage During High Load

Step 3 – Create Workaround Using Source Code
Add a workaround section that provides temporary actions IT support can perform such as routing traffic, adjusting load-balancer settings, or advising users to retry so clinical operations can continue during short high-load outages.

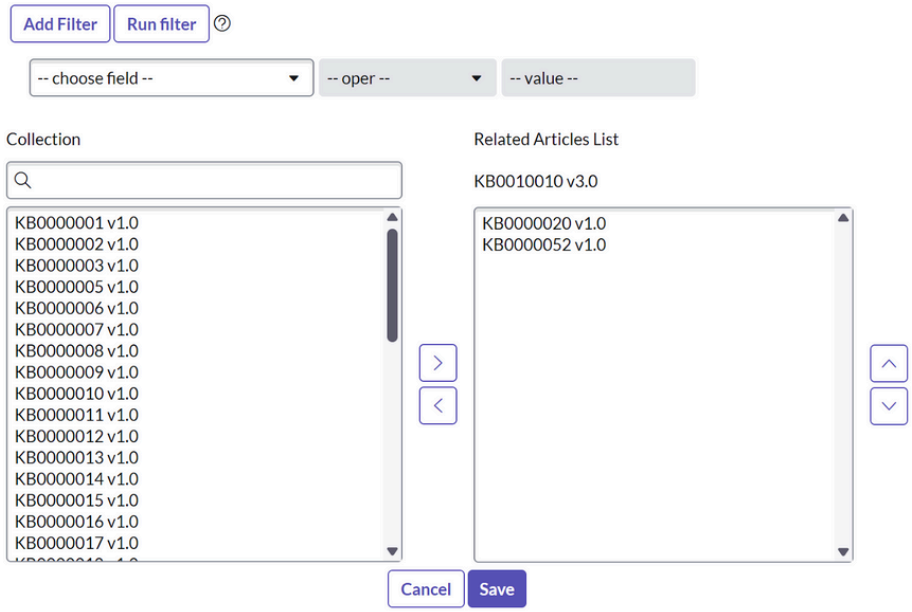


Step 4 – Create Cause Using Source Code
Document the technical root cause of the outage by describing conditions like sudden traffic spikes, CPU or memory saturation, misbehaving load balancers, or background processes overwhelming system resources during peak periods.

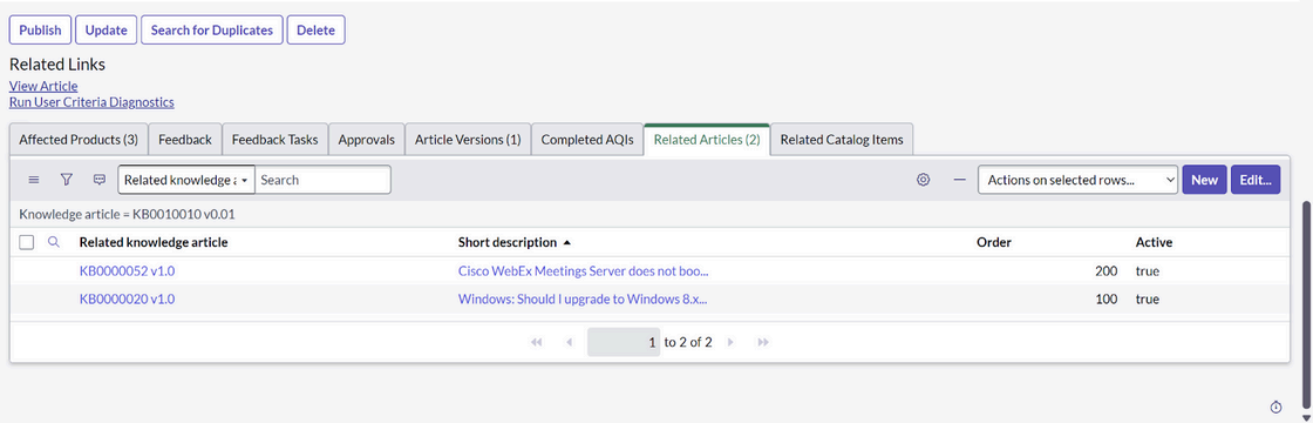


Known Error Article 4: Short EHR Outage During High Load

Step 5 – Link to Related Articles
Link the Known Error article KB0010010 v3.0 to the two selected knowledge articles KB0000020 v1.0 and KB0000052 v1.0 so IT support staff can quickly access supporting information related to outage handling and similar system performance issues.

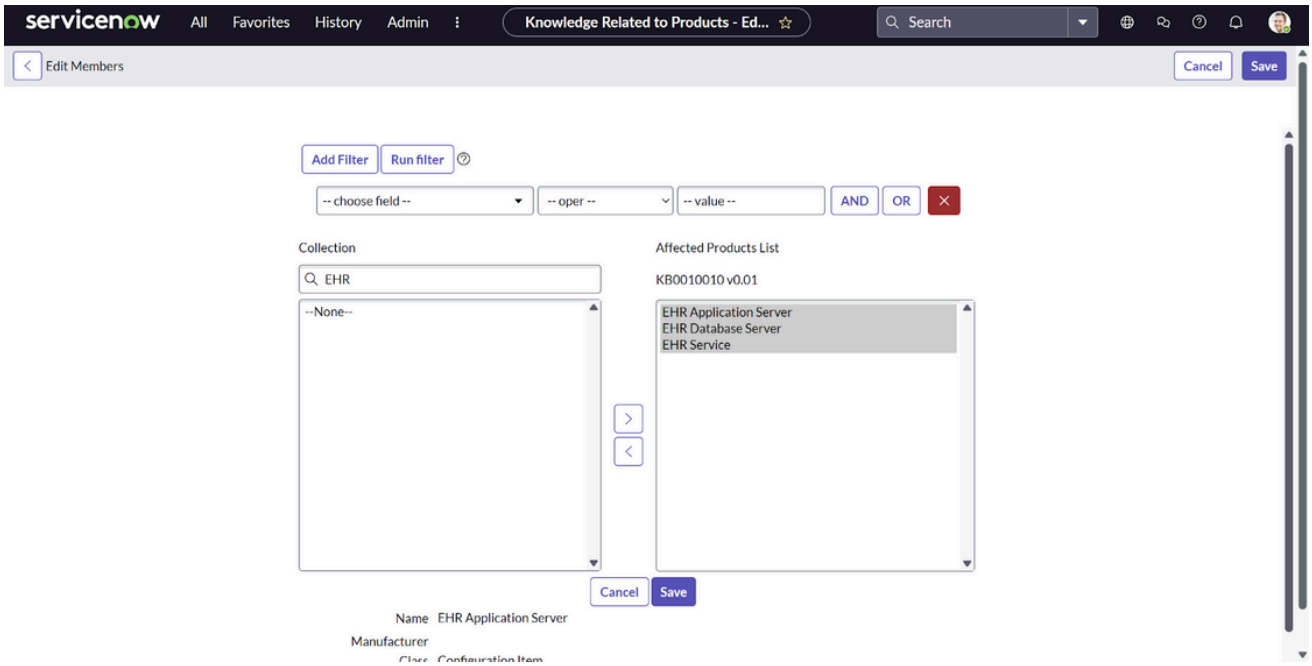


Step 6 – Linked Related Articles
The system now displays both linked articles KB0000052 v1.0 and KB0000020 v1.0 under the Related Articles tab for KB0010010 v0.01, confirming that the Known Error article is correctly associated with the supporting knowledge resources.

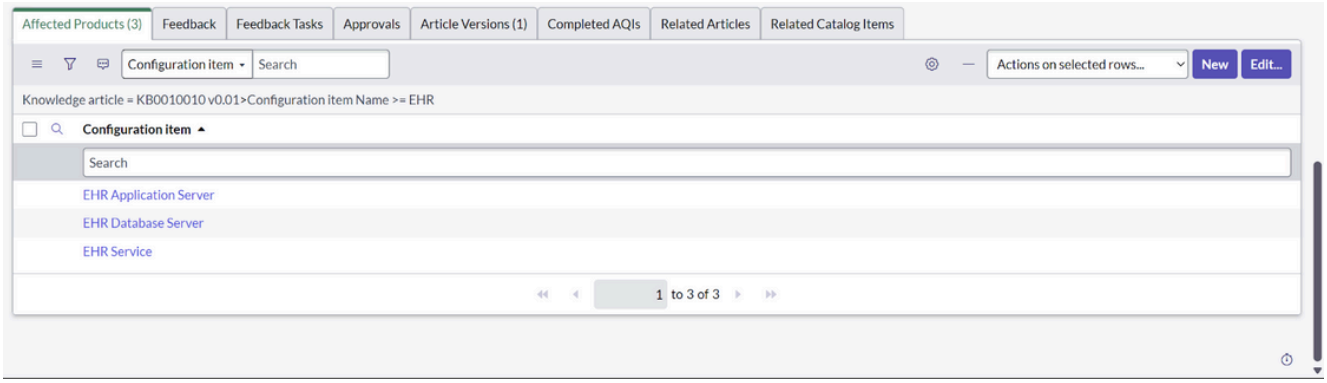


Known Error Article 4: Short EHR Outage During High Load

Step 7 – Link to Related Configuration Items
Link the Known Error article to the relevant configuration items EHR Application Server, EHR Database Server, and EHR Service so the technical dependencies behind the short high-load outage are clearly documented for future troubleshooting.

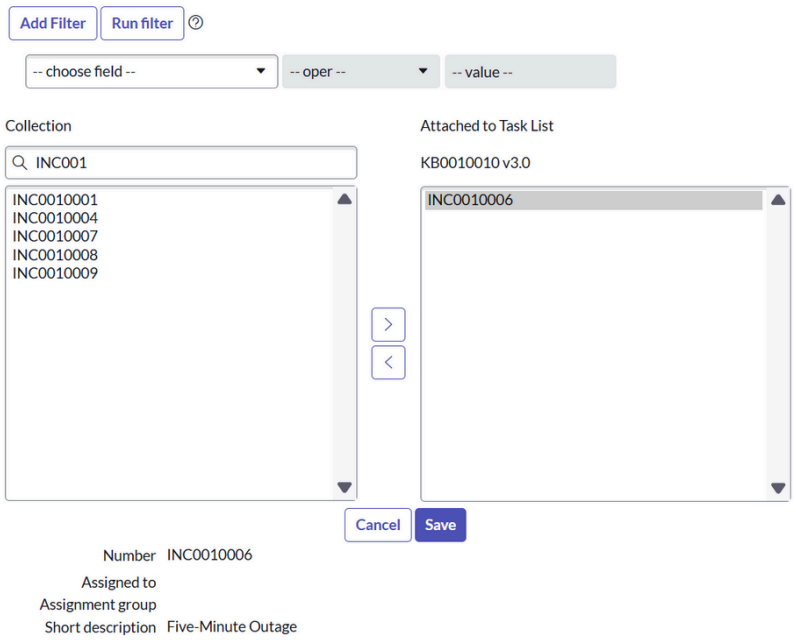


Step 8 – Linked Configuration Items
The Related Configuration Items section now shows the three linked components EHR Application Server, EHR Database Server, and EHR Service confirming that the Known Error article is properly associated with all affected backend systems.



Known Error Article 4: Short EHR Outage During High Load

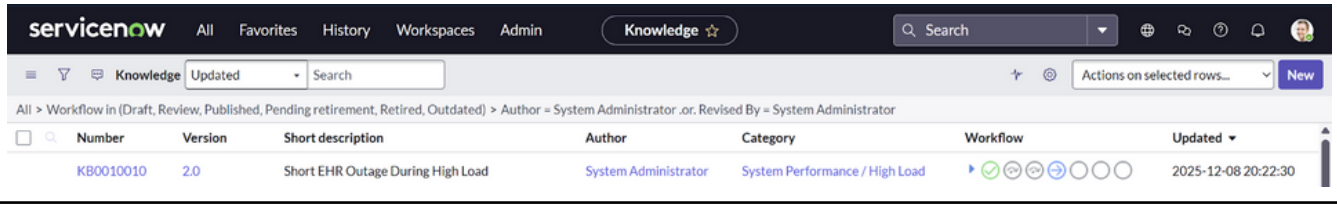
Step 9 – Link to Related Incident
Link the Known Error article to the corresponding outage record by selecting INC0010006 from the incident list, ensuring the short high-load outage is tied to the actual five-minute outage incident.



Step 10 – Output of Related Incident
The incident INC0010006 now appears under the Attached to Task section, confirming that the Known Error article is properly associated with the related operational incident.

Known Error Article 4: Short EHR Outage During High Load

Step 11 – Publish Article
Publish the Known Error article to make it officially available in the knowledge base, ensuring that IT support teams can reference the documented outage behavior, causes, and workarounds during future high-load incidents.



Link to Article

https://dev292954.service-now.com/kb/en/short-ehr-outage-during-high-load?id=kb_article_view&sysparm_article=KB0010010

Incident & Problem Linked (From part 1)

IINC0010006 - Five-Minute Outage

CI Linked (From part 1)

EHR Application Server

EHR Database Server

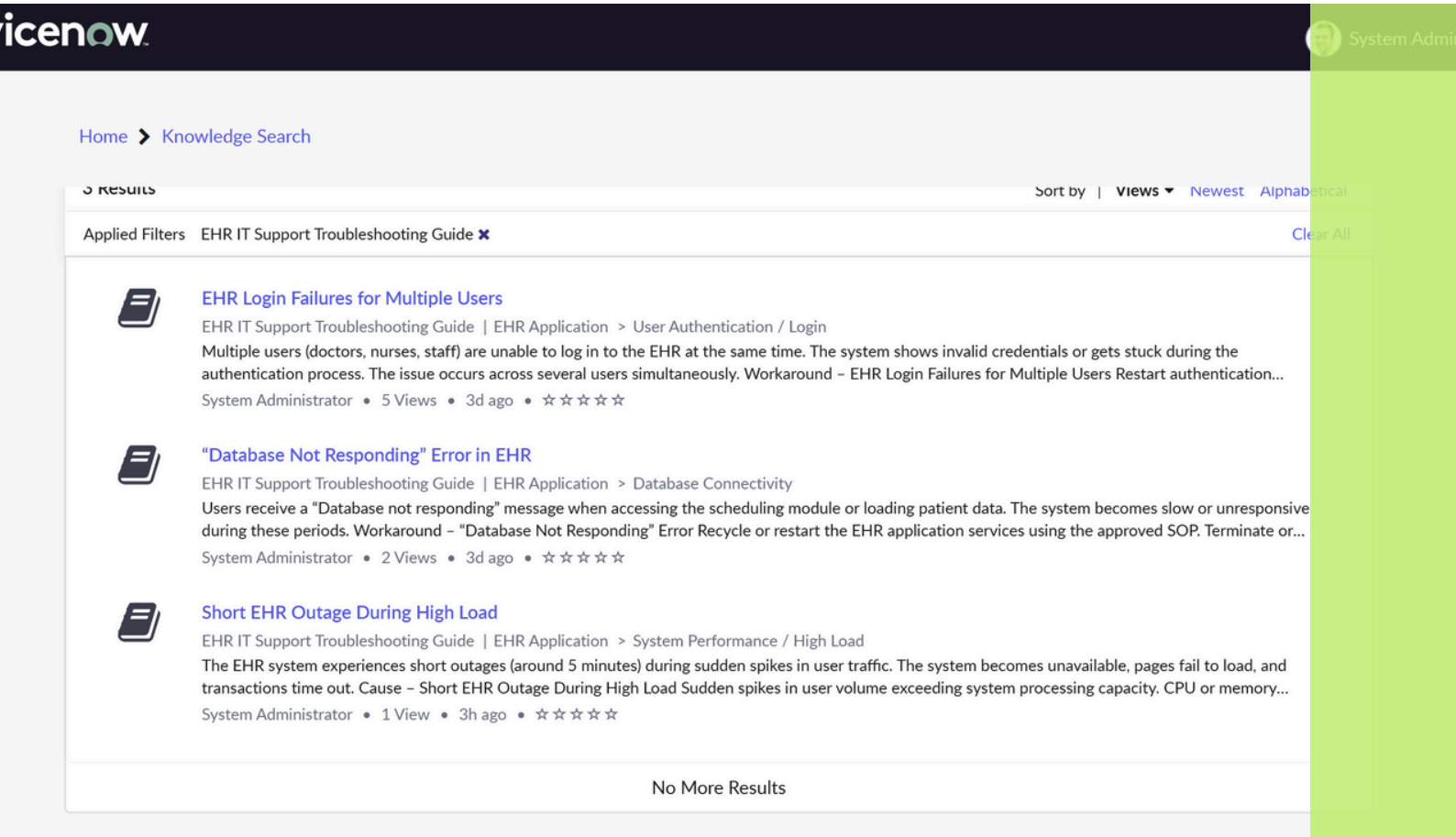
EHR Service

Articles Linked

KB0000052 v1.0 - Cisco WebEx Meetings Server doesn't boot up after deployment

KB0000020 v1.0 - Windows: Should I upgrade to Windows 8.x?

Clear guidance to help IT support teams resolve recurring EHR system issues efficiently.



These Known Error articles provide Service Desk and IT Support teams with clear, technical explanations of root causes and proven resolution steps for common EHR-related issues.

Explanation of how the articles connect to incidents & problems in Final Project Part 1.

All Knowledge Articles created in Part 2 are directly derived from real operational issues documented in Final Project Part 1. Each article is explicitly linked to one or more incidents to ensure alignment between incident resolution and knowledge creation.

The Standard Knowledge Articles are connected to incidents such as:

- Login failures
- EHR system slowness
- Short outages
- Database unresponsiveness
- System freezing during patient care

These incidents demonstrated recurring user-facing issues that required clearer guidance for clinical staff.

The Known Error Knowledge Articles are linked to specific high-impact incidents and, where applicable, to a Problem record from Part 1. For example:

- The EHR Login Failures for Multiple Users Known Error is linked to INC0010004 and PRB0040003, documenting a recurring authentication issue.
- The Database Not Responding Known Error is linked to INC0010008, capturing backend database connectivity failures.
- The Short EHR Outage During High Load Known Error is linked to INC0010006, documenting short outages caused by peak system load.

In addition, each Known Error article is linked to relevant Configuration Items (CIs), such as the EHR Application Server, EHR Database Server, and EHR Service. This ensures that incidents, problems, and technical components are fully traceable within the ITSM process.

Explanation of how Knowledge helps End users and IT support staff

For end users, particularly clinical staff, Knowledge Management provides clear and accessible guidance for handling common EHR issues. The Standard Knowledge Articles help users:

- Understand how to properly report system issues
- Avoid behaviors that worsen system performance
- Reduce session timeouts and data loss
- Continue working safely during temporary system disruptions

By using non-technical language and step-by-step instructions, these articles reduce confusion, minimize repeated incidents, and support uninterrupted patient care.

For IT Support teams, Knowledge Management plays a critical role in improving efficiency and consistency. The Known Error Articles:

- Provide documented root causes for recurring issues
- Offer verified workarounds that can be applied immediately
- Reduce troubleshooting time during high-impact incidents
- Enable faster service restoration during outages
- Support proactive problem management and continuous improvement

By linking incidents, problems, configuration items, and related knowledge articles, IT support teams can resolve future incidents more effectively without repeating investigation efforts.

Description of Advanced Features Used (A Grade Criteria)

To achieve an A grade, our group implemented multiple advanced Knowledge Management features in ServiceNow that go beyond basic article creation. These features demonstrate a deeper understanding of how Knowledge integrates with Incident, Problem, and Configuration Management within IT Service Management (ITSM).

1. Linking Configuration Items (CIs) to Known Error Articles

All Known Error Knowledge Articles were explicitly linked to relevant Configuration Items (CIs), including:

- EHR Application Server
- EHR Database Server
- EHR Service

This linkage allows IT support teams to quickly identify which technical components are impacted when a recurring issue occurs. By associating Known Errors with specific CIs, troubleshooting becomes more targeted, enabling faster root-cause analysis and more efficient incident resolution. This approach also supports impact analysis by showing which services and infrastructure elements are affected by each Known Error.

2. Linking Known Error Articles to Incidents and Problems from Part 1

Each Known Error article is directly connected to real operational records from Final Project Part 1. For example:

- The EHR Login Failures for Multiple Users Known Error is linked to INC0010004 and Problem PRB0040003.
- Other Known Error articles are linked to relevant incidents such as database failures and short system outages.

This linkage demonstrates how recurring incidents are transformed into structured Known Errors. By connecting incidents and problems to knowledge records, IT teams can trace current issues back to previously identified root causes and apply proven workarounds without repeating full investigations.

3. Use of Related Articles Between Knowledge Records

Our group utilized the Related Articles feature to link knowledge records with other relevant Standard and Known Error articles. This creates a connected knowledge network that allows users and IT support staff to easily navigate between related guidance.

For example, Standard Knowledge Articles related to session timeouts are linked to Known Error articles addressing login failures. This ensures that both end users and IT staff can access additional context and supporting information when troubleshooting or reporting issues, improving knowledge reuse and consistency across the organization.

4. Accurate Use of Categories and Subcategories

All Knowledge Articles were assigned appropriate Categories and Subcategories based on their purpose and target audience. Examples include:

- EHR Support → Incident Reporting
- EHR Support → Session & Login Issues
- EHR Application → Database Connectivity
- Performance / High Load

This accurate categorization improves article discoverability within the Knowledge Base and ensures that users and IT support staff can quickly locate relevant information. Proper classification also supports long-term maintainability as the Knowledge Base grows.

Collaborative ITIL practices successfully improved overall EHR performance.

CONCLUSION

In this second phase, our team created and published three complete Known Error Articles in ServiceNow, applying ITIL Problem Management and Knowledge Management practices. We identified technical causes, documented accurate workarounds, assigned proper categories and configuration items, and linked each Known Error to its related incidents and articles. This process strengthened our understanding of how structured knowledge documentation supports faster troubleshooting, reduces repeated EHR disruptions, and improves overall service reliability. Through this activity, we gained practical experience in producing high-quality technical knowledge that directly supports Service Desk and IT operations.

PDI Link and Youtube Link

PDI Link: https://dev292954.service-now.com/
Username: Admin
Password: @cj*XVn0ll3C

Youtube Link :
https://youtu.be/O5IgT6GGzUs

THANKS

KNOWLEDGE MANAGEMENT
ASSIGNMENT