

## Using a Customer Response System in Writing and Updating User Documentation



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## Introduction

Many different types of companies use customer response systems (CRSs) to track problems and enhancement requests for their products. If your company uses a CRS, you can take advantage of it to help you integrate user documentation tasks into product development cycles and create and update your information deliverables.

Using a CRS can help you in the following ways:

- > **Tracking product enhancements:** You can use the CRS to understand how an enhancement changes the product and how to incorporate that information into the user documentation. You can use the trouble ticket to specify tasks that must be completed to create or update the user documentation for the enhancement. These tasks might include
  - researching or learning about the enhancement
  - writing the updates to the user documentation
  - sending the user documentation out for review
  - receiving review comments
  - incorporating review comments
  - testing the new or updated user documentation
  
- > **Tracking product defects:** You can use the CRS to understand how problems affect the product and how to incorporate resolutions or workarounds into the user documentation. You may have to create a new document outside of the normal development cycle, such as a bulletin or erratum. You can use the defect record to specify the tasks required, such as
  - researching the problem
  - identifying the affected user documentation deliverables
  - testing the user documentation.
  
- > **Tracking user documentation defects and enhancement requests:** Customers and your product team can use the CRS to enter trouble tickets against the user documentation. The trouble tickets might request more information about a product feature or function, report errors in the user documentation, or request new documents, for example. For user documentation trouble tickets, you can specify the following tasks that pertain to updating the user documentation:
  - identifying the deliverables that require the new updated information
  - writing the new information and incorporating it into the user documentation set
  - testing
  - closing the defect or enhancement request
  - researching requested changes
  - sending the user documentation out for review
  - incorporating review comments

## A CRS workflow that includes user documentation tasks

Developing and using a workflow helps you track progress on the identified tasks. A workflow defines all of the actions required to complete the user documentation project and identifies the job responsibilities involved, such as reviewers, approvers, quality assurance, and so forth. Following is an example workflow:

- 1. Identify a trouble ticket for which user documentation needs must be addressed.** Look for verbiage that indicates a user documentation issue, such as the following examples:
  - Incorrect user documentation
  - Incomplete user documentation
  - user documentation enhancement request
  - Product enhancement request
  - Product failure report
- 2. Check the type, status, and severity of the incident or problem.** You might be better able to prioritize a trouble ticket that relates to user documentation by reviewing this information and applying your organization's business rules:
  - Your CRS might define a particular ticket *type* to identify failures or requests that involve the user documentation only.
  - Your product group may address trouble tickets only for a certain severity level or higher.
  - Your product development group might ask you to address a trouble ticket in the user documentation, rather than making a change to the product.
- 3. In the trouble ticket, record the tasks that you plan to perform.** In some CRSs, you can enter a separate task for each step in the user documentation update or creation cycle. If your CRS does not contain this functionality, you can use the notes or attachments feature to record your steps for the trouble ticket.
- 4. Search your CRS to find related trouble tickets.** If you find related items, record a relationship with the original trouble ticket.
- 5. Address the trouble ticket in the appropriate user documentation.** If necessary, add tasks to the trouble ticket to cover each deliverable.
- 6. Change the status of the task or trouble ticket to indicate that you have addressed the item in the user documentation.** Enter comments that describe the user documentation that was created or updated, both its content and its location.
- 7. Send the user documentation to the product team for review.** In the ticket, include review tasks for each member of the product team who will review the user documentation.
- 8. Incorporate review comments.** Determine whether you will incorporate all review comments at one time or as they are received. Determine how you will resolve conflicting review comments.
- 9. Publish and distribute the user documentation.** In the ticket, include tasks for all publishing tasks that you must perform. Determine what you will do if you encounter problems when you are publishing the user documentation.
- 10. If applicable, close the trouble ticket.** If the trouble ticket is for user documentation only, you should have authorization to close the ticket. If the trouble ticket relates to the product as a whole, the responsibility for closing the trouble ticket might fall to someone else.

## Questions to ask about trouble tickets

After a customer submits a trouble ticket against a product, a technical support analyst (TSA) evaluates it to determine the best course of action. The trouble ticket might be routed to a developer or to the user documentation group, or the TSA might handle it without further assistance.

If you encounter a trouble ticket before it has been addressed by a TSA, it can still be helpful. Consider the following questions when you are evaluating a trouble ticket:

- > **Is the trouble ticket for an active product; that is, is the product still generally available, under development, fully supported, or supported with restrictions?** If the trouble ticket references an old version of the product and the user documentation will not be updated for that version, you might be able to close the trouble ticket.
- > **What is the impact to the customer?** If the customer is still able to function after encountering the problem, you can add a user documentation task to the next version of the product. If the customer has experienced a system failure, you might need to create a new document immediately and release it with a product fix.
- > **What was the customer doing when the problem occurred?** You should be able to determine detailed information about the customer's problem, such as what task were they trying to perform, what other applications were running at the same time, and whether the customer consulted the user documentation before filing a trouble ticket.
- > **Did the customer submit any other information?** If your CRS allows attachments, they might contain useful information, such as scripts or screen captures of error messages. You might be able to gain insights into the customer's product usage by reading the attachments.

If a trouble ticket is assigned to you, the questions to consider are similar:

- > **Does the trouble ticket request an enhancement or does it report a problem?** If the trouble ticket requests an enhancement, you will have more tasks to complete than you would for an error in the user documentation. If the trouble ticket reports an error in the user documentation, can you identify where it is incorrect?
- > **Can you verify the product version in the trouble ticket?** If the trouble ticket references an old version of the product, you might have already corrected the problem and can refer the customer to the new user documentation or new version of the product.
- > **Is the problem really with the user documentation, or is it with the product?** If the problem exists in the product, you might have no updates to make in the user documentation. If the problem exists in the user documentation, you will have tasks to complete during the development cycle.
- > **Does the severity of the problem indicate that a bulletin or erratum should go directly to the customer, or is addressing the problem in the next product release sufficient?** If the problem halts production for your customers, you might need to address the problem in a document that is distributed immediately and also address the problem in the next release of your product. If this is the case, you will need to add more tasks to the trouble ticket for updating all of the user documentation at the appropriate time.
- > **Does the product's priority and estimated shelf life warrant a change in the product's user documentation set?** The way your company prioritizes product development and fixes will determine whether you address the problem or not.
- > **Can you clearly categorize the type of information in the trouble ticket?** For example, do you have to make a correction in a procedure, or do you have to add conceptual information? If you cannot categorize the type of information to change or add, you will need to add tasks for researching the trouble ticket so that you can properly categorize the necessary user documentation updates.

## Examples of trouble tickets

In 2006, BMC Software product teams will migrate from the Vantive<sup>®</sup> System to the BMC<sup>®</sup> Remedy<sup>®</sup> Customer Support customer response system to track product trouble tickets.

The information development teams within BMC Software have been involved in the requirements gathering, project planning, and testing of the new system. As the project has progressed, we have had the opportunity to help develop and update the processes that all teams in the company will use in the new system.

This section shows you examples of trouble tickets created in the two CRSs that are in use at BMC Software.

Both Vantive and Remedy have a web form that customers can use to create trouble tickets without calling customer support.

In the Vantive System (Vantive) from Peoplesoft, Inc., users create Cases, Failures, Requests, and Resolutions. Information developers work mainly with Failures and Requests.

In the BMC Remedy Customer Support (Remedy) system, users create Issues, Defects, Requests for Enhancement (RFEs), and Solutions. Information developers work mainly with Defects and RFEs.

Figure 1 shows the web form that customers use to enter trouble tickets in Vantive. The customer selects the product, version, and product component (if applicable). They can use the **Symptom/Question** and **Additional Problem or Contact Information** text boxes to enter a summary and details of the problem. A TSA reviews the ticket to determine the best course of action. During the review, the TSA can add keywords, clarify the subject or details, and add notes. A TSA can also assign the trouble ticket to a member of the product team.

Figure 1: Vantive web form

**bmcsoftware** Downloads Corporate Worldwide Search [ ]

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### Report A Problem Or Ask A Question

Red Text = required information

**Personal Information**

First Name: CINDY  
 Last Name: PAO  
 Company: BMC SOFTWARE, INC  
 Country: USA  
 Email: cynthia\_pao@bmc.com  
 Phone Number: 713 [ ]  
 Fax Number: 713 [ ]

**System Information**

Hardware Platform: PC Compatible 486  
 Operating System: Windows 2000 OS Version: 2000  
 Database: NA Database Version: [ ]

**Product Information**

Product: BMC Performance Manager for Microsoft Exchange Servers  
 Version: 5.0.00 Cannot find your product? [Click here](#) for a list of product name changes  
 Product Component: PATROL Knowledge Module for Microsoft Exchange Server - 5.0.00 [Click here](#) for help

**Symptom/Question**

250 character limit: The Patrol for Exchange Help indicates that Domain Admin rights are needed when configuring the KM to monitor Exchange 5.5; this is not the case.  
 105 characters left

**Additional Problem or Contact Information**

2000 character limit: The Help for the Exchange KM indicates that the account used to configure the Exchange KM needs Domain Admin rights when monitoring an Exchange 5.5 system. This is incorrect.  
 To reach the particular section of the help, from the Patrol Console expand the Exchange container and right-click on one of the parameters and choose "Help". When the help appears, click  
 884 characters left

**Severity Code**

- 1 - Severe Issue critically affects the primary business service, major application, or mission critical system. Customer resources should be available and willing to work on a 24x7 basis with BMC to resolve the issue.
- 2 - High The system or application is moderately impacted. There is no workaround currently available, or the workaround is cumbersome to use.
- 3 - Medium The system or application issue is not critical; no data has been lost, and the system has not failed. The issue has been identified and does not hinder normal operation, or the situation may be temporarily circumvented using an available workaround.
- 4 - Low Noncritical issues, general questions, enhancement requests, or the functionality does not match documented specifications.

[Submit](#)



Figure 2 shows the web form that customers use to enter trouble tickets in Remedy. They enter information about their environment and then use the **Details** text box to report their problem. As with Vantive, a TSA reviews the trouble ticket and can add keywords, clarify the subject or details, and add notes. The TSA can also assign the trouble ticket to a member of the product team.

Figure 2: Remedy Customer Support web form

The screenshot shows the BMC Software Customer Support web form. The page has a blue header with the BMC Software logo and navigation links: Home, Solutions & Products, Partners, Support, Store, Education, Communities. A search bar is located in the top right. The main content area is titled "Ticket Submit" and is divided into several sections:

- Company Information:** Contract ID\* (020482), Company Name (Remedy), End User Company Name (Remedy). A link "Get Customer List" is present.
- Contact Information:** Full Name (Roger Dearth), Email (roger\_dearth@bmc.com).
- Ticket Information:**
  - Classification: Client (dropdown menu)
  - Server Name: (dropdown menu)
  - Product Name: AFR System 6.3
  - Impact: Low (dropdown menu)
  - Details\*: A text box containing "Downloading files that have long double byte file names from attachment pool get truncated in IE".
- Attachment:** Max File Size: 10MB. A table with columns "File Name" and "Size" is shown, with an "Add Attachment" button below it.

A "Submit" button is located at the bottom of the form. On the left side, there is a navigation menu with links like "My Profile", "Issues and Solutions", "Tickets", "Licensing", "Enhancement Request", "Downloads", and "About Remedy Support".

Figure 3 shows the **Subject**, **Description**, and **Keywords** fields from a Vantive trouble ticket for a software problem reported by a customer:

Figure 3: Software problem reported by a customer in Vantive

The screenshot shows a Vantive trouble ticket with the following fields:

- Subject:** Cannot get oracle disk space collection going.
- Description:** When viewing Oracle data from the explorer the table is displayed but contains no data. Also not collecting Logical Volume data or quota data. The database does have data for all other collectors. The database is not on the central server. This is an oracle database and is located on an Unix server. The Oracle version is 8.1.6. Customer is running Veritos for collection of logical information.
- Keywords:** Oracle space collection

Figure 4 shows a Vantive trouble ticket for user documentation. This trouble ticket was submitted by a TSA while working with a customer to resolve a problem. The trouble ticket was assigned to an information developer.

Figure 4: User documentation request in Vantive

Keywords	Oracle PM Documentation
Subject	Oracle Power Module Documentation Request
Description	What I need now is documentation on the data that is returned from the Oracle PM. For example, I had to go through the data myself to see how the data in the "tablespaces" table corresponds to the "datafiles" table. I had to figure out on my own how to find out how many bytes are in a database block (At first I thought "blocks" meant "disk" blocks rather than "database" blocks and I was confused about the numbers that were returned. I finally figured out that it is "database blocks". Only then did I discover that you can look in the "datafiles" table and compare the "file_kbytes" to "file_blocks" to find the number of kbytes per block. Then I had to ask our DBAs to find out that this can vary from one database to another -- it would have been helpful to have documentation to tell me what I'm looking at rather than have to guess at it). What would have been good earlier is documentation on how to set up the oracle account that is required to

Figure 5 shows a Remedy trouble ticket that was entered by a quality assurance representative during software testing.

Figure 5: Software problem reported by quality assurance

The screenshot displays the Remedy Quality Management interface for creating a new defect. The main window is titled "Remedy User - [Defect (New)]". The "Defect Information: New Defect" section contains the following fields:

- Summary\***: Cannot load JRE from a Solaris system through Netscape plugin and then and then gets a 404 error trying to get it. This is using Netscape Navigator 4.76.
- Details**: I have a clean Solaris system. No JRE installed on I connect up to the PSC and try to open the console. It tells me I need a plugin and then and then gets a 404 error trying to get it. This is using Netscape Navigator 4.76.
- ID**: JQM
- Product\***: PATROL Storage Connc
- Problem Area 1\***: Release Notes
- Problem Area 2**: Netscape
- Problem Area 3**: Solaris

A dialog box titled "Defect (RDEARTH-53C-66) -- Details" is overlaid on the form, containing the text: "I have a clean Solaris system. No JRE installed on I connect up to the PSC and try to open the console. It tells me I need a plugin and then and then gets a 404 error trying to get it. This is using Netscape Navigator 4.76." The dialog box has "OK" and "Cancel" buttons.

The Windows taskbar at the bottom shows the Start button, several application icons, and the system tray with the time 2:53 PM.

After the problem was documented in the product release notes, the information developer used the Work Note feature in Remedy to record the text received from the developer to use in the documentation, as shown in Figure 6.

Figure 6: Work Note associated with software problem

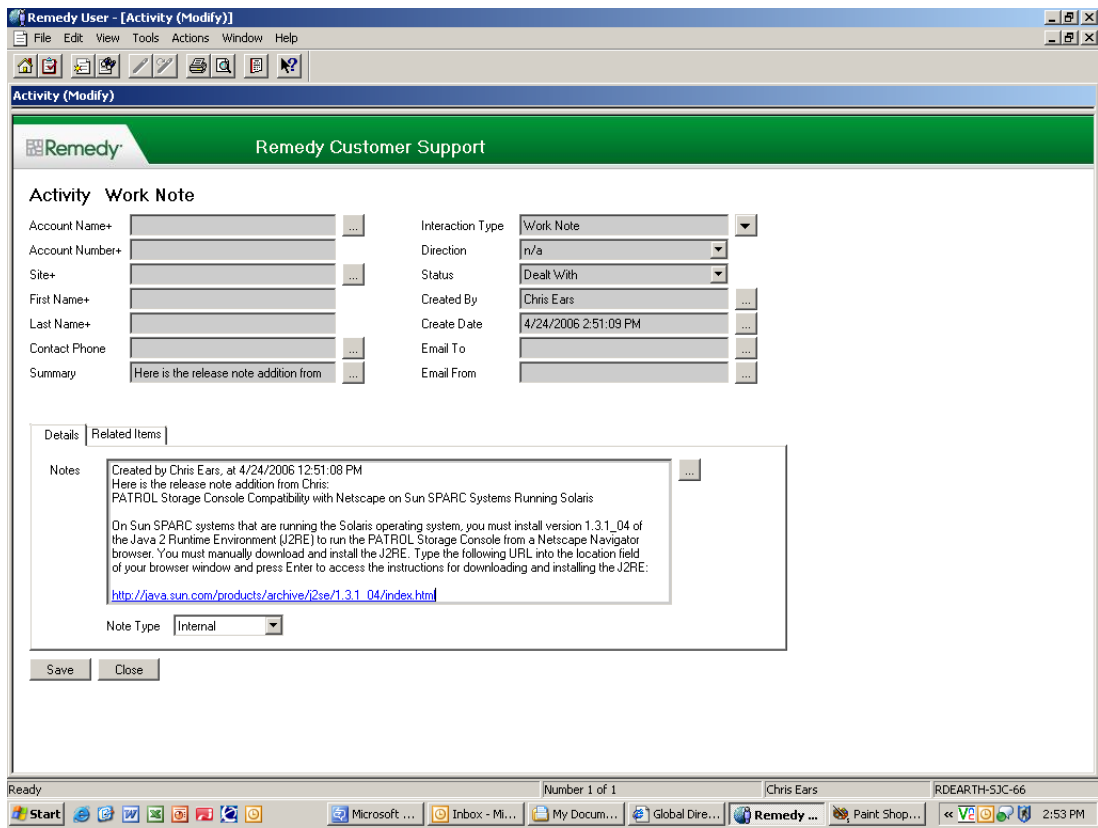
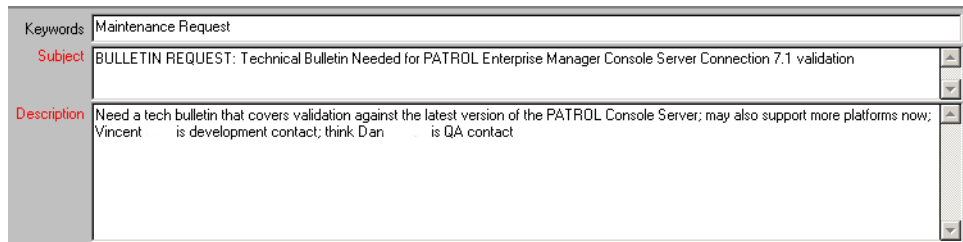


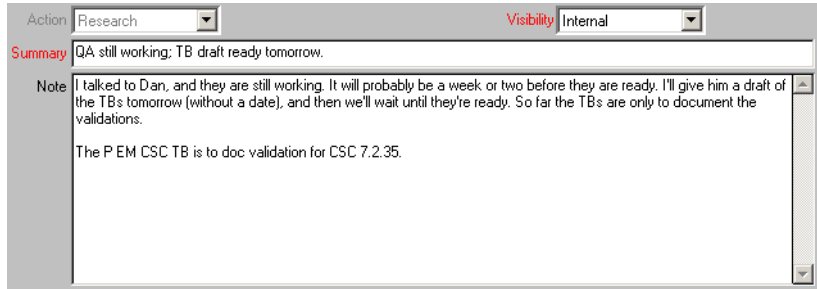
Figure 7 shows a trouble ticket in Vantive that contains a request for a new document. Product teams at BMC Software use Vantive trouble tickets to request new documents that must be produced for customers outside of the normal development cycle, such as technical bulletins.

Figure 7: Vantive trouble ticket for a new document



As work on the new document progressed, the information developer added the note shown in Figure 8 to the trouble ticket.

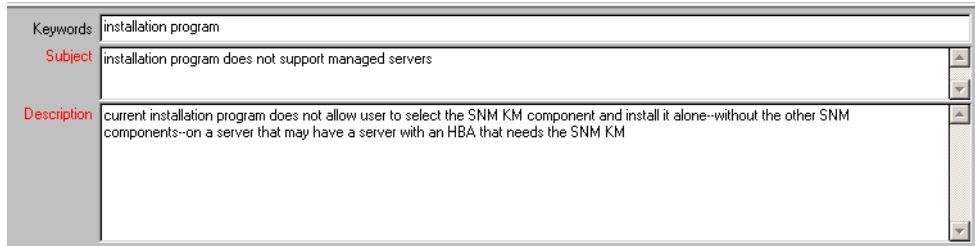
Figure 8: Note associated with the document request



The screenshot shows a trouble ticket interface. At the top, there are two dropdown menus: 'Action' set to 'Research' and 'Visibility' set to 'Internal'. Below these are three sections: 'Summary', 'Note', and 'Description'. The 'Summary' section contains the text 'QA still working; TB draft ready tomorrow.'. The 'Note' section contains two paragraphs: 'I talked to Dan, and they are still working. It will probably be a week or two before they are ready. I'll give him a draft of the TBs tomorrow (without a date), and then we'll wait until they're ready. So far the TBs are only to document the validations.' and 'The P EM CSC TB is to doc validation for CSC 7.2.35.'. The 'Description' section is empty.

Figure 9 shows a Vantive trouble ticket that was entered by development during coding:

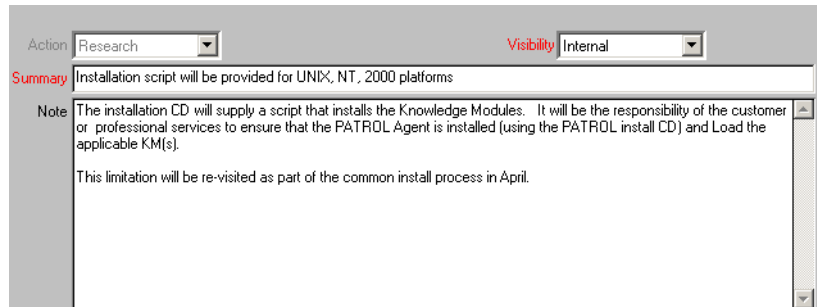
Figure 9: Software problem reported by development



The screenshot shows a Vantive trouble ticket interface. It has three sections: 'Keywords', 'Subject', and 'Description'. The 'Keywords' section contains the text 'installation program'. The 'Subject' section contains the text 'installation program does not support managed servers'. The 'Description' section contains the text 'current installation program does not allow user to select the SNM KM component and install it alone--without the other SNM components--on a server that may have a server with an HBA that needs the SNM KM'. There are scroll bars on the right side of each section.

Because this problem is a temporary software limitation, it must be explained in the user documentation. Figure 10 shows the note included with the trouble ticket:

Figure 10: Note associated with a software limitation



The screenshot shows a trouble ticket interface. At the top, there are two dropdown menus: 'Action' set to 'Research' and 'Visibility' set to 'Internal'. Below these are three sections: 'Summary', 'Note', and 'Description'. The 'Summary' section contains the text 'Installation script will be provided for UNIX, NT, 2000 platforms'. The 'Note' section contains two paragraphs: 'The installation CD will supply a script that installs the Knowledge Modules. It will be the responsibility of the customer or professional services to ensure that the PATROL Agent is installed (using the PATROL install CD) and Load the applicable KM(s).' and 'This limitation will be re-visited as part of the common install process in April.'. The 'Description' section is empty.

## Lifecycle of a trouble ticket

After a trouble ticket is opened in Vantive, it follows the workflow shown on [page 5](#). This section shows you an example trouble ticket as it moves through Vantive from being reported by a customer to being closed by a quality assurance representative.

Using the trouble ticket from Figure 1 on page 8, Figure 11 shows how it looked after a TSA worked with it.

Figure 11: Failure displayed in Vantive

**Vantive System - [Failure or Request: 359196]**

File Edit View Utility Window Help

Information Info2 Notes Cases Failures Resolutions Attachments Action History Audit Trail Failure-Fix Links List Fixed Items Products Affected Tested Envi

Current Inbox: PKM MS Exchange Sr:11/18/2002 13:29:42

Prod Group: PATROL

First Reported By: MITCHELL

Prod Build: PKM for MS Exchange Srs 4.1.01

Company: [Empty]

Module: [Empty]

Symptom: Documentation Incorrect Severity: 3 - Medium

Type: Failure Priority: 3 - Medium

Item: [Empty]

Target Ver: 5.0.00 Version Resolved: [Empty]

Current Status: Close Alternate ID: [Empty]

Reason Closed: [Empty]

Keywords: [Empty]

Subject: The Patrol for Exchange Help indicates that Domain Admin rights are needed when configuring the KM to monitor Exchange 5.5; this is not the case.

Description: The Help for the Exchange KM indicates that the account used to configure the Exchange KM needs Domain Admin rights when monitoring an Exchange 5.5 system. This is incorrect.  
To reach the particular section of the help, from the Patrol Console expand the Exchange container and right-click on one of the parameters and choose "Help". When the help appears, click the "Help Topics" button below the menu bar on the help. On the "Contents" tab of the dialog that appears, double-click on "PATROL for Microsoft Exchange Servers" to expand it.

Developer: [Empty] Date Reported: 11/18/2002 Date Resolved: 08/22/2003

The failure indicates that the user documentation contains incorrect information.

Figure 12 shows that several notes were added to the trouble ticket.

Figure 12: Summary of notes in a trouble ticket

**Vantive System - [Failure or Request: 359196]**

File Edit View Utility Window Help

Information Info2 Notes Cases Failures Resolutions Attachments Action History Audit Trail Failure-Fix Links List Fixed Items

Summary of Notes - 4 items

Date Entered	Entered By	Action	Status	Visibility	Summary
08/22/2003 10:5	Chris Ballou	Research		Internal	Issue resolve
07/11/2003 13:1	Cynthia Pao	Research		Internal	CJP: Let's try
06/06/2003 10:1	Chris Ballou	Research		Internal	Issue not resc
05/02/2003 08:11	Cynthia Pao	Research		Internal	Simplified topi

New Next Previous

The TSA assigned the ticket to the information developer, who updated one of the online Help topics.

This screenshot shows a ticket update interface. At the top, there are two dropdown menus: 'Action' set to 'Research' and 'Visibility' set to 'Internal'. Below these is a 'Summary' field containing the text 'Simplified topic text'. A 'Note' field contains the following text: 'Changed the second bullet under Exchange Server 5.5 Account Requirements to read: - an Exchange Administrator account that includes the Permissions Admin role or the Admin role at the Site and Configuration levels. This was also mentioned in Vantive 384278'. At the bottom, the 'Date Entered' is '05/02/2003' at '8:10 AM', and it was 'Entered By' 'Cynthia Pao'.

During quality assurance testing, the tester found that the information in the online Help was still incorrect. The tester added a note explaining why the test failed and sent the ticket back to the writer.

This screenshot shows a ticket update interface. At the top, there are two dropdown menus: 'Action' set to 'Research' and 'Visibility' set to 'Internal'. Below these is a 'Summary' field containing the text 'Issue not resolved.'. A 'Note' field contains the following text: 'Help topic still indicates the Domain Admins membership is required to configure the KM. See Troubleshooting section of 4.1.01 Getting Started Guide and verify with development. Returning Vantive to "Open - Failure".'. At the bottom, the 'Date Entered' is '06/06/2003' at '10:19 AM', and it was 'Entered By' 'Chris'.

The information developer made further changes to the online Help and documented them in another note.

This screenshot shows a ticket update interface. At the top, there are two dropdown menus: 'Action' set to 'Research' and 'Visibility' set to 'Internal'. Below these is a 'Summary' field containing the text 'CJP: Let's try this'. A 'Note' field contains the following text: 'I copied the text verbatim from the 4.1.01 Getting Started Guide: For Exchange 5.5, the account must meet the following requirements: - is an Exchange administrator account - includes the Permissions Admin role or the Admin role at the Exchange Site and Configuration levels - has Windows NT administrator rights on the local machine - is listed explicitly in the local administrator group; it cannot be a member of the administrator group via membership in another group - is listed as a fully qualified domain account in the Agent Configuration Database'. At the bottom, the 'Date Entered' is '07/11/2003' at '1:17 PM', and it was 'Entered By' 'Cynthia Pao'.

The tester performed another test, determined that the changes to the user documentation were correct, and closed the trouble ticket.

Action	Research	Visibility	Internal	
Summary	Issue resolved.			
Note	Verified using the QA_15 build of PATROL for MS Exchange Srs v5.0.00 on the German platform. Closing Vanitive.			
Date Entered	08/22/2003	10:54 AM	Entered By	Chris



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