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KANA Response Live System Administration Tool Guide

KANA Response Live
Version 9.5

May 2007

KANA Response Live System Administration Tool Guide

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About This Guide

This chapter describes the typographic conventions used in KANA Response Live documentation, how to request additional help or information about KANA Response Live products, and how to report errors in or make suggestions about KANA Response Live documentation.

About Screen Captures






Screen captures provide a visual representation of what you may see while using this product. What you see on your screen may vary depending on the platform on which KANA Response Live is installed or how the KANA Response Live platform is customized. You should consider the illustrations in this manual as samples.

Typographic Conventions

Table 1 lists the typographic conventions in this document.

| Table 1. Typographic Conventions (Sheet 1 of 2) | |
|---|---|
| Visual Clue | Meaning |
| Bold Type With Initial Capital Letters | <ul style="list-style-type: none">■ Command and button names■ Dialog box titles■ Checkbox options■ Dialog box options <p>Examples:</p> <ul style="list-style-type: none">■ Use Save As (File menu) to save the file with a different name or extension.■ Click Save.■ Use the Save as type option in the Save As dialog box to select the file name extension. |
| bold type | <ul style="list-style-type: none">■ Folder and directory names■ Disk drive names■ File names■ File name extensions <p>Examples:</p> <ul style="list-style-type: none">■ \kana folder■ d: drive■ kana.exe file |
| <i>Italic Type With initial Capital Letters</i> | <ul style="list-style-type: none">■ Document and book titles <p>Example:</p> <ul style="list-style-type: none">■ For more information, refer to the <i>KANA Response Live User's Guide</i>. |
| <i>italic type</i> | <ul style="list-style-type: none">■ Key words, such as terms that are defined in the text■ Variable names are enclosed in angle brackets (<>) and shown in italic type <p>Examples:</p> <ul style="list-style-type: none">■ This is called <i>cobrowsing</i>. <p><file name>, <installation directory>\kana</p> |

Table 1. Typographic Conventions (Sheet 2 of 2)

| Visual Clue | Meaning |
|---|---|
| Initial Capital Letter | <ul style="list-style-type: none"> Keyboard keys Menu names <p>Examples:</p> <ul style="list-style-type: none"> Delete key Options menu |
| “Subheading Title” | <ul style="list-style-type: none"> References to sections within a document are enclosed in quotation marks <p>Example:</p> <ul style="list-style-type: none"> “Typographic Conventions” |
| Courier type | <ul style="list-style-type: none"> Command line input or output Anything that must be typed exactly as it appears Code samples References to parts of files <p>Example:</p> <ul style="list-style-type: none"> Type \kana. |
| 1., 2., 3., and a., b., c., ... | Numbered steps are used in a list of items when the sequence of the items is important, such as the steps in a procedure |
|  | The angled arrow indicates you should press the Enter key |
|  | Bullets are used in a list of items when the sequence of the items is not important |
|  | The exclamation point icon indicates a warning or information that requires more attention. |
|  | The note icon points out information to keep in mind when performing a particular task. |
|  | The book icon directs you to more information on a particular topic |

If You Need Help

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To contact our KANA technical staff, visit support.kana.com.

KANA Product Documentation Assessment

If there's anything we can do to make our documentation better, please let us know. We've put together a few questions below, but feel free to make additional comments. You can send us a hardcopy, e-mail us at support@kana.com, or access this form via the world-wide web at <http://www.kana.com>

1. Did you find any technical errors or missing tasks in any of the documents you used? If so, please tell us about them.

2. Are there other documents that you need or feel would expand KANA's current product documentation offerings?

3. Please use the space below to provide additional comments about any of KANA's current documentation. We'd like to know what you feel needs improvement as well as what should be addressed in future revisions.

1

Who Should Read This Guide?

This guide is intended for system administrators who are responsible for configuring the servers used in a KANA Response Live system.



This user guide assumes you have already read the “[KANA Response Live *Getting Started Guide*](#).”

Every effort has been made to present the following KANA Response Live information in an easy-to-understand manner. However, the KANA Response Live suite of software products encompasses a significant amount of unique and market-leading functionality. As a result, some terminology may be new to you. For this reason, a “[Glossary](#)” is provided.

2

Kana Response Live Implementation Process

The KANA Response Live implementation process depends on whether your company is hosting its own system or using KANA's hosted service. If your company is hosting its own system, it is referred to as an on-premise implementation.



If using the hosted implementation, then you do not use the System Administration tool and, hence, do not need to read this guide. This user guide is only for on-premise KANA Response Live implementations.

The implementation process consists of tracks and phases. The tracks denote general job functions. The phases represent the basic on-premise implementation time line.



This guide details the KANA Response Live system and hardware configuration steps. The KANA Response Live business process model configuration steps are covered in the “[Organization Administration Tool User Guide](#).”

Implementation Tracks

[Table 1](#) shows one possible breakdown of the implementation tracks. Regardless of the implementation used, the required tasks can be grouped into the following simultaneous implementation tracks:

- **Personnel:** Training of supervisors and agents on how to use a KANA Response Live system.
- **Technical:** Configuring hardware and software required for the KANA Response Live system to function.
- **Business operations:** Planning and configuring the business considerations for the KANA Response Live system.
- **Testing:** Canvassing of your company's Web site to verify that the KANA Response Live features are functioning correctly during the pilot and final launch.

A user role may perform tasks in multiple tracks. A user role may also share tasks with another user role.

On-Premise Implementations Phases

[Table 1](#) shows the required implementation tasks grouped by implementation track and phase. This table also shows the user roles and related documentation for each task. Your company's phases may differ depending on internal processes for hardware and software deployments.

These tables use the following conventions and acronyms:

- Items marked with a * only apply to implementations including chat.
- Items in bold are covered in this document
- The KANA Response Live user roles for each task follow in parentheses () after each task. The user role abbreviations used are as follows:
 - A = Agent
 - K = KANA Software, Inc.
 - M = Manager

- OA = Organization administrator
- P = Programmer/web developer
- QA = Quality assurance engineer
- S = Supervisor
- SA = System administrator
- The KANA Response Live documentation for each task follow in brackets [] after each task. The documentation abbreviations used are as follows:
 - OA = KANA Response Live *Organization Administration Tool User Guide*
 - SA = KANA Response Live *System Administrators Tool User Guide*
 - IG = KANA Response Live *Installation Guide*

Table 1. Required Tasks in an On-premise KANA Response Live Implementation (Sheet 1 of 2) Note (1)

| Phase | Track | | | |
|---------------------|---|---|---|--|
| | Personnel | Technical | Business Operations | Testing |
| Preliminary | | <ul style="list-style-type: none"> ■ Order hardware (SA) [IG] ■ Determine how KANA Response Live software will be integrated with 3rd party software (SA), (P) ■ Design network (SA) | <ul style="list-style-type: none"> ■ License (M) ■ Understand documentation road map (M) ■ Think about reporting workflow (M) | |
| Initial setup | <ul style="list-style-type: none"> ■ Train key personnel (M) | <ul style="list-style-type: none"> ■ Try the meet-me page (OA) [OA] ■ Create test environment [SA] ■ Install software (SA) ■ Configure initial system (SA) [SA] ■ Create database for system (SA) ■ Create organization (SA) [SA] | | |
| Main setup | <ul style="list-style-type: none"> ■ Develop training plan (M) | <ul style="list-style-type: none"> ■ Determine where the live help buttons will be placed (M), (P) ■ Identify integration points in the company Web site (M), (P) ■ Integrate KANA Response Live software with 3rd party software (P) | <ul style="list-style-type: none"> ■ Identify business rules to be mapped to individual iChannels (M) ■ Set look and feel properties (M, P, OA) [OA] ■ Configure organization (M, OA) [OA] ■ Define iChannels (M, OA) [OA] ■ Create PDRs* (M) [OA] ■ Localize (M, OA) | <ul style="list-style-type: none"> ■ Develop canvassing plan (QA) ■ Canvas Web site without business rules (QA) ■ Report significant issues to KANA (M), (QA) |
| Implementa- tion | | <ul style="list-style-type: none"> ■ Design Live Help buttons (P) ■ Implement business rules (OA) | <ul style="list-style-type: none"> ■ Create agent and supervisor accounts and agent groups (OA) [OA] | |

Table 1. Required Tasks in an On-premise KANA Response Live Implementation (Sheet 2 of 2) Note (1)

| Phase | Track | | | |
|---------------------|--|--|---|--|
| | Personnel | Technical | Business Operations | Testing |
| Final configuration | | <ul style="list-style-type: none"> ■ Incorporate canvassing feedback into configuration (OA) [OA] ■ Configure hardware (SA) [IG], [SA] ■ Create clusters for large scale environments (SA) [IG], [SA] ■ Configure routers for large scale environments (SA) [IG], [SA] ■ *Configure chat (OA) [IG], [OA] ■ Configure monitoring systems (OA) | <ul style="list-style-type: none"> ■ Finish iChannel configuration by including business rules (OA) [OA] | |
| Staging | Train supervisors and agents (M), (S), (A) | <ul style="list-style-type: none"> ■ Put launch code and Live Help button on a small number of pages on company Web site (P) | | <ul style="list-style-type: none"> ■ Test business rules (QA) [See your company's test plan] ■ Test launch code (QA) |
| Deployment | | <ul style="list-style-type: none"> ■ Put launch code and Live Help button on all planned pages on company Web site (P) | | |
| Production | | | <ul style="list-style-type: none"> ■ Monitor daily reports | |

Note to Table 1:

(1) See the text proceeding Table 1 for an explanation of the conventions and acronyms used in this table.

3

Configuration Process Overview

Building a Functional KANA Response Live System

This chapter provides an outline of the tasks that must be completed in order to deploy KANA Response Live products.

As a system administrator, you have overall responsibility for configuring the system and managing its technical aspects. Your primary tasks are to:

- Install KANA Response Live software.
- Configure KANA Response Live application servers and clusters.
- Create organizations and organization administrator accounts.
- Monitor the system, administer queuing, and load balancing.
- Database configuration.

Deploying KANA Response Live products requires that two broad steps be completed:

1. A system administrator must install and configure the hardware and some technical aspects of the software. This user guide covers these steps.
2. An organization administrator must set up the business-related aspects of the software. See the “*Organization Administration Tool Guide*” for details. Organization administrators do not set up hardware.

To deploy KANA Response Live products, perform the following steps, which are covered in detail in the remaining chapters of this user guide:

- Install the KANA Response Live server software. See the “*KANA Response Live Installation Guide*” for installation instructions and recommended hardware and software platforms for KANA Response Live servers.
- Log on to the System Administration tool. See “*Chapter 4: Launching & Signing Into the System Administration Tool.*”
- Familiarize yourself with the user interface. See “*Chapter 5: The System Administration Tool User Interface.*”
- Create an iSystem. See “*Chapter 6: Customizing iSystem Settings.*”
- For chat systems only, create queue containers and a queue manager. See “*Chapter 7: Queue Managers (Chat Only)*” and “*Chapter 8: Queue Containers (Chat Only).*”
- Create a cluster of servers and iSystems. See “*Chapter 9: Clusters.*”
- Create an organization and assign it to a server cluster. See “*Chapter 10: Configuring Organizations.*”
- Create an administrator account, assign it to an organization, and give the user access to the Organization Administration tool. Create additional system administrator accounts, if desired. See “*Chapter 11: Organization & System Administrator Accounts.*”
- Enter personal information in the **My Profile** section. See “*Chapter 12: Profiles.*” For security reasons, change your

password after signing into the System Administration tool for the first time.

- Enable the Supervisor Console on one iSystem, if using the chat product. See “Miscellaneous” in “Chapter 6: Customizing iSystem Settings” for information on enabling the Supervisor Console.
- To create a pilot system, refer to “Chapter 13: Pilot or Small Production Environment.”
- For large scale deployments, please consult “Chapter 14: Large Scale Environment.”
- Configure the Monitoring tool, if you will be using this optional tool. See the “*Monitoring Tool User Guide*” for configuration details.



The Windows installer should create a default organization and an iSystem based on your inputs during the installation process. However, you should check in the System Administration tool that these entities have been created correctly.

4

Launching & Signing Into the System Administration Tool

This chapter discusses how to launch and sign in and out of the KANA Response Live System Administration Web-based application.

System administrators must use the System Administration tool to create organizations and organization administrator accounts before organization administrators can use the Organization Administration tool. In turn, an organization administrator must create supervisor and agent accounts before these users can use this tool.

Launching the Tool

To launch the Web-based System Administration tool, you need its URL. The default launch page is `https://<servername>/CONAV/SYSADM`.

Figure 4-1 is an example of the Welcome page for the System Administration Tool. The page you see may differ slightly, but should have the tool's name and form for entering your user ID and password.

Figure 4-1. System Administration Tool Sign In Page



Signing In

To use the System Administration tool, users must sign in for security reasons. Only system administrators use the System Administration tool.

To sign in:

1. Type your **User ID** and **Password**.

If you are signing onto the system for the first time, use the **User ID** *admin* and the **Password** *bar*.

2. Click **Sign In** to display the **Organization Main** page. This page is also the **Home** page for the System Administration tool.

- For security reasons, after signing in for the first time, change your password immediately. Use the **My Profile** menu option to change your password. See “Chapter 12: Profiles.”



- After signing in, the **Organizations Main** page is loaded. Use this page to create organizations. See “[Chapter 10: Configuring Organizations](#).”
- When you sign in to the tool for the first time, the **Organization Main** page shows the Default organization, which has basic configurations useful for testing the KANA Response Live system.
- You will be automatically signed out when you have not used the tool for 10 minutes.

Signing Out

For security reasons, you should sign out by clicking **Sign Out** when leaving your computer unattended. In the System Administration tool every page has a **Sign Out** link in the upper right hand corner.

5

The System Administration Tool User Interface

The user interface (UI) of the KANA Response Live System Administration tool Web-based application is similar across all pages. However, minor differences can exist depending on the products installed and if they are customized per your company's standards.

Page Types



Please refer to the “[Glossary](#)” for definitions of KANA Response Live terms unfamiliar to you.

The System Administration tool UI general layout is shown in [Figure 5-1](#). Each page has similar display areas and features available.



Fields outlined in heavy lines can be edited. Fields outlined in light lines cannot be edited. Fields that cannot be edited are those that contain values set automatically by the KANA Response Live system.

The UI starting clockwise from the top right in [Figure 5-1](#) are:

- **KANA Response Live Tool Name Area:** This area shows that the KANA Response Live Web-based System Administration tool is being used.
- **User Name Area:** This area displays the screen and account name for the signed-in user of the application.
- **Top Menu:** This area displays a menu that is the same for every page in the application. Currently, Home and Sign Out are the top menu options.
- **Left Menu:** This menu dynamically changes depending on the products installed and the role of the user signed into the application. This menu also can be expanded and collapsed by the user.
- **Entity Name Area:** This area contains the KANA Response Live entity's (iSystem, organization, queue manager, queue container, or account) name depending on the page being viewed. This area is blank if the page is displaying a list of entities.
- **Command Button Area:** This area displays the buttons to control actions that are available for the data in the Selection/Configuration area.
- **Message Area:** This area displays messages in response to user actions. The responses can indicate the requested action was successful or that an error has occurred.
- **Selection/Configuration Area:** This area displays input fields that can be customized for each item in the left menu.

Figure 5-1. Tool Page

KANA
System Administration

System administrator (admin) Home | Sign Out

Organization Profile

Organization Name: default Description: The default organization

Organization ID: 2

Department: Default Department

Date Created: 2007-01-25 Created By: System administrator

Date Last Edited: 2007-02-06 Edited By: System administrator

Notes:

Save Cancel

Navigation

The browser **Back** and **Forward** buttons can be used to move between pages in the System Administration tool. However, it is recommended to navigate through the tool with the left and top menu buttons.

To return to the home page, click **Home**. The home page of this tool is the Organization page.

Sign Out returns you to the **Sign In** page.

Actions

In addition to the standard navigation operations, each page also has a set of page-specific actions that can be performed in the selection area. See [Figure 5-2](#) for an example of these actions.

Figure 5-2. Organization Tool Main Page

KANA
System Administration

System administrator (admin) Home | Sign Out

Organization

Create Edit Delete Copy

| | Organization Name | Cluster ID | Description | |
|--------------------------|-------------------|------------|--------------------------|---|
| <input type="checkbox"/> | abc | 1 | | Edit Delete |
| <input type="checkbox"/> | default | 1 | The default organization | Edit Delete |
| <input type="checkbox"/> | default3 | 1 | | Edit Delete |
| <input type="checkbox"/> | Test | 1 | | Edit Delete |

Create Edit Delete Copy

Actions that can be performed include:

Create

The create action makes a new instance of an entity, such as an iSystem or organization. When **Create** is clicked:

- The page with the basic information for the new entity appears.
- The new entity is based on the default entity.
- The new entity is given a temporary name, which is the text (New) followed by the entity type, such as iSystem, and an integer number.

Copy

The copy action makes a new instance of an entity, such as an organization, by copying the selected entity.

When **Copy** is clicked:

- The page with the basic information for the new entity appears.
- The new entity is based on the entity selected.
- The new entity is given a temporary name, which is the text (Copy of) followed by the name of the entity being copied.

Edit

The edit action loads the page with the basic information for the entity. Use **Edit** to make changes to existing iSystems, organizations, queue managers, queue containers, clusters, and administrator accounts.

Delete

The delete action removes the entity from the database.



Caution should be used when deleting entities from the KANA Response Live system. The KANA Response Live system tracks sessions based on organizations and iSystems entities. If these entities are removed from the system, session transcripts used for auditing will not be as easy to follow. Hence, it is recommended that instead of deleting entities, the entity be made to not have any function in the system anymore. For instance, removing an iSystem from all clusters essentially “deletes” the iSystem.

Cancel

The cancel action returns the user to the previous page without saving changes made on the current page or the browser reloads the last saved version of the current page. However, if the page has created an entity, clicking **Cancel** does not cancel the creation of the entity. To remove a newly created entity from the KANA Response Live system, use **Delete**.

| | |
|--|---|
| | <h3>Save</h3> <p>The save action commits the modification to the input fields into the KANA Response Live database. Modifications are not saved to the database if the page is exited without using the save action.</p> |
| <h2>Error & Confirmation Messages</h2> | <p>Error messages appear on the page if an action, such as Save, is not completed successfully. The error message indicates why the action was not successful. Most often saving is not successful if invalid entries have been made, or required entries are blank.</p> <p>If the save action is successful, a confirmation message appears on the page.</p> <p>When deleting entities or exiting pages without saving changes, you are prompted to confirm the deletion or to not save changes.</p> |
| <h2>Database Caching</h2> | <p>In general, there may be up to a 10 minute propagation delay between when changes are made in the System Administration tool and when all other servers in the KANA Response Live system receive the changes. This delay is due to how often the database cache is refreshed. To maximize performance, KANA Response Live systems cache information for up to 10 minutes after retrieving it from the database. The update time is not configurable.</p> |

6

Customizing iSystem Settings

This chapter explains how to create and modify iSystems. This chapter discusses the iSystem properties and explains the role each property plays in the system.

iSystems:

- Host cobrowsing and chat sessions.
- Are proxy servers; all parties involved in a cobrowsing session connect through an iSystem.
- Fetch Web pages requested by cobrowsing participants and rewrite the pages to make cobrowsing possible.
- Perform security checks.

Choosing an iSystem

Fast servers with lots of memory efficiently handle the computational load required during cobrowsing sessions.

iSystems can be installed on the following operating systems:

- Solaris (Sparc)
- Windows 2000 server

iSystem Security

iSystems require security settings because as proxy servers they handle the same data as your company's Web servers and perform authentication. Choose the iSystem security level appropriate for the sensitivity of the data the servers handle and how fast the information needs to be processed.

If a server processes highly sensitive customer data, use the highest level of encryption available. If a server is used for training of new employees only permitted to browse publicly available Web pages, choose a lower level of encryption.

The iSystems security level is set with the Web server's SSL settings. Choose the encryption algorithms available to the Web server and how the Web server chooses amongst them

The level of encryption is determined by the Web server configuration, not the KANA Response Live configuration.



Creating, Editing, & Deleting iSystems

For security reasons, the KANA Response Live shell login ID and password should be changed immediately after the KANA Response Live installation. See "[Shell Properties](#)" for more information.

Click the iSystems menu item to see the **iSystems Main** page. This page displays the list of iSystems. It displays iSystem names, ID numbers, and descriptive information. From this page create a new iSystem or edit/delete existing iSystems.

To create an iSystem:

1. Click **Create** on the iSystems **Main Page**.

2. Type the iSystem profile information. See the “[Profile](#)” section.
3. Type in the information on each of the pages accessed from the iSystems menu. See the “[Host Servers](#)”, “[Cobrowse Engine](#)”, “[Miscellaneous](#)”, and “[Website Adapters](#)” sections.
4. Assign iSystems to server clusters. See “[Chapter 9: Clusters.](#)”

Profile

Click **Create** or **Edit** on the iSystems Main page to see the iSystem Profile page. See [Figure 6-1](#).

Figure 6-1. iSystems Profile Page

The screenshot displays the KANA System Administration interface. The top header shows 'System administrator (admin)' and links for 'Home' and 'Sign Out'. The left sidebar contains a navigation menu with the following items: Organization, Administrators, iSystems (expanded), Queue Managers, Queue Containers, Clusters, and My Profile. Under 'iSystems', the sub-items are Profile, Host Servers, Cobrowse Engine, Miscellaneous, and Website Adapters. The main content area is titled 'Interaction System: KANHP005.PDEV.KANA.COM (1)' and includes 'Save' and 'Cancel' buttons. Below this is the 'Interaction System Profile' section with the following fields:

- System Name: KANHP005.PDEV.KANA.COM
- System ID: live
- Codebase: V9.5 (dropdown menu)
- Description: (empty text area)

Use this page to provide the following information:

- **System Name:** The iSystem name that will appear on the **iSystems Main** and **Clusters iSystems** pages.
- **System ID:** A unique string that identifies the server. The system ID cannot be changed once it is set. This property is primarily used in KANA Response Live’s clustering and routing systems, but should always be set because this ID appears in system reporting metrics and in customer windows as part of their guest login ID. See “[Guest ID](#)” below for an explanation of guest IDs. The usual practice is to use a two digit integer (10-99) for this value to maintain consistency in guest login IDs as the number of iSystems increases.

Guest ID

The ID assigned to a customer requesting help. The guest ID appears in control panel windows generated by KANA Response Live. A guest prefix set in the Organization Administration tool (defaults value of “guest”) along with two other numbers gives each guest a unique ID while he is logged onto KANA Response Live.

A guest ID is structured as follows:

<default guest prefix><SystemID><random number>

The random number is generated by the KANA Response Live system to assign each current customer a unique ID. This ID can be reassigned to another customer once the customer disconnects.

- **Description:** Information about the iSystem, such as the physical location of the server, the hardware, and its function within the KANA Response Live configuration.
- **Codebase:** The version of KANA Response Live software running on this iSystem.

Host Servers

The host server properties enable the processes in a KANA Response Live server to connect to each other. Server description properties are rarely changed after the server has been installed. See [Figure 6-2](#).

Figure 6-2. iSystems Host Servers Page

- **Web Server Hostname:** The server name used in URLs by guests and agents to access the Web server. This could be the name of the Web server or its proxy server, if using a proxy server. This is usually the same as the machine that is running the KANA Response Live server. For example, `www.bankwithus.com`
- **Application Server Hostname:** The machine name of the application server.
- **Login Cookie Domain:** The Login cookie is used to set the Response Live login key, and is passed to the server with every request. This domain name could be the same as the server name if only one server is being used. However, in a cluster where all servers need to be able to see each other's cookies, this domain needs to be common to all the servers. For example, `".kana.com"` can be used as the login cookie domain, where a cluster of two or three servers can access it. The `"."` preceding the domain name is mandatory if the full server name is not provided.
- **Cluster IP Range:** The IP addresses for machines that are allowed to log into the shell.

Cobrowse Engine

Cobrowse engine properties describe the Web server to which client browsers connect. KANA Response Live servers use these to generate cookies for the appropriate domain and URLs that point to the Web server. See [Figure 6-3](#).

Figure 6-3. iSystems Cobrowse Engine Page

Http Client Properties

- **Proxy Host:** Sometimes a KANA Response Live server needs to use a proxy server. For example, a proxy is required when the cobrowsing machine is behind a firewall. It is rare that a firewall is used in this capacity during production. However, it can be used during staging and testing a KANA Response Live installation. This property sets the fully qualified domain name of the machine acting as a proxy. If no proxy is used, this property should be blank.
- **Proxy Port:** The port number used by the proxy host. If no proxy host is used, this property is not set and should be blank.
- **Timeout (seconds):** The time the cobrowsing engine waits for a connection to be made before it stops trying to make the connection and retries to make a connection. This is the connection time between iSystems and outside Web servers.
- **Enable Relaxed Trust:** Turn on this option to configure KANA Response Live servers to trust machines with SSL server certificates that are expired or do not completely match the domain name for which they were issued. This feature is useful during pilot and testing phases when all machines being used are inside your company's firewall. These machines may not have valid certificates as they are expensive and are usually not required for machines inaccessible from outside the company. Before rolling out the KANA Response Live system to outside customers, this option should be turned off for security reasons. When this property is turned off, the KANA Response Live server will never trust machines with invalid certificates or issued by unknown authorities.



To configure Cobrowse to fetch all the Web pages via Proxy server, set the **Proxy Host** property to the IP address for the Proxy server, and the **Proxy Port** to the port number for the Proxy server.

In order to bypass the Proxy Server while fetching pages from local addresses, refer to the *Response Live Server Installation Guide* for detailed instructions.

Miscellaneous Properties

- **Docwrite History Length:** Only modify this value after conferring with KANA's Professional Services staff.
- **Docwrite Recalculation Delay:** Only modify this value after conferring with KANA's Professional Services staff.

Miscellaneous

Miscellaneous properties relate to configuration, logging, and caching. See [Figure 6-4](#).

Figure 6-4. iSystems Miscellaneous Page

The screenshot shows the KANA System Administration interface. The left sidebar contains navigation links: Organization, Administrators, ISystems (with sub-links: Profile, Host Servers, Cobrowse Engine, Miscellaneous, Website Adapters), Queue Managers, Queue Containers, Clusters, and My Profile. The main content area is titled 'System administrator (admin)' and shows the 'Interaction System: KANHP005.PDEV.KANA.COM (1)'. Below this, the 'Miscellaneous Properties' section includes a 'Server Locale' dropdown set to 'en_US', an 'Enable Connection Control' checkbox (unchecked), and a 'Supervisor Console Enabled' checkbox (checked). The 'Shell Properties' section includes a 'Shell Enabled' checkbox (unchecked), 'Shell Login ID' (admin), 'Shell Password' (admin), 'Shell Port' (10672), and 'Access Allow IP Ranges'.

- **Server Locale:** This setting should not be changed without first consulting KANA's Professional Services staff. The default value is en_US.
- **Enable Connection Control:** Turn on this option to allow access to the KANA Response Live system connection handler. The default value is off. It is recommended to turn off this option. Contact KANA's Professional Services staff for more information.

Most KANA Response Live APIs only request or give information. However, the connection control API allows third party integrators access to how the KANA Response Live system handles connections.

KANA Response Live servers use a custom binary protocol for efficient communication. XML RPC (remote procedure call) provides a simple XML-based language for external applications to easily communicate with KANA Response Live servers.

- **Supervisor Console Enabled:** Turn on this option so that the Supervisor Console servlet runs on this iSystem. This iSystem gathers real-time queue information from all other iSystems. It is recommended to enable the supervisor console servlet on only one iSystem because real-time monitoring is a CPU intensive task. This iSystem should not handle chat or cobrowse sessions or serve as a router.

Shell Properties

The login server hosts a shell into which users can log in. A user signed into the shell can find out server information while the server is running through the shell.

- **Shell Enabled:** This is the name used to log into the KANA Response Live login server shell. For security reasons, change this property value immediately after the server is installed.
- **Shell Login ID:** This is the name used to log into the KANA Response Live login server shell. For security reasons, change this property value immediately after the server is installed.
- **Shell Password:** The password used to log into the KANA Response Live login server shell. For security reasons, change this property value immediately after the server is installed.
- **Shell Port:** The port number for the KANA Response Live login server shell. The default value is 10672.
- **Access Allow IP Ranges:** The port number for the KANA Response Live login server shell. The default value is 10672.

Website Adapters

During a cobrowse session a Website adapter dynamically replaces specified pieces of a requested Web page's original source code. A Website adapter is a piece of XML that searches for a string and replaces it with another string. A Website adapter is a quick way for system administrators to change the functionality of the KANA Response Live system without the risk of installing a new code base or modifying the Web site. Website adapters are especially helpful for deployments that must be implemented quickly. Website adapters are most often used to modify JavaScript. Website adapters were referred to as custom replacers in previous versions of KANA Response Live.

Website adapters can be thought of as translators between a company's Web site and the KANA Response Live server. See [Figure 6-5](#). The adapter makes the company's Web site compatible with the KANA Response Live server. Hence, Website adapters are applied to original Web pages, not to the page after it is parsed by the KANA Response Live server.

Figure 6-5. Website Adapter as a Web Page Translator



Website Adapter DTD

A Website adapter conforms to a simple document type definition (DTD) that defines valid syntax. The DTD was enhanced from KANA Response Live.

Enabling the Website Adapter Dynamic Loading Feature

To enable the Website adapter dynamic loading feature, add the following properties to the **config.properties** file:

```
websiteadapters.dynamicloading.enabled=true
```

- If `websiteadapters.dynamicloading.enabled=true`, Website adapters are reloaded into memory at the start of each new session. This option should only be used when developing Website adapters.

Website Adapter Management

Use the **Website Adapters** page accessed from the **Website Adapters** (iSystem submenu) to see a list of the Website adapters deployed on the iSystem. This list shows the Website adapter name and description. See [Figure 6-6](#).

Figure 6-6. Website Adapters Page

The screenshot displays the KANA System Administration interface. The top header bar includes the KANA logo, 'System administrator (admin)', and links for 'Home' and 'Sign Out'. A left sidebar lists navigation categories: Organization, Administrators, ISystems (with sub-items: Profile, Host Servers, Cobrowse Engine, Miscellaneous, and Website Adapters), Queue Managers, Queue Containers, Clusters, and My Profile. The main content area is titled 'Interaction System: 1000028' and features buttons for 'Import', 'Export', 'Create', 'Edit', and 'Delete'. Below this is a table of Website Adapters with columns for 'Website Adapter Name' and 'Description'. Each row includes a checkbox and links for 'Edit' and 'Delete'. At the bottom of the table are 'Select All' and 'Select None' buttons, followed by another set of 'Import', 'Export', 'Create', 'Edit', and 'Delete' buttons.

| Website Adapter Name | Description |
|--|---|
| <input type="checkbox"/> .OpenAccount_Rollover | Edit Delete |
| <input type="checkbox"/> OpenAccount_SEP | Edit Delete |
| <input type="checkbox"/> .OpenAccount_Trust | Edit Delete |
| <input type="checkbox"/> OpenAccount_Business | Edit Delete |
| <input type="checkbox"/> OpenAccount_TradAndRoth | Edit Delete |
| <input type="checkbox"/> OpenAccount_Account | Edit Delete |
| <input type="checkbox"/> .OpenAccount_GoalPlanner | Edit Delete |
| <input type="checkbox"/> OpenAccount_LifeInsurance | Edit Delete |
| <input type="checkbox"/> .OpenAccount_Annuity | Edit Delete |
| <input type="checkbox"/> ReceiveMessageForOpeningAccount | Edit Delete |
| <input type="checkbox"/> OpenAccount_Charitable | Edit Delete |
| <input type="checkbox"/> OpenAccount_GoalPlannerIRA | Edit Delete |
| <input type="checkbox"/> OpenAccount_Custodial | Edit Delete |

Creating & Editing Website Adapters

Use the **Create Website Adapters** page shown on [Figure 6-7](#) to add a new Website adapter to an iSystem.

Figure 6-7. Create Website Adapters Page

The screenshot shows the KANA System Administration interface. The sidebar on the left contains the following links: System Administration, Organization, Administrators, ISystems (with sub-links: Profile, Host Servers, Cobrowse Engine, Miscellaneous, and Website Adapters), Queue Managers, Queue Containers, Clusters, and My Profile. The main content area is titled 'Create Website Adapter' and includes the following fields:

- Interaction System:** KANIBM013.PDEV.KANA.COM (1) [Save] [Cancel]
- Name:** ACHContactUsSetErrorF
- URL:** xyzfinancial.com/account
- URL Comparison Operator:** CONTAINS
- Description:** Replaces the current setErrorFlag function to use NS Adapters
- Original Code:**

```
function setErrorFlag(errIdx)
```
- Replacement Code:**

```
function setErrorFlagNS(errIdx)
{
  if( errIdx == 1 ){
    window.document.phoneErrFlag.visibility="visible";
  }
  else if( errIdx == 2 ){
```

- **Name:** The Website adapter name is used to help manage Website adapters. This name must exist and be unique. This is the value for the `<REPLACER_NAME>` tag, if writing the Website adapter in an XML editor.
- **URL:** The URL to which the Website adapter applies. Used in conjunction with the **URL Comparison Operator** to restrict the scope of a Website adapter. Although Website adapters are not iChannel specific, by matching URLs precisely, the same effect can be achieved. For example, the URL 401K.BANKWITHUS.com most likely would correspond to a 401K iChannel. This is the value for the `<REPLACER_URL>` tag, if writing the Website adapter in an XML editor. The `<REPLACER_URL>` tag is usually used in conjunction with the `<REPLACER_COMPARISON>` tag.
- **URL Comparison Operator:** How the URL string must match for the Website adapter to apply to the URL. Used in conjunction with the URL property to restrict the scope of a Website adapter. This is the value for the `<REPLACER_COMPARISON>` tag, if writing the Website adapter in an XML editor. The `<REPLACER_COMPARISON>` tag is used in conjunction with the `<REPLACER_URL>` tag.
- **Description:** A brief synopsis of the Website adapter's purpose and function. This description is also used for managing Website adapters. If the same description is used for several Website

adapters, this description can help identify related Website adapters that differ by name. This is the value for the <REPLACER_DESCRIPTION> tag, if writing the Website adapter in an XML editor.

- **Original Code:** The string (text) that identifies the Web page code to be searched for and replaced by the Website adapter. This is the code on the original Web page, not the page after it is parsed by the KANA Response Live server. This is the value for the <ORIGINAL_CODE> tag, if writing the Website adapter in an XML editor.
- **Replacement Code:** The string (text) with which the Website adapter replaces the original Web page code. This is the value for the <REPLACEMENT_CODE> tag, if writing the Website adapter in an XML editor.


Importing Website Adapters

Website adapters can also be written in an XML editor or output with the System Administration tool's export feature (see "[Exporting Website Adapters](#)") and imported into the KANA Response Live system. For example, Website adapters distributed from KANA can easily be added to iSystems through the import feature. With the import feature one or more Website adapters can easily be moved from:

- One iSystem to another in the same database.
- One iSystem to many iSystems.
- One iSystem to another in a different database

Import Website adapters by pasting the text from an XML editor or from the System Administration tool's export feature into the import Website adapters page and then clicking **Save**.

Figure 6-8. Website Adapter Import



```

<?xml version="1.0"?>
<WEBSITE_ADAPTERS>
  <REPLACE_RULE>
    <REPLACER_NAME><![CDATA[ACHContactUsSetErrorFlag56407]]>
  </REPLACER_NAME>
    <REPLACER_DESCRIPTION><![CDATA[Replaces the existing setErrorFlag function
to support NS browsers]]></REPLACER_DESCRIPTION>
    <REPLACER_URL><![CDATA[xyzfinancial.com/account/401k]]>
  </REPLACER_URL>
    <REPLACER_COMPARISON><![CDATA[CONTAINS]]></REPLACER_COMPARISON>
    <ORIGINAL_CODE><![CDATA[function setErrorFlag(errIdx)]]></ORIGINAL_CODE>
    <REPLACEMENT_CODE><![CDATA[function setErrorFlagNS(errIdx)
{
  if( errIdx == 1 ){
    window.document.phoneErrFlag.visibility="visible";
  }
  else if( errIdx == 2 ){
    window.document.faxErrFlag.visibility="visible";
  }
  else if( errIdx == 3 ){
    window.document.emailErrFlag.visibility="visible";
  }
  else if( errIdx == 4 ){
    window.document.messageErrFlag.visibility="visible";
  }
}

function setErrorFlag(errIdx)
{
  if ( window.is_ie ) {
    setErrorFlagIE(errIdx);
  } else {
    setErrorFlagNS(errIdx);
  }
}
]]>
  </REPLACEMENT_CODE>
</REPLACE_RULE>
</WEBSITE_ADAPTERS>

```

See the “[Creating & Editing Website Adapters](#)” section for a description of the XML tags. For more information about writing Website adapters in XML, contact the KANA Professional Services staff.

When importing Website adapters:

- The import feature imports all Website adapters within the <WEBSITE_ADAPTERS></WEBSITE_ADAPTERS> tags.
- If multiple Website adapters exist in the XML document, then each Website adapter is listed individually in the System Administration tool. The XML document is parsed using the <REPLACE_RULE> tag.
- A Website adapter must have a <REPLACER_NAME> value or it cannot be saved or imported.
- If importing a Website adapter with the same Website adapter name as an existing Website adapter, an error message is displayed.
- If importing a new Website adapter with a different Website adapter name than any existing Website adapter, the new Website adapter is added to the Website adapter list in the System Administration tool.
- The <![CDATA[*string*]]> syntax must be used for the Website adapter tags when importing Website adapters.
- Website adapters written for version 3.0 cannot be imported into the System Administration tool via the import feature. Website adapters need to be re-written to include the new Website adapter tags or placed in the Website adapters (replacers) directory as in version 3.0.

The following shows the general syntax for a Website adapter:

```
<?xml version="1.0"?>
<WEBSITE_ADAPTERS>
  <REPLACE_RULE>

    <REPLACER_NAME>
      <![CDATA[rule name]]>
    </REPLACER_NAME>

    <REPLACER_DESCRIPTION>
      <![CDATA[descriptive string]]>
    </REPLACER_DESCRIPTION>

    <REPLACER_URL>
      <![CDATA[URL]]>
    </REPLACER_URL>

    <REPLACER_COMPARISON>
      <![CDATA[BEGINS_WITH | ENDS_WITH | EQUALS |
        CONTAINS]]>
    </REPLACER_COMPARISON>

    <ORIGINAL_CODE>
      <![CDATA[string to search for in the original
        code]]>
    </ORIGINAL_CODE>

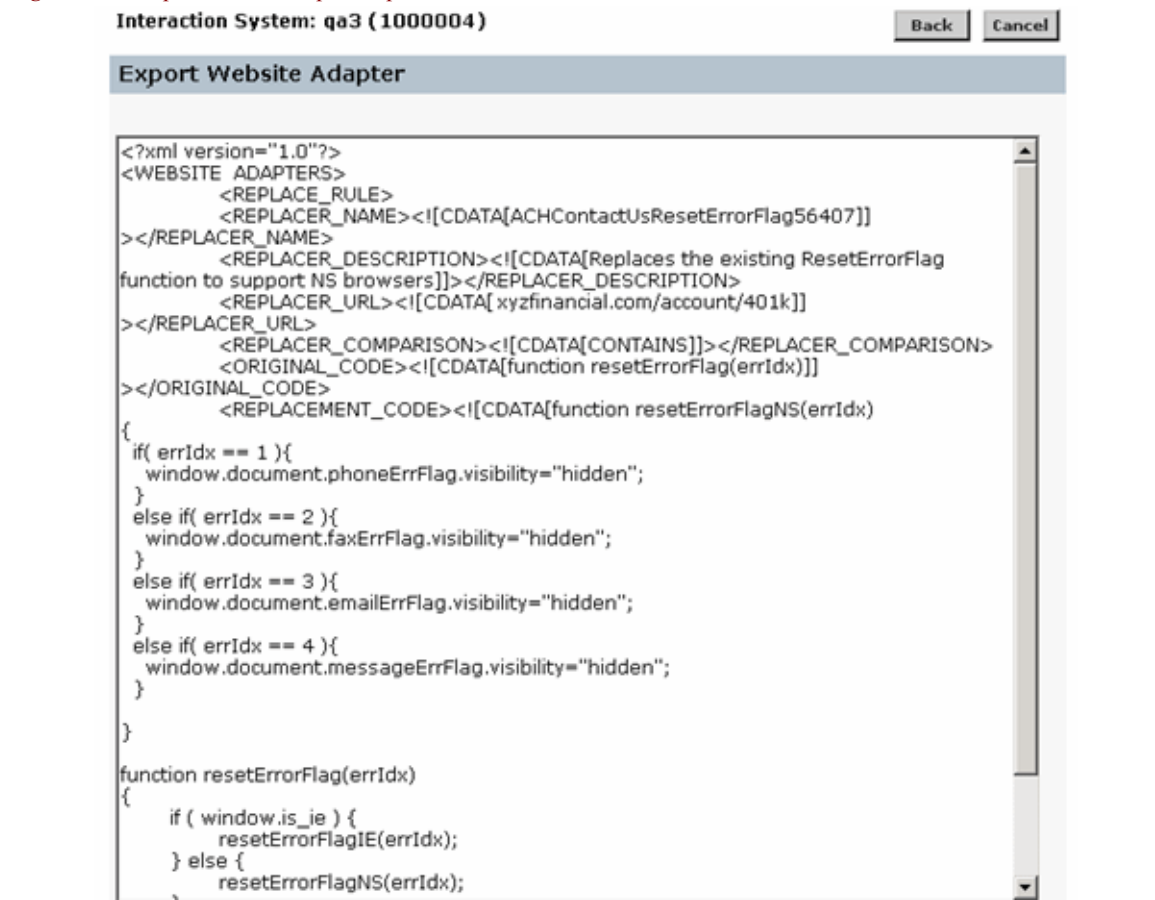
    <REPLACEMENT_CODE>
      <![CDATA[string to use as a replacement for the
        original code]]>
    </REPLACEMENT_CODE>

  </REPLACE_RULE>
</WEBSITE_ADAPTERS>
```

Exporting Website Adapters

There are several instances when it may be necessary or helpful to export Website adapters from one iSystem to other iSystems. For example, Website adapters developed on pilot or test iSystems can easily be exported to production iSystem. Also, one or more Website adapters developed on an iSystem can be exported to another iSystem that needs the Website adapters.

Figure 6-9. Sample Website Adapter Export



The export function wraps all selected Website adapters inside a pair of `<WEBSITE ADAPTERS></WEBSITE ADAPTERS>` tags. See [Figure 6-9](#).

To export a Website adapter or Website adapters:

1. Select one or more Website adapters to export on the **Website Adapters** page. See [Figure 6-6](#). Click **Select All** to export all Website adapters on the iSystem.
2. Select and copy all the text that appears on the **Export Website Adapters** page. See [Figure 6-9](#).
3. Paste the copied Website adapters into the **Import Website Adapters** page for the desired iSystem. See [Figure 6-8](#). Or click **Back** or **Cancel** to return to the Website adapter list page.

The copied Website adapters can also be pasted into an XML editor for modification before they are imported to an iSystem using the System Administration tool.

Deleting Website Adapters

Once a Website adapter is deleted from the database, the Website adapter cannot be restored. Website adapters can be deleted in the following ways:

- To delete a single Website adapter, click the **Delete** link on the same line as the Website adapter.
- To delete more than one Website adapter, select the Website adapters to delete, and then click the **Delete** button.
- To delete all Website adapters, click **Select All** followed by the **Delete** button.

Website Adapters & Business Rules

Business rules define business policies that are enforced by the KANA Response Live System when cobrowsing. Business rules are written in an XML-based tag language. Most often business rules restrict agents from performing certain actions and barring them from seeing sensitive customer data.

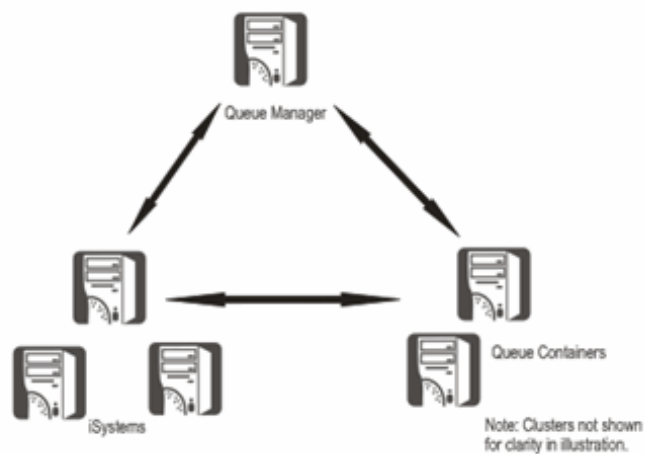
Website adapters have similarities to and differences from business rules. They are similar in that both are XML-based and modify or restrict Web page actions. However, their most important differentiation is that business rules are intended to control cobrowse behavior while Website adapters are for modifying Web site code to conform to KANA Response Live design guidelines

7

Queue Managers (Chat Only)

This chapter explains how to create queue managers. Queue managers associate logged in agents with queues. Queue managers work in conjunction with queue containers (see “[Chapter 8: Queue Containers \(Chat Only\)](#).”) and iSystems. [Figure 7-1](#) shows the relationship amongst iSystems, queue containers, and queue managers. KANA Response Live queue managers are only required for KANA Response Live systems using the chat product.

Figure 7-1. Server Interactions in KANA Response Live



Queue managers have the following functions:

- Connect/assign iSystems to queues by locating the queue containers holding the iChannel queues.
- Monitors the queuing system.
- Responds to status inquiries.

After creating iSystems, assign queue managers to server clusters. See “[Chapter 9: Clusters](#)” and “[Chapter 6: Customizing iSystem Settings](#).”



The hardware requirements for servers running a queue manager or queue containers are relatively modest. In contrast to iSystems, you may use older or less sophisticated machines as queue managers. This is because the computational load on these machines is much lower than the load on the iSystems. See the “KANA Response Live Installation Guide” for recommended machine configurations.

Keep in the mind the following points when configuring queue managers:

- Each cluster can only be assigned one queue manager.

- A queue manager can be restarted without affecting the operation of the KANA Response Live system.
- Queue managers report queue containers that need to be restarted. All queue containers send status reports to their queue manager at defined intervals. If the queue manager does not receive a report from a queue container when it should, it assumes that the server is down, and shifts the queue information to its backup server and launches a new backup in another server.
- Monitor the status of queue managers with the KANA Response Live Monitoring tool. See the “[KANA Response Live Monitoring Tool User Guide](#)” for information on how to use the Monitoring tool.
- Queue managers help iSystems connect to queue containers, because iSystems are incapable of making the connections themselves. To make a connection, an iSystem queries the queue manager for the host names of its assigned queue containers and then makes the connection.
- Queue managers re-sync with the database every 10 minutes. For example, if chat is changed from disabled to enabled for an iChannel, this change can take up to 10 minutes to propagate through the distributed system.

Creating Queue Managers

To create a queue manager:

1. Click **Queue Managers** in the menu to load the **Queue Managers Main** page. The page displays a list of the queue managers in the organization. It displays their names, ID numbers, and descriptive information. See [Figure 7-2](#).

Figure 7-2. Queue Managers Main Page



2. Click **Create** on the **Queue Managers Main** page to load the **Queue Manager Profile** page (see [Figure 7-3](#)). The System Administration tool automatically gives a new queue manager a unique ID number. This number cannot be changed.
3. Type in additional information or edit existing information about the new queue manager.
4. Click **Save**.

Figure 7-3. Queue Manager Profile Page

The screenshot shows the KANA System Administration interface. On the left is a navigation menu with options: Organization, Administrators, ISystems, Queue Managers (selected), Profile (sub-selected), Queue Containers, and Status. The main content area is titled 'System administrator (admin)' and includes 'Home' and 'Sign Out' links. Below this, it displays 'Queue Manager: KANHP005.PDEV.KANA.COM (1)' with 'Save' and 'Cancel' buttons. The 'Queue Manager Profile' section contains the following fields:

- Manager Hostname: KANHP005.PDEV.KANA.COM
- Queue Manager ID: 1
- Codebase: v9.5 (dropdown menu)
- Description: Default queue manager, created by installer. (text area)

Queue Manager Profile Page

The **Queue Manager Profile** page shows the following queue manager properties:

- **Manager Host Name:** Corresponds to the machine running the queues. This name appears on the **Queue Managers Main** page (Figure 7-2) and on the **Clusters: Queue Managers** page. There can only be one queue manager on a given server, so the server's host name must be unique.
- **Queue Manager ID:** A unique number assigned automatically by the System Administration tool and used internally by the KANA Response Live system to distinguish machines. This number cannot be changed.
- **Description:** Information about the queue manager, such as hardware configuration, specific functional information, and the physical location of the machine.
- **Codebase:** The version of KANA Response Live software running on this iSystem.

Editing Queue Manager Properties

Open the **Queue Manager Profile** page in order to modify the properties of an existing queue manager in one of two ways:

- Click **Edit** on the same line as the queue manager or
- Check the box to the left of the queue manager and click **Edit**.

Deleting Queue Managers

To delete a queue manager:

- Click **Delete** on the same line as the queue manager or
- Check the box to the left of the queue manager and click **Delete**.

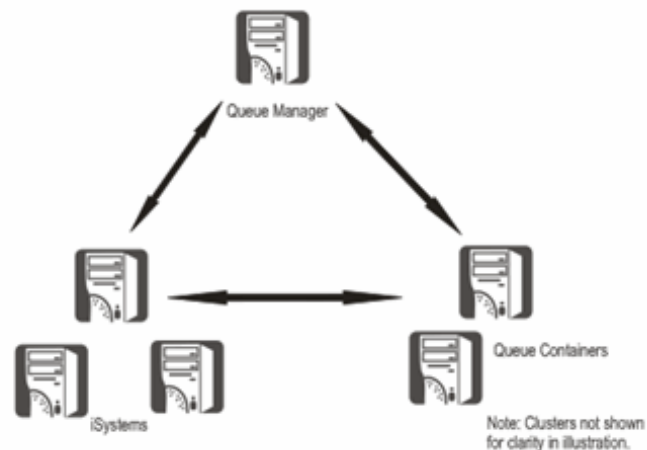
8

Queue Containers (Chat Only)

This chapter explains the function of queue containers and how to create them. Queue containers work in conjunction with queue managers and iSystems. See [Figure 8-1](#) shows the relationship amongst iSystems, queue containers, and queue managers. KANA Response Live queue containers are only required for KANA Response Live systems using the chat product.

Queue containers hold the iChannel customer queues. A primary and backup queue for each customer queue is held in different queue containers to provide failover.

Figure 8-1. KANA Response Live Server Interactions



To create a queue container:

1. Click **Queue Containers** in the menu to load the **Queue Containers Main** page. The page displays a list of the queue containers in the organization. It displays their names, ID numbers, and descriptive information. See [Figure 8-2](#).
2. Click Create on the **Queue Containers Main** page to load the **Queue Containers Profile** page (see [Figure 8-3](#)). The System Administration tool automatically gives a new queue container a unique ID number. This number cannot be changed.
3. Type in additional information or edit existing information about the new queue container.
4. Click **Save**.

Figure 8-2. Queue Containers Main Page



Editing Queue Container Properties

You can use the **Queue Containers Main** page in order to modify the properties of an existing queue container in one of two ways:

- Click **Edit** on the same line as the queue container in [Figure 8-2](#) or
- Check the box to the left of the queue container and click **Edit**.

Deleting Queue Containers

To delete a queue container:

- Click **Delete** on the same line as the queue container in [Figure 8-2](#) or
- Check the box to the left of the queue container and click **Delete**.

Queue Container Profile Page

The **Queue Container Profile** page shows the following queue container properties:

- **Queue Container Host Name:** Corresponds to the machine running the queues. This name appears on the **Queue Containers Main** page ([Figure 8-3](#)) and on the **Clusters: Queue Containers** page.
- **Queue Container ID:** A unique number assigned automatically by the System Administration tool and used internally by the KANA Response Live system to distinguish machines. This number cannot be changed.
- **Description:** Information about the queue container, such as hardware configuration, specific functional information, and the physical location of the machine.
- **Codebase:** The version of KANA Response Live software running on this iSystem.

Figure 8-3. Queue Containers Profile Page

KANA System administrator (admin) [Home](#) [Sign Out](#)

System Administration

- Organization
- Administrators
- iSystems
- Queue Managers
- Queue Containers
 - Profile
- Clusters
- My Profile

Queue Container: KANHP005.PDEV.KANA.COM (1) [Save](#) [Cancel](#)

Queue Container Profile

Queue Container Hostname: Description:

Queue Container ID:

Codebase:

Keep in mind these points when configuring queue containers:

- A queue container can only be assigned to one cluster, but a cluster can be associated with multiple queue containers.
- A queue container should be on a machine that is not performing other functions in the KANA Response Live system, such as being a router or iSystem.
- Each cluster must contain a queue container for systems using the chat product.
- For failover reasons, a cluster should contain at least two, but preferably three, queue containers. If one queue container fails, the system automatically switches to the backup server, and service continues uninterrupted.
- Assign five or fewer primary queues to a queue container. If more primary queues are assigned to a queue container, if the queue container fails, the system will experience temporarily diminished response time while the iSystems switch over to the backup queues and new backup queues are established.
- If a queue container server fails, the backup queues for the primary queues on the server are used. This backup queue may be slightly out of date, but it is quickly brought up to date through communications with iSystems attached to the queue. The queue manager assigns the new queue container to the iSystems and creates new backup queues on other queue containers.
- There is no limit to the number of queue containers within a cluster.
- Once the queue manager has associated the queue containers with iSystems, the iSystems communicate directly with the queue containers.
- A primary queue periodically updates its backup queue.
- The primary queues report their status periodically to the queue manager.
- The primary queues also report to the Supervisor Console.
- A queue container machine can be a lightweight server as it stores lists of users in queues, sends reports out to other parts of the KANA Response Live system, and broadcasts its status. It requires very low bandwidth and minimal processor power.
- The queue manager randomly assigns the primary queues to the queue containers, then randomly places the associated backup queues on another queue container.

9

Clusters

This chapter explains how to create server clusters and change information relating to them.

Server clusters are groups of iSystems that function as a unit with chat, queue containers and a queue manager, if the latter three are being used. With clusters, if one server in a cluster fails, the others continue functioning and users cobrowsing on them do not experience an outage. Also, new customers can continue to enter the queues without any sign that a server has failed.

The goal of clustering is to minimize the impact of hardware failure.

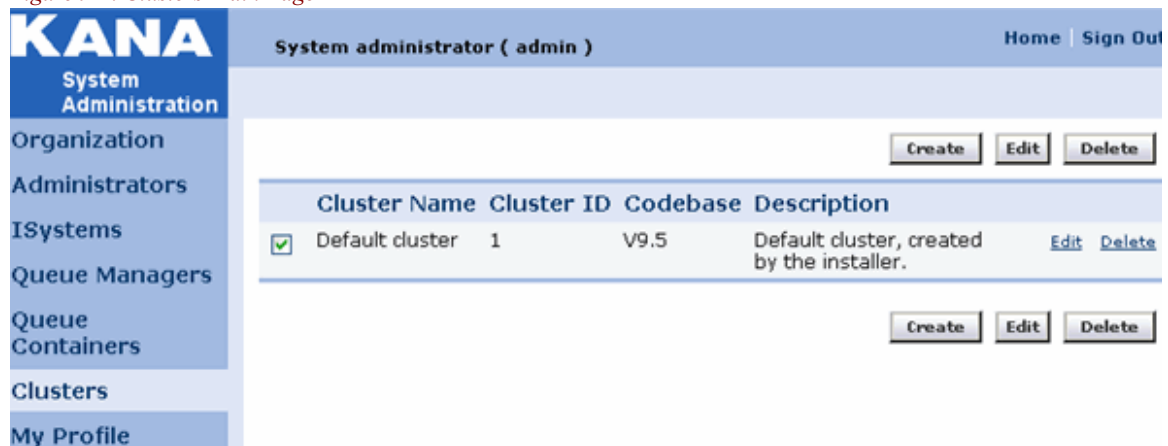
KANA Response Live active clustering refers to the implementation of clustering for the KANA Response Live proxy architecture. KANA Response Live active clustering provides:

- **Scalability** for ease in adding KANA Response Live application servers as a contact center grows. Removing a KANA Response Live application server from a cluster for maintenance does not impact the system.
- **Load balancing** to ensure that KANA Response Live application server loads are within acceptable limits and spread amongst the servers in the cluster to produce more consistent performance across KANA Response Live sessions.
- **Reliability** to isolate effect of an iSystem or a queue container in a cluster going down. New connections are routed to the remaining servers in the cluster and sessions on other KANA Response Live iSystems in the cluster are unaffected.

Creating, Editing, & Deleting Clusters

Click **Clusters** in the menu to load the **Clusters Main** page. This page displays a list of the server clusters in the organization. It displays their names, ID numbers, codebase and descriptive information. See [Figure 9-1](#).

Figure 9-1. Clusters Main Page



Create a server cluster through the following steps:

1. Click **Create** on the **Clusters Main** page.
2. The tool loads the **Server Cluster Profile** page. The tool automatically assigns a unique ID number to the cluster,
3. Name the server cluster.
4. Assign iSystem to the cluster. iSystems can be assigned to more than one cluster.
5. Assign a queue manager to the cluster, if using chat.
6. Assign queue containers to the cluster.

To edit server cluster properties:

Click the **Edit** link on the same line as the cluster or

Check the box to the left of the server cluster and click the **Edit** button.

To delete a cluster:

Click the **Delete** link on the same lines as the cluster or

Check the box to the left of the server cluster and click the **Delete** button.

Server Cluster Profile

Click **Edit** on the **Clusters Main** page to navigate to the **Server Cluster Profile** page. See [Figure 9-2](#).

Figure 9-2. Clusters Profile Page

Use the **Server Cluster Profile** page to configure the following cluster properties:

- **Cluster Name:** This is the server cluster name that appears on the **Clusters Main Page** and on the **Organization Clusters** page.
- **Cluster ID:** The System Administration tool automatically assigns this unique ID. This ID is used internally by the KANA Response Live system to distinguish machines.
- **Description:** An area to supply descriptive/profile information about the cluster, such as the physical locations of machines in the cluster, hardware information, why the cluster was created, and security encryption level.
- **Codebase:** The version of KANA Response Live software running on this iSystem.

Assigning iSystems to Server Clusters

Use the **iSystems** page to select the iSystems to add to a server cluster. See [Figure 9-3](#). Select at least one iSystem.

Figure 9-3. Clusters iSystems Page

| Interaction | System Name | Interaction System ID | Codebase | Description |
|-------------------------------------|------------------------|-----------------------|----------|-------------|
| <input checked="" type="checkbox"/> | KANHP005.PDEV.KANA.COM | live | V9.5 | |

Add at least two iSystems to a server cluster with a maximum of five. In the event that one of them fails, the others serve as backups to keep the system functioning.



- Generally, keep different organizations or business units distinct by creating a server cluster for each.
- In practice, put no more than five or six iSystems in a cluster. When a cluster becomes larger than this size, it is recommended to split the organization into two. Usually, this means an organization is too large and does not accurately reflect the logical groupings of business tasks.
- When you use multiple iSystems, although all guests and employees who are logged onto a server when it fails lose their KANA Response Live connections, people who are logged onto other servers and customers in a chat queue are not affected by the failure. If, however, you use one iSystem, the entire cobrowsing

organization that depends on this server will fail if the iSystem fails.

Assigning Queue Managers to Server Clusters (Chat Systems Only)

Use the **Queue Managers (Cluster menu)** page to select the queue manager to include in a chat cluster. See [Figure 9-4](#).

Figure 9-4. Clusters Queue Manager Page

The screenshot shows the KANA System Administration interface. The left sidebar contains a menu with the following items: Organization, Administrators, ISystems, Queue Managers, Queue Containers, Clusters (with sub-items Profile, ISystems, Queue Manager, and Queue Containers). The main content area is titled 'System administrator (admin)' and 'Home | Sign Out'. Below this, it says 'Server Cluster: Default cluster (1)' with 'Save' and 'Cancel' buttons. A table lists the queueing managers:

| | Queuing Manager Host Name | Server ID | Codebase | Description |
|-------------------------------------|---------------------------|-----------|----------|--|
| <input checked="" type="checkbox"/> | KANHP005.PDEV.KANA.COM | 1 | V9.5 | Default queue manager, created by installer. |

Assigning Queue Containers to Server Clusters (Chat Systems Only)

Use the **Queue Containers (Cluster menu)** page to select the queue containers to include in a chat server cluster. There is no limit to the number of queue containers chosen. [Figure 9-5](#).

Figure 9-5. Clusters Queue Containers Page

The screenshot shows the KANA System Administration interface. The left sidebar contains a menu with the following items: Organization, Administrators, ISystems, Queue Managers, Queue Containers, Clusters (with sub-items Profile, ISystems, Queue Manager, and Queue Containers). The main content area is titled 'System administrator (admin)' and 'Home | Sign Out'. Below this, it says 'Server Cluster: Default cluster (1)' with 'Save' and 'Cancel' buttons. A table lists the queueing servers:

| | Queuing Server Host Name | Server ID | Codebase | Description |
|-------------------------------------|--------------------------|-----------|----------|--|
| <input checked="" type="checkbox"/> | KANHP005.PDEV.KANA.COM | 1 | V9.5 | Default queue container, created by installer. |

For reasons discussed in the “[Chapter 8: Queue Containers \(Chat Only\)](#)”, it is recommended to use at least three queue containers in a chat server cluster. If one queue container fails, the system automatically switches to the backup container, and customers do not know that a problem has occurred.



An organization must be assigned to a cluster before Response Live cobrowse or chat can be used with that organization.

Configuring Organizations

The system administrator is responsible for configuring the following information for each organization:

- ## Creating, Editing, & Deleting Organizations

Figure 10-1. Organization Main Page

To create an organization:

- To edit an organization:

- KANA Software, Inc.**



See “[Chapter 5: The System Administration Tool User Interface](#)” for help on using the System Administration tool user interface.

Organization Profile

The **Organization Profile** page is the first page displayed when creating or editing an organization. See [Figure 10-2](#).

Figure 10-2. Organization Profile

The screenshot shows the KANA System Administration interface. The left sidebar contains a navigation menu with the following items: Organization Profile (selected), Administrators, ISystems, Queue Managers, Queue Containers, Clusters, and My Profile. The main content area is titled 'Organization: default (2)' and includes 'Save' and 'Cancel' buttons. Below this is the 'Organization Profile' section with the following fields:

| | | | |
|--------------------|--------------------|--------------|--------------------------|
| Organization Name: | default | Description: | The default organization |
| Organization ID: | 2 | | |
| Department: | Default Department | | |
| Date Created: | 2007-01-25 | Created By: | System administrator |
| Date Last Edited: | 2007-02-06 | Edited By: | System administrator |
| Notes: | | | |

Profile Data Created by KANA Response Live

KANA Response Live cobrowse automatically creates certain profile information when the organization is created. The organization ID is the most critical information as the KANA Response Live system uses this internally to identify the organization. The following KANA Response Live information can not be modified:

- **Organization ID:** A unique string identifying the organization.
- **Date Created:** The date the organization was created.
- **Created By:** The name of the person who created the organization.
- **Last Edited:** The date the organization was last modified. This field is automatically updated by the KANA Response Live system when changes are made to the organization's configuration.
- **Edited By:** The name of the person who last made changes to the organization. This field is automatically updated by the KANA Response Live system when changes are made to the organization's configuration.

Profile Data Created by the System Administrator

A system administrator can provide additional information that does not impact the behavior of the organization, but is useful for understanding the business role of the organization later in the life cycle of a KANA Response Live system. This information includes the following:

- **Organization Name:** A unique name for each organization in the company. When logging onto the Organization Administration tool, users need to type this name, so it is best to use a short, simple name.
- **Department:** The company department associated with the organization. The department field serves no functional purpose within the KANA Response Live system, but is a good place to note which department or group is associated with the organization for future reference.
- **Description:** A summary of the organization's purpose, such as the business use, language, and special characteristics of the organization, to help diagnose future problems. This is good place to document any changes to the organization and when these changes were made.
- **Notes:** A good place to document any changes to the iChannel and when these changes were made.

Organization Properties

The Organization Properties page is accessed from **General > Properties** (Organizations menu). See [Figure 10-3](#).

Figure 10-3. Organization Properties

The screenshot shows the KANA System Administration interface. The left sidebar contains a navigation menu with the following items: Organization Profile, Properties (selected), Administrators, ISystems, Queue Managers, Queue Containers, Clusters, and My Profile. The main content area is titled 'Organization: default (2)' and includes 'Save' and 'Cancel' buttons. Below this is the 'Organization Properties' section with the following fields:

- Response Live Cobrowse: ☒
- Response Live Chat: ☒
- Response Live Tracker: ☒
- Cluster Name:
- Enable Branding: ☒
- IP Addresses Permitted For Agent Login:
- Enable Customer History Integration: ☐
- Customer History URL:
- Customer History Window Properties:

The following properties can be set for the iChannels in the current organization:

- **KANA Response Live Cobrowse:** Turn on this option for cobrowse to be enabled for iChannels in the Organization Administration tool.
- **KANA Response Live Chat:** Turn on this option for chat to be enabled for iChannels in the Organization Administration tool.
- **KANA Response Live Tracker:** Turn on this option for proactive chat to be enabled for iChannels in the Organization Administration tool.
- **Cluster Name:** The cluster name to which the servers in this organization belong to.
- **Enable KANA Response Live Branding:** Turn on this option to place the KANA Response Live logo and the phrase “KANA Connected” on KANA Response Live-related windows.
- **IP Addresses Permitted for Agent Login:** The IP addresses of agent machines. This list can be a comma-separated list of addresses or a sequential range of IP addresses. For example:
 - 197.20.102.201, 197.20.102.208, 197.20.102.212
 - 197.20.102.200-210 (This range includes .200 and .210)
- **Enable Customer History Integration:** A checkbox that controls whether or not customer history should be available for this organization.
- **Customer History URL:** The URL location of the customer history page.
- **Customer History Window Properties:** The width, height, and size properties of the customer history window.

11

Organization & System Administrator Accounts

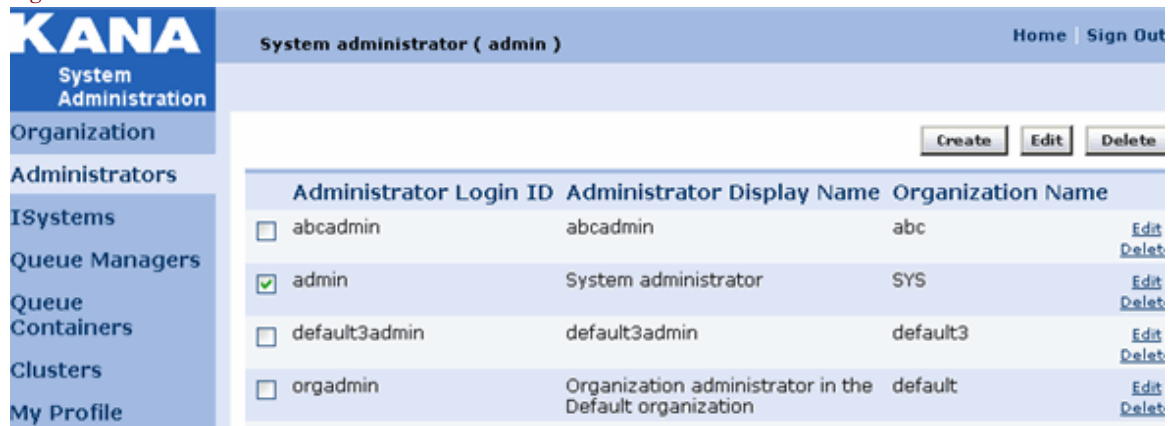
This chapter explains how to create and modify organization administrator and system administrator accounts.

Once a system administrator creates an organization, an organization administrator is responsible for establishing the parameters that make the organization function. Organization administrators use the Organization Administration tool to create iChannels, agent groups, and supervisor and agent accounts.

Creating, Editing, & Deleting Accounts

Click **Administrators** in the menu to display the Administrators Main page. This page displays the following parameters about existing administrators:

Figure 11-1. Administrator Main



| | Administrator Login ID | Administrator Display Name | Organization Name | |
|-------------------------------------|------------------------|--|-------------------|--|
| <input type="checkbox"/> | abcadmin | abcadmin | abc | Edit Delete |
| <input checked="" type="checkbox"/> | admin | System administrator | SYS | Edit Delete |
| <input type="checkbox"/> | default3admin | default3admin | default3 | Edit Delete |
| <input type="checkbox"/> | orgadmin | Organization administrator in the Default organization | default | Edit Delete |

Creating & Editing Administrator Accounts

To create an administrator account:

1. Click **Create** on the **Administrators Main** page to go to the **Administrator Profile** page. The System Administration tool assigns a new administrator a unique ID number.
2. Create the administrator's profile. See "[Chapter 12: Profiles](#)" for an explanation of the input fields on the **Administrator Profile** page.

To edit an administrator account:

1. Click **Edit** on the **Administrators Main** page to go to the Administrator Profile page.

Organization Assignment

Deleting Administrator Accounts

Deleting an administrator account removes all information in the database relating to the administrator. The consequence of this is that all information about edits made by the deleted administrator is lost from the KANA Response Live database. Losing the edit history makes auditing changes difficult. Hence, it is best to remove an administrator account from the system by re-assigning the account to no organization and changing its password instead.

We also recommend that the database be backed up regularly in case an administrator account is inadvertently deleted.

On the Profile page, the organization assignment differs depending on whether the account is for an organization administrator or a system administrator.

Organization Administrator Accounts

Each organizational administrator must be assigned to one and only one organization. When this assignment is made, the organization administrator is given the rights to log on to Organization Administration tool and manipulate information about the designated organization.

If a single organization administrator needs to work with multiple organizations, create multiple organization administrator accounts for the administrator and assign a single organization to each user ID.

To create an organization administrator account, select an organization from the **Organization Assignment** list, and then click **Save**.

System Administrator Accounts

To create a system administrator account, select System Administrator from the **Organization Assignment** list. A system administrator cannot be assigned to an organization.

12 Profiles

System administrator and organization administrator accounts all have profiles associated with them. See “[Chapter 11: Organization & System Administrator Accounts](#)” for information on creating accounts. These profiles can be modified as follows:

- A system administrator can update his own account information through the **My Profile** page in the System Administration tool.
- System administrators can update organization administrator account profiles through the **Profile** (Administrators menu) page.
- Organization administrators can update their account profiles using the Organization Administration tool.

The following profile information is associated with each account:

- **First Name, Last Name, Middle Initial, Title, Department, Email Address, Phone Number, and Extension:** Basic information about the user account.
- **Photo URL:** This optional URL points to the location of the user’s photo. The URL must begin with either https:// or http://. Photos of system and organization administrators are never seen by customers or other KANA Response Live users.
- **Login ID:** This is the login ID for the user and is shown in the UI to indicate who is signed into a KANA Response Live Web-based application. This ID must be unique for all users in an organization.
- **Display Name:** This is the name for the user and is shown in the System Administration and Organization Administration tool UIs to indicate who is logged onto the KANA Response Live Web-based applications.
- **Password and Re-Enter Password:** These lines appear blank after clicking **Save**. An organization administrator can change his own password in the Organization Administration tool.
- **Default UI Locale:** Specifies the user’s language/alphabet, so characters are rendered correctly on the screen. The default locale is English (United States).

If a single organization administrator needs to work with multiple organizations, create an organization administrator account and profile for the administrator for each organization.

For system administrator accounts, select System Administrator from the list. A system administrator does not need to be assigned to an organization.

13

Pilot or Small Production Environment

This chapter explains how to implement a KANA Response Live system for a small production or pilot environment using one to three iSystems. After reading this chapter, proceed to “[Chapter 14: Large Scale Environment](#)” if implementing a larger production environment.

All large scale environments will include iSystems and, if using more than one iSystem, routers. Chat implementations also require a queue manager and queue containers. Consult the relevant chapters of this manual for information about these components. Information about routers is included in this section of the manual.

This chapter first explains how routing works in a basic KANA Response Live system. It then briefly reviews configuring routers, queue containers, and queue managers before describing the clustering configuration process. This chapter ends with the best practices for cluster implementation.

Router Definitions

This section describes how routing functions in a typical KANA Response Live implementation. Routing is handled by servlets on the router and iSystems. In a KANA Response Live system, a router has two meanings; a server configured for routing or a routing process.

Server Configured for Routing

A router is an iSystem that has been specially configured to act as a front end for one or more active clusters. The router performs task-based routing and load-balancing functions.



The router should not host any sessions as all the corporate Web pages using cobrowse or chat point to this router. In this case, router failure will cause any sessions that it hosts such as cobrowsing or chat, to be unavailable as well.. However, the KANA Response Live software does not prevent the router from also hosting cobrowse sessions.

The Routing Process

Every iSystem has a routing process that:

- Tracks which servers are functioning correctly.
- Knows what organizations are using which servers.
- Refreshes each hour from the database.
- Always talks to all other router processes in order to keep the system up to date.

If the router process malfunctions, a monitoring tool informs other router processes of the failure.

KANA Response Live Configuration File

A KANA Response Live server using the standard implementations of the KANA Response Live APIs needs one text based file to run. The configuration file directory for a server running on:

- Windows 2000 is c:\KANA\hbroot\conf
- On Solaris is /usr/local/kana/hbroot/conf

Choosing & Configuring Servers



The **config.properties** file contains system properties — basic information without which a KANA Response Live server cannot start and which is identical across organizations.

Do not put firewalls between servers in a large scale environment. Firewalls block inter-server communication and cause the system to behave in unpredictable ways.

The basic steps to configure queue managers and queue containers are:

1. Obtain a suitable machine. In general, the requirements for queue containers and queue managers are not as stringent as those for iSystems. These machines carry much lower computational loads than iSystems.
2. Run the installer software.



Refer to the “*KANA Response Live Server Installation Guide*” for directions on installing the KANA Response Live software and installation hardware and software requirements.

3. Edit the **config.properties** file to define the machine’s role in the system. The installer software may have already set these properties in the KANA Response Live database, but they should be verified.
 - a. Set the server description. See the “*Required Properties for System to Run*”
 - b. Set the database properties. See the “*Database Parameters*” section.
4. Enter the appropriate information in the System Administration tool. See “*Chapter 7: Queue Managers (Chat Only)*” and “*Chapter 8: Queue Containers (Chat Only)*.”
5. Restart the server for changes to take effect.

The Configuration File



The configuration file **config.properties** contains information required for a KANA Response Live server to run.

KANA Response Live servers must be restarted when the **config.properties** file is modified. Properties modified with the System Administration and Organization Administration tools do not require the server to be restarted as these modifications are stored in the database.

Required Properties for System to Run

Several **config.properties** parameters are required to uniquely identify the server. Without this information, the KANA Response Live system will not recognize the server as being part of the KANA Response Live system. The installer software may have already set these properties in the KANA Response Live database, but they should be verified.

```
server.description.webserver = <machineName>
server.description.routingserver = <machineName>
server.description.loginserver = <machineName>
server.description.metricserver = <machineName>
server.description.server_id = <uniqueName>
```

Enabling Routing

Routing must be enabled on all machines used as routers or in clusters.

```
router.enabled=true
```

Database Parameters

Add the following database parameters in the **config.properties** file for routers and queue managers. The installer software may have already set these properties in the KANA Response Live database, but they should be verified.

```
database.<name>.url=<URL pointing to database>
database.<name>.loginname=<login name>
database.<name>.loginpassword=<password>
database.<name>.<type>=<oracle | sap | sqlserver>
```

```
agentgroup.database=<name>
ichannel.database=<name>
organization.database=<name>
user.database=<name>
config.database=<name>
router.database=<name>
queueing.database=<name>
metrics.config.database=<name>
```

where *<name>* is a logical identifier for the server running the database.

Consult the database administrator for the above information.

For example, if using an SAP database:

```
database.east.url=jdbc:sapdb://dbserver.compass.com/EAST
database.east.loginname=pilot
database.east.loginpassword=go
database.east.type=sapdb
```

The KANA Response Live system supports multiple databases. In practice, this feature is used to replicate the database to distribute load efficiently or to separate the metrics data from the other KANA Response Live data.

Routers

A router's primary function is to channel a customer's help request to an iSystem. For example, a router might direct a customer using the French-language portion of a Web site to an iSystem that currently supports an iChannel with KANA Response Live windows written in French. As part of this process, routers also manage load balancing across similar iSystems.

Once a router has connected a user with an iSystem, its role in the cobrowsing process is finished.

To configure a router:

1. Install the router by following the installation instructions that accompany it.
2. Set up the router properties on the iSystems. To enable the router, in the **config.properties** file set `router.enabled = true`.

Server IDs are very important. Check that the server IDs are unique. Although the installer sets these IDs, it does not check that the entered ID is unique. The default values in the installer will not be unique.

3. Use the System Administration tool to put the router into a cluster ("Routing Cluster" is a good name for it). Do not assign the cluster to any organizations — if you do, the router will become involved in cobrowsing tasks. The router should not be used for any other function to provide a single point of failure as all the corporate Web pages using cobrowse or chat point to this router.

Queue Containers

Queue containers put incoming Response Live chat help requests into a queue and assign priorities to them.

Queue containers require no local configuration beyond installation, although you must configure iSystems to recognize them. To bring a queue container online, complete the following steps:

1. Run the installer.
2. Use the System Administration tool to enter the server's host name in the Queue Containers page.
3. Add the queue container to a cluster in the iSystem section of the System Administration tool.

Queue Managers

iSystems need a queue manager to help them connect to the queue containers. To make a connection, an iSystem queries the queue manager for the hostnames of its assigned queue containers and then makes the connection.



Each cluster can have only one queue manager. If you use multiple queue managers, the system will experience intermittent failures.

The queue manager also monitors all the queue containers in its cluster. All queue containers send status reports to the queue manager at defined intervals. If the queue manager does not receive a report from a queue container when it should, it assumes that the server is down, and shifts the queueing information from that server to its backup.



After you change the **config.properties** file on a server, you must restart the server.

Once finished configuring the servers, use the System Administration tool to put them into clusters and map them to organizations.

Configuring a Cluster

In System Administration tool:

1. Create a cluster.
2. Create an iSystem.



Use the same KANA Response Live version for all servers in a cluster or the system will not function correctly. In KANA Response Live the database contains the KANA Response Live version number.

3. Set `router.enabled=true` in the **config.properties** file for the iSystem.
4. Add the iSystem to the cluster.



iSystems can be in more than one cluster and, in fact, this practice is recommended. However, queue managers and queue containers can only be in one cluster.

5. Map the organization to the cluster.

Best Practices

This section describes best practices for deploying a KANA Response Live system with various number of iSystems for a pilot or small production environment. See [“Chapter 14: Large Scale Environment”](#) to implement a KANA Response Live system in a larger production environment.

1-iSystem Deployment

A 1-iSystem deployment has one server. This deployment is suitable for a pilot program or a small company. The installer sets some of the properties required for a 1-iSystem deployment, however, perform the following actions to verify that the deployment is correct:

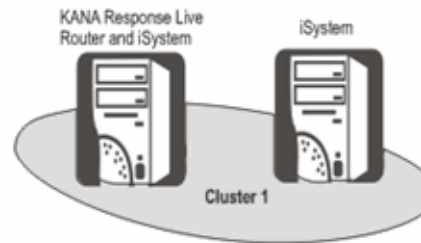
- Check the iSystem configuration.
- Check that `router.enabled=false` in the **config.properties** file. This is the default value. Although a Web page's Live Help button points to a “router,” there is no need for a router because all requests go to a single box. Hence, `router.enabled=false`.

- If using Response Live chat, check that a queue container and a queue manager have been created on the same machine as the iSystem.
- Check that one cluster exists. Every deployment must have at least one cluster even if the cluster contains only one iSystem.
- Check that the organizations are mapped to the cluster. Every organization that will be used must be mapped to a cluster.

2-iSystem Deployment

A 2-iSystem deployment has two servers. Both servers are iSystems. However, one of the servers is also the router.

Figure 13-1. 2-iSystem Deployment

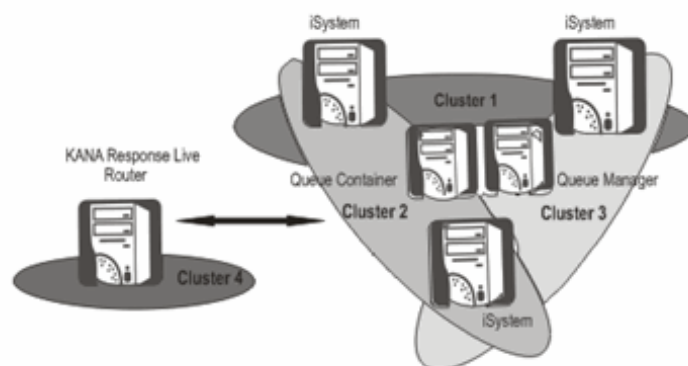


- Usually the two servers are configured identically.
- A single cluster contains both servers.
- Set `router.enabled=true`.

3-iSystem Deployment

A 3-iSystem deployment has four clusters. In this deployment one server is the router and three servers are iSystems.

3-iSystem Deployment with Separate Router



Using this configuration:

- Every server must be in a cluster
- Don't map the router cluster to an organization to prevent the router cluster from also managing cobrowse sessions.
- The queue manager and queue containers should each be on separate servers. The queue manager and queue container are included in each iSystem cluster.
- The router must be in its own cluster without any other iSystems or customers may get dropped from the queue.

Monitoring Tool

The Monitoring tool is designed to monitor and report on the health and status of each of the components of the KANA Response Live software in a production environment. The tool can be run either as self-contained program, or it can interact with other existing monitoring systems that may exist in a customer's environment. (E.g., HP OpenView). See the *“KANA Response Live Monitoring Tool User Guide”* for information on using the Monitoring tool.

14

Large Scale Environment

This chapter gives an example of how a KANA Response Live system can evolve from a pilot or small deployment to a larger scale deployment. The chapter then explains best practices for implementing a KANA Response Live system for a large scale environment. A large scale environment consists of a group of servers working together. Large scale environments can contain servers used for cobrowsing, chat, or both. See “[Chapter 13: Pilot or Small Production Environment](#)” for an explanation of how to create a pilot or small scale production KANA Response Live implementation.

All large scale environments require iSystems and, if using more than one iSystem, routers. Chat systems also require queue managers and queue containers. Consult the relevant chapters of this manual for information about these servers.

See “[Chapter 13: Pilot or Small Production Environment](#)” for information about:

- How routing works in a basic KANA Response Live system.
- A review of configuring routers, queue containers, and queue managers.
- How to create a cluster.





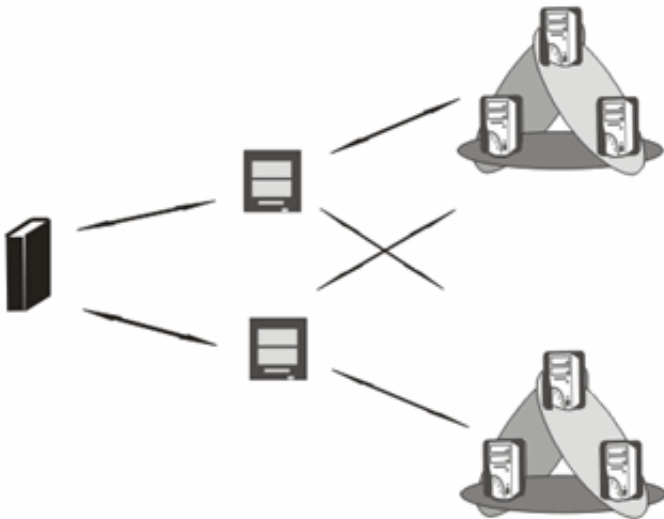
Evolution of a KANA Response Live System

As a KANA Response Live system grows to handle increased iChannel traffic, the number of iSystems increases. At some point the number of iSystems in a cluster becomes too great for efficient communication between the iSystems. The iSystems then need to be re-grouped into smaller clusters and perhaps even smaller organizations. See [Figure 14-1](#).

When planning a large scale deployment, consult the KANA Professional Services staff.

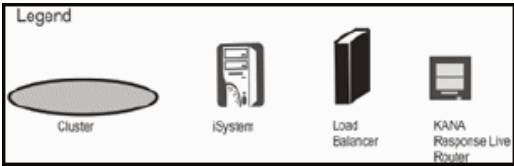


Figure 14-1. Evolution of a KANA Response Live System *Note (1)*

| | |
|---|---|
|  | Single iSystem. Suitable for a pilot deployment. |
|  | 3-iSystems in a single cluster. Suitable for a limited rollout or a small production deployment. |
|  | 5-iSystems in a single cluster. Suitable for a high session volume. The communication overhead between iSystems is at a critical point. |
|  | 6-iSystems in a single cluster. Inefficient for a high session volume. The communication overhead between iSystems is beyond the critical point. As a short term solution this may be acceptable, but you should plan to re-cluster the iSystems and add routers and a load balancer. |
|  | 6-iSystems in two clusters with routers and a load balancer. Efficient for a high session volume. The communication overhead between iSystems is well beneath the critical point. This is a good long term solution as it provides for failover. |

Note to Figure 14-1:

- (1) If using KANA Response Live chat, queue managers and queue containers are also required.



n-iSystem Best Practices

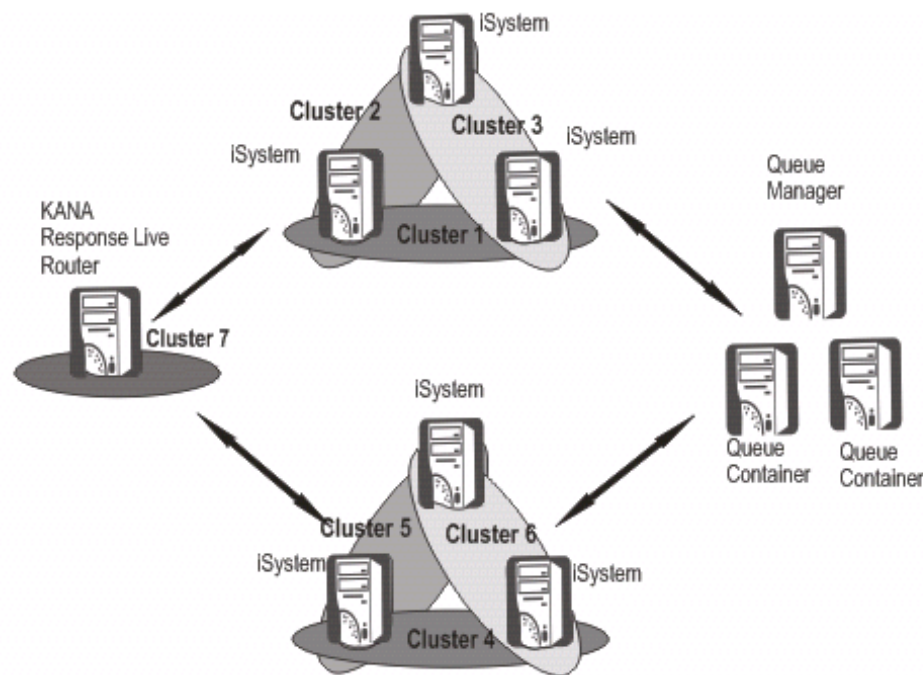
This section describes best practices for deploying a KANA Response Live system with various number of iSystems for a large production environment. A large scale implementation uses the 3-iSystem deployment configuration as a building block. See “3-iSystem Deployment” in “Chapter 13: Pilot or Small Production Environment” for a description of the 3-iSystem building block.

In a large scale deployment each server ideally is in two clusters. If using the 3-iSystem building block, there are three clusters. Because each server is in two clusters, failures are minimized. This configuration requires a router to service the clusters. Using this configuration, the router can service multiple 3-iSystem clusters.

n-iSystem with No Failover Router

In this configuration only one router is used. This does not provide a failover mechanism should the router fail. See Figure 14-2.

Figure 14-2. n-iSystem Deployment with Additional Router Note (1)



Note to Figure 14-2:

- (1) Each cluster also includes a queue container and a queue manager. The inclusion of the queue manager and queue containers in clusters is not shown for purposes of clarity of the drawing.

In this n-iSystem implementation:

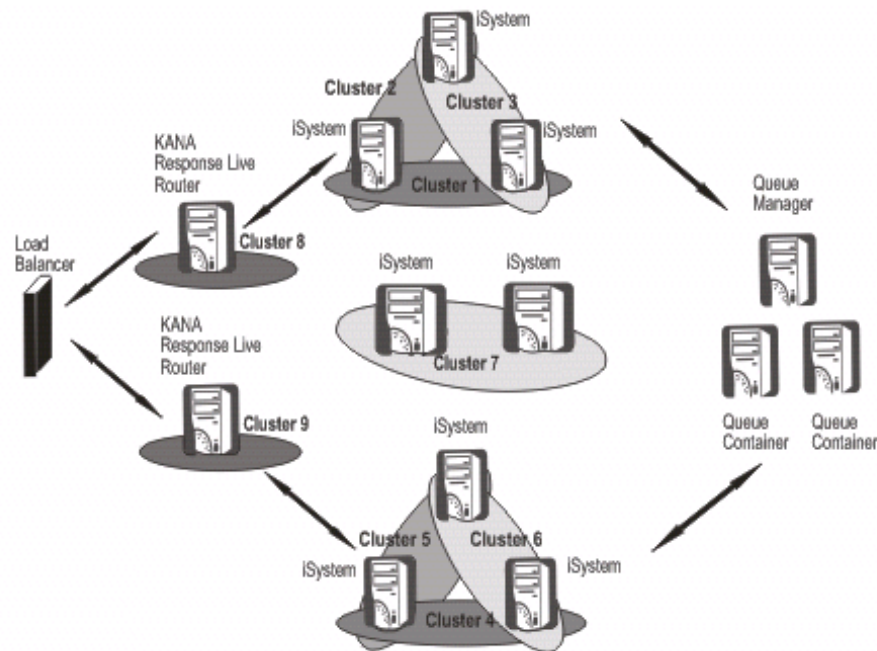
- An iSystem should not communicate with more than five other iSystems. If an iSystem communicates with more than five other iSystems, the non-linear increase in communication amongst the iSystems degrades system performance. An iSystem talks to the iSystems in all the clusters in which it is contained.
- Do not put a server in more than three clusters.
- The queue manager and queue containers should be on separate servers.

- Each cluster should contain a queue manager and one or more queue containers.
- The router must be in its own cluster without any other iSystems or customers may get dropped from the queue.
- iSystems should be of similar size. If the iSystems vary greatly in size, some may be over loaded and others under utilized because the router tries to equalize the traffic each iSystem receives.

Failover Router & Load Balancer

In this n-iSystem deployment, a separate load balancer is used as well as a failover router. If one of the routers fails, the load balancer directs all traffic to the remaining router, thus providing a failover mechanism for the router. The load balancer is required to distribute the traffic between the two routers. See [Figure 14-3](#).

Figure 14-3. n-iSystem Deployment with Load Balancer & Failover Router Note (1)



Note to Figure 14-3:

- (1) Each cluster also includes a queue container and a queue manager. The inclusion of the queue manager and queue containers in clusters is not shown for purposes of clarity of the drawing.

In this n-iSystem implementation:

- Use two routers with a load balancer to provide redundancy.
- An iSystem should not communicate with more than five other iSystems. If an iSystem communicates with more than five other iSystems, the non-linear increase in communication amongst the iSystems degrades system performance. An iSystem talks to the iSystems in all the clusters in which it is contained.
- Do not put a server in more than three clusters.
- The queue manager and queue containers should be on separate servers.
- Each cluster should contain a queue manager and one or more queue containers.

- Each router must be in its own cluster without any other iSystems or routers. If iSystems are included in a router cluster, customers may get dropped from the queue.
- iSystems should be of similar size. If the iSystems vary greatly in size, some may be over loaded and others under utilized because the router tries to equalize the traffic each iSystem receives.

Glossary

A

Active Cluster / Active Clustering KANA Response Live's implementation of clustering. Active clustering provides failover and system monitoring capabilities at an application level. Usually denotes/implies that separate copies of an application are running concurrently on all active server nodes. I.e., all are doing work, there are not hot spares.

Administrator An administrator is a registered user who can edit all or part of the KANA Response Live data model. There are two types of administrators: organization administrators and systems administrators.

Administration Tools These are the Web-based tools provided as part of the KANA Response Live suite which enable an administrator to edit the KANA Response Live Data Model. There are two tools: the Organization Administration tool and the Systems Administration tool.

Agent An agent is an registered user whose primary role is to interact directly with customers. He must log into the KANA Response Live platform using one of the authentication systems available. In chat only an agent can initiate a cobrowse session.

Agent Console A KANA Response Live application that enables agents to interact with customers, using chat, cobrowse and proactive chat.

Agent Group A named group of agents, typically corresponding to a group of people within a business organization who perform similar roles and have similar skill sets. Agent groups are used within chat to determine which customers are picked up by agents. The KANA Response Live Organization Administration tool allows administrators to reassign individual agents or entire agent groups.

API An acronym for application programming interface. APIs define layers in programs and are used to isolate functionality that can be re-implemented in a different manner by an on-premise customer. The KANA Response Live platform currently uses the following APIs: metrics, authentication, iChannel management, organization structure, and client.

Applet See Java applet.

Authenticating a Request The process by which a Web server makes sure that confidential information is only sent to authenticated users. Many Web sites use a login process using a name and password combination in order to authenticate requests.

B

Barge In A term used in the call center industry to denote that a supervisor, who has been monitoring a customer-agent interaction, is preparing to enter the interaction directly. In Response Live chat, the supervisor must click on the **Barge In** button before he can directly interact with the customer.

Business Data Model This refers to the business data required to run an iSystem or cluster of iSystems. It consists of organizations, iChannels, agents, and agent groups.

Business Rules Define business policies that are enforced by the KANA Response Live System when cobrowsing. Business rules are written in an XML-based tag language. Most often business rules restrict agents from performing certain actions and barring them from seeing sensitive customer data.

C

Callback Response Live cobrowse feature that enables customers requesting Live Help to enter their phone numbers and get a call back to that number from an appropriate agent.

Canvass The process of evaluating a Web site for cobrowse compatibility with KANA Response Live software.

Chat A KANA Response Live product that combines real-time chat functionality with cobrowse capabilities. In chat, agents pick up customers from queues and interact with them. Depending on the deployment model, the interaction can be entirely text-chat based or can have both text-chat and cobrowse components.

Chat Transcript The entire sequence of events from within a chat session. The chat transcript begins when an agent connects to a customer and encapsulates all chat events (such as messages), session events (such as people entering or exiting the session) and cobrowse events (such as link clicks).

Client / Client Application Refer to the portion of the KANA Response Live application which are visible inside a Web browser. The differentiation is between the server (interaction system) and the Web browser that the end users are using

Cluster A cluster is a group of similarly configured servers that appear to be a single server to end users, and provide failover capabilities. The goal in using clustering is to minimize the impact of a hardware failure.

Cobrowse Cobrowsing is the process by which multiple people navigate a Web site as a single unit. Each person uses a separate Web browser, but all the session participants are looking at the same Web content. In addition, the session participants have the ability to discuss what they are viewing either via the phone or through a live chat application.

Configuration Directory The KANA Response Live application software uses several configuration files to store information which it needs in order to run. Typically, this is information about the network configuration. These configuration files are all stored in a single directory called the configuration directory.

Control Panel In Response Live cobrowse, a separate window that contains information about the users in a session.

Customer In KANA Response Live terminology, the end-users are divided into two categories: agents, who are official representatives of a company and must authenticate themselves. And customers, who are not authenticated. Agents and customers play very different roles within the KANA Response Live platform and may have different levels of permissions even within a cobrowsing session because of business rules.

D

Daemon A program that idles continuously in the background until it is activated by a specified event.

Data Center. A facility, usually located away from the rest of the corporation, where large numbers of computers (e.g. a set of servers) are installed. Customers using the hosted service are implicitly using KANA's data center.

Dynamic Start Page A technical term referring to the way in which a KANA Response Live server can preserve the state of the Web page a customer was on when the customer clicked the **Live Help** button. This enables the cobrowsing session to start on the page the customer had questions about.

E

End user Someone who is using the client application, usually a customer or an agent

F

Failover Failover refers to any of a number of ways of providing safeguards against hardware failures. It usually involves either clustering servers to provide additional resources or having a "hot backup" machine. KANA Response Live software installations use clustering.

FileShare FileShare is an extension to the core suite of KANA Response Live software products which enables users to publish Microsoft Office™ documents to a secure server and cobrowse them. This is frequently used in circumstances when collaboration with a remote user is desirable and the collaboration involves situation-specific content, for example, a sales presentation.

Firewall A component, usually hardware, which prevents computers from sending messages to each other. Firewalls are usually used to enforce security policies by preventing unauthorized machines from accessing sensitive data.

Funnel Images See Image Funneling.

H

Harvey Balls Small circles drawn on the user interface that can be filled with color to indicate the status or condition of a parameter and are named after their inventor, Harvey Poppel, not Harvey Ball, the inventor of the yellow, smiley face.

KANA Directory The KANA Response Live application software is typically installed into a single directory on the server machine. This directory is often referred to as the KANA directory.

Hosted Service The hosted service involves using KANA Response Live servers run by KANA Software, Inc. KANA functions as an application service provider (ASP). In this deployment model, the interaction systems themselves run inside the KANA datacenter.

Hot Backup A hot backup is a server which is used to provide redundancy in a data center. The hot backup's sole role is to be available and fully initialized in the case that a server fails and it must assume/take over the failed servers workload.

I

iChannel Commonly used abbreviation for interaction channel.

Image Funneling A process by which images and other non-text content are passed through the interaction server. The usual mode of operation is for Web browsers to directly retrieve images from the original Web server. Image funneling is usually necessary if the original Web server is authenticating the image request.

Interaction Channel An interaction channel is a grouping of user interaction properties that, taken as a whole, represent the portions of a KANA Response Live session that can be configured by an organization administrator. Properties such as background colors and icons, or the text of messages that may appear during the course of a session, are set in the interaction channel. Sessions are assigned an interaction channel when they are created.

Interaction System An interaction system is the name for a particular type of KANA Response Live server. The interaction system consists of a Web-server, a servlet engine, and several supporting processes. Users are hosted by and logged into a specific interaction system, and any sessions they are participating in are also managed by the same interaction system.

iSystem Commonly used abbreviation for interaction system.

J

Java applet A small application written in the Java language which can be embedded in a Web page.

L

Live Help Button A button or clickable-image on a Web page which begins the cobrowsing process. The customer clicks on the live help button and is connected to an agent, either through callback or chat. Live help buttons are often used in conjunction with dynamic start page.

Login server The login server is one of the supporting processes in an interaction system.

M

Meet Me page A static Web page which is used to connect customers and agents. Unlike the live help button, meet-me pages require the agent and customer to already have communicated usually via a telephone call.

Monitoring System / Monitoring Tool One of the most important characteristics of a live interaction system such as KANA Response Live's is that it must be available on a 24 by 7 basis. In order to provide this level of reliability, even in the face of hardware failures, KANA Response Live has a monitoring system. The monitoring system's sole role in a KANA Response Live deployment is to detect system failures and notify the appropriate people usually by e-mail.

O

On-premise Solution A term used to refer to the installation and use of KANA Response Live platforms which are not maintained by KANA personnel. In this deployment model, the interaction systems are run outside the KANA data center.

Organization An organization is an abstraction used by the KANA Response Live platform to group together related, business-level, information and properties. An organization consists of a set of iChannels (which control the interaction and look-and-feel of a cobrowsing session), a set of agents (including authorization information), and, in the case of chat, a set of agent groups (which determine chat-related functionality, such as which customers can be picked up by a particular agent).

Organization Administration Tool A Web-based application that an organization administrator uses to configure organizations, iChannels, agents, and agent groups. It is best thought of as a tool to configure the "business part" of a KANA Response Live installation as opposed to the "hardware and software part".

Organization Administrator A registered user who has the ability to modify the configuration of an organization using the Organization Administration tool. Typically, an organization administrator is a business specialist who understands the business uses of live interaction. There can be more than one organization administrator for an organization.

Original Web Server A KANA Response Live term referring to the original source of Web pages for cobrowsed Web pages. For example, in a scenario where two people are cobrowsing www.kana.com, KANA's Web server is the original Web server.

P

Panel A window that serves as the interface between the KANA Response Live server and an agent or customer.

PDR Acronym for predefined response.

Pointer A special, arrow-shaped icon which can be used to highlight ("point at") sections of a Web page. Typically, an agent will point at certain fields or areas of a Web page when helping a customer with a specific question or when performing training.

Predefined Response An agent productivity feature of the Response Live chat product. A predefined responses (PDR) is a carefully worded statement that answers a commonly asked question with one click by an agent. PDR are entered into the business data model by either a supervisor or an organization administrator and are then available to agents who are participating in a chat session.

Proactive Chat A permission-based feature of the Response Live product through which agents can monitor and prioritize real-time customer lists, use dynamic filtering, and engage them in an "invite-to-chat" session.

Q

Queueing Server / Queue Serve . A specialized server that maintains the queues for a chat system.

R

Registered User A registered user is a user of a KANA Response Live product who must be authenticated (e.g. provide a sign in ID and a password). There are four types of registered users: agents, supervisors, organization administrators, and system administrators. Each of the different types of registered users plays a distinct role in a KANA Response Live deployment.

Relaxed Trustor A special setting which is often useful when testing Web sites on a staging server, but which is rarely used in production settings. Enabling this setting allows the interaction server to ignore invalid or missing SSL certificates.

Router See KANA Response Live router.

S

Servlet engine A servlet engine is an extension to a Web server that enables content to be dynamically generated by a Java servlet. In the KANA Response Live architecture, servlets are used to implement most server-side functionality.

Session A session refers to two or more people using a KANA Response Live product to work in tandem. It is created when the collaboration begins (for example, when the agent clicks the "get next customer" button in a chat scenario) and lasts until the last participant is no longer involved (e.g. the session can survive the departure of one or more of its participants).

Shared Browser A KANA Response Live term for the "Web browser" part of an interaction session (as opposed to the control panel or the chat transcript).

SSL Acronym for Secure Sockets Layer.

SSL Certificate An SSL certificate is a document, signed by a recognized certificate authority (such as Verisign or Belsign), which verifies that a particular server can be trusted.

Supervisor A supervisor in a KANA Response Live platform, is a registered user who monitors agents (and uses the Supervisor Console to monitor overall system status). He is not able to directly connect with agents, but must instead enter supervisor mode and then barge in.

Supervisor Console A KANA Response Live application that enables real-time monitoring of chat servers and clusters. The Supervisor Console is used to detect and resolve customer service problems, such as customers spending an excessive amount of time waiting for an agent.

Supervisor Mode A special mode of interaction specific to supervisors that enables a supervisor to silently monitor an agent's interactions. The supervisor attaches to an agent and then may barge in to specific sessions.

KANA Response Live Data Model An aggregate term referring to all the data that a KANA Response Live platform needs in order to function correctly. The KANA Response Live data model is composed of the business data model and the systems data model.

KANA Response Live Router / Router An interaction server that has been specially configured to act as a front end for one or more active clusters. The router performs task-based routing and load-balancing functions, but does not host any sessions.

Systems Administration Tool A Web based tool used for editing the systems data model.

Systems Administrator A registered user who has permission to edit the systems data model. A person who is logged in as a systems administrator can not interact with customers.

Systems Data Model The portion of the KANA Response Live data model referring to hardware and machine configuration. The systems data model is usually administered by someone with substantial technical knowledge.

KANA Response Live application server The KANA Response Live software that manages a cobrowse session.

KANA Response Live proxy architecture The KANA Response Live platform architecture. The KANA Response Live platform acts as a proxy between the agent and customer on one end and the Web site that they are cobrowsing on the other end.

System A KANA Response Live software implementation.

U

UI Commonly used abbreviation for user interface.

User key The randomly generated 50-character string assigned to user when they log in.

W

Web Tracker A KANA Response Live term for the visitor tracking area of the agent console.

Whisper / Whispering Whispering is a process by which a supervisor sends a message to an agent he is supervising. This message can be directed to specific agents and is only delivered if the agent is logged on. Customers never receive whisper messages.

