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  - Age Buckets
  - Calculating Age
- Case Age Report
  - Level 1
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  - Level 1
- Email Age by Queue Report
  - Level 1

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- Chat Volume by Queue Report
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Preface

› About This Guide
› Document Conventions
› Other Learning Resources
Welcome to Cisco® Interaction Manager™, multichannel interaction software used by businesses all over the world to build and sustain customer relationships. A unified suite of the industry’s best applications for web and email interaction management, it is the backbone of many innovative contact center and customer service helpdesk organizations.

Cisco Interaction Manager includes a common platform and one or both of the following applications:

- Cisco Unified Web Interaction Manager (Unified WIM)
- Cisco Unified E-Mail Interaction Manager (Unified EIM)

## About This Guide

*Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Reports Console* introduces you to the Reports Console and helps you understand how to use it to accomplish your reporting and analysis tasks. It is meant for installations that are integrated with Cisco Unified Contact Center Enterprise (Unified CCE).

This guide provides details about historical reports available in the Reports Console of Unified EIM and WIM. Real-time reports are available through Cisco Unified Intelligence Center (CUIC) when integrated with Unified CCE. Integrated customers should use CUIC for real-time reports, and the Reports Console in Unified EIM and WIM for historical reports.

## Document Conventions

This guide uses the following typographical conventions.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bold</strong></td>
<td>Labels of items on the user interface, such as buttons, boxes, and lists. Or text that must be typed by the user.</td>
</tr>
<tr>
<td><strong>Monospace</strong></td>
<td>The name of a file or folder, a database table column or value, or a command.</td>
</tr>
<tr>
<td><strong>Variable</strong></td>
<td>User-specific text; varies from one user or installation to another.</td>
</tr>
</tbody>
</table>

*Document conventions*
Other Learning Resources

Various learning tools are available within the product, as well as on the product CD and our web site. You can also request formal end-user or technical training.

Online Help

The product includes topic-based as well as context-sensitive help.

<table>
<thead>
<tr>
<th>Use</th>
<th>To view</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help button</td>
<td>Topics in <em>Cisco Unified Web and E-Mail Interaction Manager Help</em>; the Help button appears in the console toolbar on every screen.</td>
</tr>
<tr>
<td>F1 keypad button</td>
<td>Context-sensitive information about the item selected on the screen.</td>
</tr>
</tbody>
</table>

*Online help options*

Document Set

The Cisco Unified Web and E-Mail Interaction Manager documentation is available in the *documents* folder on the product CD. The latest versions of all Cisco documentation can be found online at [http://www.cisco.com](http://www.cisco.com)


The document set contains the following guides:

- *Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager*
- *Cisco Unified Web and E-Mail Interaction Manager Installation Guide*
- *Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide*

User guides for agents and supervisors

- *Cisco Unified Web and E-Mail Interaction Manager Agent’s Guide*
- *Cisco Unified Web and E-Mail Interaction Manager Supervisor’s Guide*

User guides for Knowledge Base managers and authors

- *Cisco Unified Web and E-Mail Interaction Manager Knowledge Base Author’s Guide*
User Guides for administrators

- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Administration Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Routing and Workflows
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Chat and Collaboration Resources
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Email Resources
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Data Links
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Offers Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Reports Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to System Console
- Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Tools Console
1

Console Basics

- Key Terms
- Available Templates
- Elements of the Console
Good customer interaction metrics and analytics mean competitive advantage for the entire company. Unified EIM and WIM has a console specially for working with reports, which contains templates to help you create reports to:

- Monitor service levels and response cycles to ensure customer satisfaction.
- Evaluate contact center operations and tune them for greater efficiency.
- Understand service activity volume trends in the contact center.
- Forecast workload and staffing requirements.
- Evaluate the performance of agents in your team and, if you are an agent, your own performance.
- Gain business insight from service interactions by analyzing the kinds of problems being reported.
- Analyze knowledge base usage.
- View comprehensive information about your team members.

In this chapter, we look at reports basics—key concepts, how many templates, and where are they found.

**Key Terms**

**Reports Console**

A management console, the Reports Console is designed specially for managers, supervisors, and business analysts to track and analyze various aspects of their operations.

**Agent Console**

A service console, the Agent Console is the workspace of customer service agents. Three of the Agent Performance report templates—Agent Availability for Chat, Agent Efficiency, and Agent Login Summary—are available in this console for agents to evaluate their own performance.

**Report**

A report contains historical data, recorded by the system, about a particular facet of your service organization. Reports are created from templates—all templates are available in the Reports Console, and three of them are also available in the Agent Console. While creating the report, you specify the time period and business objects to be covered by the report. You can save a report and run it later or scheduled it to run automatically. Report results are displayed in your web browser, and can be saved as PDF or Excel sheets. Reports can also be distributed as email attachments.

**Report templates**

A report is created from a template. The console contains different types of report templates, grouped by function into eight sets. You can create any number of reports from a template. And, though you can delete reports, you will not be able to delete templates—so you don’t run the risk of losing a template.
Available Templates

The report templates are:

1. **Agent Performance**
   a. Agent Availability for Chat
   b. Agent Chat Productivity by Queue
   c. Agent Efficiency
   d. Agent Login Summary
   e. Agent Work Summary

2. **Callback**
   f. Callback Volume Report

3. **Classification**
   g. Activity and Case Classification

4. **Contact Center Trend**
   h. Case Volume
   i. Email Volume

5. **Knowledge Base Performance**
   j. Article Usage
   k. Article Usage by Alias
   l. Article Usage by Language
   m. Article Usage by Queue

6. **Service Level Performance**
   n. Case Age
   o. Email Age by Alias
   p. Email Age by Queue

7. **Workforce Scheduling**
   q. Chat Volume by Queue
   r. Chat Volume by Referrer URL
   s. Email snapshot by Agent
   t. Email snapshot by Queue
   u. Email Volume by Alias
   v. Email Volume by Queue
Elements of the Console

To get to know the console user interface better, let us begin by dividing it into five functional areas.

1. **Console toolbar:** The main toolbar of the console appears at the top of the screen. Each button on this toolbar allows you to perform a specific function. Some of these are: navigate to other consoles, send and receive internal messages, log out of the system, and access the online help for the Reports Console.

2. **Tree pane:** The Tree pane lists all the report templates available.

3. **List pane:** The List pane displays first-level contents of the folder selected in the Tree pane. You can view the name, description, etc., of the displayed items. In this pane, you can create items or select existing ones to modify or delete them.

4. **Properties pane:** The Properties pane displays the properties of the object selected in the List pane. In this pane, you can edit the properties of the selected item.

5. **Status bar:** The status bar is present at the bottom of every screen. It displays the following information:
- The user name with which the user has logged in the system.
- The language currently in use.
- The status of the system (Loading, Ready, etcetera).
Working With Reports

- About Reports
- Creating Reports
- Deleting Reports
- Managing History of Reports
- Scheduling Reports
- Sending Notifications
- Setting Permissions on Reports
In this chapter we will work on how to create and run the reports. Most of the options available for configuring reports using the different templates are same, except for some reports.

**About Reports**

Unified EIM and WIM reports can be used in two consoles.

- **Reports Console:** All report templates are available in this console, which is designed specially for managers, supervisors, and business analysts.

- **Agent Console:** Three of the agent performance report templates—Agent Availability for Chat, Agent Efficiency, and Agent Login Summary—are also available in this console to enable agents to evaluate their own performance.

**In Reports Console**

A highly specialized workspace for managers, supervisors, and business analysts, the Reports Console contains all the tools you need to measure performance and gain business insight from service interactions.

In this console, you can:

- Create reports based on templates.
- Save reports for later use, or schedule them to run at a specified time.
- Run saved reports.
- View report results; most reports have more than one level of information.
- Save results in Adobe Acrobat (.pdf) or Microsoft Excel (.xls) files for future use.

**In Agent Console**

In the Agent Console, agents can:

- Run Agent Availability for Chat, Agent Efficiency, and Agent Login Summary reports to measure their own performance.
- View report results; most reports have more than one level of information.
- Save results in Adobe Acrobat (.pdf) or Microsoft Excel (.xls) files.
Creating Reports

Using the reports templates you can create as many reports criteria as you want. The options available for configuring a report are different for different templates. In this section, we will provide a comprehensive overview of the different options available for different reports.

To create a report:

1. Select the report template using which you want to create a new report.

2. In the List pane toolbar, click the New button.

   The Properties pane refreshes to show the properties of the new report.

   ![Properties pane](image)

   Set general properties

3. In the Properties pane, go to the General tab, and in the General section, provide the following details.

   - **Name**: Type a name for the report.
   - **Description**: Type a brief description.
   - **Sort column**: From the dropdown list select the sort column for the report. The options available can vary depending on the report template you are using to create the report.
   - **Sort order**: From the dropdown list select the sort order. The options available are descending and ascending.
   - **Show rows with all zero values**: With this option you can decide if you want to see the rows which have all the values as zero. The available options are yes and no.
   - **Show only summary**: With this option you can decide if you want to see the full report or just the summary. Generating a drilldown takes time, so if you don’t want to go into the details, you can run the report just with the summary. The available options are Yes and No. By default No is selected.
   - **Output format**: The output format for all reports is HTML. This field can’t be edited.

---

**Note**: The options available in the General section can vary depending on the report template you are using to creating the report. This section explains all the options available in different templates.
4. Next, on the General tab, go to the Times section. You can run the report for absolute time range or relative time range.

**Note:** The options available in the Times section can vary depending on the report template you are using to creating the report. This section explains all the options available in different templates.

![Set time properties]

Select one of the following options.

- **Absolute time range:** To see a report for activities between specified dates and times, select the **Report on Activity that occurred between the following times** option. Then, specify the start time and date and end time and date. Finally from the dropdown list, select the time zone. For the Email Volume report, the start time and end time is set to 12 AM and it cannot be changed.

- **Relative time range:** Select the **Report on activity that occurred between the period prior to the report began** option. This is the best option to use when you are scheduling reports.

- **Next, in the Relative to the time that the report is run, report over the previous** option, specify the time for which you want to run the report. The options available are hours, days, weeks, months, quarters, and years.

- In some reports there is an option to select the length of time segment. For example, you are running a report for 10 days, you can set the report to be divided in time segment of two days. The data displayed in the report is broken down by the time segment chosen in this option. Note that the system prevents you from selecting a very narrow time segment (such as hours or days) when the specified time range covers a larger span (for example, a year) as this combination would result in a data set that is virtually unusable.

- In the **Email Snapshot by Agent** and **Email Snapshot by Queue** reports, you can choose to view the data for the last 12 days, weeks, or month from the current date or from a specified date. You can also specify the time of the day when the snapshot should be taken.

- In the **Agent Work Summary** report, you also need to specify the turnaround time for emails.

- For some reports, you need to specify how service levels are to be computed. You can either use the system specified service levels, or you can specify the service level and select the hours that users work. Choose 24 hours or use business calendar hours.
For other reports, you may need to specify the service levels. You may choose to Use the system service levels (SLAs) or you may choose to Use a specific service level. A service level is the pre-set standard for the completion of an activity.

5. In the General tab, in addition to setting the general and times properties, you have to select the objects for which you want to run the report. The availability of this option depends on the report template you are using. The objects available can be users, queues, aliases, departments etc. For example, for the Agent Efficiency report, you need to select the users, and for the Email Volume by Queue report, you need to select the queues.

6. Click the Save button to save the report. If you don’t want to save the report and just want to run it, click the Run button. And, if you want to save and run the report, then click the Save and Run button.

Deleting Reports

You can delete only those reports for which you have delete permissions.

To delete a report:
1. Select a report from the List pane. You can select multiple reports for deletion.
2. In the List pane toolbar, click the Delete button.
3. A message appears asking to confirm the deletion. Click Yes to delete the selected reports.

Running Saved Reports

You can run the reports saved earlier.

To run saved reports:
1. From the List pane, select a report.
2. In the List pane or Properties pane toolbar, click the Run button.

Saving Report Outputs

You can save the report output on your local machine for future reference.

To save a report output:
1. Click the Save As button.
2. In the Save report as window, select the format in which you want to save the report and click the OK button. The options available are Adobe Acrobat PDF and Microsoft Excel.
Managing History of Reports

Viewing History of Reports

Every time a report is run, a version of the report is created. These versions are available for viewing in the Properties pane, in the History tab.

To view the versions of the report:

1. From the List pane select a report.
2. In the Properties pane, go to the History tab. In the History tab you can see all the versions of the report listed in descending order, the date and time at which the report was run, and the number of pages of the report.
3. Select the version of the report you want to view. You can select multiple versions at a time.
4. In the History tab toolbar, click the View version button. It opens the selected version of the report.
Deleting History of Reports

If you don’t want to keep any version of the report, you can delete it.

**To delete a versions of the report:**
1. Select the version of the report you want to delete. You can select multiple versions at a time.
2. In the History tab toolbar, click the **Delete** button.
3. A message appears asking to confirm the deletion. Click **Yes** to delete the selected versions.

Scheduling Reports

Once you have created a criteria for running the report you can schedule it to run automatically in future. The reports runs automatically on the scheduled times, and using the **Notification** tab you can send the run reports to the concerned people. While scheduling the report you can also specify the time range for which the schedule should be effective.

---

**Important:** If you are creating a new report, the Schedule tab becomes available only after you save the criteria set for running the report.

**To schedule a report:**
1. In the List pane, select a report.
2. In the Properties pane, go to the Schedule tab and provide the following details.
   - **Select when the report should run:** By default **On demand (unscheduled)** is selected. You can select from one of the following options.
     - **On demand (unscheduled)**
     - **Every** $n$ **days**
     - **Daily**
     - **Weekly, on a specified day**
     - **Monthly, on a specified day**
**Schedule a report**

- **On the days that the report runs:** Specify the time at which the report should run on the scheduled date. The following options are available.
  - Run the report once at the specified time
  - Run the report every \( n \) hours starting at the specified time

- **Select the duration when this schedule will be in effect:** Specify a start date and end date for the schedule to run.
  - **Start date:** Specify the date when the report schedule will get effective.
  - **End date:** Specify the date when the report schedule will get ineffective.

For example: You schedule a report to run every four days at 7 PM from 6/23/2009 to 7/23/2009. This report will run automatically on every fourth day at 7 PM from 6/23/2009 to 7/23/2009.

**Sending Notifications**

For the scheduled reports, a notification can be sent out to the concerned people that a report has been run. You can send notification to internal users and also to external email addresses. Along with the notification, the report is also attached.

---

**Important:** Notification is sent only for scheduled reports.

**To send a notification:**

1. In the List pane, select a report.
2. In the Properties pane, go to the Notification tab and provide the following details.
   - **To**: In the field, click the Assistance button. In the Address Book window that appears select the internal users in the Recipients tab. In the Selected recipients list, specify if you want to send an internal message, an email, or both of them. If you want to send the report to some external email addresses, then provide the email addresses in the External Email Address tab.
   - **Subject**: Type a subject for the notification.
   - **Text box**: Type a message in the text box. You can use the text box toolbar to edit the text.

The report notification displays the name of the report, the time when it is run, and the link to the report output. From the report notification emails only the first level of the reports is available. To access the next levels, you need to login to the application.

3. Click the Save button.

### Setting Permissions on Reports

You can give permissions to other users and user groups to view, run, edit, delete, or schedule the reports created by you.

**To give permissions:**
1. In the List pane select the report on which you want to give permissions.
2. In the Properties pane, go to the Permissions tab.
Give permissions to users

a. From **Types** select the users and user groups to whom you want to give permissions on the reports.

b. Select the permissions you want to give to the users and user groups. You can give the following permissions.
   - View
   - Run
   - Edit
   - Delete
   - Schedule

When permissions are given to a user group, all the users in that user group get those permissions automatically. Also, permissions can be given only to the users and user groups who have the appropriate actions assigned to them.

You can give permissions to the users in two ways.

- You can give each permission to each user individually.
- You can use the **Select all** button to give a permission to all the users at one time.

For example: You have to give view permission to all the users. Instead of selecting the permission for each user you can select the permission, and use the **Select all** button to give permission to all the users.

c. Click the **Save** button.
Agent Performance Reports

- Agent Availability for Chat Report
- Agent Chat Productivity by Queue Report
- Agent Efficiency Report
- Agent Login Summary Report
- Agent Work Summary Report
Agent performance reports are designed to help you track, analyze, and improve agent performance.

Unified EIM and WIM contains templates for five types of agent performance reports:

1. Agent Availability for Chat
2. Agent Chat Productivity by Queue
3. Agent Efficiency
4. Agent Login Summary
5. Agent Work Summary

**Agent Availability for Chat Report**

---

**Important:** This template is available only if your installation includes Unified WIM.

This report provides data about the length of time the chat agents are available to receive chats during the time in which they are logged in. This report helps managers to understand how much of the total logged in time of agents is used to service chats.

This report has two levels:

- **Level 1:** Displays data for all selected agents for the reporting time period.
- **Level 2:** Displays the time interval wise break up of the report for the selected user. To drilldown to this level of report, click on the user name.

**Level 1**

Level 1 displays the following information.

- **User name:** User names of the agents for whom report is run.
- **Time**
  - **Logged On:** Total time for which agent was logged into the application.
  - **Available For Chat:** Time for which agent was available for servicing chats. This is the time for which the agent’s availability indicator shows him available for chats.
  - **Not Available For Chat:** Time for which agent was logged in the application, but was unavailable for chats.

  \[
  \text{Time not available for chat} = \text{Time logged on} - \text{Time available for chat}
  \]

- **Percentage Availability For Chat:** Out of the total logged in time, percentage of time the agent was available for chats.

  \[
  \text{Percentage availability for chat} = \frac{\text{Time availability for chat (in seconds)}}{\text{Time logged on (in seconds)}} \times 100
  \]
Level 1 of a sample Agent Availability for Chat report

<table>
<thead>
<tr>
<th>Department</th>
<th>User Name</th>
<th>Chats Serviced</th>
<th>Time Available For Chat</th>
<th>Not Available For Chat</th>
<th>Percentage Availability For Chat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Support</td>
<td>Adriana</td>
<td>49</td>
<td>20:16:45</td>
<td>09:52:07</td>
<td>19:26:18</td>
</tr>
<tr>
<td></td>
<td>John</td>
<td>2</td>
<td>04:44:46</td>
<td>09:00:00</td>
<td>04:44:46</td>
</tr>
<tr>
<td></td>
<td>Thomas</td>
<td>196</td>
<td>92:55:23</td>
<td>04:24:15</td>
<td>09:31:00</td>
</tr>
<tr>
<td>Marketing</td>
<td>Jimmy</td>
<td>12</td>
<td>02:15:45</td>
<td>09:29:08</td>
<td>01:46:37</td>
</tr>
<tr>
<td>Service</td>
<td>Jonavick</td>
<td>47</td>
<td>15:39:16</td>
<td>01:00:57</td>
<td>14:00:51</td>
</tr>
<tr>
<td></td>
<td>Teison</td>
<td>0</td>
<td>01:32:24</td>
<td>09:00:00</td>
<td>01:32:24</td>
</tr>
<tr>
<td></td>
<td>Williams</td>
<td>6</td>
<td>01:14:15</td>
<td>09:18:31</td>
<td>00:55:44</td>
</tr>
</tbody>
</table>

Level 2 of a sample Agent Availability for Chat report

Agent Chat Productivity by Queue Report

Important: This template is available only if your installation includes Unified WIM.

This report gives details about the volume of chats handled by agents in each queue and the time taken for handling chats. This report will help supervisors to understand the productivity of agents, identify agents who are highly productive and focus training efforts on agents who are not productive.

This report has four levels.

- **Level 1**: Displays data for all selected agents for the reporting time period.
- **Level 2**: Displays the time interval wise break up of the report. To drilldown to this level of report, click on the queue name.
- **Level 3:** Displays details of all activities for the selected time interval.
- **Level 4:** Displays details of the selected activity. The objective is to help the supervisor examine the chat transcript of any specific activity.

### Level 1

Level 1 displays the following information.

- **Queue:** Name of the queue for which the selected users have worked during the reporting time period.

- **Chats serviced:**
  - **Assign:** Number of chats, which were directly assigned to the agent by the system from an entry point. Assignment can happen either by Push or Pull.
  - **Transfer:** Number of chats that were transferred to the agent. This includes only those chats that were transferred from one agent to another. If an agent transfers a chat to a queue or department, and another agent is assigned that chat, this chat will not be counted in transferred chats activity. It will be counted in the assigned chats.
  - **Conference:** Number of chats in which the agent was part of a conference.
  - **Total:** Total number of chats serviced by the agent.

\[
\text{Total} = \text{Assign} + \text{Transfer} + \text{Conference}
\]

- **Average time:**
  - **Work:** Work time is defined as the time agent spends in servicing chat activities. This is not the time for which the chat stays in the agent’s inbox, but the time for which the agent works on the activity. For example, the agent is servicing two chats at a time, and both the activity stays in the agent’s inbox for 10 minutes and the time for which the agent has serviced each of the chat is five minutes, the work time for each activity will be five minutes. This does not include the chats in the Completed or Monitor folders. Total work time is the sum of all work times for all chat activities serviced by the agent for the queue in the reporting time period.

\[
\text{Average work time} = \frac{\text{Total work time}}{\text{Total chats serviced}}
\]

  - **Wrap:** Wrap time for a chat activity is defined as the time agent spends in doing post chat work after the customer has exited the chat. This is the time the agents focus is on a chat in the Current folder (not completed or monitor folders), after the customer exits the chat and before the agent completes the activity. Total wrap time is the sum of all wrap times for chat activities serviced by the agent for the queue. If the agent leaves the chat before the customer exits the chat, the wrap time for the activity is zero.

\[
\text{Average wrap time} = \frac{\text{Total wrap time}}{\text{Total chats serviced}}
\]

  - **Handle:** Average handle time for all the chat activities worked on.

\[
\text{Average Handle Time} = \frac{(\text{Total work time} + \text{Total wrap time})}{\text{Total chats serviced}}
\]
### Level 2 of a sample Chat Productivity by Queue report

**Level 2**

Level 2 displays the time interval wise break up of the report. To drill down to this level of report, click on the queue name.

**Level 2 of a sample Chat Productivity by Queue report

### Level 3

Level 3 displays the following information.

- **Activity ID:** Activity ID of the chat.
- **Activity Start:** Date and time when activity was created.

**Important:** In case of chats that have still not been completed, all fields, except for Activity ID and Activity Start, will be blank.

- **Activity End:** Date and time when the chat activity was completed.
- **Wait Time:** Time between activity creation and start of service i.e. when activity status changed to **Assigned - In progress** the first time.

\[
\text{Wait time} = \text{Service start time} - \text{Activity creation time}
\]

- **Chat Duration:** Duration of the chat. The chat duration includes the wait time, actual time that an agent spent chatting with the customer, and the wrap-up time after customer left the session.

\[
\text{Chat duration} = \text{Activity completion time} - \text{Activity creation time}
\]
Abandoned/ Serviced: This field will display N/A if the chat was ended, i.e. the agent completed the chat or the customer exited the chat. If the chat is not ended at the reporting time, the column will be blank.

Completed By: If the chat is serviced and completed by the agent, this column shows the user name of the agent who completed the activity. If the agent clicks the Leave button and leaves the chat, before the customer exited from the session, or if the chat gets abandoned, this column shows the value System.

Level 3 of a sample Chat Productivity by Queue report

Level 4

Level 4 displays the following information.

Important: Level 4 drilldown is not available for chats that have not been completed.

Chat Transcript:
- Time Stamp: Time at which the chat message was sent.
- Chat By: Name of the agent or the customer who sent the message. For the messages generated by the system the column shows the value System. For example, the message, A representative will be with you in about a minute, is a system generated message.
- Message: Message sent.

Notes:
- Time Stamp: Time when the note was created.
- Created By: User name of the user who created the note.
- Notes: Content of the note.

General Attributes:
- Activity ID: Activity ID of the chat.
- Case ID: Case ID of the chat.
- Type: Type of activity will be Chat.
- Mode: Mode will be Inbound.
- Sub Type: Sub type will be General.
- Date Created: Date and time when the activity was created.
- Waiting Time: Time for which the customer waited before being serviced.
- **Activity Duration**: Duration of the activity.
- **Subject**: This is the first message sent by the customer.
- **Priority**: Priority of the activity.
- **Queue Name**: Name of the original queue where the activity got routed to for the first time.
- **Referrer Name**: Name of the referrer URL.
- **Customer Name**: Full name of the customer i.e. first name, middle name, and last name.
- **Email address**: Email address of the customer, to which the transcript was sent. If no transcript was sent, this column will show the last updated email address of the customer.
- **Follow-up email sent (Y/N)**: This column shows whether chat transcript was emailed to the customer.
- **Customer OS / Browser details**: Customer’s browser details.
- **Category**: Categories assigned to the activity.
- **Resolution code**: Resolution codes assigned to the activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Stamp</th>
<th>Chat By</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/13/2006 08:30:09 AM</td>
<td>John Doe</td>
<td>I need some help with filling out a new loan application</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:30:24 AM</td>
<td>Systems</td>
<td>[An agent will be with you shortly.]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:30:38 AM</td>
<td>Systems</td>
<td>[You are now chatting with Brian Merkie.]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:33:29 AM</td>
<td>Brian Merkie</td>
<td>Sure, I can help you with that. What kind of loan are you looking at?</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:33:49 AM</td>
<td>John Doe</td>
<td>I need a student loan</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:34:09 AM</td>
<td>Brian Merkie</td>
<td>[Item sent - <a href="http://www.example.com">http://www.example.com</a>]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:34:59 AM</td>
<td>Brian Merkie</td>
<td>Then please check out this page.</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:35:13 AM</td>
<td>Brian Merkie</td>
<td>[Item sent - online software: email response management, self-service, chat, knowledge management.][12]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:36:26 AM</td>
<td>Brian Merkie</td>
<td>[Item sent - article: Customer service innovation.]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:37:06 AM</td>
<td>John Doe</td>
<td>Okay, I have all the information you need. Thanks!</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:37:04 AM</td>
<td>Brian Merkie</td>
<td>You are welcome!</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:37:07 AM</td>
<td>Systems</td>
<td>[Customer John Doe has left the session]</td>
<td></td>
</tr>
<tr>
<td>08/13/2006 08:47:29 AM</td>
<td>Systems</td>
<td>(Agent Brian Merkie has closed the session)</td>
<td></td>
</tr>
</tbody>
</table>

*Level 4 of a sample Chat Productivity by Queue report*

**Agent Efficiency Report**

This report provides insight in the efficiency of agents in handling the activities and cases assigned to them. It answers the following questions for the reporting period:

- How many emails are assigned to agents?
- How many are transferred, closed, or completed?
- How many of the closed items are being reopened?

Agents can generate this report from the Agent Console as part of My Reports.
Level 1

Here are the details for each column in the report along with any formulas that are used to calculate values. Unless specified otherwise, only actions that occur within the reporting period are included in the output.

- **User Name**: User names of the agents.

- **Activities**
  - **Assigned to Agent**: Activities assigned to the agent.
    
    Activities Assigned = Activities pushed from queues to agent + Activities assigned to agent directly from workflows + Activities transferred to agent from other queues and departments + Activities pulled by agent + Activities composed by agent
  
  - **Transferred Out by Users**: Activities transferred out of the agent’s inbox by the agent. Note that this includes activities transferred to a queue, user, or department.
  
  - **Transferred Out by Workflow**: Activities transferred out of the agent’s inbox by workflows.
    
    Transferred Out by Workflow = Activities transferred out by Alarm workflows + Activities pushed back to the queue by the system
  
  - **Completed**: Activities completed by the agent.

- **Cases**
  - **Open At Start**: Number of cases that were open and assigned to the agent at the start of the reporting period.
  
  - **Assigned**: Number of cases that were assigned to the agent.
  
  - **Closed**: Number of cases that were closed by the agent.
  
  - **Reopened**: Out of the cases closed by the agent in the reporting period, the number of cases that were reopened by the time the report was run.
  
  - **Percentage Closed**: Percentage of all open and assigned cases that were closed by the agent.
    
    Percentage Closed = 100 * (Closed / (Open At Start + Assigned))
  
  - **Percentage Reopened**: Percentage of cases closed during the reporting period that were reopened by the time the report was run.
    
    Percentage Reopened = 100 * (Reopened / Closed)

A sample Agent Efficiency report
Agent Login Summary Report

You can use this report to measure the productivity of agents by comparing the number of activities worked on by agents during the period they were logged in to Unified EIM and WIM. Agents can generate the report from the Agent Console to evaluate their own work.

This report has four levels.

- **Level 1:** Displays data for all the selected agents for the reporting time period.
- **Level 2:** Allows you to drill down to the details of a specific user and see the activity type break up for the user.
- **Level 3:** Displays the time interval wise break up of the report for the selected user and activity type.
- **Level 4:** Displays the login details of the agent. To see this report click the **Logged On Time** of the agent.

### Level 1

Level 1 displays the following information.

- **User Name:** User name of the agent.

- **# Activities Worked On:** Number of distinct activities worked on by the agent. For example, the agent composes an email and does save draft, then comes back to the email after one hour works on it and sends it out to the customer. In this case he has worked on the same activity twice so this will be counted as one activity only. Also, if the agent replies to an email, and for some reason after one hour sends another reply to the same email, this will also be counted as only one activity.

- **Average Time (hh:mm:ss):**
  - **Work:** Average time spent on working on an activity. This is not the time for which an activity stays in the agents inbox, but the time for which the agent works on an activity. For example an activity stays in the agent’s inbox for 15 minutes and the time for which the agent has clicked on the activity is five minutes, the work time for the activity will be five minutes.

  \[
  \text{Average work time} = \frac{\text{Total time spent on working the activities}}{\text{Number of distinct activities worked on}}
  \]

  For example, an agent works on Activity1 for five minutes, then works on Activity2 for five minutes and then works on Activity1 for five minutes. The average work time will be \(5+5+5/2\), because the agent has worked on two distinct activities.

  - **Wrap:** Average wrap time for all the activities worked on. As wrap time is not considered for email activities, its value is always zero.

  - **Handle:** Average handle time for all the activities worked on. As the wrap time for email activities is always zero, the work time and handle time will be the same.

  \[
  \text{Average handle time} = \frac{\text{Total work time} + \text{Total wrap time}}{\text{Number of distinct activities worked on}}
  \]

- **Time (hh:mm:ss):**
  - **Cumulative Handle Time:** The total handle time for all the activities worked on by the user.

- **Logged On Time:** Total time the agent was logged in to the application.
Agent Login Summary Report

Level 1 of a sample Agent Login Summary report

In the level 1 report, click a user name to view a Level 2 report for that user.

Important: This report template does not cover chat activities. For information about the handling of chats, use the Agent Availability for Chat Report.

Level 2 of a sample Agent Login Summary report

In the level 2 report, click an activity type to view a level 3 report for the user.

Level 3 of a sample Agent Login Summary report

Level 4 of a sample Agent Login Summary report

Level 4 displays the following information.

- **Login Time**: Date and time of login.
Logout Time: Date and time of logout.

Reason: Reason for logout. The reasons for logout can be one of the following.
- Logout: Agent clicks the Logout button and logs out of the application.
- Timeout: Agent doesn’t logout of the application but his login is timed out because of inactivity. In this case the Logged on time will also include the inactive time.
- Forced Logout: Some one else logged in with the same user name and the agent is forced to logout.

Time Logged On: Time for which the agent was logged on.

Agent Work Summary Report

The rate at which agents are able to process activities. Activity types that are included are: Email, and Task. Chat activities and activities that are in the supervisory loop are not included.

This report has three levels.
- Level 1: Displays data for all selected agents for the reporting time period.
- Level 2: Allows you to drill down to the details of a specific user and see the activity type break up for the user.
- Level 3: View data for the selected user and activity type, broken down by time interval.

This report gives you an in-depth understanding of the rate of processing of activities by agents. Note that activities in the supervisory loop are not considered in this report.

A Note About Turnaround Time

An activity assigned to agent is considered to be turned around by the agent once the agent performs any of the following actions manually on that activity send, send and complete, complete and transfer.

Turnaround time for an activity is the time measured from the point the activity got assigned to the agent, till the point it was turned around by the agent. This can be measured in business hours or the 24 hour format.

Average turn around time is the total turnaround time (for all the turned around activities) divided by the number of activities turned around.

Note that the number of activities turned around is not displayed in the report.
It can happen that an activity which is turned around by the agent (say by transferring to a queue) is reassigned to him. If the agent turns it around a second time (say by completing), the number of activities turned around for the agent is two i.e. same activity can be turned around more than once by the same agent.

Action by rules to move an activity out of agent inbox (auto pushback/transfer by alarm workflows) are not considered in counting turned around activities.

If agent1 composes an activity and assigns it to agent2. Agent2 completes the activity. In this case this activity is considered as turned around by agent2, but is not considered as a turned around activity for agent1.

With this report you can also calculate the percentage of activities that meet a specific turnaround time. For example: While configuring the report you specify the turnaround time for email to be one hour. The column, percentage meeting turn around time, in the report will show the percentage of emails that were turned around in one hour.

**Level 1**

Here are the details for each column in the report along with any formulas that are used to calculate values. Unless specified otherwise, only actions that occur within the reporting period are included.

- **User Name:** User name of the agent.
- **Assigned:** Number of activities assigned to the agent.
  
  Assigned = Activities assigned by inbound and transfer workflows + Activities transferred manually by other users

- **Pulled:** Number of activities picked and pulled by the agent.

- **Worked on:** Total number of distinct activities selected at least once in the Agent Console.

- **Composed:** Number of activities created by the agent by selecting a New Activity Shortcut.

- **Replied:** Number of replies sent by the agent.

- **Completed:** Number of activities completed by the agent by clicking the Send and Complete or Complete buttons.

- **Transferred To Users:** Number of activities transferred by the agent to other users.

- **Transferred To Queues:** Number of activities transferred by the agent to other queues.

- **Transferred To System/Departments:** Number of activities transferred by the agent to the system user or to other departments.

- **Transferred by Workflow:** Number of activities transferred by workflow.

  Transferred by Workflow = Activities automatically pushed back from the agent's inbox + Activities transferred by alarm rules.

- **Average Turnaround Time:** Turnaround time for an activity is the time period between the time at which the activity was assigned to the agent and the time at which the agent performed one of the following actions for that activity: **Send, Send and Complete, Complete, or Transfer**. For more details, see “A Note About Turnaround Time” on page 36.
Average turnaround time = Total turnaround time/Total number of activities turned around

<table>
<thead>
<tr>
<th>Report</th>
<th>Work Summary</th>
<th>Time Frames</th>
<th>07/01/2009 12:00:00 AM To 04/01/2011 12:00:00 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Templates</td>
<td>Agent Work Summary</td>
<td>Time Increments</td>
<td>Quarter</td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td>Turnaround Time</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Sort By</td>
<td>User name</td>
<td>Turnaround Time In</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Sort Order</td>
<td>Descending</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Click here for report description

Manager: Adam Green
Department: Customer Support

<table>
<thead>
<tr>
<th>User Name</th>
<th>Assigned</th>
<th>Pulled</th>
<th>Worked on</th>
<th>Composed</th>
<th>Repaired</th>
<th>Completed</th>
<th>Users</th>
<th>Transferred To Queues</th>
<th>Sections / Departments</th>
<th>Transferred by Workflow</th>
<th>Average Turnaround Time</th>
<th>Percentage Handling Turnaround Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steven Blum</td>
<td>788</td>
<td>224</td>
<td>1476</td>
<td>91</td>
<td>684</td>
<td>996</td>
<td>27</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>375:04:11</td>
<td>24.12</td>
</tr>
<tr>
<td>Sandeep Singh</td>
<td>1123</td>
<td>516</td>
<td>1364</td>
<td>7</td>
<td>494</td>
<td>1281</td>
<td>221</td>
<td>11</td>
<td>7</td>
<td>10</td>
<td>175:42:46</td>
<td>30.16</td>
</tr>
<tr>
<td>Reable Young</td>
<td>1008</td>
<td>445</td>
<td>2057</td>
<td>208</td>
<td>1504</td>
<td>2336</td>
<td>56</td>
<td>89</td>
<td>0</td>
<td>0</td>
<td>147:38:11</td>
<td>35.10</td>
</tr>
<tr>
<td>Hamish television</td>
<td>879</td>
<td>281</td>
<td>1708</td>
<td>10</td>
<td>706</td>
<td>1063</td>
<td>59</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>68:01:14</td>
<td>24.53</td>
</tr>
<tr>
<td>Karmen Thrall</td>
<td>565</td>
<td>230</td>
<td>1261</td>
<td>43</td>
<td>689</td>
<td>511</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>61:21:10</td>
<td>53.36</td>
</tr>
<tr>
<td>Jacob Aceara</td>
<td>296</td>
<td>91</td>
<td>308</td>
<td>6</td>
<td>177</td>
<td>315</td>
<td>26</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>187:25:38</td>
<td>21.89</td>
</tr>
<tr>
<td>Charles Lu</td>
<td>1276</td>
<td>737</td>
<td>3078</td>
<td>432</td>
<td>3661</td>
<td>3020</td>
<td>49</td>
<td>21</td>
<td>1</td>
<td>0</td>
<td>76:21:13</td>
<td>55.51</td>
</tr>
</tbody>
</table>

Level 1 of a sample Agent Work Summary report

Level 2
In the level 2 report, click a user name to view a Level 2 report for that user.

Level 2 of a sample Agent Work Summary report

Level 3
In the level 3 report, click an activity type to view a Level 3 report for the user.

Level 3 of a sample Agent Work Summary report
Callback Volume Report
The Callback reports provide information on the callback activities.

Unified EIM and WIM contains one template for callback reports:

- Callback Volume Report

## Callback Volume Report

This report provides a complete list of Callback requests that were placed during the time period selected for the report. The report includes both callback and delayed callback requests.

---

**Important**: This template is available only if your installation includes Unified WIM.

---

This report has only 1 level.

### Level 1

Level 1 displays the following information.

- **Date**: Date on which the web form submission was made.
- **Caller Name**: Name of the customer.
- **Phone #**: The phone number entered in the web form as the number to which the call is to be made.
- **Delayed minutes**: The delay period (in minutes) that is specified in the web form as the period of time the system should wait before placing the call to the customer. This applies to delayed callback requests only. The number will be zero for a regular web callback and will be greater than zero for delayed callback.
- **Disposition**: Current state of the request.
  - **Failed**: Number of calls that were attempted, but failed to get connected to the customer’s phone number.
  - **Timeout**: Number of calls that timed out before the call could be completed.
  - **Completed**: Number of calls that were successfully handled.
  - **Abandoned**: Number of calls that failed for reasons other than a failure to connect or a timeout.
Classification Reports

- Activity and Case Classification Report
Classification reports are useful for identifying customer service trends in the contact center.

Unified EIM and WIM contains one template for classification reports:

- Activity and Case Classification report

## Activity and Case Classification Report

This report helps in identifying the types of issues faced by the customers based on classifications. Managers can identify the issues that come repeatedly and are critical. While configuring the report, you can choose to include or exclude classifications that have been deleted from the system.

On the basis of this information the management can take following steps.

- Train the staff to deal with issues.
- Articles with solution of the problem can be put on the self-service web site so that the customers can use them. This will reduce the load on the contact center.
- If some critical issue is identified, then efforts can be put to resolve it.

### Level 1

This report has only one level, and displays the following information.

![Sample Activity and Case Classification report](image)

- **Classification**: Names of categories and resolution codes. If a report is run for a classification, which has sub-classifications, then the report shows both classifications and sub-classifications.

  For example: In the window below, if Digital video recorders is selected, the report will be run for Digital Video Recorders and its sub-classification DVRs.
### Sample classification

- **Activities Classified:** Number of activities classified.
- **Cases Classified:** A case cannot be classified on its own, but when an activity associated with a case is assigned a classification, the case is also assigned that classification.
  - **New:** Number of new cases which got this classification. New case means the case created in reporting time period.
  - **Existing:** Number of existing cases which got this classification. Existing case means the case created before the reporting time period.
- **Percentage Cases Classified:** Percentage of cases classified in a category or resolution code.

\[
\text{Percentage cases classified} = \frac{\text{Cases classified (New + Existing)}}{\text{Summary cases classified (New + Existing)}} \times 100
\]

### Important Things to Note

Let us try to understand the values in the **Activities classified** and **Cases classified** columns.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Activities classified</th>
<th>Cases Classified Existing</th>
<th>Percentage Cases Classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptops</td>
<td>10</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>HP</td>
<td>5</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Printers</td>
<td>10</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Cartridge</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Summary</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

In the table above:

- 5 activities get classified as Laptops and HP
- 5 activities get classified as HP and Printers
5 activities get classified as Cartridges

Let us try to understand the values in the columns **Activities classified** and **Cases classified** and the row **Summary**:

1. When the agents assigns category Laptop and HP to an activity, HP count goes up by one and Laptop count will go up by two in the Activities classified and Cases Classified column.
   - Five activities gets classified as HP and Laptops and five activities get classified as HP. The count of HP will increase +5 and count of Laptop will increase +10, as the activities classified as HP will also get classified as Laptop.

2. The Summary column shows the total number of distinct activities.
   - Total number of distinct activities is 15.

3. If an activity gets classified and then declassified, within a reporting time period then the activity is not shown in the report.

4. If a case is already classified before the time period and no classification happens in the reporting time period, then this case is not shown in the report.

5. If activity in a case is assigned category A before the reporting time period, and during the reporting time period another activity in the case is assigned category B, then Case and Activity count will be incremented for category B only.
Contact Center Trend Reports

- Case Volume Report
- Email Volume Report
Contact center trend reports help managers identify the volume of requests handled by the contact center.

The contact center trend reports templates are:

1. Case volume
2. Email volume

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Time Frame</th>
<th>Description</th>
<th>Sort By</th>
<th>Sort Order</th>
<th>Department List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Volume report</td>
<td>03/01/2004 12:00 AM to 10/01/2004 12:00 AM</td>
<td>Time increments: Month</td>
<td>Call Type</td>
<td>Ascending</td>
<td>Customer Support</td>
</tr>
</tbody>
</table>

### Case Volume Report

This report provides managers information about the rate of creation of cases in each department and case closure rate. Managers can keep track of case resolution time and service levels for case management using this report.

This report has one level.

<table>
<thead>
<tr>
<th>Department</th>
<th>New</th>
<th>Closed</th>
<th>Reopened</th>
<th>Percentage Within Service Level</th>
<th>Resolution Time</th>
<th>Activity per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Support</td>
<td>75</td>
<td>73</td>
<td>149.00</td>
<td>0.00</td>
<td>0.00</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>73</td>
<td>149.00</td>
<td>0.00</td>
<td>0.00</td>
<td>10</td>
</tr>
</tbody>
</table>

#### A sample Case Volume report

**Level 1**

It displays the following information.

- **Date**: Displays the date for each day within the reporting time period.
- **Cases**:
  - **New**: Number of new cases created in the department. A case belongs to a department, if the first activity of the case belongs to the department. For example, Activity1 comes in Department1 and a new case is associated to the activity. Activity2 belonging to the same case comes in department1 and is
Email Volume Report

Managers and supervisors can use this report to understand the daily volume of email activities coming in and going out of the service organization over the reporting period, and the moving average for the specified number of days. This report allows executive management to spot trends in email volumes over a period of time.

A Note About Moving Average

For example, if you are calculating the moving average for received emails for the reporting period from August 10 to August 30, and the number of days for which you are calculating moving average is five days. The moving average column for received emails for August 15 will be the total number of incoming emails from August 10 to August 14 divided by five. Likewise, the moving average for August 16 will be the total number of incoming emails from August 11 to August 15 divided by five.

The report has only one level.

Level 1

Level 1 displays the following information.

- **Closed**: Number of cases closed in the department.
- **Reopened**: Out of the cases closed by the agent in the reporting period, the number of cases that were reopened in the reporting period. If a case is closed and reopened multiple times in a time period, each of those close and reopen events get reported, if they fall within the reporting time period.

  For example: You run a report on 15 September for the time period of 1 August to 30 August.
  - A case was opened on 27th August and closed on 28th August and reopened on 29th August.
  - A case was opened on 2nd August and closed on 4th August and reopened on 6th August and closed on 7th August.
  - A case was opened on 27th August closed on 28th August and reopened on 5th September.

  Except for the case that got reopened on fifth September all other cases will get counted in this report.

- **Percentage Within Service Level**: Out of the cases that got closed in the reporting time period, percentage of cases that were closed within the service level.

- **Average**:
  - **Resolution time**: Average resolution time for the cases closed in business or 24 hours format.
  - **Activity per Case**: Average number of activities per case that have been closed.

  **Important**: For the percentage and average columns, the number of cases closed will mean the number of cases, which got closed in the time period and never got opened till the time the report is run.
- **Date**: Displays the date for each day within the reporting time period.

- **Received Emails**:
  - #: Number of incoming emails for the alias.
  - **Moving Avg.**: Moving average for the number of incoming emails.

- **Compose**:
  - #: Number of composed emails for the alias. The emails have to be sent out by dispatcher, for this column to be incremented.
  - **Moving Avg.**: Moving average for the number of composed email activities. For more details, see “A Note About Moving Average” on page 47.

- **Outgoing Emails**:
  - **Manual Replies**:
    - #: Number of manual email replies for the alias. The emails have to be sent out by dispatcher, for this column to be incremented.
    - **Moving Avg.**: Moving average for the number of manual email replies. For more details, see “A Note About Moving Average” on page 47.
  - **Auto Replies**:
    - #: Number of automatic email replies for the alias. The emails have to be sent out by dispatcher, for this column to be incremented.
    - **Moving Avg.**: Moving average for the number of automatic email replies. For more details, see “A Note About Moving Average” on page 47.

---

**A sample Email Volume report**

<table>
<thead>
<tr>
<th>Date</th>
<th>Received Emails</th>
<th>Compose</th>
<th>Outgoing Emails</th>
<th>Auto Reply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#:</td>
<td>#:</td>
<td>#:</td>
<td>#:</td>
</tr>
<tr>
<td></td>
<td>Moving Avg.</td>
<td>Moving Avg.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>#</td>
<td>#</td>
<td>#</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alias: <a href="mailto:Support@company.com">Support@company.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>09/20/2004 12:09:00 AM</td>
</tr>
<tr>
<td>116</td>
</tr>
<tr>
<td>29.4</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1.0</td>
</tr>
<tr>
<td>14</td>
</tr>
<tr>
<td>15.4</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0.0</td>
</tr>
</tbody>
</table>

| 09/24/2004 12:09:00 AM    |
| 54                        |
| 43.0                      |
| 1                         |
| 1.4                       |
| 31                        |
| 11.4                      |
| 0                         |
| 0.0                       |

| 09/27/2004 12:09:00 AM    |
| 67                        |
| 45.2                      |
| 2                         |
| 1.0                       |
| 16                        |
| 14.0                      |
| 0                         |
| 0.0                       |

| 09/30/2004 12:09:00 AM    |
| 127                       |
| 51.2                      |
| 2                         |
| 1.2                       |
| 15                        |
| 14.2                      |
| 0                         |
| 0.0                       |

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>264</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>78</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>264</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>78</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
7
Knowledge Base Performance Reports

- Article Usage Report
- Article Usage by Alias Report
- Article Usage by Language Report
- Article Usage by Queue Report
KB performance reports are used to measure the usage and effectiveness of the KB. They also help administrators identify frequently used articles, which can then be published on the self-service web site to reduce customer contact volume.

The KB performance reports templates are:

1. Article Usage
2. Article Usage by Alias
3. Article Usage by Language Report
4. Article Usage by Queue

**Article Usage Report**

This report shows the usage of KB articles in assisted interactions. Supervisors use the report to identify most frequently used articles and the channels which use them.

The report has one level.

**Level 1**

Level 1 displays the following information.

- **Knowledge Base**: Folders and sub-folders selected for the report. They are grouped by department.
- **Usage by Rules**:
  - **Count**: Number of KB articles used by rules in auto replies.
  - **%**: Out all the articles used in the reporting period, the percentage of articles used by rules.
- **Usage by Agents**: Usage of articles in various types of activities like email, task, phone etc.
  - **Email**:
    - **Count**: Number of KB articles used in emails by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in emails by agents.
  - **Task**:
    - **Count**: Number of KB articles used in tasks by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in tasks by agents.
  - **Phone**:
    - **Count**: Number of KB articles used in phone calls by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in phone calls by agents.
  - **Other**:
    - **Count**: Number of KB articles used in other activities by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in other activities by agents.
Article Usage by Alias Report

This report shows the usage of KB articles in email interactions for each alias. Supervisors can use the report to identify most frequently used articles.

The report has one level.

Level 1

Level 1 displays the following information:

- **Knowledge Base**: Folders and sub-folders selected for the report. They are grouped by department.

- **Usage by Rules**:
  - **Count**: Number of KB articles used by rules in auto replies.
  - **%**: Out all the articles used in the reporting period, the percentage of articles used by rules.

- **Usage by Agents**:
  - **Count**: Number of KB articles used in emails by agents.
  - **%**: Out all the articles used in the reporting period, percentage of articles used in emails by agents.

- **Total**:
  - **Count**: Total number of articles used.
  - **%**: Out all the articles used in the reporting period, percentage of articles used by the alias.
Article Usage by Language Report

This report shows the usage of KB articles in assisted interactions according to the language of the content in the article. Supervisors use this report to identify the most frequently used articles for a particular language.

This report has only one level.

Level 1

- **Knowledge Base**: Folders and sub-folders selected for the report. They are grouped by department. It also displays the KB language selected for the report.

- **Usage by Rules**:
  - **Count**: Number of KB articles used by rules in auto replies.
  - **%**: Out all the articles used in the reporting period, the percentage of articles used by rules.

- **Usage by Agents**: Usage of articles in various types of activities like email, task, phone etc.
  - **Email**:
    - **Count**: Number of KB articles used in emails by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in emails by agents.
  - **Task**:
    - **Count**: Number of KB articles used in tasks by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in tasks by agents.
  - **Phone**:
    - **Count**: Number of KB articles used in phone calls by agents.
    - **%**: Out all the articles used in the reporting period, percentage of articles used in phone calls by agents.
  - **Other**:
    - **Count**: Number of KB articles used in other activities by agents.
- %: Out all the articles used in the reporting period, percentage of articles used in other activities by agents.

Total:
- Count: Total number of articles used.
- %: Out all the articles, percentage of articles used in the reporting period.

<table>
<thead>
<tr>
<th>Knowledge Base</th>
<th>Usage by Stat</th>
<th>Email</th>
<th>Task</th>
<th>Phone</th>
<th>Other</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Department</td>
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<td></td>
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</tr>
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<td>Standard</td>
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<td>4</td>
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<tr>
<td>Chat</td>
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<tr>
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<td>0.00</td>
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<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Email</td>
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<td>0.00</td>
<td>0</td>
<td>0.00</td>
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<td>0.00</td>
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</tr>
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<tr>
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<td>0</td>
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<td>-FI</td>
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<td>0</td>
<td>0.00</td>
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<td>0</td>
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<tr>
<td>-Sig</td>
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<td>GM MOBILE</td>
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<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>WELCOME NOTE</td>
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<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
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<td>0.00</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

A sample Article Usage by Language report

**Article Usage by Queue Report**

This report shows the usage of KB articles for each channel, in each queue. Supervisors use the report to identify most frequently used articles. After the articles are identified, they can be placed on the self-service channel to reduce customer contact volume.

This report has only one level.

**Level 1**

Level 1 displays the following information:

- **Knowledge Base**: Folders and sub-folders selected for the report. They are grouped by department.

- **Usage by Rules**:
  - Count: Number of KB articles used by rules in auto replies.
  - %: Out all the articles used in the reporting period, the percentage of articles used by rules.

- **Usage by Agents**: Usage of articles in various types of activities like email, task, phone etc.
  - Email:
    - Count: Number of KB articles used in emails by agents.
    - %: Out all the articles used in the reporting period, percentage of articles used in emails by agents.
Task:
- **Count**: Number of KB articles used in tasks by agents.
- **%**: Out all the articles used in the reporting period, percentage of articles used in tasks by agents.

Phone:
- **Count**: Number of KB articles used in phone calls by agents.
- **%**: Out all the articles used in the reporting period, percentage of articles used in phone calls by agents.

Other:
- **Count**: Number of KB articles used in other activities by agents.
- **%**: Out all the articles used in the reporting period, percentage of articles used in other activities by agents.

Total:
- **Count**: Total number of articles used.
- **%**: Out all the articles used in the reporting period, percentage of articles used by queue.

---

A sample Article Usage by Queue report
Service Level Performance Reports

- Notes
- Case Age Report
- Email Age by Alias Report
- Email Age by Queue Report
Service level performance reports provide information about the aging of activities and cases in the system.

The Service level performance report templates are:

1. Case Age
2. Email Age by Alias
3. Email Age by Queue

### Notes

#### Age Buckets

With the service level performance reports you can tell the age of the cases and emails in the system. There are different age buckets provided by the system to know the age. Using these age buckets you can find out the cases and emails that belong to different ages. For example, you can run a report to see the number of cases which have an age of 8 to 12 hours or 12 to 16 hours.

There are 36 age buckets available in the system, and at a time you can run a report with maximum 12 age buckets.

#### Calculating Age

The age of the cases and emails can be calculated either by using the business calendar hours or 24 hours.

For example, a new case is opened in the system at 9 pm and the department in which it came has the business calendar set with the 9 am to 5 pm time. And you run a report at 9.30 am that morning.

- If you are calculating the age using 24 hours the age of the case will be 12 hours and 30 minutes.
- If you are calculating the age using business hours calendar the age of the case will be 30 minutes.

#### Case Age Report

This report is used to calculate the distribution of case resolution time. You can use the report results to improve case resolution time.

It tells about the number of open cases in the system and their age. Managers can track issues, which are aging beyond limits set by the service organization and take effective action.

This report has one level.
Email Age by Alias Report

This report is used as a planning aid by supervisors and resource schedulers. This report will provide the age of open email activities for each alias. This will help users to track activities which are aging beyond the limits set by the service organization and take effective action.

This report has one level.

Level 1

Level 1 displays the following information.

- Alias: Lists the aliases selected for running the report.
- Email:
  - Open: Number of emails open at the time the report is run.
  - Average Age (hh:mm): Average age of open email activities. The email age is calculated in business calendar hours or 24 hours depending on what has been specified while running the report. For more details, see “Notes” on page 56.
Email Age by Queue Report

This report is used as a planning aid by supervisors and resource schedulers. It provides an accurate picture of the age of open email activities in the queue. This helps to track queues in which activities are aging beyond the limits set by the service organization, and take effective action.

This report has one level.

Level 1

Level 1 displays the following information.

- **Queue**: Names of the queues for which report is run.
- **Email**:
  - **Open**: Number of email activities which are open, at the time the report is run.
  - **Average Age (hh:mm)**: Average age of open activities in queue, in business or 24 hours. “Notes” on page 56.
- **Age**: Number of open emails that belong to the specified age range. The email age is calculated in business calendar hours or 24 hours, depending on what has been specified while running the report. The number of columns in this section vary, depending on the number of age buckets selected for the report. For more details, see “Notes” on page 56.
details, see “Notes” on page 56.

<table>
<thead>
<tr>
<th>Queue</th>
<th>Open</th>
<th>Average Age (shown)</th>
<th>1+ Week</th>
<th>2+ Week</th>
<th>50+ Days</th>
<th>5+ Days</th>
<th>1+ Days</th>
<th>2+ Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td>429</td>
<td>1482:11</td>
<td>252</td>
<td>257</td>
<td>267</td>
<td>288</td>
<td>40%</td>
<td>203</td>
</tr>
<tr>
<td>All Other</td>
<td>64</td>
<td>1288:40</td>
<td>49</td>
<td>37</td>
<td>31</td>
<td>54</td>
<td>61</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>493</strong></td>
<td><strong>1670:47</strong></td>
<td><strong>088</strong></td>
<td><strong>344</strong></td>
<td><strong>238</strong></td>
<td><strong>442</strong></td>
<td><strong>456</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

*A sample Email Age by Queue report*
Workforce Scheduling Reports

- A Note About Service Level and Response Time
- Chat Volume by Queue Report
- Chat Volume by Referrer URL
- Email Snapshot by Agent Report
- Email Snapshot by Queue Report
- Email Volume by Alias Report
- Email Volume by Queue Report
Supervisors, administrators, and other resource planners generate workforce scheduling reports.

These reports provide information on email processing such as daily email arrival and handling rates, percentage of email responses meeting service levels, and age distribution of responded emails. Resource planners can use this information to base decisions on switching agents between queues at different times to meet required service levels.

The workforce scheduling report templates are:

1. Chat Volume by Queue
2. Chat Volume by Referrer URL
3. Email Snapshot by Agent Report
4. Email Snapshot by Queue Report
5. Email Volume by Alias
6. Email Volume by Queue

A Note About Service Level and Response Time

While configuring workforce scheduling reports, you can either specify a service level, or you can use the system service level for computing the emails that were responded with in service level. If you use the system service level, then the response time is also measured using the work times specified at the system level. But, if you specify a service level while configuring the reports, then you have to specify if you want to calculate the response time using 24 hours or business hours calendar.

In these report you can also specify a service level and calculate the percentage of emails that met the specified service level.

Chat Volume by Queue Report

This report measures the rate at which chat activities come into a queue, the rate at which they are assigned to the agents, and the percentage of activities in the queue that meet service levels. For resource schedulers, this gives a good indication of the specific queues where the service standards are not satisfactory.

This report has four levels:

- **Level 1**: Displays the information for the queues selected for the report.

---

**Important:** For chat activities, service level cannot be set at system level. You have to specify the service level while configuring the reports.

**Important:** This template is available only if your installation includes Cisco Unified Web Interaction Manager.
Level 2: Displays the information for each queue split into the time segment selected while running the report.

Level 3: Displays details of all chat activities for the selected time interval.

Level 4: Displays the details of the selected chat activity.

Level 1

Level 1 displays the following information.

- **Queue:** Names of the queues selected for the report.

- **Incoming Chats:** Chat activities coming in the queue. The activities created in the specified time interval and completed by the time the report is run are counted in this column. The calculation does not include the chats transferred to the queue.

  \[ \text{Incoming Chats} = \text{Serviced chats} + \text{Abandoned chats} \]

  For example, if a chat gets created at 3:55PM and completed at 4:05PM, it gets reported for the time frame 3:30 - 4PM and not for the time frame 4 - 4:30PM. If a chat gets created at 4:25 PM, and the report is run at 4:30 PM, but the chat activity is not completed yet, it does not get reported.

- **Abandoned Chats:**
  - \# Abandoned chat activities. A chat is counted as abandoned when a customer leaves a chat session before an agent joins the session. The status of the chat does not change to Assigned - In Progress.
  - **Average Wait Time:** Average waiting time for customers who abandoned the chat.
    \[
    \text{Average wait time} = \frac{\text{Sum of wait times}}{\text{Number of abandoned chats in the time frame}}
    \]
    \[
    \text{Wait time} = \text{Customer exit time} - \text{Activity creation time}
    \]
  - **# Beyond SL:** Chats abandoned after the service level time configured for the report. For more details, see “A Note About Service Level and Response Time” on page 61.
    For example: While configuring the report you set the service level as two minutes and a chat waits in the queue for three minutes and it gets abandoned, it will be counted in this column.

- **Serviced Chats:**
  - \# Chats serviced within the reporting time period. The activities created in the specified time interval and completed by the time the report is run are counted in this column.
  - **Average Wait Time:** Average wait time for customers who were serviced by agents.
    \[
    \text{Average wait time} = \frac{\text{Sum of wait times}}{\text{Number of serviced chats in the time frame}}
    \]
    \[
    \text{Wait time} = \text{Service start time} - \text{Activity creation time}
    \]
    Service start time refers to the time when activity status got changed to Assigned - In Progress the first time.
  - **Average Chat Duration:** Average chat duration for all serviced chat activities.
    \[
    \text{Average chat duration} = \frac{\text{Sum of chat durations}}{\text{Number of serviced chats in the time frame}}
    \]
    \[
    \text{Chat Duration} = \text{Activity completion time} - \text{Activity creation time} \]
% Closed By Agent: Out of all chats that were serviced and completed within the specified time frame, the percentage of activities completed by an agent. This column does not include the activities completed by the customer or system.

% closed by agent = Chats completed by agents / Total serviced chats * 100

For example: Assume there are 10 serviced chats, out of them there are:

- Two chats where the agent clicks the Leave button while the customer is still in the session, and the customer completes the activity at a later point of time.
- Three chats where the agent clicks the Complete button (from the Current or My Monitor folder) while the customer is still in the session.
- Five chats where the customer clicks the Exit button and the agent completes the activity (from the Current or My Monitor folder) at a later point of time.

% Closed by agent = (3 + 5) / 10 * 100 = 80%

# Within SL: Chats serviced within the service level time configured for the report. Out of all the completed chats that were created within the specified time frame, the number of chats that were serviced within the service level cutoff time. For more details, see “A Note About Service Level and Response Time” on page 61.

For example, while configuring the report you set the service level as two minutes. Any chat, which waits in the queue for less than two minutes before getting serviced, is counted in this column.

% Within SL: The value in this field can vary based on the way you configure your report criteria. While calculating the percentage within service level, you can either include or exclude the abandoned chats.

% within SL = Chats serviced within SL / Total number of chats * 100

If you exclude abandoned chats from the service level computation:

- % within Service Level: Out of all serviced and completed chats that were created within the specified time frame, percentage of chats serviced with in the service level.

If you include abandoned chats in the service level computation:

- % within Service Level: Out of all incoming chats that were created within the specified time frame, percentage of chats serviced within service level.

For example, there are total 20 incoming chats. Out of them 10 are abandoned and 10 are serviced. Out of the 10 serviced chats, five are serviced within the service level. And, out of the 10 abandoned chats, eight are abandoned beyond the service level.

The % within service level is calculated as:

- Do not include abandoned chats in service level: % within SL = 5/10 * 100
- Include abandoned chats in service level: % within SL = 5/20 * 100
Level 2 displays the information for each queue split into the time segment selected while running the report.

Level 3 displays the following information.

- **Activity ID**: Activity ID of the chat.
- **Activity Start**: Date and time when the activity was created.
- **Activity End**: Date and time when the activity was completed.
- **Wait Time**: Time between activity creation and start of service i.e. when activity status changes to Assigned - In progress the first time.

\[
\text{Wait time} = \text{Service start time} - \text{Activity creation time}
\]

- **Chat Duration**: Duration of the chat. It includes the wait time, actual time that an agent spent chatting with the customer, and the wrap-up time after customer left the session.

\[
\text{Chat Duration} = \text{Activity completion time} - \text{Activity creation time}
\]

- **Abandoned/ Serviced**: In this column you get to know whether the chat was abandoned or serviced. And if the chat was serviced, was it serviced within service level or not. The possible values for this column are, serviced within SL, serviced beyond SL, or abandoned.
Completed By: If the agent completes the chat, this column shows the user name of the agent. If the agent clicks the Leave button and leaves the chat before the customer exits from the session, or if the chat gets abandoned, this column shows the value System.

Level 3 of a sample Chat Volume by Queue report

Level 4

Level 4 displays the following information:

- **Chat Transcript:**
  - **Time Stamp:** Time at which the chat message was sent.
  - **Chat By:** Name of the agent or the customer who sent the message. For a system generated message, the column shows the value System. For example, the message, A representative will be with you in about a minute, is a system generated message.
  - **Message:** Content of the message sent by the customer or agent.

**Chat Transcript**

<table>
<thead>
<tr>
<th>Time Stamp</th>
<th>Chat By</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/11/2006 08:00:04 AM</td>
<td>John Doe</td>
<td>I need some help with filling out a new loan application</td>
</tr>
<tr>
<td>06/11/2006 08:00:24 AM</td>
<td>System</td>
<td>[An agent will be with you shortly.]</td>
</tr>
<tr>
<td>06/11/2006 09:00:59 AM</td>
<td>Brian Manke</td>
<td>[You are now chatting with Brian Manke.]</td>
</tr>
<tr>
<td>06/11/2006 09:03:30 AM</td>
<td>Brian Manke</td>
<td>Sure, I can help you with that. What kind of loan are you looking at?</td>
</tr>
<tr>
<td>06/11/2006 09:02:49 AM</td>
<td>John Doe</td>
<td>I need a student loan</td>
</tr>
<tr>
<td>06/11/2006 09:04:19 AM</td>
<td>Brian Manke</td>
<td>Then please check out this page</td>
</tr>
<tr>
<td>06/11/2006 09:05:22 AM</td>
<td>Brian Manke</td>
<td>[Item sent - All about loans]</td>
</tr>
<tr>
<td>06/11/2006 09:06:06 AM</td>
<td>Brian Manke</td>
<td>[Item sent - More about student loans]</td>
</tr>
<tr>
<td>06/11/2006 09:07:24 AM</td>
<td>John Doe</td>
<td>Okay, that gives me all the information I need. Thank you.</td>
</tr>
<tr>
<td>06/11/2006 09:07:44 AM</td>
<td>Brian Manke</td>
<td>You are welcome!</td>
</tr>
<tr>
<td>06/11/2006 09:07:35 AM</td>
<td>System</td>
<td>[Customer John Doe has left the session]</td>
</tr>
<tr>
<td>06/11/2006 09:07:29 AM</td>
<td>System</td>
<td>[Agent Brian Manke has closed the session]</td>
</tr>
</tbody>
</table>

Level 4 of a sample Chat Volume by Queue report

- **Notes:**
  - **Time Stamp:** Date and time when note was created.
  - **Created By:** User name of the user who created the note.
  - **Notes:** Content of the note.

- **General Attributes:**
  - **Activity ID:** Activity ID of the chat.
- **Case ID**: Case ID of the chat.
- **Type**: Type of activity is Chat.
- **Mode**: Mode is Inbound.
- **Sub Type**: Sub type is General.
- **Date Created**: Date and time at which the activity was created.
- **Waiting Time**: Time for which the customer waited before being serviced.
- **Activity Duration**: Duration of the activity.
- **Subject**: This is the first message sent by the customer.
- **Priority**: Priority of the activity.
- **Queue Name**: Name of the original queue where the activity got routed to for the first time.
- **Referrer Name**: Name of the referrer URL.
- **Customer Name**: Full name of the customer i.e. first name, middle name, and last name.
- **Email address**: Email address of the customer, to which the transcript was sent. If no transcript was sent, this column will show the last updated email address of the customer.
- **Follow-up email sent (Y/N)**: This column shows whether chat transcript was emailed to the customer.
- **Customer OS / Browser details**: Customer’s browser details.
- **Category**: Categories assigned to the activity.
- **Resolution code**: Resolution codes assigned to the activity.

<table>
<thead>
<tr>
<th>General Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity ID:</td>
</tr>
<tr>
<td>Case ID:</td>
</tr>
<tr>
<td>Type:</td>
</tr>
<tr>
<td>Mode:</td>
</tr>
<tr>
<td>Sub Type:</td>
</tr>
<tr>
<td>Date Created:</td>
</tr>
<tr>
<td>Waiting Time:</td>
</tr>
<tr>
<td>Activity Duration:</td>
</tr>
<tr>
<td>Subject:</td>
</tr>
<tr>
<td>Priority:</td>
</tr>
<tr>
<td>Queue Name:</td>
</tr>
<tr>
<td>Referrer Name:</td>
</tr>
<tr>
<td>Customer Name:</td>
</tr>
<tr>
<td>Email address:</td>
</tr>
<tr>
<td>Follow-up email sent (Y/N):</td>
</tr>
<tr>
<td>Customer OS / Browser details:</td>
</tr>
<tr>
<td>Category:</td>
</tr>
<tr>
<td>Resolution code:</td>
</tr>
</tbody>
</table>

*Level 4 of a sample Chat Volume by Queue report*
Chat Volume by Referrer URL

This report displays a referrer-URL wise report of chat activity and allows managers to track the referrer URLs (sections of the website) from which Chat help was requested the most. By comparing website logs with this report, managers and site designers can understand usage characteristics of the website from which live help is sought. For example, if one particular section of the website is driving most of live help traffic, it might indicate usability related issues with that section.

This report has four levels:

- **Level 1**: Displays the information for the complete reporting period for the departments selected for the report.
- **Level 2**: Displays the information for each referrer URL split into the time segment selected while running the report.
- **Level 3**: Display details of all activities for the selected time interval.
- **Level 4**: Displays details of the selected activity.

### Level 1

Level 1 displays the following information.

- **Referrer Name**: Name of the referrer URL.
- **Incoming Chats**: Chat activities coming in the queue. The activities created in the specified time interval and completed by the time the report is run are counted in this column. The calculation does not include the chats transferred to the queue.

\[
\text{Incoming chats} = \text{Serviced chats} + \text{Abandoned chats}
\]

For example, if a chat gets created at 3:55PM and completed at 4:05PM, it gets reported for the time frame 3:30 - 4PM and not for the time frame 4 - 4:30PM. If a chat gets created at 4:25 PM, and the report is run at 4:30 PM, but the chat activity is not completed yet, it doesn't get reported.

- **Abandoned Chats**:
  - #: Abandoned chat activities. A chat is counted as abandoned when a customer leaves a chat session before an agent joins the session. The status of the chat does not change to Assigned - In Progress.
  - **Average Wait Time**: Average waiting time for customers who abandoned the chat.
    
    \[
    \text{Average wait time} = \frac{\text{Sum of wait times}}{\text{Number of abandoned chats in the time frame}}
    \]
    
    \[
    \text{Wait time} = \text{Customer exit time} - \text{Activity creation time}
    \]
  - # Beyond SL: Chats abandoned after the service level time configured for the report. For more details, see “A Note About Service Level and Response Time” on page 61.

For example: While configuring the report you set the service level as two minutes and a chat waits in the queue for three minutes and it gets abandoned, it will be counted in this column.

Important: This template is available only if your installation includes Cisco Unified Web Interaction Manager.
- **Serviced Chats:**
  - **#:** Chats serviced within the reporting time period. The activities created in the specified time interval and completed by the time the report is run are counted in this column.
  - **Average Wait Time:** Average wait time for customers who were serviced by agents.
    
    \[ \text{Average wait time} = \frac{\text{Sum of wait times}}{\text{Number of serviced chats in the time frame}} \]
    
    \[ \text{Wait time} = \text{Service start time} - \text{Activity creation time} \]
    
    Service Start time refers to the time when activity status got changed to Assigned - In Progress the first time.
  - **Average Chat Duration:** Average chat duration for all serviced chat activities.
    
    \[ \text{Average chat duration} = \frac{\text{Sum of chat durations}}{\text{Number of serviced chats in the time frame}} \]
    
    \[ \text{Chat Duration} = \text{Activity completion time} - \text{Activity creation time} \]
  - **% Closed By Agent:** Out of all chats that were serviced and completed within the specified timeframe, percentage of activities completed by an agent. This column does not include the activities completed by the customer or system.
    
    \[ \% \text{ closed by agent} = \frac{\text{Chats completed by agents}}{\text{Total serviced chats}} \times 100 \]
    
    For example: Assume there are 10 serviced chats, out of then there are:
    - Two chats where the agent clicks the **Leave** button even while the customer is still in the session, and the customer completes the activity at a later point of time.
    - Three chats where the agent clicks the **Complete** button (from the Current or My Monitor folders) even while the customer is still in the session.
    - Five chats where the customer clicks the **Exit** button and the agent completes the activity (from the 'Current' or 'My Monitor' folders) at a later point of time.
    
    \[ \% \text{ Closed By Agent} = \frac{3 + 5}{10} = 80\% \]
  - **# Within SL:** Chats serviced within the service level time configured for the report. Out of all the completed chats that were created within the specified time frame, the number of chats that were serviced within the service level cutoff time. For more details, see “A Note About Service Level and Response Time” on page 61.
    
    For example, while configuring the report you set the service level as two minutes. Any chat, which waits in the queue for less than two minutes before getting serviced, is counted in this column.
  - **% Within SL:** The value in this field can vary based on the way you configure your report criteria. While calculating the percentage within service level, you can either include or exclude the abandoned chats. For more details, see “A Note About Service Level and Response Time” on page 61.
    
    \[ \% \text{ within SL} = \frac{\text{Chats serviced within SL}}{\text{Total number of chats}} \times 100 \]
    
    If you exclude abandoned chats from the service level computation:
    - **% within Service Level:** Out of all serviced and completed chats that were created within the specified time frame, percentage of chats serviced within the service level.
      
      If you include abandoned chats in the service level computation:
    - **% within Service Level:** Out of all incoming chats that were created within the specified time frame, percentage of chats serviced within service level.
For example, there are total 20 incoming chats. Out of them 10 are abandoned and 10 are serviced. Out of the 10 serviced chats, five are serviced within the service level. And, out of the 10 abandoned chats, eight are abandoned beyond the service level.

The % within service level is calculated as:

- Do not Include abandoned chats in service level: % within SL = 5/10 * 100
- Include abandoned chats in service level: % within SL = 5/20 * 100

**Level 2**

Level 2 displays the information for each queue split into the time segment selected while running the report.

**Level 3**

Level 3 displays the following information:

- **Activity ID**: Activity ID of the chat.
- **Activity Start**: Date and time when activity was created.
- **Activity End**: Date and time when activity was completed.
- **Wait Time**: Time between activity creation and start of service i.e. when activity status changed to Assigned - In progress the first time.
Wait time = Service start time - Activity creation time

Chat Duration: Duration of the chat. It includes the wait time, actual time that an agent spent chatting with the customer, and the wrap-up time after customer left the session.

Chat duration = Activity completion time - Activity creation time

Abandoned/ Serviced: In this column you get to know whether the chat was abandoned or serviced. And if the chat was serviced, was it serviced within service level or not. The possible values for this column are, serviced within SL, serviced beyond SL, or abandoned.

Completed By: If the agent completes the chat, this column shows the user name of the agent. If the agent clicks the Leave button and leaves the chat before the customer exits from the session, or if the chat gets abandoned, this column shows the value System.

### Level 4

Level 4 displays the following information:

- **Chat Transcript:**
  - **Time Stamp:** Time at which the chat message was sent.
  - **Chat By:** Name of the agent or the customer who sent the message. For a system generated message, the column shows the value System. For example, the message, A representative will be with you in about a minute, is a system generated message.
  - **Message:** Content of the message sent by the customer or agent.

<table>
<thead>
<tr>
<th>Chat Transcript</th>
<th>Time Stamp</th>
<th>Chat By</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/11/2006 09:00:04 AM</td>
<td>John Doe</td>
<td>I need some help filling out a new loan application</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:00:24 AM</td>
<td>System</td>
<td>[An agent will be with you shortly.]</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:00:29 AM</td>
<td>System</td>
<td>[You are now chatting with Brian Menke.]</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:00:59 AM</td>
<td>Brian Menke</td>
<td>Sure, I can help you with that. What kind of loan are you looking at?</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:02:48 AM</td>
<td>John Doe</td>
<td>I need a student loan</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:04:19 AM</td>
<td>Brian Menke</td>
<td>Then please check out this page</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:06:23 AM</td>
<td>Brian Menke</td>
<td>[Item sent - All about loans]</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:06:56 AM</td>
<td>Brian Menke</td>
<td>[Item sent - More about student loans]</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:07:24 AM</td>
<td>John Doe</td>
<td>Okay, that gives me all the information I need. Thank you!</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:07:34 AM</td>
<td>Brian Menke</td>
<td>You are welcome!</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:07:37 AM</td>
<td>System</td>
<td>[Customer John Doe has left the session]</td>
<td></td>
</tr>
<tr>
<td>09/11/2006 09:07:29 AM</td>
<td>System</td>
<td>[Agent Brian Menke has closed the session]</td>
<td></td>
</tr>
</tbody>
</table>

Level 4 of a sample Chat Volume by Referrer URL report
Notes:
- **Time Stamp**: Date and time when note was created.
- **Created By**: User name of the user who created the note.
- **Notes**: Content of the note.

**General Attributes**:
- **Activity ID**: Activity ID of the chat.
- **Case ID**: Case ID of the chat.
- **Type**: Type of activity is **Chat**.
- **Mode**: Mode is **Inbound**.
- **Sub Type**: Sub type is **General**.
- **Date Created**: Date and time at which the activity was created.
- **Waiting Time**: Time for which the customer waited before being serviced.
- **Activity Duration**: Duration of the activity.
- **Subject**: This is the first message sent by the customer.
- **Priority**: Priority of the activity.
- **Queue Name**: Name of the original queue where the activity got routed to for the first time.
- **Referrer Name**: Name of the referrer URL.
- **Customer Name**: Full name of the customer i.e. first name, middle name, and last name.
- **Email address**: Email address of the customer, to which the transcript was sent. If no transcript was sent, this column will show the last updated email address of the customer.
- **Follow-up email sent (Y/N)**: This column shows whether chat transcript was emailed to the customer.
- **Customer OS / Browser details**: Customer’s browser details.
- **Category**: Categories assigned to the activity.
- **Resolution code**: Resolution codes assigned to the activity.

<table>
<thead>
<tr>
<th>General Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity ID: 2481</td>
</tr>
<tr>
<td>Case ID: 2142</td>
</tr>
<tr>
<td>Type: Chat</td>
</tr>
<tr>
<td>Mode: Inbound</td>
</tr>
<tr>
<td>Sub Type: General</td>
</tr>
<tr>
<td>Date Created: 08/31/2006 08:20:32 AM</td>
</tr>
<tr>
<td>Waiting Time: 00:00:05</td>
</tr>
<tr>
<td>Activity Duration: 00:14:26</td>
</tr>
<tr>
<td>Subject: I need some help with filling out a new loan application</td>
</tr>
<tr>
<td>Priority:</td>
</tr>
<tr>
<td>Queue Name: Chat Que</td>
</tr>
<tr>
<td>Referrer Name: Others</td>
</tr>
<tr>
<td>Customer Name: John Doe</td>
</tr>
<tr>
<td>Email address: <a href="mailto:john@nnnnetds.com">john@nnnnetds.com</a></td>
</tr>
<tr>
<td>Follow-up email sent (Y/N): Yes</td>
</tr>
<tr>
<td>Customer OS / Browser details: Mozilla 4.0 (compatible) Windows NT 5.1; SV1 (NET CLR 1.1.4322)</td>
</tr>
<tr>
<td>Category: Information Request</td>
</tr>
<tr>
<td>Resolution code:</td>
</tr>
</tbody>
</table>

*Level 4 of a sample Chat Volume by Referrer URL report*
Email Snapshot by Agent Report

This report provides information about the number of emails that are open, not completed, when the snapshot is taken. Information is displayed for each agent for a maximum of 12 units. Each unit is either a day, a week, or a month.

Run this report at different times of the day to see trends in email volume over the course of a typical work day.

This report has one level.

Level 1

It displays the following information.

- **Open Emails**: An email activity that is not in the **Completed** status when the snapshot is taken.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Steven Liu</td>
<td>52</td>
<td>41</td>
<td>23</td>
<td>32</td>
<td>67</td>
<td>86</td>
<td>81</td>
<td>23</td>
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</tr>
<tr>
<td>Sandeep Singh</td>
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<td>33</td>
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<td>23</td>
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<td>63</td>
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<td>13</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Charlie Lin</td>
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<td>41</td>
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<td>114</td>
<td>138</td>
<td>56</td>
<td>70</td>
<td>59</td>
</tr>
<tr>
<td>Grand Total</td>
<td>138</td>
<td>143</td>
<td>118</td>
<td>113</td>
<td>138</td>
<td>114</td>
<td>179</td>
<td>114</td>
<td>138</td>
<td>56</td>
<td>70</td>
<td>59</td>
</tr>
</tbody>
</table>

Sample email snapshot by agent report

Email Snapshot by Queue Report

This report provides information about the number of email activities that are open, not complete, when the snapshot is taken. Information is displayed for each queue for a maximum of 12 units. Each unit is either a day, a week, or a month. The portion of these emails that have not yet been assigned to agents is also shown.

Run this report at different times of the day to see trends in email volume over the course of a typical work day.

Level 1

It displays the following information.

- **Open**: An email activity that is not in the Completed status.
- **Unassigned**: An email that is in the queue but not assigned to a user.
Email Volume by Alias Report

This report is used by supervisors and resource schedulers to get pertinent information on email arrival rate, email handling rate, and percentage of emails meeting service levels. Resource planners can move resources between queues at different times to meet the service levels required from the information.

This report has two levels.

- **Level 1**: Displays the information for the complete reporting period for the aliases selected for the report.
- **Level 2**: Displays the information for each alias split into the time segment selected while running the report.

**Level 1**

Level 1 displays the following information.

- **Alias**: Name of the alias.
- **Email**:
  - **At Start**: Number of open email activities for the alias, at the start of the reporting period.
  - **Incoming**:
    - **New/No Case**: Number of incoming email activities for the alias, which resulted in the creation of a new case or no case.
    - **Existing Case**: Number of incoming email activities for the alias, which were associated with an existing case.
  - **Delivery Excep. Mails**: Number of undelivered email activities for the alias. An undeliverable mail is the one that gets sent out by the dispatcher but is bounced back by the exchange server since it could not be delivered for various reasons. The email might get associated with a new case, existing case, or no case.
  - **Auto Ack.**: Number of auto-acknowledgements sent from the alias.
Auto Reply: Number of auto-replies sent from the alias.

Manual Reply: Number of manual replies sent from the alias. This column counts each email in the group reply individually. For example, if you send a group reply for five emails, the count of this column will go up by five. Forwarded or redirected emails are not counted in this column.

Response: Number of responses sent from the alias. Response is the first manual email reply to an incoming email.

Compose: Number of composed emails sent out from the alias.

Completed: Number of completed email activities for the alias. This column counts the incoming emails, emails created from the create object node, and composed emails.

Assigned: Number of emails assigned to an agent, but not completed at the end of the reporting time period. This column counts the incoming emails, emails created from the create object node, and composed emails.

Unassigned: Number of emails not assigned to any agent at the end of the reporting time period. This column counts the incoming emails, emails from create object node, and composed emails.

Open: Number of open emails at the end of the reporting time period. This column counts the incoming emails, emails created from the create object node, and composed emails.

Percentage Emails:

Responded Within SL: Out of all the email responses from the alias, percentage of responses that met specified service level. For more details, see “A Note About Service Level and Response Time” on page 61.

\[
\text{Percentage emails responded within SL} = \frac{\text{Number of emails responded within service level}}{\text{Total number of responses}} \times 100
\]

Not responded: Out of all the email activities that are open at the end of the reporting period, percentage of email activities for which no email response has been sent. This column will consider incoming emails and emails created from the create object node.

\[
\text{Percentage emails not responded} = \frac{\text{Number of emails that are open in the alias and not responded}}{\text{Total number of open emails}} \times 100
\]

For example: Let us say in the month of April 100 emails came from customers to the alias. Agents responded to 75 of them. Out of the 75, 50 were responded within five hours. So at the end of the month there are 100 open emails for the alias, of which 75 have been responded by agents.

You run the report for the month of April with a service level value of five hours.

- Percentage emails responded within SL = \( \frac{50}{75} \times 100 = 66.67\% \)
- Percentage emails not responded = \( \frac{100-75}{100} \times 100 = 25\% \)

Important: The values of both these fields can be 100%. See the next example for details.

Continuing with the example, let us assume that all the 75 responses were sent within five hours and completed. There are 25 open emails in the system which have not been responded.

In this case

- % emails responded within service level = \( \frac{75}{75} = 100\% \)
- % not responded = No of emails that are open in the queue and not responded (100-75) / No of open emails (25) = 100%

**Avg. Time:**

- **Response:** Average time taken to send the first manual reply to an email. Response time is calculated as the time from email received by the system till the time first manual response is sent out.

  \[ \text{Response} = \frac{\text{Sum of first manual reply time}}{\text{Total number of responses}} \]

- **Handle:** Average time spent by the agent working on the email. This is the time for which the agent had clicked on the activity and not the time for which the email was in the agent’s inbox.

  \[ \text{Handle} = \frac{\text{Sum of actual work time for email activities}}{\text{Total number of email activities handled}} \]

**Email Volume by Queue Report**

This report provides information about the number of emails that are received for each queue and the rate at which they are handled by the system and agents. It also shows the percentage of emails that were processed within the selected service level, as well as the average response and handle times.

This report has two levels.

- **Level 1:** View data for all selected queues for the reporting time period.
- **Level 2:** View data for a selected queue, broken down by time interval.
Level 1

Here are the details for each column in the report along with any formulas that are used to calculate values. Unless specified otherwise, only actions that occur within the reporting period are included in the output.

- **Incoming - New/No Case:** An email that has come into the queue and is associated with a new case or not associated with any case.

- **Incoming - Existing Case:** An email that has come into the queue and is associated with an existing case.
  - **Incoming Delivery Exception Mails:** An undelivered email that has come into the queue as a result of a delivery exception. An undeliverable mail is the one that gets sent out by the dispatcher but is bounced back by the exchange server since it could not be delivered for various reasons. The email might get associated with a new case, existing case, or no case.

- **Transfer In:** An email that has been transferred into this queue from other queues and departments. The transfer may have been performed either by users or by workflows.

- **Transfer Out:** An email that has been transferred from this queue into another queue or department. The transfer may have been performed either by users or by workflows.

- **Auto Reply:** An email sent to the customer automatically by a workflow as the first response to an incoming email from the customer. This does not include auto acknowledgements.

- **Manual Reply:** An email sent to the customer by a user from the Agent Console as a response to an incoming email from the customer. Note that this does not include emails that were forwarded or redirected from the Agent Console.

- **First Manual Reply:** The first manual reply.

- **Completed:** An email that has been completed either by a user or by a workflow. Note that an email that has been composed, saved, and transferred into this queue is also counted in this calculation.

- **Percentage First Manual Replies within SL:** Out of all the first manual replies, the percentage of first manual replies that were sent within the specified service level.

  \[
  \text{Percentage First Manual Replies within SL} = \frac{\text{No. of first manual replies within Service level}}{\text{Total number of first manual replies}} \times 100
  \]

- **Average First Manual Reply Time:** The average time taken by the agent to send the first manual reply.

  \[
  \text{Average First Manual Reply Time} = \frac{\text{Sum of first manual reply time}}{\text{Total number of first manual replies}}
  \]

- **Average Handle Time:** The average time taken by the agent to handle an activity in the reporting time period.

  \[
  \text{Average Handle Time} = \frac{\text{Sum of actual handle time for email activities}}{\text{Total number of email activities handled}}
  \]
Email Volume by Queue Report

Level 1 of a sample Email Volume by Queue report

Level 2

Click the name of a queue to view the Level 2 report for that queue.

Level 2 of a sample Email Volume by Queue report