HP Service Manager

for supported Windows® and Unix® operating systems

Software Version: 9.20

Service Manager Operational Reports Guide

Document Release Date: June 2010 Software Release Date: June 2010



Legal Notices

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 1996-2010 Hewlett-Packard Development Company, L.P.

Trademark Notices

Java[™] is a US trademark of Sun Microsystems, Inc.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered trademark of Oracle Corporation and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Eclipse plugin copyright © 2002, Chris Grindstaff. Part of the software embedded in this product is gSOAP software. Portions created by gSOAP are copyright © 2001-2004 Robert A. van Engelen, Genivia Inc. All Rights Reserved. Copyright © 1991-2005 Unicode, Inc. All rights reserved. Distributed under the Terms of Use in http:// www.unicode.org/copyright.html.

Trademark Notices

 $Java^{TM}$ and all Java based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered US trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

http://h20230.www2.hp.com/selfsolve/manuals

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

Or click the New users - please register link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support web site at:

www.hp.com/go/hpsoftwaresupport

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

Contents

| 1 | Reporting by Using Crystal Reports | 11 |
|---|---------------------------------------------------------|----|
| 2 | Installing Crystal Reports 2008. | |
| | Installation Requirements and Compatibility | |
| | Installation Requirements | |
| | Software Compatibility | |
| | Report Compatibility | |
| | Installing Crystal Reports 2008 with HP Service Manager | |
| | Packaging and File Location | |
| | Language packs | 15 |
| 3 | Report Descriptions and Usage | 17 |
| | Change Management Reports | |
| | Open and Closed Change Requests | |
| | Description | |
| | Customer Value | |
| | Percentage of Rejected Changes 1 | 19 |
| | Description | 19 |
| | Customer Value | 19 |
| | Percentage of Emergency Changes | 20 |
| | Description | 20 |
| | Customer Value | 20 |
| | Percentage of Successful Changes | 21 |
| | Description | 21 |
| | Customer Value | 21 |
| | Configuration Management Reports | 22 |
| | Configuration Item Relationships | 22 |
| | Description | 22 |
| | Customer Value | 22 |
| | Configuration Item Summary | 23 |
| | Description | 23 |
| | Customer Value | 23 |
| | Incident Management Reports | 24 |

| Open and Closed Incidents by Category | 24 |
|----------------------------------------------------------------|----|
| Description | |
| Customer Value | |
| Open and Closed Incidents by Service | |
| Description | |
| Customer Value | |
| Backlog of Incidents | 26 |
| Description | |
| Customer Value | 26 |
| Reopened Incidents | 26 |
| Description | 26 |
| Customer Value | 27 |
| Incidents Closed Meeting SLA Target | 27 |
| Description | |
| Customer Value | 27 |
| Knowledge Management Reports | 29 |
| Knowledge Management Activity | 29 |
| Description | 29 |
| Customer Value | 30 |
| Knowledge Management Documents Summary | 30 |
| Description | 30 |
| Customer Value | 30 |
| Knowledge Management: User Demand | 30 |
| Description | 30 |
| Customer Value | 31 |
| Knowledge Management Usage by Department (for SD Interactions) | 31 |
| Description | 31 |
| Customer Value | 31 |
| Problem Management Reports | 32 |
| Open and Closed Problems by Area | 32 |
| Description | 32 |
| Customer Value | 33 |
| Open and Closed Problems by Service | 33 |
| Description | 38 |
| Customer Value | 33 |
| Problems Closed Meeting SLA Target | 34 |

| | Description | 34 |
|---|---------------------------------------------|----|
| | Customer Value | 34 |
| | Service Desk Reports | 35 |
| | Escalated Interactions | 35 |
| | Description | 35 |
| | Customer Value | 35 |
| | Open and Closed Service Desk Interactions | 36 |
| | Description | 36 |
| | Customer Value | 36 |
| | First Time Fixed Interactions | 36 |
| | Description | 36 |
| | Customer Value | 37 |
| | Service Level Management Reports | 38 |
| | SLM: Response SLO Metrics | 38 |
| | Description | 38 |
| | Customer Value | 39 |
| | SLM: Summary | 39 |
| | Description | 39 |
| | Customer Value | 39 |
| | SLM: Availability-Duration Metrics | 40 |
| | Description | 40 |
| | Customer Value | 40 |
| | SLM: Availability-Uptime Metrics | |
| | Description | 40 |
| | Customer Value | 41 |
| 4 | Create and Edit Your Own Reports | 43 |
| | Software Requirements | |
| | Important Crystal Report Notes | |
| | ODBC Driver. | |
| | Joining Multiple Tables | |
| | Create a Join in Service Manager | |
| | OOB Reports Dependency | |
| | Create SM Operational Reports | |
| | Editing Reports Created in Earlier Versions | |
| | | |

| 5 | Customizing Report Settings |
|---|----------------------------------------------------------------|
| | Specifying a Time Range |
| | Customizing Against a Reference Date |
| Α | Date Range Definition |
| В | Report Examples |
| | Change Management Reports |
| | Open and Closed Change Requests |
| | Percentage of Rejected Changes |
| | Percentage of Emergency Changes |
| | Percentage of Successful Changes |
| | Configuration Management Reports |
| | Configuration Item Relationships89 |
| | Configuration Item Summary |
| | Incident Management Reports |
| | Open and Closed Incidents by Category |
| | Open and Closed Incidents by Service |
| | Backlog of Incidents |
| | Reopened Incidents |
| | Incidents Closed Meeting SLA Target |
| | Knowledge Management Reports |
| | Knowledge Management Activity |
| | Knowledge Management Documents Summary |
| | Knowledge Management: User Demand |
| | Knowledge Management Usage by Department (for SD Interactions) |
| | Problem Management Reports |
| | Open and Closed Problems by Area |
| | Open and Closed Problems by Service |
| | Problems Closed Meeting SLA Target |
| | Service Desk Reports |
| | Escalated Interactions |
| | Open and Closed Service Desk Interactions |
| | First Time Fixed Interactions |
| | Service Level Management Reports |
| | SLM: Response SLO Metrics |

| SLM: Summary | 143 |
|------------------------------------|-----|
| SLM: Availability-Duration Metrics | 144 |
| SLM: Availability-Uptime Metrics | 146 |

1 Reporting by Using Crystal Reports

HP Service Manager reporting works with Crystal Reports to provide improved reports and Business objects for the batch scheduling of reports. To run HP Service Manager reports with Crystal Reports, you need a working knowledge of the following:

- HP Service Manager
- Crystal Reports 2008
- The ServiceCenter ODBC driver.

To create reports you need a working knowledge of your DBMS or RDBMS, Crystal Reports 2008, and a general understanding of HP Service Manager applications and utilities.

For additional information about any of these concepts, see the following:

- For information about a particular RDBMS, see the vendor documentation for your database type.
- For database configuration, see the *HP Service Manager Installation Guide*.
- For information about HP Service Manager administration and configuration, and customizing the HP Service Manager product, see the HP Service Manager Help.

2 Installing Crystal Reports 2008

In HP Service Manager, reporting works with Crystal Reports 2008 to provide detailed reporting and analysis package that help maximize the abilities of your organization. Data monitoring and tracking, using Service Manager data from your environment, provide valuable insight to daily operations. Sample reports are provided so that you can build the reports into any reporting system.

Installation Requirements and Compatibility

Installation Requirements

The following components must be installed prior to using the HP Service Manager reporting feature:

- HP Service Manager Legacy Listener
- ServiceCenter ODBC driver
- Crystal Reports 2008

Software Compatibility

This reporting and analysis package was developed using the following software applications and is considered compatible with these versions only.

- HP Service Manager 7.11 and 9.20 run-time environment (RTE)
- HP Service Manager 7.11 and 9.20 Applications
- ServiceCenter 6.2 legacy ODBC Driver
- Crystal Reports 2008

Report Compatibility

With the appropriate developer license for Crystal Reports 2008, all report files (*.rpt) can be customized to meet the needs of your business. Non-Crystal Reports users can review the PDF files for each report shipped to determine which queries, joins, and filters were used for the development of the report. They can then use these details to recreate similar reports by using their own queries, joins, and filters. Each query interacts with any application compatible with the ServiceCenter ODBC driver.

Starting with SM Operational Reports 1.00, Operational reports will be delivered regularly. Reports prior to SM 7.11 can be obtained from the media specific for that version. For reports compatible with SM7.11 and later versions, see the HP Software Support Online (SSO) site at:

http://support.openview.hp.com/support.jsp

For additional compatibility information for Hewlett-Packard products, see the HP product support site at:

http://support.openview.hp.com/new_access_levels.jsp

Installing Crystal Reports 2008 with HP Service Manager

For information about installing and configuring the legacy listener, the ODBC driver, and installing Crystal Reports 2008 for use with HP Service Manager, see the *HP Service Manager Installation Guide*.

For ServiceCenter ODBC driver troubleshooting and best practices, see the Help topics packaged with Service Manager product.

Packaging and File Location

The HP Service Manager Operational Reports package is located in the SM_Operational_Reports_1.00 directory on the installation image or by clicking **Download Reports for HP Service Manager** from the Downloads tab on the Autorun installation screen. This directory contains a set of Crystal Reports report files (*.rpt). For additional information about downloading the out-of-box reports, see the *HP Service Manager Installation Guide*.

Language packs

The languages supported by the language pack install are as follows:

| • | H'm orland | |
|---|------------|--|
| • | English | |
| | | |

French

Japanese

- German
- Spanish
- Italian

- Korean
- Dutch

• Portuguese (Brazilian)

- Swedish
- Chinese Simplified
- Chinese Traditional

The default install language for Crystal Reports is set to English; however, if the native language of your OS is listed above, Crystal Reports will run in that language. The out-of-box reports are not localized and will render in English regardless of what language your Crystal Reports application is using.

You should refer to the Crystal Reports documentation for instructions on how to change the language that Crystal Reports uses.

3 Report Descriptions and Usage

The intention of this reporting package is to provide users with realistic examples of business reporting requirements. Each report is intended to meet the analytical needs of a generic Service Manager business user. All reports in the package can be executed on an HP Service Manager 7.11 and 9.20 out-of-box (OOB) system. The reports are intended to be used as a starting point for the development of more detailed, customer-specific reports.

The following tables describe the available application-specific reports, descriptions, and business use. The report files (*.rpt) can be opened in Crystal Reports and optionally modified to suit your needs. Detailed report descriptions can be viewed by clicking the link in the first column of the table.

Change Management Reports

| Report name | Business user | Description |
|----------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Open and Closed Change Requests | Service Management process managers, IT Management team | This report gives the user the ability to review, for a determined period, a breakdown of open and closed changes by category. |
| Percentage of Rejected Changes | Service Management process managers, IT Management team | This report provides an overview of the number of rejected changes as a percentage of the total number of closed changes in a given time period. |
| Percentage of Emergency Changes | Service Management process managers, IT Management team | This report provides an overview of the number of closed emergency changes as a percentage of the total number of closed changes in a given time period. |
| Percentage of Successful Changes | Service Management process managers, IT Management team | This report provides an overview of the number of closed changes that were successfully implemented (including with and without problems) as a percentage of the total number of closed changes in a given time period. |

Open and Closed Change Requests

Description

The Open and Closed Change Requests report breaks down changes by state (open or closed), by category, and then by phase. This report contains a graphical representation of the breakdown of open versus closed changes using a pie chart to display the categories. You can click any piece of the pie to

display a detailed breakdown of that category by phase. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by category and the current phase of the change.

Customer Value

This report provides a quick view of open and closed change requests for a specified time period. The percentages and totals displayed in group headings allow for a quick, visual overview of which change categories are generating the highest number of change requests, have a large number of change requests pending, or are approving and closing change requests quickly and efficiently. This information can then be used by a Change Management administrator to determine if the workflow in place needs to be adjusted or if a particular department requires additional training or resources to efficiently manage the number of change requests in a given area.

Percentage of Rejected Changes

Description

The Percentage of Rejected Changes report breaks down all closed changes in a given time period by status (rejected and non-rejected) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of rejected versus non-rejected changes using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of rejected and non-rejected changes for a given time period. Together with rejection reasons the report provides information about the way requesters and the IT organization handle the Change Management process. Reasons for rejecting a change include the following:

 The change is a standard one and should be handled through the Request Management process.

- The change is not a valid one (logical, feasible or unnecessary).
- The change approval is not supported.

This information can be used by a group manager to make decisions and take actions for the following reasons:

- If the request fulfillment process is not satisfactory because many standard changes enter the Change Management process, the request fulfillment process needs to be reviewed for improvements.
- If the requesters use the Change Management process to drop all their functional or technical requirements without consulting the product manager or owner, it might be necessary to adjust the roles and responsibilities of some people to decrease their workload.

Percentage of Emergency Changes

Description

The Percentage of Emergency Changes report breaks down all closed changes in a given time period by change type (emergency changes and other changes) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of changes using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that change type by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by change type and service.

Customer Value

This report provides a quick view of emergency changes for a given time period. The emergency change procedure is used to repair a failure (logged as an urgent incident) that has a large negative impact on the business and therefore needs to be fixed as soon as possible, and there is no workaround available that can be used. The percentage of emergency changes compared to all the changes within an organization is a good indication for the quality of Change Management and the service delivered. A well structured and planned Change Management process should limit the number of emergency changes needed after implementation to restore the service availability.

Percentage of Successful Changes

Description

The Percentage of Successful Changes report breaks down all closed changes in a given time period by status (failed, successful and successful with problems) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of successful changes, successful changes with problems and failed changes using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of successful and failed changes for a given time period. Successful changes are changes that were implemented successfully on the first attempt with minimized exposure to risk and a limited severity on the impact and service interruption. This means that there is no fallback needed, there is no unplanned downtime and the change does not cause a failure of the service after going life. A high percentage of successful changes is an indicator for good Change Management while a low percentage is an indicator for inadequate Change Management that needs to be evaluated.

Configuration Management Reports

| Report name | Business user | Description |
|----------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Configuration Item Relationships | Service Management process managers, IT Management team | This report provides a high level view of the configuration item relationships defined for the organization. |
| Configuration Item Summary | Service Management process managers, IT Management team | This report gives the user the ability to view all the configuration items within their organization grouped by type and then by status. |

Configuration Item Relationships

Description

The Configuration Item Relationships report breaks down the configuration items (CIs) and their downstream relationships by type and then by subtype. If a CI has more than one downstream relationship, the report displays the total count. You can double-click the count to view the full list of downstream relationships.

Customer Value

This report allows a Configuration Management administrator to evaluate the CI relationships defined in the organization and determine whether the relationship model accurately represents their business needs. The administrator can also see the outage definitions and determine whether to change them.

Configuration Item Summary

Description

The Configuration Item Summary report breaks down the configuration items by type and then by status. This report contains a pie chart displaying all configuration items (CIs) by type. You can double-click any piece of the chart to display a detailed breakdown of the CI type by its status. This report uses grouping to provide a view of total counts by type and status.

Customer Value

This report gives the Configuration Manager administrator a high level overview of all the CIs defined within their organization. The administrator can view the details of any specific CI type and make decisions about inventory based on count and status of existing CIs. The report highlights in red any CIs currently down so that the administrator quickly sees which configuration items need attention.

Incident Management Reports

| Report name | Business user | Description |
|---------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Open and Closed Incidents by Category | Service Management process managers, IT Management team | This report gives the user the ability to review, for a determined period, a breakdown of open and closed incidents by categories and their associated areas. |
| Open and Closed Incidents by Service | Service Management process managers, IT Management team | This report provides an overview of the number of reported incidents by service in a given time period. |
| Backlog of Incidents | Service Management process managers, IT Management team | This report enables the user to review the number of incidents that are not closed in a given time period. |
| Reopened Incidents | Service Management process managers, IT Management team | This report enables the user to review the percentage of reopened incidents by service in a given time period. |
| Incidents Closed Meeting SLA Target | Service Management process managers, IT Management team | This report enables the user to review, in a given time period, the number of closed incidents that meet the SLA targets, relative to the number of all closed incidents. |

Open and Closed Incidents by Category

Description

The Open and Closed Incidents by Category report breaks down incidents by

state (open or closed), by category, and then by area. This report contains a graphical representation of the breakdown of open versus closed incidents using a chart to display the categories. You can click any piece of the pie to display a detailed breakdown of that category by its areas. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by category and area.

Customer Value

This report provides a quick view of open and closed incidents for a specified time period. The percentages and totals displayed in group headings allow for quick determination of which categories and areas are generating the highest number of incidents, have a large number of incidents remaining open, or are resolving issues quickly. This information can then be used by an Incident Management administrator to determine if a particular department requires additional training or resources to efficiently manage the number of incidents in a given area.

Open and Closed Incidents by Service

Description

The Open and Closed Incidents by Service report breaks down all reported incidents in a given time period by status (open or closed) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of open versus closed incidents using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of open and closed incidents by service for a given time period. The percentages and totals displayed in group headings indicate the quality of the service delivered. An increase of incidents deviated from the trend line in a certain time period needs to be diagnosed and acted upon. This information can be used by an Incident Management administrator to determine whether a particular department requires

additional training or resources to decrease the number of incidents of a given service type. Note that the report excludes interactions logged as incidents but handled by the Service Desk.

Backlog of Incidents

Description

The Backlog of Incidents report breaks down non-closed incidents by time period, and then by assignment group. This report contains a graphical representation of the breakdown of all non-closed incidents using a pie chart. You can click any piece of the pie to display a detailed breakdown of that time period by assignment group. The backlog consists of all incidents assigned to a certain group that are not closed yet, for example, all open incidents for this week for the network support group.

Customer Value

This report provides information about the workload for an assignment group. A growing number of open backlog incidents for a group indicates that they are not able to handle the current workload which is a threat for the SLA target times. This information can be used by a group manager to make decisions about the resources needed for the Incident Management process.

Reopened Incidents

Description

The Reopened Incidents report breaks down all incidents that were ever marked closed by status (reopened and non-reopened) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). Using a pie chart, this report provides an overview of the number of incidents that were reopened because the solutions were not accepted by the customer, relative to the number of incidents closed in a given time period. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information into groups and sub-groups to provide a quick view of percentage of reopened incidents.

Customer Value

This report provides information about the quality of the Incident Management process. Reopened incidents imply extra workload for the support groups and a threat for the Service Level Target dates. Incidents reopened by the Service Desk Agent indicate that the solutions provided did not satisfy the customer, the support group did not do a good job, or the service disruption was due to incorrect diagnosis. Note that this report does not refer to incidents that were recreated, because not all interactions were closed by the solutions provided.

Incidents Closed Meeting SLA Target

Description

The Incidents Closed Meeting SLA Target report breaks down all closed incidents in a given time period by status (SLA Target Met and SLA Breached) and then by service type (Applications, E-mail/Webmail, Intranet/ Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of all closed incidents using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of closed incidents that meet SLA targets by service for a given time period. The percentages and totals displayed in group headings indicate the performance of the support organization. When the percentage of the closed incidents that meet SLA target is low, the Incident Manager needs to find out and analyze the weakest links of the process and define actions to improve the service delivery. Some possible actions are listed below:

- Provide support employees with training to upgrade their knowledge.
- Improve the knowledge database to increase the percentage of closed incidents that are first-time-fixed.

- Activate the Problem Management process to reduce the number of incidents.
- Hire more support employees when resource capacity is an issue.

Knowledge Management Reports

| Report name | Business user | Description |
|----------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Knowledge Management Activity | Service Management process managers, IT Management team | This report gives the user a breakdown of administrative document activities within Knowledge Management, for a given period of time. |
| Knowledge Management Documents Summary | Service Management process managers, IT Management team | This report gives the user an overview of all knowledge documents broken down by document type. |
| Knowledge Management: User Demand | Service Management process managers, IT Management team | This report gives the user an overview of knowledge document usage highlighting documents that were viewed and documents that were used as solutions, broken down by source. |
| Knowledge Management Usage by Department (for SD Interactions) | Service Management process managers, IT Management team | This report gives the user the ability to review, for a determined period, a breakdown by department of closed Service Desk interactions that used a Knowledge Management document for a solution. |

Knowledge Management Activity

Description

The Knowledge Management Activity report breaks down the Knowledge Management (KM) documents by administrative activity type. This report contains a graphical representation of the document activity using a pie chart. You can click any piece of the pie to display the details of the documents for that activity type. The activity types of View and Used Solution are not included as these are specific to the User Demand report and do not reflect administrative activity.

Customer Value

This report gives a KM administrator the ability to get a very high level overview of the activity occurring against the KM documents. The administrator can use this information to evaluate the KM document workflow and verify that the management of the resources is adequate. The information can be used to determine the volume of documents that are being created, modified, retired and approved. If there are several documents being created but none are being approved this might indicate that there are not enough approvers or that the approver process is inefficient.

Knowledge Management Documents Summary

Description

The Knowledge Management Documents Summary report breaks down Knowledge Management (KM) documents by type using a bar chart to display the totals. You can click any bar to display a detailed list of the documents within that document type.

Customer Value

This report gives the KM administrator an overview of the breakdown of KM documents by type allowing the administrator to evaluate the status of the KM database.

Knowledge Management: User Demand

Description

The Knowledge Management: User Demand report breaks down Knowledge Management (KM) documents by source and then by their usage. This report contains a graphical representation of the breakdown of documents using a bar graph to display the number of documents viewed and the number of documents used as a solution per source. You can click any bar of the chart to display the detailed usage counts within a source by document ID.

Customer Value

This report provides a quick view of documents within a source that were viewed or used as a solution. This information can be used by a KM administrator to evaluate the content of the KM documents. An administrator can view the detailed information for a particular document within a source and see the total times a document was viewed compared to the total times the document was used as a solution. If the document was viewed several times but not used as a solution this might indicate that the content of the document needs to be updated. An administrator may also determine that the document is invalid and should be retired or that the title and keywords need to be updated in order to better facilitate user searches.

Knowledge Management Usage by Department (for SD Interactions)

Description

The Knowledge Management usage by department (for SD Interactions) report breaks down closed Service Desk (SD) interactions by department that use Knowledge Management (KM) documents as solutions to close an interaction. This report contains a bar chart of the ten departments that used the most documents as solutions. Additionally, there is a bar for the other departments with closed interactions. You can click any bar to display a detailed breakdown of that department's closed interactions using KM documents. This report organizes the information using groups to help users quickly view total counts by department.

Customer Value

This report provides a quick view of closed interactions for a specified time period where KM documents contributed to the resolution. The totals displayed in group headings allow for quick determination of which departments are generating SD interactions being closed using KM documents. This information can then be used to determine if the KM document content for a particular area needs to be increased or updated. This provides the KM Manager with a comprehensive overview of whether or not there are enough documents to solve issues coming from a certain department.

Problem Management Reports

| Report name | Business user | Description |
|-------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Open and Closed Problems by Area | Service Management process managers, IT Management team | This report gives the user the ability to review, for a determined period, a breakdown of open and closed problems by area. |
| Open and Closed Problems by Service | Service Management process managers, IT Management team | This report provides an overview of the number of reported problems by service in a given time period. |
| Problems Closed Meeting SLA Target | Service Management process managers, IT Management team | This report enables the user to review, in a given time period, the number of closed problems that meet the SLA targets, relative to the number of all closed problems. |

Open and Closed Problems by Area

Description

The Open and Closed Problems by Area report breaks down problems by state (open or closed), by area, and then by phase. This report contains a graphical representation of the breakdown of open versus closed problems using a pie chart to display the areas. You can click any piece of the pie to display a detailed breakdown of that area by phase. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by area and the current phase of the problem.

Customer Value

This report provides a quick view of open and closed problems for a specified time period. The percentages and totals displayed in group headings allow for quick determination of which areas are generating the highest number of problems, have a large number of problems remaining open, or are resolving issues quickly. This information can then be used by a Problem Management administrator to determine if the workflow in place needs to be adjusted or if a particular department requires additional training or resources to efficiently manage the number of problems in a given area.

Open and Closed Problems by Service

Description

The Open and Closed Problems by Service report breaks down all problems in a given time period by status (open and closed) and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of open versus closed problems using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of open versus closed problems for a given time period. The total number of the problems indicates the availability and quality of the service delivery. After a problem is detected and accepted, it should be recorded in HP Service Manager. Based on the information of the report, the Problem Coordinators can be aware of their workload and make decisions about the resources needed for the Problem Management process.

Problems Closed Meeting SLA Target

Description

The Problems Closed Meeting SLA Target report breaks down all closed problems in a given time period by status (SLA Target Met and SLA Breached) and then by service type (Applications, E-mail/Webmail, Intranet/ Internet, My Devices, Printing, Service Management, etc.). This report contains a graphical representation of the breakdown of all closed problems using a pie chart. You can double-click any piece of the pie to display a detailed breakdown of that status by service. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by status and service.

Customer Value

This report provides a quick view of closed problems that meet SLA targets by service for a given time period. The percentages and totals displayed in group headings indicate the performance of the responsible support organization. When the percentage of the closed problems that meet SLA target is low, the Problem Manager needs to find and analyze the weakest links of the process and define actions to improve the service delivery.

Service Desk Reports

| Report name | Business user | Description |
|-------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Escalated Interactions | Management Administrators Staff | This report provides the breakdown of interactions that have been escalated to change requests, incidents, known errors, and quotes. |
| Open and Closed Service Desk Interactions | Management Administrators Staff | This report gives the user the ability to review, for a determined period, a breakdown of open and closed Service Desk interactions by categories and their associated areas. |
| First Time Fixed Interactions | Management Administrators Staff | This report enables the user to review, for a given time period, the percentage of interactions closed by the Service Desk upon the first contact without reference to other levels of support. |

Escalated Interactions

Description

The Escalated Interactions report breaks down the interactions by the type of related record (change requests, incidents, known errors, quotes). This report uses a bar graph to provide a representation of the breakdown of interactions by related record type. You can double-click any bar of the graph to display a detailed breakdown of the related record type. To help users view totals quickly, the report organizes the information into groups of related record types.

Customer Value

This report provides a quick view of escalated interactions opened during a specified period of time. The Service Desk administrator can see a high-level view of the activity originating from the Service Desk and the effect of this activity on the overall system workflows. This enables the administrator to determine what changes may be necessary in order to better support the Service Desk.

Open and Closed Service Desk Interactions

Description

The Open and Closed Service Desk Interactions report breaks down interactions by state (open or closed), by category, and then by area. This report contains a graphical representation of the breakdown of open versus closed interactions using a pie chart to display the categories. You can click any piece of the pie to display a detailed breakdown of that category by its areas. This report organizes the information using groups and sub-groups to help users quickly view percentages and total counts by category and area.

Customer Value

This report provides a quick view of for a specified time period. The percentages and totals displayed in group headings allow for quick determination of which categories and areas are generating the highest number of interactions, have a large number of interactions remaining open, or are resolving issues quickly. This information can then be used by a Service Desk administrator to determine if a particular help desk requires additional training or resources to efficiently manage the number of calls in a given area.

First Time Fixed Interactions

Description

The First Time Fixed Interactions report breaks down all closed interactions in a given time period by status (first-time-fixed or non-first-time-fixed), and then by service type (Applications, E-mail/Webmail, Intranet/Internet, My Devices, Printing, Service Management, etc.). Using a pie chart, this report contains a graphical representation of the breakdown of first-time-fixed versus non-first-time-fixed interactions the Service Desk deals with upon the first contact without support from other levels. You can double-click any piece of the pie to display a detailed breakdown of the category by service. This report organizes the information using groups and sub-groups to provide a quick view of percentages and total counts by status and service.

Customer Value

This report provides information about the knowledge of the Service Desk and the workload handled by the Service Desk for a specified time period. A high first-time-fixed rate indicates that the Service Desk is skillful, knowledgeable, and familiar with using the right tools to help end-users resolve their issues at the initial contact. In addition, the first-time-fixed rate is high only when all Service Desk staff can efficiently use their knowledge and tools. Therefore, sharing knowledge within the whole ICT department, for instance within Problem Management, takes a big part in optimizing the rate. A high first-time-fixed rate also boosts the customer satisfaction rate as end-users like to be helped directly when contacting the Service Desk. This will also improve efficiency at the Service Desk and for the entire IT support organization, as only few actions are needed if an interaction is closed by the Service Desk.

Service Level Management Reports

| Report name | Business user | Description |
|------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SLM: Response SLO Metrics | Management Administrators | This report gives the user the ability to review the target response metrics for the ten lowest performing Service Level Agreements (SLAs) in the specified month. |
| SLM: Summary | Management Administrators | This report gives the user the ability to review the target response and availability metrics for a single Service Level Agreement (SLA) within a given month. |
| SLM: Availability-Duration Metrics | Management Administrators | This report gives the user the ability to review the availability-duration metrics for the ten lowest performing Service Level Objectives (SLOs) per Service Level Agreement (SLA) in the specified month. |
| SLM: Availability-Uptime Metrics | Management Administrators | This report gives the user the ability to review the availability-uptime metrics for the ten lowest performing Service Level Objectives (SLOs) per Service Level Agreement (SLA) in the specified month. |

SLM: Response SLO Metrics

Description

The SLM: Response SLO Metrics report breaks down the target response objectives by Service Level Agreement (SLA) and then by Service Level Objective (SLO). This report contains a graphical representation of the ten SLAs with the lowest response results ordered from lowest to highest. You can click any bar to display a detailed breakdown of that SLA by its SLOs. In the detailed breakdown you can see another chart representing the ten SLOs with

the lowest percentage of response results also ordered from lowest to highest. For cases with more than ten SLAs/SLOs, the charts display an extra bar that can be clicked to display the remaining detailed information.

Customer Value

This report provides a quick analysis of the response objectives achieved for a given month, with a special emphasis in areas within Service Management that need improvement due to the lack of adequate response within the time frame specified in the agreement. Based on this data, management can take actions such as redefining contracts, providing additional training to enhance the response times of the service desks, and restructuring the organization so that each area has sufficient resources to meet the response objectives.

SLM: Summary

Description

The SLM: Summary report displays all the response and availability data for a single Service Level Agreement (SLA) for a specified month. The data is grouped by Service Level Objective (SLO) response and then by SLO availability data. The SLO availability data is then grouped by SLO type (duration and uptime).

Customer Value

This report provides an overview of the performance for an SLA within a given month. This information can be used by management to quickly understand how successful their organization has been in fulfilling the SLA requirements. For example, if the SLA requirements are not being met, this might indicate that the helpdesk needs additional training or resources to fulfill the requirements outlined in the SLA definition, or that the SLA needs to be redefined with more realistic requirements.

SLM: Availability-Duration Metrics

Description

The SLM: Availability-Duration Metrics report breaks down the target availability-duration objectives by Service Level Agreement (SLA) and then by Service Level Objective (SLO). This report contains a graphical representation of the ten SLAs with the lowest availability-duration metrics ordered from lowest to highest. You can click any bar to display a detailed breakdown of that SLA by its SLOs. In the detailed breakdown, you can see another chart that represents the ten SLOs with the lowest percentage of availability-duration metrics also ordered from lowest to highest. For cases with more than ten SLAs/SLOs, the charts display an extra bar that can be clicked to display the remaining detailed information.

Customer Value

This report provides a quick analysis of the availability-duration objectives achieved for a given month. This information can be used by management to quickly assess the status of the Configuration Items (CIs) within their organization. For example, the data might indicate that a particular CI is frequently unavailable within the given month and fails to meet the target availability-duration defined within its SLO. Management can then investigate and determine whether the CI needs to be replaced or serviced. Management can also determine that more resources need to be added to the IT department in order to better maintain the availability of the organization's assets. Management can then use this information to prevent future outages which can affect overall productivity and ROI.

SLM: Availability-Uptime Metrics

Description

The SLM: Availability-Uptime Metrics report breaks down the target availability-uptime objectives by Service Level Agreement (SLA) and then by Service Level Objective (SLO). This report contains a graphical representation of the ten SLAs with the lowest availability-uptime metrics ordered from lowest to highest. You can click any bar to display a detailed breakdown of that SLA by its SLOs. In the detailed breakdown, you can see another chart

that represents the ten SLOs with the lowest percentage of availability-uptime metrics also ordered from lowest to highest. For cases with more than ten SLAs/SLOs, the charts display an extra bar that can be clicked to display the remaining detailed information.

Customer Value

This report provides a quick analysis of the availability-uptime objectives achieved for a given month. This information can be used by management to quickly assess the status of the Configuration Items (CIs) within their organization. For example, the data might indicate that a particular CI is frequently unavailable within the given month and fails to meet the target uptime defined within its SLO. Management can then investigate and determine whether the CI needs to be replaced or serviced. Management can also determine that more resources need to be added to the IT department in order to better maintain the availability of the organization's assets. Management can then use this information to prevent future outages which can affect overall productivity and ROI.

4 Create and Edit Your Own Reports

Out-of-box reports can meet most of your reporting needs. However, as you customize Service Manager, you may want to redesign existing reports and create new reports to suit your specific business requirements. This chapter describes how to use Crystal Reports 2008 to report on your Service Manager database.



This chapter helps you get started using Crystal Reports. For more information, see related Service Manager documentation such as *Processes and Best Practices Guide* and *Installation Guide*.

This chapter includes the following topics:

- Software Requirements
- Important Crystal Report Notes
- Create SM Operational Reports

Software Requirements

Before you start editing or creating Crystal Reports from Service Manager, you need a working knowledge of the following:

- Crystal Reports 2008, Developer, or later versions—All reports shipped with Service Manager are designed with Crystal Reports 2008 and may not be compatible with earlier versions.
- ServiceCenter ODBC Driver—Shipped with Service Manager installation package. You must have ODBC Driver installed and configured.

Important Crystal Report Notes

This section contains important information you must be aware of when using Crystal Reports.

ODBC Driver

You must install and configure ODBC Driver before using Crystal Reports for the following reasons:

- Some reports require the use of certain fields that are not mapped to the database such as sysmodtime, etc. These fields get mapped as a blob so they cannot be seen directly from Crystal Reports.
- ODBC Driver is used to keep consistency with reports created in earlier versions of Crystal Reports.
- Not all the users have SQL and sometimes there are issues refreshing the report with an ODBC pointing to a different database.

For steps of installing and configuring ODBC Driver, see *HP Service Manager Installation Guide*.

Joining Multiple Tables

You can combine the data from multiple tables into a single report. For example, you might want to write a report that displays the details of all open incident tickets, and also the contact information of the contacts who reported the incidents. The probsummarym1 table contains all the incident details, but contains only the name and phone number of the contact. Additional information about the contact is in the contactsm1 table. A join between the two tables allows you to create a report containing information about the tickets from probsummarym1 and the detailed contact information from contactsm1 in a single report.

Create a Join in Service Manager

Before creating a join, search the database to see if the join already exists.

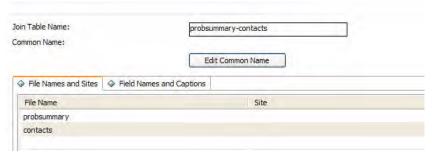
Search the Database

- 1 Start your Service Manager client.
- 2 Type db in the HP Service Manager Command Line, and then press ENTER. The Database Manager utility opens.
- 3 Type joindef in the Form field, and then click Search.
- 4 Type the name of the join you want to create, and then click **Search** on the toolbar. Join Definition files are typically named for the tables being joined. In this example, you are looking for a join called probsummary-contacts or contacts-probsummary.

You can create a join if no records are found in the search result.

Create a Join if It does not Exist

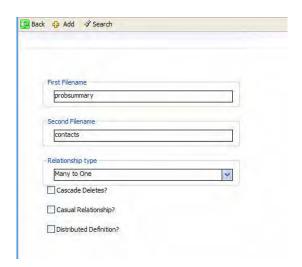
- 1 Enter a name for the join in the Join Table Name field (keep with the common naming convention).
- 2 Add the names of the tables to be joined in the fields, starting with the upper-left field and working down in columns.
 - Under the File Names and Sites tab, add tables of probsummary and contacts.
 - b Click **Add** on the toolbar. The join is created.



- 3 Type **db** in the HP Service Manager Command Line and press **ENTER**. The main Database Manager window opens.
- 4 Type erddef in the Form field, and then click Search.

5 Search for the Entity Relationship Diagram (ERD) Definition you are about to make. In this case, you might want to search based on the First Filename, Second Filename, and Relationship Type. See the table below for descriptions of these fields.

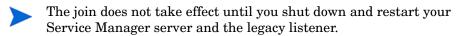
| Field | Description | |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| First Filename | Name of the table you want as the parent table in this join. This table shows all of its records. In the example, this is probsummary because the primary goal is to show all open incidents. | |
| Second Filename | Name of the dependent table. This table only shows records related to each record of the parent table. In the example, the name is contacts because the contact name determines the contact information for each individual incident record. | |
| Relationship Type | One-To-Many, Many-To-One, or One-To-One. This refers to the number of times the record of one table can be connected to records from another table. Use the Many-To-One relationship in this example because a single contact can occur in multiple incident records, but an incident summary can contain only one contact name. | |



- 6 If no match occurs, create an ERD definition by filling in the First Filename, Second Filename, and Relationship Type described in Step 5.
 - a Type probsummary in the First Filename field, contacts in the Second Filename field and select Many to One from the Relationship type drop-down box.
 - b In the Field Names from First Filename box, enter the fields where you want to create the join (that is, the field in the first table that is equivalent to the field in the second table).
 - c Do the same for the Field Names from Second Filename box. In this example, the contact.name field in the probsummary table contains the same data as the contact.name field in the contacts table.
 - d Click Add.



7 Restart your Service Manager server and the legacy listener.



The join results in the following:

- Your report prints every record in the probsummary table that meets your selection criteria.
- For each record, the system looks in the contacts table for a record containing the same name in the contacts.contact.name field as contained in the probsummary.contact.name field. All requested contact information for that record is printed.

OOB Reports Dependency

Some OOB reports depend on the Join (table joindefs) and ERD (table erddef) definitions. If the definitions do not exist, you must define them so that you can preview these OOB reports successfully. See the tables below for a summary of the reports and their dependency on the Join and ERD definitions.

Reports Requiring ERD Definition

| Report Name | First Filename | Second Filename | Relationship type | Field Names from First Filename | Field Names from Second Filename |
|------------------------------------------|-------------------|--------------------|-------------------|------------------------------------------|-------------------------------------------|
| Escalated Interactions | incidents | screlation | One to One | incident.id | source |
| Knowledge Management Activity | kmdocument | kmusagehistory | One to Many | id | kmid |
| Knowledge Management Summary | kmdoctype | kmdocument | One to Many | name | doctype |
| SLM: Response SLO Metrics | sla | slaresponse | One to Many | agreement.id | agreement.id |
| SLM: Summary | | | | | |
| SLM: Availability-Duration Metrics | sla | glamonthly | One to Many | agraamant : d | agreement id |
| SLM: Availability-Uptime Metrics | Sia | slamonthly | One to Many | agreement.id | agreement.id |

Reports Requiring Join Definition

| Report Name | Join Table Name | File Names | |
|---------------------------------------|---------------------------|------------------------------|--|
| Escalated Interactions | incidents-screlation | incidents screlation | |
| Knowledge Management Activity | kmdocument-kmusagehistory | kmdocument kmusagehistory | |
| Knowledge Management Summary | kmdoctype-kmdocument | kmdoctype kmdocument | |
| SLM: Response SLO Metrics | - sla-slaresponse | sla | |
| SLM: Summary | sia-siaresponse | slaresponse | |
| SLM: Availability-Duration Metrics | - joinslamonth | sla | |
| SLM: Availability-Uptime Metrics | Joinstanionth | slamonthly | |

Create SM Operational Reports

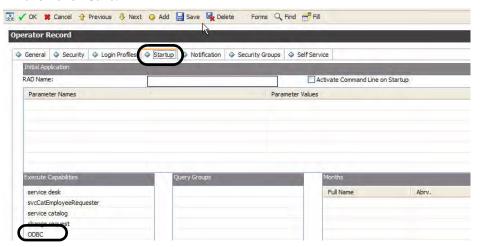
Suppose you might want to create a report that displays the details of all open incident tickets, and also the contact information of the contacts who reported the incidents. Complete the following tasks to create a report with data extracted from the probsummarym1 table and the contactsm1 table:

- Add an ODBC capability word
- Start the legacy listener
- Create an operational report
- Design layout of the report

Task 1: Add an ODBC capability word

- 1 Start the Service Manager server.
 - Open a command prompt and navigate to <Service Manager installation path>\Server\RUN.

- b Type sm.exe, and then press ENTER. The Service Manager server is started.
- 2 Start the Service Manager client.
 - c Open a command prompt and navigate to <Service Manager installation path>\Client.
 - d Type ServiceManager.exe, and then press ENTER. The Service Manager client is started.
 - e Log on to the client as user name falcon. No password is required.
- 3 Type operator in the Service Manager Command Line, and then press ENTER. The Operator utility opens.
- 4 Type falcon in the Login Name field, and then click Search.
- 5 Click the **Startup** tab, type **ODBC** in the Execute Capabilities table, and then click **Save**.



Task 2: Start the legacy listener

- Open a command prompt and navigate to <Service Manager installation path>\Server\legacyintegration\RUN.
- 2 Type Scenter.exe -listener:12670 -RPCReadOnly.
- 3 Press ENTER. Scenter. exe is started.
- For more information about starting the legacy listener, see *HP Service Manager Installation Guide*.

Task 3: Create an operational report

- 1 Start Crystal Reports 2008, and then click New Report on the Standard toolbar. The Standard Report Creation Wizard opens.
- 2 Expand the **Create New Connection** folder, and then double-click **ODBC** (**RDO**).
- 3 Select sc_report_odbc from Data Source Name, and then click Next.
 - If sc_report_odbc is not available in the list of Data Source Name, check whether ODBC Driver is correctly installed and configured.
- 4 Type falcon in the User ID field, and then click Finish.
 - User ID is case sensitive and leave the Password field blank.
- In the Standard Report Creation Wizard, expand the sc_report_odbc folder and select tables that may be used in your report from the Available Data Sources box to the Selected Tables box using the left (corresponds to left on the screen) and right arrows (corresponds to right on the screen). In this example, select tables of probsummarym1 and contactsm1.
- 6 Click **Next** to go to the Link page of the wizard.
- 7 Click **Clear Links** to remove all the default links between the two tables.
 - The default links between the fields of the tables you selected indicate that the data of the fields are the same in these tables. For example, the contact.name field in the probsummarym1 table contains the same data as the contact.name field in the contactsm1 table. You need to clear all links before establishing new links.

8 Select contact.name from the probsummarym1 table, drag and drop to the contact.name in the contactsm1 table. A new link is set up.



- If you want to modify the Join Type, Enforce Join and Link Type of a link, click the link you create, click **Link Options**, and then select options as needed.
- 9 Click **Next** to go to the Fields page of the wizard.
- 10 Select fields you want to display in the report using the left (corresponds to left on the screen) and right arrow (corresponds to right on the screen), and then click **Next**.
- Optional step: customize your report on the next three pages of the wizard (you can also skip any of the pages).
 - Group the data in the report on the Grouping page.
 - b Select a subset of information to display on the Record Selection page.
 - c Choose a template for your report on the Template page.
- 12 Click Finish. The Crystal Reports Preview page opens.

Task 4: Design layout of the report

1 Click the Design tab to switch to the Crystal Reports Design page.

- 2 On the Crystal Reports Design page, adjust the size and position of fields and rename the field headers (also as column headers in the report).
 - For advanced report designing, see Crystal Reports 2008 online help.
- 3 Go to **File**→**Save** to save all modifications that you have made.

Editing Reports Created in Earlier Versions

If you attempt to edit an out-of-box report created with a version of Crystal Reports that is older than the version you are using, the system will notify you and request that you save the report in the newer Crystal Reports format. This can change the way the report functions and requires additional modifications to the Report to conform to the newer version of Crystal Reports. For information on modifying reports created in an earlier version of Crystal Reports, see *Crystal Reports Help*.

5 Customizing Report Settings

Crystal Reports 2008 enables you to customize report settings such as the time range of the report and how the report is run against a reference date. This section explains how to customize all report settings.



You cannot customize out-of-box reports that have no Start Date parameter.

Specifying a Time Range

You have the ability to run a report within a time range by selecting DateTime or entering DateTime in format of "mm/dd/yyyy hh:mm:ss".

You can specify a time range for a report by completing the following tasks:

- Rename the Start Date parameter
- Modify formulas
- Run a customized report

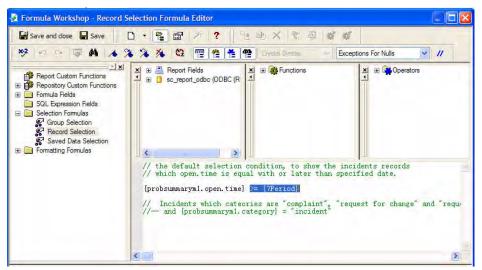
Task 1: Rename the Start Date parameter

- 1 Open a report to be customized using Crystal Reports 2008. The Design page opens.
- 2 From the View menu, click Field Explorer. The Field Explorer panel opens.
- 3 Expand Parameter Fields, right-click Start Date and select Rename.
- 4 Type Period as the new name for the parameter.
- 5 Double-click **Period**. The Edit Parameter window opens.
- 6 Select **Static** from the List of Values drop-down menu.

- 7 In the Value Options section, locate "Allow range values", and then select **True**.
- 8 Click OK.

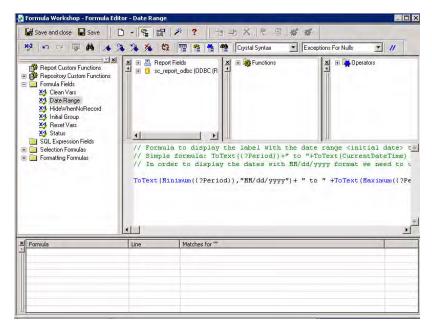
Task 2: Modify formulas

- 1 From the Report menu, click **Formula Workshop**. The Formula Workshop window opens.
- 2 Expand **Selection Formulas**, and then click **Record Selection**. The Formula Editor window opens.
- 3 Replace all the >= {?Period} with in {?Period} in the editor area as shown below.



- Click **Check** on the toolbar to look for any possible errors in the code. You must fix all errors to proceed.
- Use the search and replace feature to change all instances of >= {?Period} in the editor area.
- 4 Click Save.
- 5 Expand Formula Fields and click Date Range. The Formula Editor window opens.

6 In the editor area, replace ToText({?Period}, "MM/dd/yyyy")+ " to "
+ToText(CurrentDateTime, "MM/dd/yyyy") with ToText(Minimum({?Period}), "MM/dd/yyyy")+ " to " +ToText(Maximum({?Period}), "MM/dd/yyyy").



- 7 Click **Save and close**. The Formula Editor window closes.
- 8 Click **Save** on the Standard toolbar to save all modifications that you have made.

Task 3: Run a customized report

- 1 Start the legacy listener. See Start the legacy listener.
- 2 Click **Print Preview** on the Standard toolbar. The Enter Values window opens.
- 3 Select the date range by doing one of the following:
 - Enter dates in the "mm/dd/yyyy hh:mm:ss" format in the text box provided.
 - Click the calendar icon and select a date.
- 4 Click **OK** to run the report.

Customizing Against a Reference Date

You can easily run a report against a reference date by completing the following tasks:

- Add the Reference Date parameter
- Add the Reference Condition parameter
- Define the cdFormatDateRange function (Crystal Syntax)
- Define the cdSpecialDateRange function (Basic Syntax)
- Modify formulas
- Run a Customized Report

Task 1: Add the Reference Date parameter

- Open a report to be customized using Crystal Reports 2008. The Design page of the report opens.
- 2 From the View menu, click **Field Explorer**. The Field Explorer panel opens.
- 3 On the panel, right-click **Parameter Fields** and select **New**. The Create New Parameter window opens.
- 4 Configure the following:

Name: Reference Date

Type: Date

List of Values: Static

5 In the Value Options section, select **Read only** for Show on (Viewer) Panel option, and then click **OK**. The Reference Date parameter is added into the Parameter Fields.

Task 2: Add the Reference Condition parameter

- 1 Right-click **Parameter Fields**, and then select **New**. The Create New Parameter window opens.
- 2 Configure the following:

Name: Reference Condition

Type: String

List of Values: Static

- 3 Import values to the parameter.
 - Create a .txt file with the following content:

```
%%%ShowDescOnlv0
Aged 0 to 30 days
Aged 31 to 60 days
Aged 61 to 90 days
All dates from today
All dates from tomorrow
All dates to today
All dates to yesterday
Calendar 1st half
Calendar 2nd half
Calendar 1st quarter
Calendar 2nd quarter
Calendar 3rd quarter
Calendar 4th quarter
Last 1 day
Last 7 days
Last 4 weeks to Sunday
Last full week
Last full month
Last year month to date
Last year to date
Month to date
Ouarter to date
Next 30 days
Next 31 to 60 days
Next 61 to 90 days
Next 91 to 365 days
Over 90 days
Week to date from Sunday
Year to date
```

- b In the Create New Parameter window, click **Actions**—**Import** and select the .txt file. The values are imported to the Reference Condition parameter.
- For more information about the definition of these date ranges, see Appendix A.
- 4 In the Value Options section, do the following:
 - Select Read only for Show on (Viewer) Panel.
 - Select a setting option, for example **Month to date** for Default Value.
 - Select False for "Allow custom values".

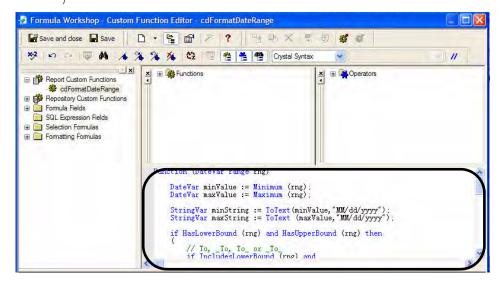
5 Click **OK**. The Reference Condition parameter is added into the Parameter Fields.

Task 3: Define the cdFormatDateRange function (Crystal Syntax)

- 1 From the Report menu, click **Formula Workshop**. The Formula Workshop window opens.
- 2 Click the down arrow next to **New** , and then select **Custom Function**. The Custom Function Name dialog opens.
- 3 Type cdFormatDateRange in the Name text box, and then click Use Editor. The Custom Function Editor window opens.
- 4 Select **Crystal Syntax** from the drop-down list on the toolbar.
- 5 Copy the following to replace the existing information in the editor area:

```
Function (DateVar range rng)
    DateVar minValue := Minimum (rng);
   DateVar maxValue := Maximum (rng);
    StringVar minString := ToText(minValue, "MM/dd/yyyy");
   StringVar maxString := ToText (maxValue, "MM/dd/yyyy");
    if HasLowerBound (rng) and HasUpperBound (rng) then
        // To, _To, To_ or _To_
        if IncludesLowerBound (rng) and
           IncludesUpperBound (rng) then
            if minValue = maxValue then
                minString
            else
                "between " + minString + " and " + maxString
        )
        else if IncludesLowerBound (rng) then
            "between " + minString + " and " + maxString
            + " not including right endpoint"
        else if IncludesUpperBound (rng) then
            "between " + minString + " and " + maxString
             + " not including left endpoint"
            "between " + minString + " and " + maxString
            + " not including endpoints"
    else if HasLowerBound (rng) then
        // Is > or Is >=
```

```
if IncludesLowerBound (rng) then
    "greater than or equal to " + minString
else
    "greater than " + minString
)
else if HasUpperBound (rng) then
(
    // Is < or Is <=
    if IncludesUpperBound (rng) then
        "less than or equal to " + maxString
else
        "less than " + maxString</pre>
```



- 6 Click Save and close. The function is now defined.
 - Click **Check** on the toolbar to look for any possible errors in the code. You must fix all errors to proceed.

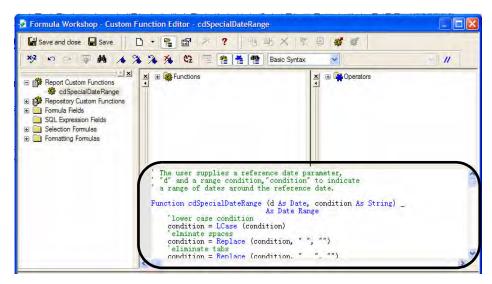
Task 4: Define the cdSpecialDateRange function (Basic Syntax)

- 1 From the Report menu, click **Formula Workshop**. The Formula Workshop window opens.
- 2 Click the down arrow next to **New** , and then select **Custom Function** as shown below. The Custom Function Name dialog opens.
- 3 Type cdSpecialDateRange in the Name text box, and then click Use Editor. The Custom Function Editor window opens.

- 4 Select **Basic Syntax** from the drop-down list on the toolbar.
- 5 Copy the following to replace the existing information in the editor area:

```
' The user supplies a reference date parameter,
' "d" and a range condition, "condition" to indicate
' a range of dates around the reference date.
Function cdSpecialDateRange (d As Date, condition As String) _
                            As Date Range
    'lower case condition
   condition = LCase (condition)
    'elminate spaces
   condition = Replace (condition, " ", "")
    'eliminate tabs
   condition = Replace (condition, " ", "")
   Select Case condition
   Case LCase("Aged0To30Days")
        cdSpecialDateRange = (d - 30) To d
   Case LCase("Aged31To60Days")
        cdSpecialDateRange = (d - 60) To (d - 31)
   Case LCase("Aged61To90Days")
       cdSpecialDateRange = (d - 90) To (d - 61)
   Case LCase("AllDatesFromToday")
        cdSpecialDateRange = Is >= d
   Case LCase("AllDatesFromTomorrow")
        cdSpecialDateRange = Is >= (d + 1)
   Case LCase("AllDatesToToday")
       cdSpecialDateRange = Is <= d
   Case LCase("AllDatesToYesterday")
        cdSpecialDateRange = Is <= (d - 1)
    Case LCase("Calender1stHalf")
        cdSpecialDateRange = CDate(Year(d), 1, 1) _
            To CDate(Year(d), 6, 30)
    Case LCase("Calendar2ndHalf")
        cdSpecialDateRange = CDate(Year(d), 7, 1) _
            To CDate(Year(d), 12, 31)
   Case LCase("Calendar1stQtr"), LCase("Calendar1stQuarter")
        cdSpecialDateRange = CDate(Year(d), 1, 1) _
            To CDate(Year(d), 3, 31)
   Case LCase("Calendar2ndQtr"), LCase("Calendar2ndQuarter")
        cdSpecialDateRange = CDate(Year(d), 4, 1) _
            To CDate(Year(d), 6, 30)
   Case LCase("Calendar3rdQtr"), LCase("Calendar3rdQuarter")
        cdSpecialDateRange = CDate(Year(d), 7, 1) _
            To CDate(Year(d), 9, 30)
   Case LCase("Calendar4thQtr"), LCase("Calendar4thQuarter")
        cdSpecialDateRange = CDate(Year(d), 10, 1) _
            To CDate(Year(d), 12, 31)
   Case LCase("Last4WeeksToSun"), LCase("Last4WeeksToSunday")
```

```
cdSpecialDateRange = (d - 27 - (Weekday(d) - 1)) _
        To (d - (Weekday(d) - 1))
Case LCase("Last1Day")
    cdSpecialDateRange = (d - 1) To d
Case LCase("Last7Days")
    cdSpecialDateRange = (d - 6) To d
Case LCase("LastFullMonth")
    cdSpecialDateRange = DateSerial(Year(d), Month(d) - 1, 1) _
        To DateSerial(Year(d), Month(d), 1 - 1)
Case LCase("QuarterToDate")
   Dim m as Number
   m = ToNumber(Month(d))
    if (m >= 1 \text{ and } m <= 3)
    then cdSpecialDateRange = CDate(Year(d), 1, 1) To d _
    else if (m>=4 \text{ and } m<=6)
        then cdSpecialDateRange = CDate(Year(d), 4, 1) To d _
    else if (m>=7 \text{ and } m<=9)
        then cdSpecialDateRange = CDate(Year(d), 7, 1) To d _
    else if (m>=10 \text{ and } m<=12)
        then cdSpecialDateRange = CDate(Year(d), 10, 1) To d
Case LCase("LastFullWeek")
    cdSpecialDateRange = (d - 6 - Weekday(d)) _
        To (d - Weekday(d))
Case LCase("LastYearMTD"), LCase("LastYearMonthToDate")
    cdSpecialDateRange = CDate(Year(d) - 1, Month(d), 1) _
        To CDate(DateAdd("yyyy", -1, d))
Case LCase("LastYearYTD"), LCase("LastYearToDate")
    cdSpecialDateRange = CDate(Year(d) - 1, 1, 1) _
        To CDate(DateAdd("yyyy", -1, d))
Case LCase("MonthToDate")
    cdSpecialDateRange = CDate(Year(d), Month(d), 1) To d
Case LCase("Next30Days")
    cdSpecialDateRange = d To (d + 30)
Case LCase("Next31To60Days")
    cdSpecialDateRange = (d + 31) To (d + 60)
Case LCase("Next61To90Days")
    cdSpecialDateRange = (d + 61) To (d + 90)
Case LCase("Next91To365Days")
    cdSpecialDateRange = (d + 91) To (d + 365)
Case LCase("Over90Days")
    cdSpecialDateRange = Is <= (d - 91)
Case LCase("WeekToDateFromSun"), LCase("WeekToDateFromSunday")
    cdSpecialDateRange = (d- (Weekday(d) - 1)) To d
Case LCase("YearToDate")
    cdSpecialDateRange = CDate(Year(d), 1, 1) To d
Case Else
    'provide default handling and specify a valid range
    cdSpecialDateRange = CDate(1899, 12, 30) _
    To CDate(1899, 12, 30)
End Select
```

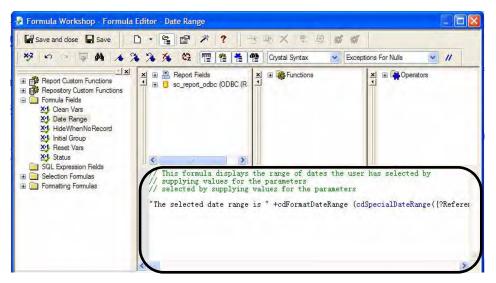


- 6 Click Save and close. The function is now defined.
 - Click **Check** on the toolbar to look for any possible errors in the code. You must fix all errors to proceed.

Task 5: Modify formulas

- On the Field Explorer panel, expand **Formula Fields**, and double-click **Date**Range. The Formula Editor window opens.
- 2 Copy the following to replace the existing information in the editor area:

```
// This formula displays the range of dates the user has selected by
// supplying values for the parameters
// selected by supplying values for the parameters
"The selected date range is " +cdFormatDateRange
(cdSpecialDateRange({?Reference Date},{?Reference Condition}))
```

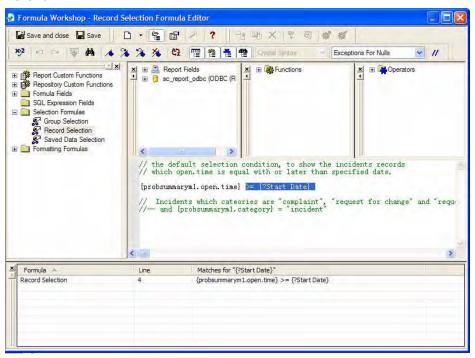


- 3 Click **Save and close** to save the modification. The Formula Workshop window is closed.
- 4 On the Field Explorer panel, expand Parameter Fields, right-click Start Date and select Find in Formulas. The Formula Editor window opens.
- 5 In the editor area, replace all instances of >= {?Start Date} with in cdSpecialDateRange({?Reference Date},{?Reference Condition}).

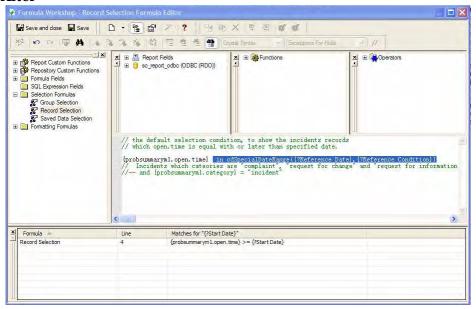


- Click **Check** on the toolbar to look for any possible errors in the code. You must fix all errors to proceed.
- Use the search and replace feature to change all instances of >= {?Start Date}.
- Make sure the code in cdspecialDateRange({?Reference Date},{?Reference Condition}) in the same line in case of errors.

Before



After



- 6 Click **Save and close** to save this modification.
- 7 Optional step: Right-click Start Date on the Field Explorer panel and select Delete.
- 8 Click **Save** on the Standard toolbar to save all modifications that you have made.

Task 6: Run a Customized Report

- 1 Start the legacy listener. See Start the legacy listener.
- 2 Click **Print Preview** on the Standard toolbar. The Enter Values window opens.
- 3 Enter the date in "mm/dd/yyyy" format in the Reference Date text box.

 Or click the calendar icon **m** and select a date.
 - To modify a customized reference date, click the drop-down list below the Enter Reference Condition text and select the option you need.

4 To run the report, click **OK**.



To modify the prompt text displayed in Enter Values window, double-click a parameter on the Field Explorer panel and modify the content for Prompt Text. For example, to modify Enter Reference Date:, double-click Reference Date parameter on the Field Explorer panel, locate the Prompt Text row in the Value Options section, and replace the text as needed.

A Date Range Definition

You are required to import predefined date range values to the Reference Condition Parameter in Task 2 on page 58. The table below provides the description and formulas of the imported date ranges.



The description in the table is based on the assumption that today is the reference date.

| Date Range Function | Function Definition | Pseudo Formula |
|-------------------------|----------------------------------------|--------------------------------------|
| Aged 0 to 30 days | 30 days ago to today | (d - 30) To d |
| Aged 31 to 60 days | 60 days ago to 31 days ago | (d - 60) To (d - 31) |
| Aged 61 to 90 days | 90 days ago to 61 days ago | (d - 90) To (d - 61) |
| All dates from today | Starting from today | >= d |
| All dates from tomorrow | Starting from tomorrow | >= (d + 1) |
| All dates to today | All days prior to today (included) | <= d |
| All dates to yesterday | All days prior to yesterday (included) | <= (d - 1) |
| Calendar 1st half | The first half of the year | (Year(d), 1, 1) To (Year(d), 6, 30) |
| Calendar 2nd half | The second half of the year | (Year(d), 7, 1) To (Year(d), 12, 31) |
| Calendar 1st quarter | The first quarter of the year | (Year(d), 1, 1) To (Year(d), 3, 31) |
| Calendar 2nd quarter | The second quarter of the year | (Year(d), 4, 1) To (Year(d), 6, 30) |

| Date Range Function | Function Definition | Pseudo Formula |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calendar 3rd quarter | The third quarter of the year | (Year(d), 7, 1) To (Year(d), 9, 30) |
| Calendar 4th quarter | The fourth quarter of the year | (Year(d), 10, 1) To (Year(d), 12, 31) |
| Last 1 day | One day ago to today | (d - 1) To d |
| Last 7 days | Seven days ago to today | (d - 6) To d |
| Last 4 weeks to Sunday | The Monday four weeks ago to Sunday of this week | (d - 27 - (Weekday(d) - 1)) To (d - (Weekday(d) - 1)) |
| Last full month | The first day of last month to the last day of last month month DateSerial (Year(d), Month(d) - 1 DateSerial (Year(d), Month(d), 1 | |
| Last full week | Sunday to Saturday of last week | (d - 6 - Weekday(d)) To (d - Weekday(d)) |
| Last year month to date | The first day of the same month but last year to the same day of last year | Year(d) - 1, Month(d), 1) To DateAdd("yyyy", -1, d) |
| Last year to date | January 1 of last year to the same day of last year | (Year(d) - 1, 1, 1) To DateAdd("yyyy", -1, d) |
| Month to date | The first day of this month to today | (Year(d), Month(d), 1) To d |
| Quarter to date | The first day of this quarter to today | m = Month(d) 1<= m <=3 (Year(d), 1, 1) To d 4<= m <=6 (Year(d), 4, 1) To d 7<= m <=9 (Year(d), 7, 1) To d 10<= m <=12 (Year(d), 10, 1) To d |
| Next 30 days | Today to the next 30th day | d To (d + 30) |
| Next 31 to 60 days | The next 31st day to the next 60th day | (d + 31) To (d + 60) |

70 Appendix A

| Date Range Function | Function Definition | Pseudo Formula |
|-----------------------------|-----------------------------------------|----------------------------|
| Next 61 to 91 days | The next 61st day to the next 91st day | (d + 61) To (d + 90) |
| Next 91 to 365 days | The next 91st day to the next 365th day | (d + 91) To (d + 365) |
| Over 90 days | All days prior to 90 days ago | <= (d - 91) |
| Week to date from Sunday | Sunday of this week to today | (d- (Weekday(d) - 1)) To d |
| Year to date | January 1 of this year to today | (Year(d), 1, 1) To d |

Date Range Definition 71

72 Appendix A

B Report Examples

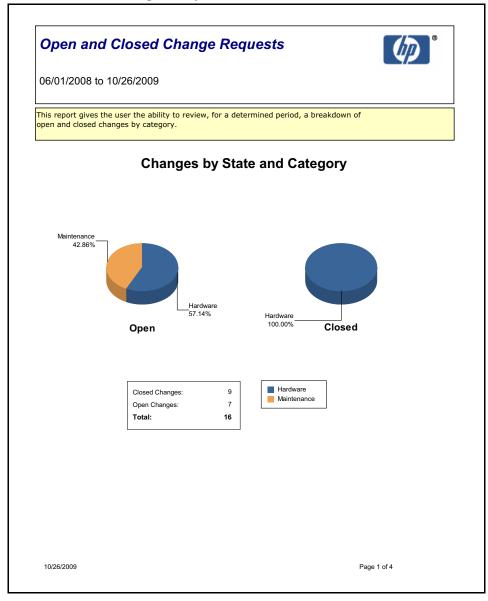
This chapter shows 25 samples of different types of reports in PDF format. Click the report links below to view the examples:

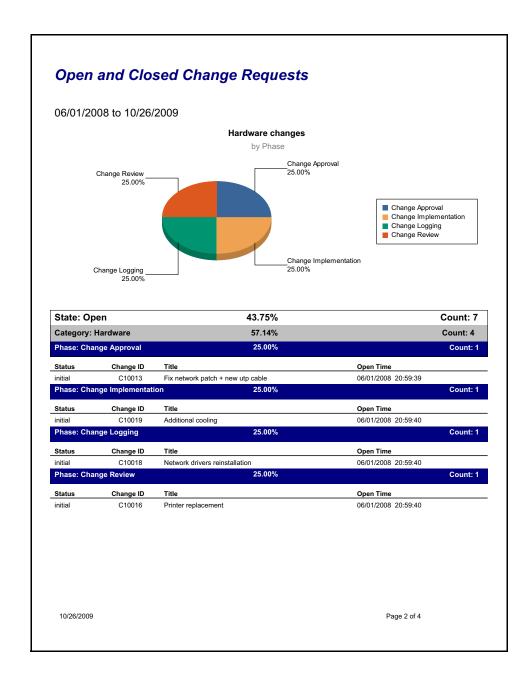
- Change Management Reports
 - Open and Closed Change Requests
 - Percentage of Rejected Changes
 - Percentage of Emergency Changes
 - Percentage of Successful Changes
- Configuration Management Reports
 - Configuration Item Relationships
 - Configuration Item Summary
- Incident Management Reports
 - Open and Closed Incidents by Category
 - Open and Closed Incidents by Service
 - Backlog of Incidents
 - Reopened Incidents
 - Incidents Closed Meeting SLA Target
- Knowledge Management Reports
 - Knowledge Management Activity
 - Knowledge Management Documents Summary
 - Knowledge Management: User Demand
 - Knowledge Management Usage by Department (for SD Interactions)
- Problem Management Reports

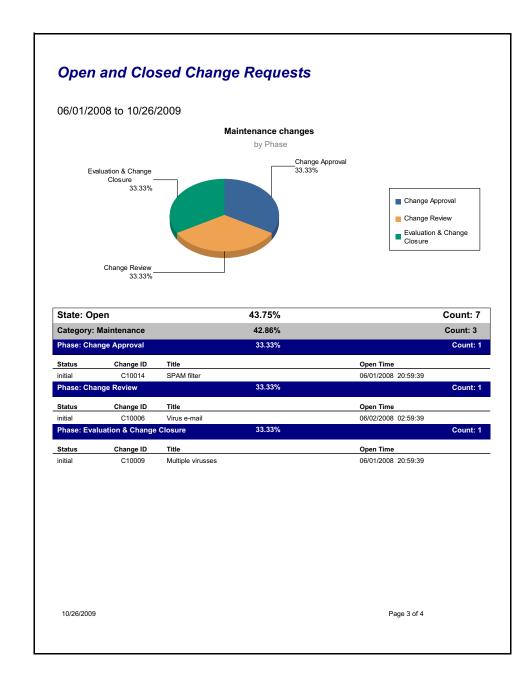
- Open and Closed Problems by Area
- Open and Closed Problems by Service
- Problems Closed Meeting SLA Target
- Service Desk Reports
 - Escalated Interactions
 - Open and Closed Service Desk Interactions
 - First Time Fixed Interactions
- Service Level Management Reports
 - SLM: Response SLO Metrics
 - SLM: Summary
 - SLM: Availability-Duration Metrics
 - SLM: Availability-Uptime Metrics

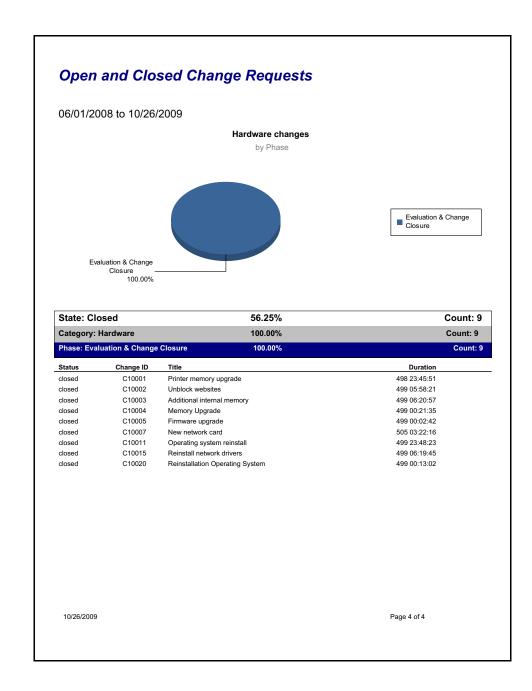
Change Management Reports

Open and Closed Change Requests

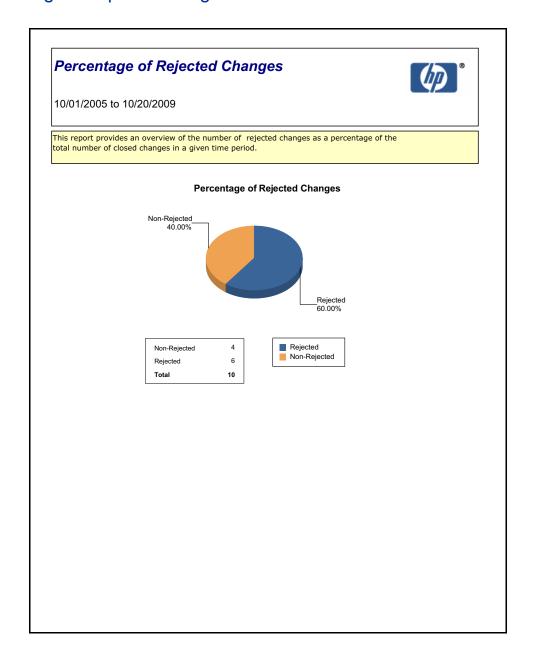




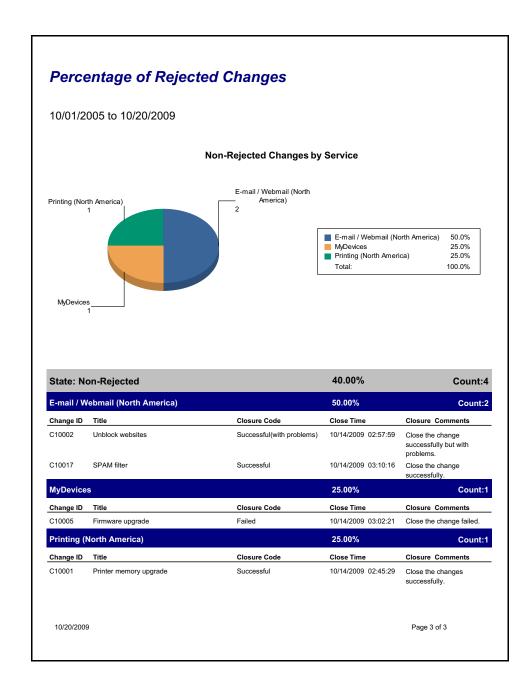




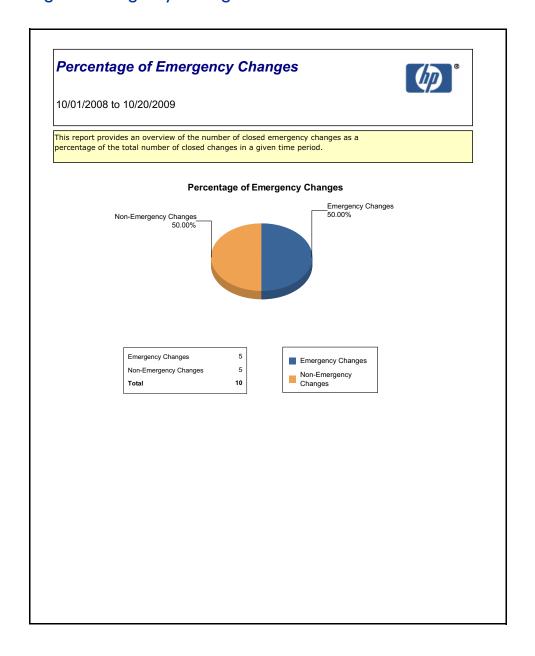
Percentage of Rejected Changes

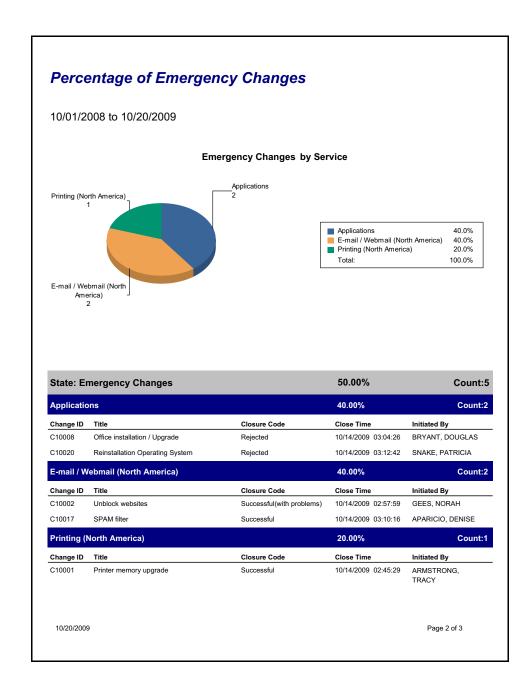


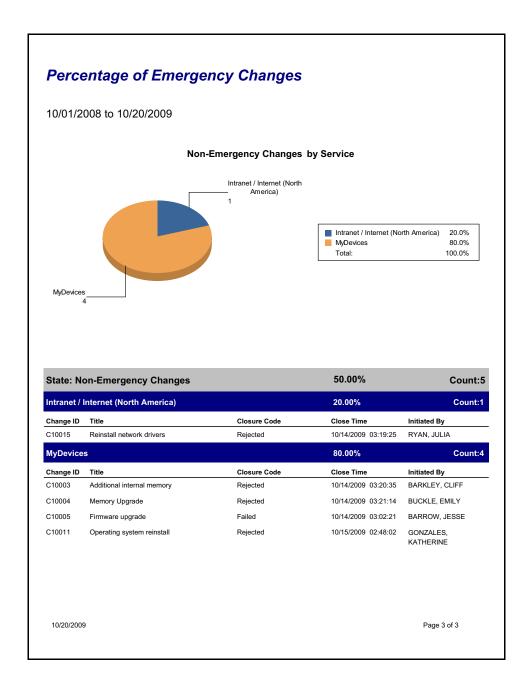
Percentage of Rejected Changes 10/01/2005 to 10/20/2009 Rejected Changes by Service Applications MyDevices 33.3% Applications 16.7% Intranet / Internet (North America) MyDevices 50.0% Total: 100.0% Intranet / Internet (North America) State: Rejected 60.00% Count:6 **Applications** 33.00% Count:2 Change ID Title Closure Code Close Time Closure Comments C10008 Office installation / Upgrade Rejected 10/14/2009 03:04:26 Rejected Changes. Reinstallation Operating System C10020 Rejected 10/14/2009 03:12:42 Rejected Change. 17.00% Intranet / Internet (North America) Count:1 Change ID Title Closure Code Close Time Closure Comments C10015 10/14/2009 03:19:25 Reinstall network drivers Rejected Rejected Change. **MyDevices** 50.00% Count:3 Title Closure Code Closure Comments Change ID Close Time C10003 Additional internal memory Rejected 10/14/2009 03:20:35 Here is the rejection C10004 Memory Upgrade Rejected 10/14/2009 03:21:14 Here is the reason for the rejection. C10011 Operating system reinstall Rejected 10/15/2009 02:48:02 Reject change with closure comments. 10/20/2009 Page 2 of 3



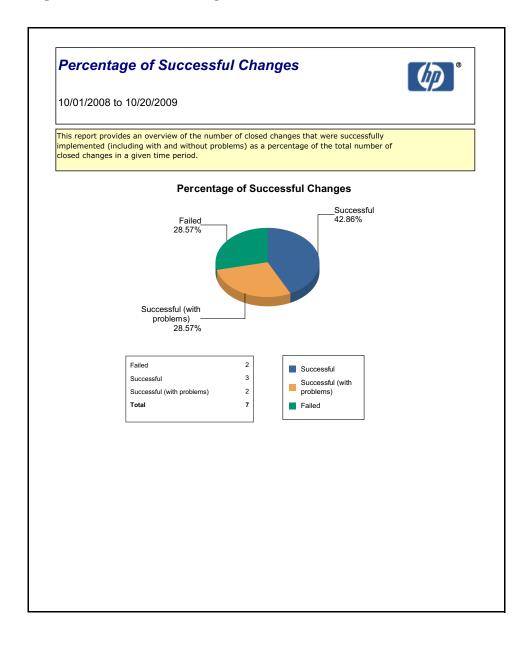
Percentage of Emergency Changes

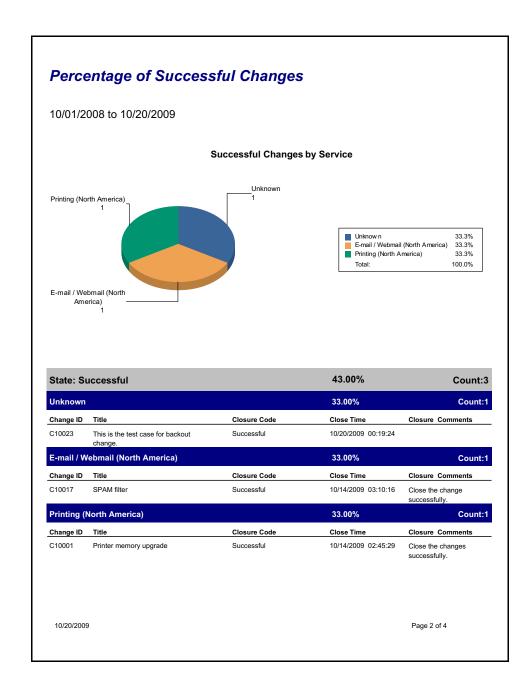






Percentage of Successful Changes





Percentage of Successful Changes 10/01/2008 to 10/20/2009 Successful (with problems) Changes by Service E-mail / Webmail (North America) Intranet / Internet (North America) E-mail / Webmail (North America) Intranet / Internet (North America) Total: 100.0% State: Successful (with problems) 29.00% Count:2 E-mail / Webmail (North America) 50.00% Count:1 Change ID Title Closure Code Close Time Closure Comments C10002 Unblock websites Successful (with problems) 10/14/2009 02:57:59 Close the change successfully but with problems. Intranet / Internet (North America) 50.00% Count:1 Change ID Title Closure Code Close Time Closure Comments C10007 New network card Successful (with problems) 10/20/2009 00:21:55 Close the change successfully but with problems.

Page 3 of 4

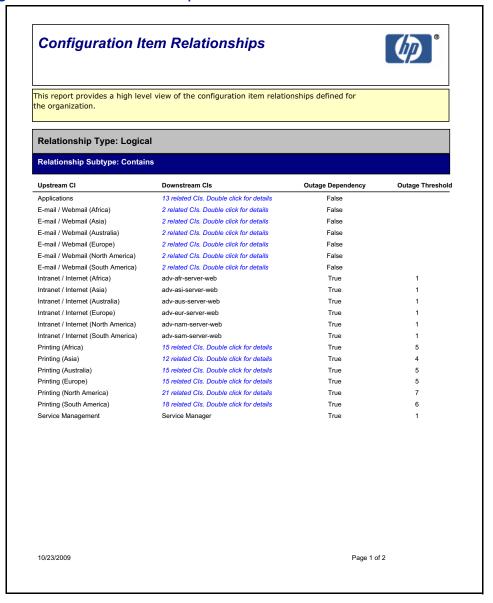
Report Examples 87

10/20/2009

Percentage of Successful Changes 10/01/2008 to 10/20/2009 **Failed Changes by Service** E-mail / Webmail (North MyDevices_ America) E-mail / Webmail (North America) MyDevices 50.0% Total: 100.0% 29.00% State: Failed Count:2 E-mail / Webmail (North America) 50.00% Count:1 Change ID Title **Closure Code** Close Time Closure Comments C10010 Allow bigger mails to be sent Failed 10/20/2009 00:23:59 Close the change failed. **MyDevices** 50.00% Count:1 Change ID Title Closure Code Close Time Closure Comments C10005 Firmware upgrade Failed 10/14/2009 03:02:21 Close the change failed. 10/20/2009 Page 4 of 4

Configuration Management Reports

Configuration Item Relationships



Configuration Item Relationships

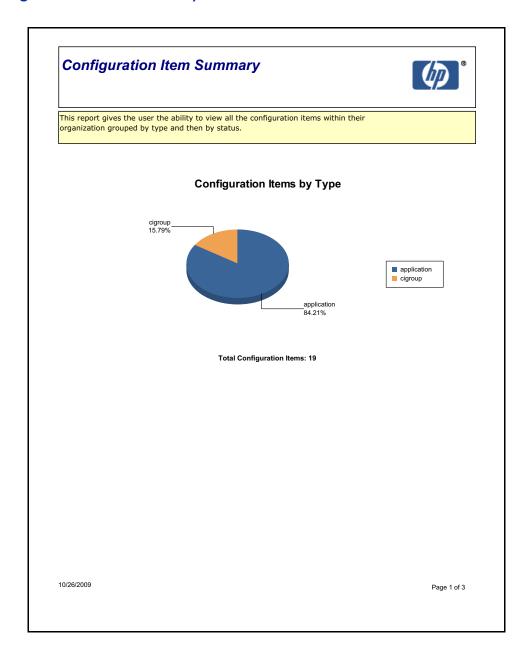
Relationship Type: Physical

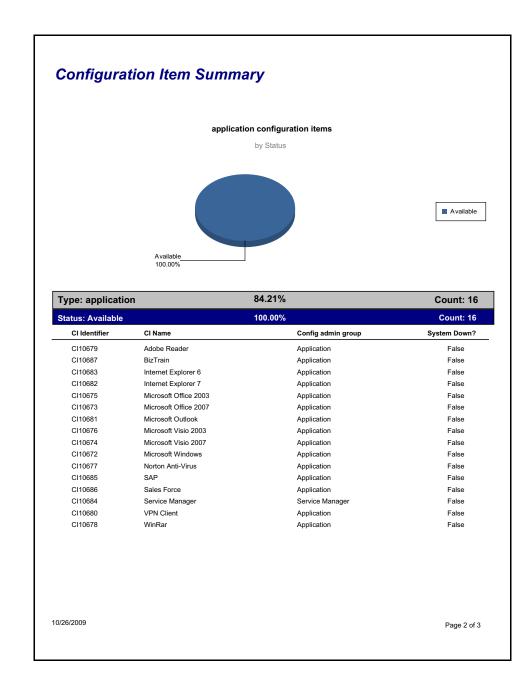
Relationship Subtype: Connects

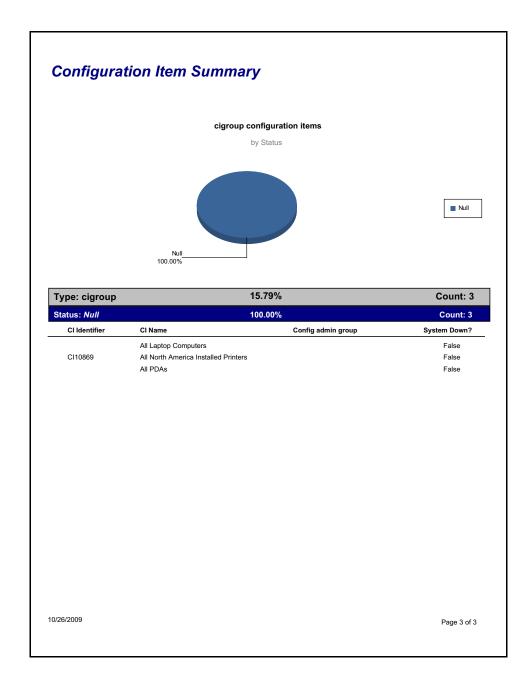
| Upstream CI | Downstream Cls | Outage Dependency | Outage Threshold |
|--------------------|------------------------------------------|-------------------|------------------|
| adv-nam-modem | adv-nam-router | False | |
| adv-nam-router | adv-nam-switch | False | |
| adv-nam-server-db | 4 related Cls. Double click for details | False | |
| adv-nam-switch | 11 related Cls. Double click for details | False | |
| adv-nam-switch-fin | 28 related Cls. Double click for details | False | |
| adv-nam-switch-hr | 28 related CIs. Double click for details | False | |
| adv-nam-switch-it | 18 related Cls. Double click for details | False | |
| adv-nam-switch-mar | 33 related Cls. Double click for details | False | |
| adv-nam-switch-sal | 33 related Cls. Double click for details | False | |
| adv-nam-switch-sd | 13 related Cls. Double click for details | False | |
| adv-nam-switch-war | 18 related Cls. Double click for details | False | |
| | | | |

10/23/2009 Page 2 of 2

Configuration Item Summary

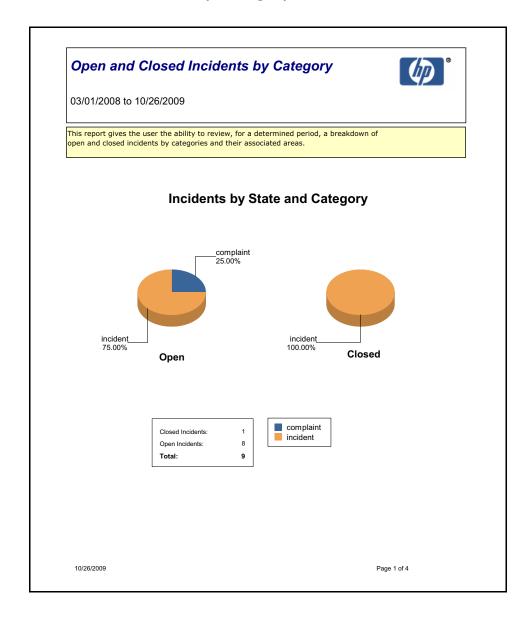


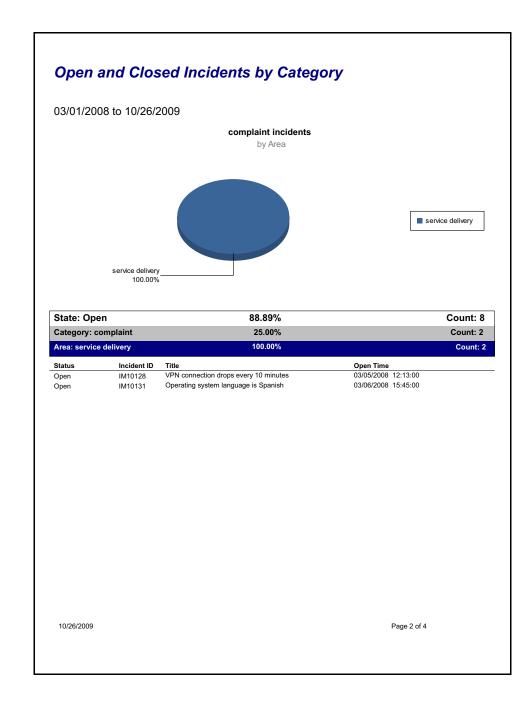


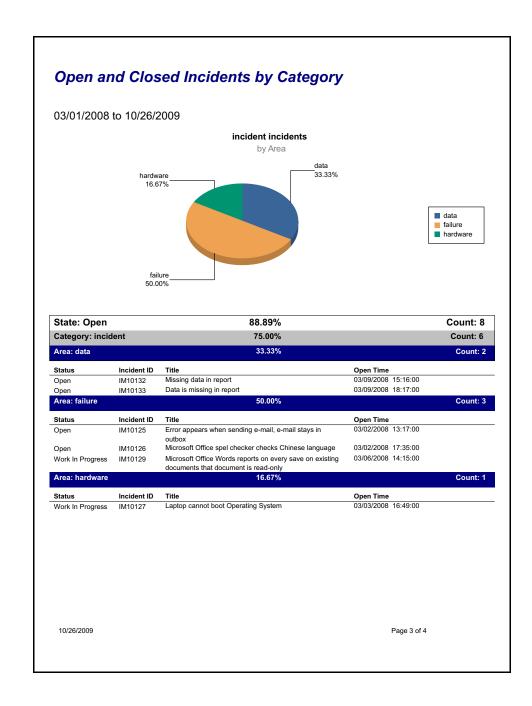


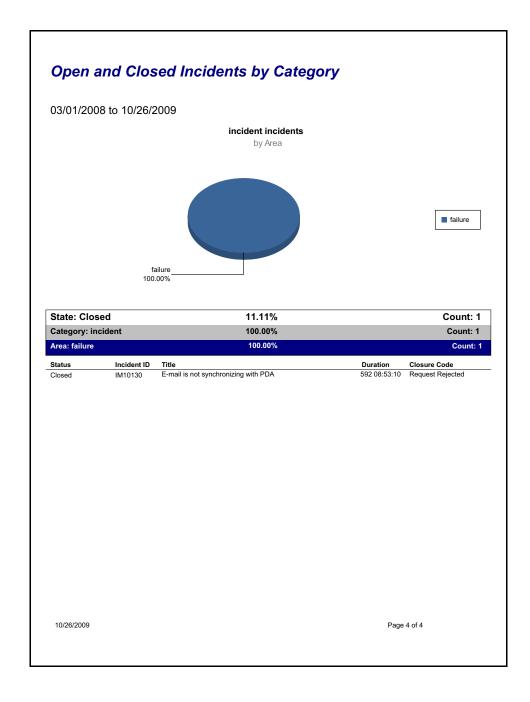
Incident Management Reports

Open and Closed Incidents by Category

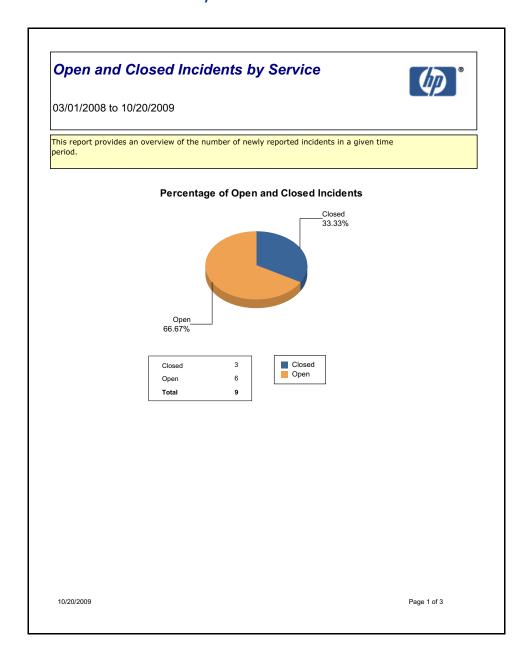


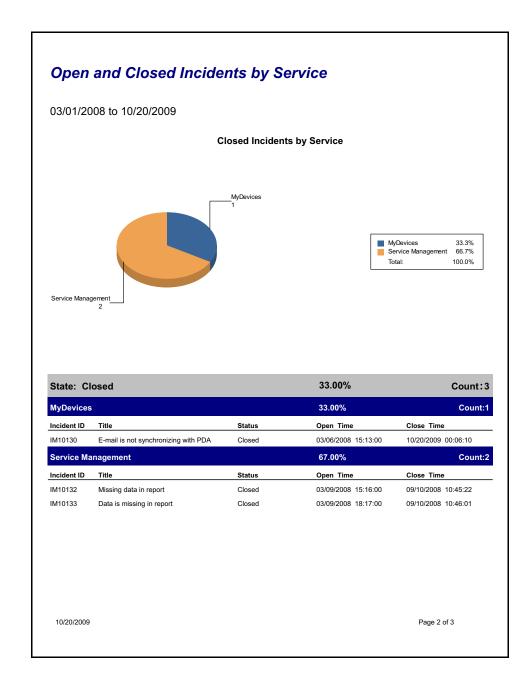


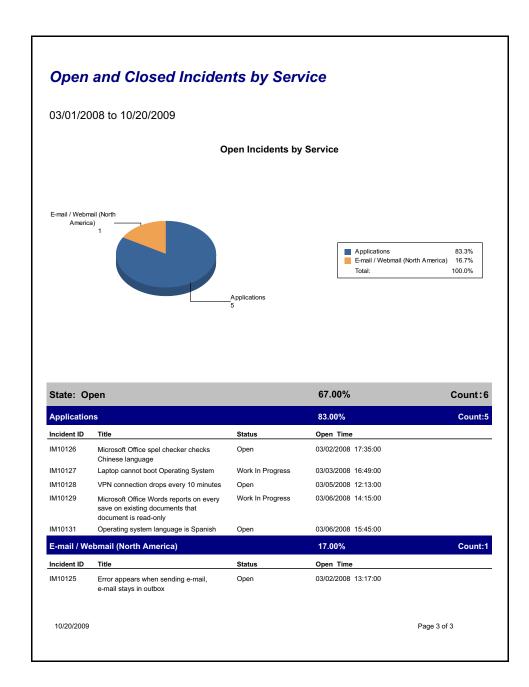




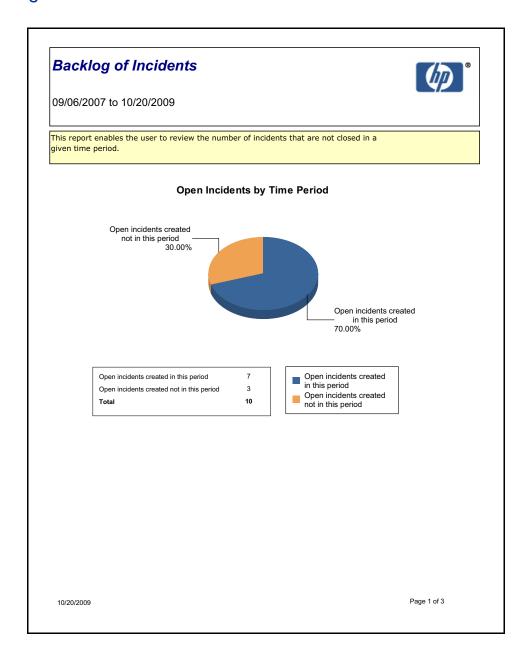
Open and Closed Incidents by Service







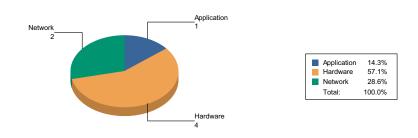
Backlog of Incidents



Backlog of Incidents

09/06/2007 to 10/20/2009

Incidents supported by Assignment group



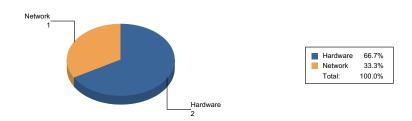
| Application | h | | 14.29% | Count:1 |
|-------------|----------------------------------------------------------------------------------------------|---------------------|----------------------|------------------|
| Incident ID | Title | Open Time | Assignee | Status |
| IM10005 | Microsoft Office keeps asking to install Language packs | 09/06/2007 15:57:00 | Incident.Manager | Work In Progress |
| Hardware | | | 57.14% | Count:4 |
| Incident ID | Title | Open Time | Assignee | Status |
| IM10006 | Pop-up appears while working with Office, Office needs installation of additional components | 09/06/2007 16:05:00 | Incident.Coordinator | Work In Progress |
| IM10008 | Desktop DVD-drive makes strange noices | 09/06/2007 18:14:00 | Incident.Coordinator | Work In Progress |
| IM10009 | Desktop screen out of order | 09/06/2007 18:37:00 | Incident.Coordinator | Work In Progress |
| IM10011 | Virus scan notification: Multiple Virusses found | 09/10/2007 17:19:00 | Incident.Manager | Work In Progress |
| Network | | | 28.57% | Count:2 |
| Incident ID | Title | Open Time | Assignee | Status |
| IM10007 | E-mail in outbox isn't beeing sent | 09/06/2007 17:05:00 | Incident.Manager | Open |
| 10/20/2009 | | | | Page 2 of 3 |

Backlog of Incidents

09/06/2007 to 10/20/2009

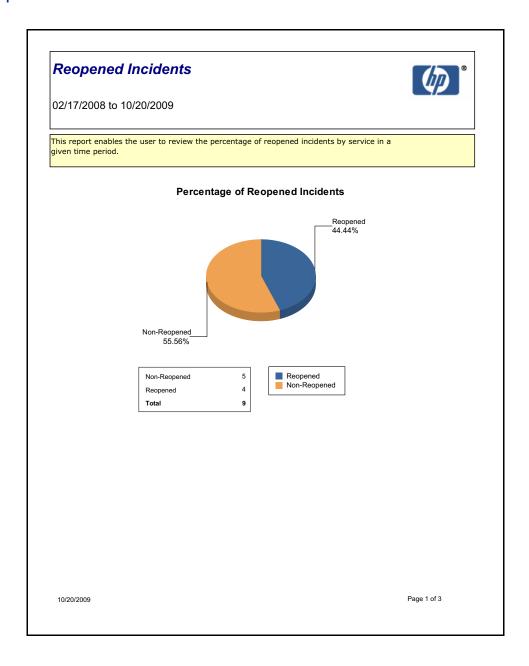
| State: Op | pen incidents created in this period | | 70.00% | Count:7 |
|-------------|--------------------------------------|---------------------|------------------|----------|
| Network | | | 28.57% | Count:2 |
| Incident ID | Title | Open Time | Assignee | Status |
| IM10010 | Network logon failure | 09/06/2007 19:52:00 | Incident.Manager | Accepted |

Incidents supported by Assignment group

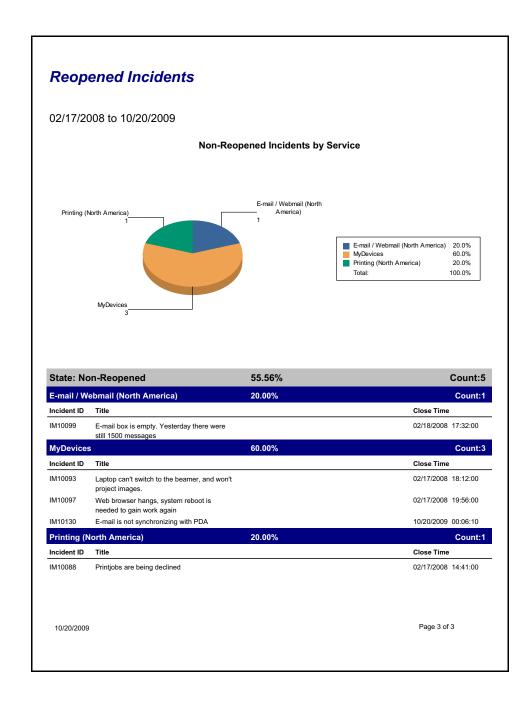


| State: Op | en incidents created not in this per | iod | 30.00% | Count:3 |
|-------------|-------------------------------------------------------------------------------------|---------------------|----------------------|------------------|
| Hardware | | | 66.67% | Count:2 |
| Incident ID | Title | Open Time | Assignee | Status |
| IM10003 | System crashes with message "not enough memory" while opening multiple applications | 09/02/2007 21:49:00 | Incident.Coordinator | Work In Progress |
| IM10004 | Wireless doesn't connect | 09/06/2007 14:02:00 | Incident.Analyst | test |
| Network | | | 33.33% | Count:1 |
| Incident ID | Title | Open Time | Assignee | Status |
| IM10002 | Webmail login failure | 09/02/2007 01:51:00 | Incident.Analyst | Work In Progress |
| | | | | |
| 10/20/2009 | | | | Page 3 of 3 |
| 10/20/2009 | '20/2009 Page 3 of 3 | | Page 3 of 3 | |

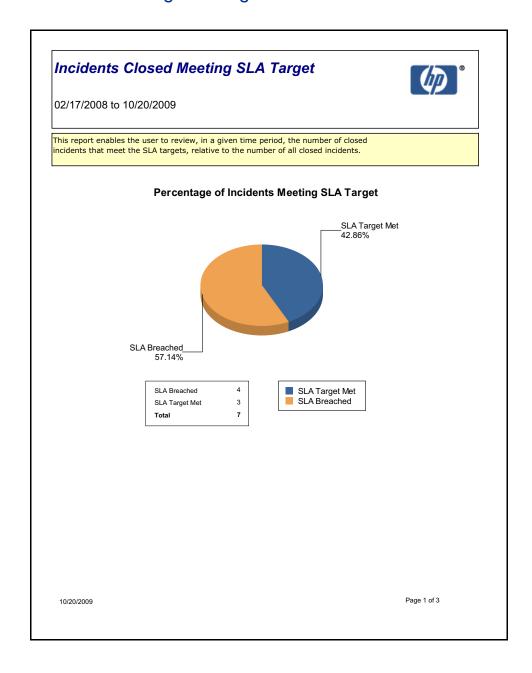
Reopened Incidents



Reopened Incidents 02/17/2008 to 10/20/2009 Reopened Incidents by Service Intranet / Internet (North Service Management America) Intranet / Internet (North America) 50.0% Service Management 100.0% Total: State: Reopened 44.44% Count:4 Intranet / Internet (North America) Count:2 50.00% Incident ID Reopened Time Reopened By Close Time IM10050 Cannot login to network 09/10/2008 10:42:01 09/10/2008 10:43:39 IM10052 Wireless network connection is lost all of the 09/10/2008 10:43:56 falcon 09/10/2008 10:44:22 Service Management 50.00% Count:2 Incident ID Reopened Time Reopened By Close Time IM10132 10/20/2009 00:31:39 Missing data in report falcon IM10133 10/20/2009 00:31:26 Data is missing in report falcon 10/20/2009 Page 2 of 3



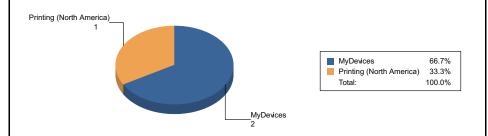
Incidents Closed Meeting SLA Target



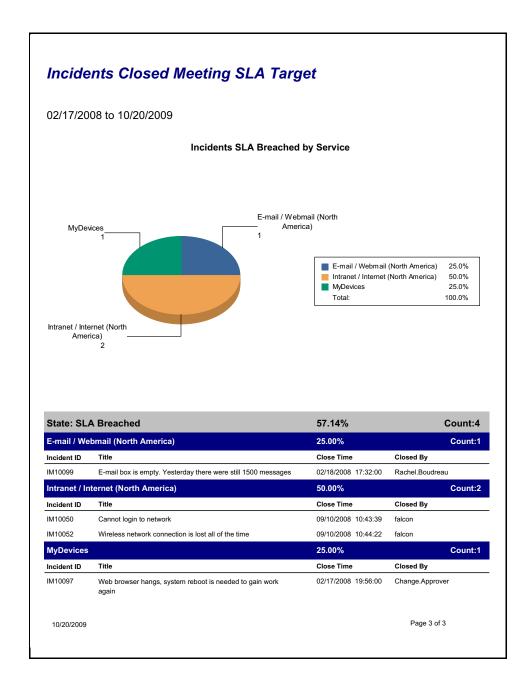
Incidents Closed Meeting SLA Target

02/17/2008 to 10/20/2009

Incidents SLA Target Met by Service

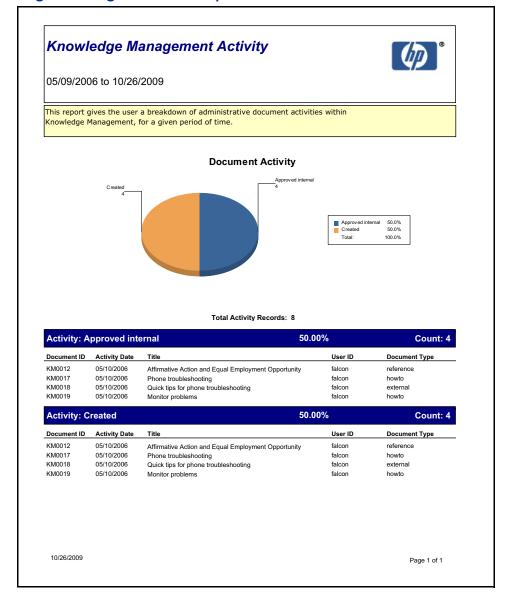


| State: SLA Target Met | | 42.86% | Count:3 | |
|-----------------------|--------------------------------------------------------------|---------------------|------------------|--|
| MyDevices | | 66.67% | Count:2 | |
| Incident ID | Title | Close Time | Closed By | |
| IM10093 | Laptop can't switch to the beamer, and won't project images. | 02/17/2008 18:12:00 | Incident.Analyst | |
| IM10130 | E-mail is not synchronizing with PDA | 10/20/2009 00:06:10 | falcon | |
| Printing (No | orth America) | 33.33% | Count:1 | |
| Incident ID | Title | Close Time | Closed By | |
| IM10088 | Printjobs are being declined | 02/17/2008 14:41:00 | Rachel.Boudreau | |
| 10/20/2009 | | | Page 2 of 3 | |

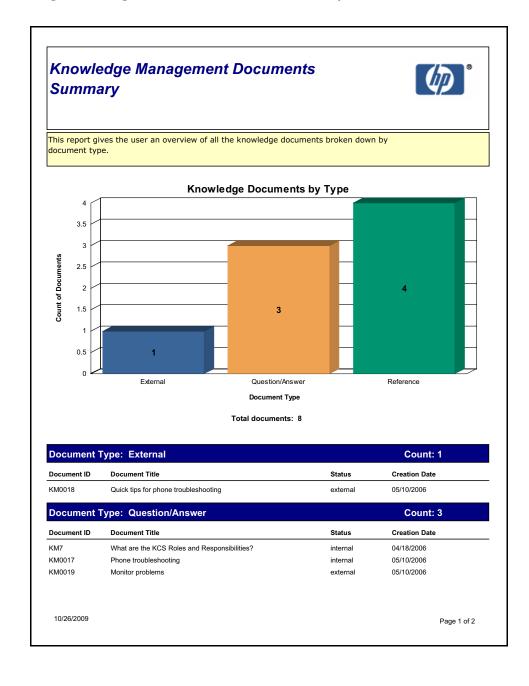


Knowledge Management Reports

Knowledge Management Activity



Knowledge Management Documents Summary

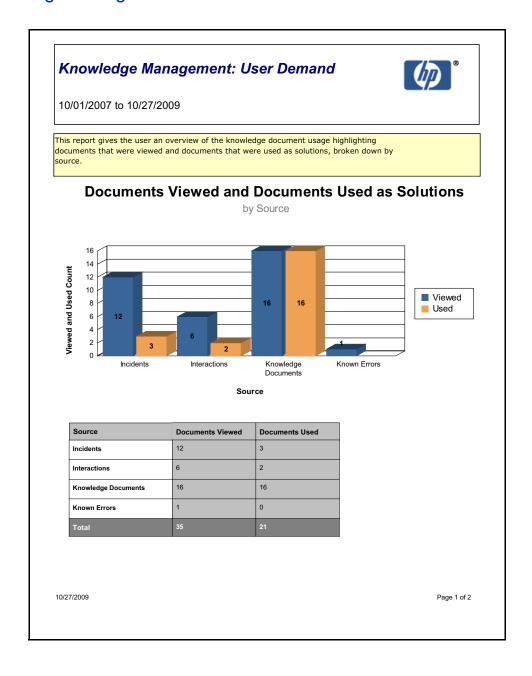


Knowledge Management Documents Summary

| Document 1 | Гуре: Reference | | Count: 4 |
|-------------|-----------------------------------------------------|-------------|---------------|
| Document ID | Document Title | Status | Creation Date |
| KM0013R | Sexual Harassment | workingcopy | 05/10/2006 |
| KM6 | The UFFA Model and Quality Solutions | internal | 04/18/2006 |
| KM8 | Searching in Knowledge Management | external | 04/18/2006 |
| KM0012 | Affirmative Action and Equal Employment Opportunity | internal | 05/10/2006 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

10/26/2009 Page 2 of 2

Knowledge Management: User Demand



Knowledge Management: User Demand

10/01/2007 to 10/27/2009

| ource: Incidents | | | | |
|------------------|--------------|------------|--|--|
| ID | Total Viewed | Total Used | | |
| IM10001 | 1 | 1 | | |
| IM10018 | 1 | 0 | | |
| IM10026 | 1 | 0 | | |
| IM10028 | 1 | 1 | | |
| IM10033 | 2 | 0 | | |
| IM10080 | 1 | 1 | | |
| IM10086 | 1 | 0 | | |
| IM10150 | 1 | 0 | | |
| IM10153 | 3 | 0 | | |

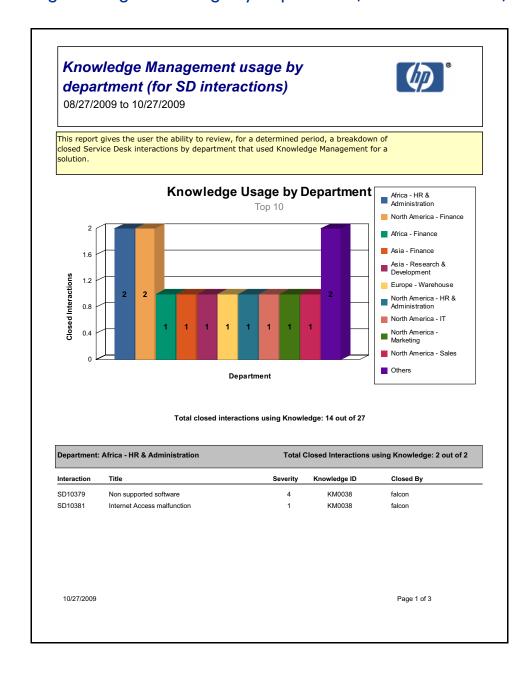
| Source: Interactions | | | | | |
|----------------------|--------------|------------|--|--|--|
| ID | Total Viewed | Total Used | | | |
| SD10041 | 3 | 2 | | | |
| SD10224 | 2 | 0 | | | |
| SD10254 | 1 | 0 | | | |

| Source: Knowledge Documents | | | | | |
|-----------------------------|--------------|------------|--|--|--|
| ID | Total Viewed | Total Used | | | |
| KM0015 | 1 | 1 | | | |
| KM0018 | 3 | 3 | | | |
| KM0038 | 12 | 12 | | | |

| Source: Known Errors | | | | | | |
|----------------------|--------------|------------|--|--|--|--|
| ID | Total Viewed | Total Used | | | | |
| KE10005 | 1 | 0 | | | | |

10/27/2009 Page 2 of 2

Knowledge Management Usage by Department (for SD Interactions)



Knowledge Management usage by department (for SD interactions)

08/27/2009 to 10/27/2009

| Department: | North America - Finance | Total Closed Interactions using Knowledge: 2 out of 3 | | | |
|-----------------------------|-------------------------------|-------------------------------------------------------|----------------------|-----------------------------|--|
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10374 | email | 2 | SD10041 | falcon | |
| SD10395 | Internet Access malfunction | 1 | KM0018 | falcon | |
| Department: | Africa - Finance | Total (| Closed Interactions | using Knowledge: 1 out of 1 | |
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10380 | System Virus | 1 | KM0018 | falcon | |
| Department: | Asia - Finance | Total (| Closed Interactions | using Knowledge: 1 out of 2 | |
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10389 | Internet Access malfunction | 1 | KM0038 | falcon | |
| Department: | Asia - Research & Development | Total (| Closed Interactions | using Knowledge: 1 out of 1 | |
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10382 | Internet Access malfunction | 1 | KM0038 | falcon | |
| Department: | Europe - Warehouse | Total (| Closed Interactions | using Knowledge: 1 out of 1 | |
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10378 | Printer malfunction | 2 | IM10001 | falcon | |
| Department: Administrati | North America - HR & | Total C | losed Interactions u | sing Knowledge: 1 out of 11 | |
| Interaction | Title | Severity | Knowledge ID | Closed By | |
| SD10376 | System Virus | 1 | KM0015 | falcon | |
| | | - | | <u> </u> | |
| 10/27/2009 | | | | Page 2 of 3 | |

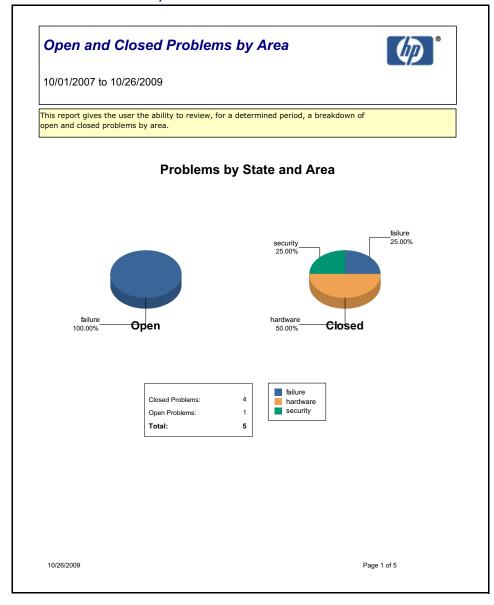
Knowledge Management usage by department (for SD interactions)

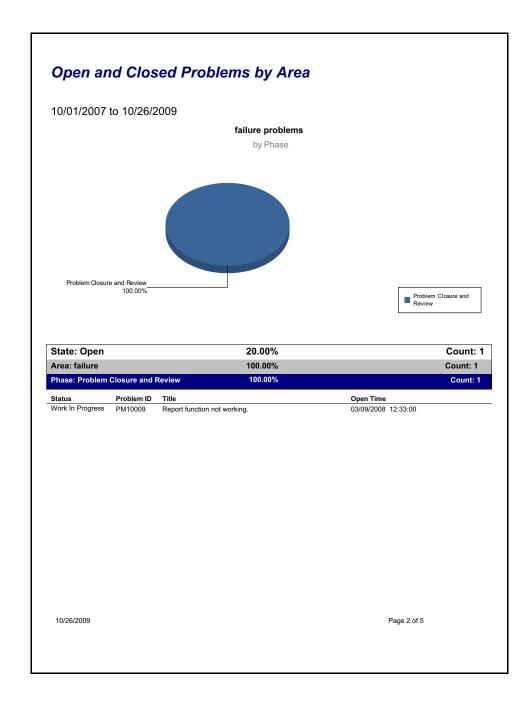
08/27/2009 to 10/27/2009

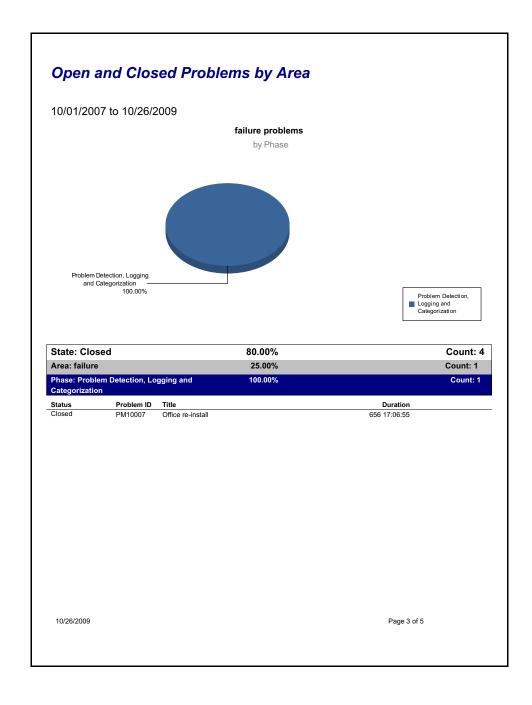
| Беранинени. | North America - IT | Total 0 | Total Closed Interactions using Knowledge: 1 out of 1 | | | |
|-------------|------------------------------|----------|-------------------------------------------------------|-----------------------------|--|--|
| Interaction | Title | Severity | Knowledge ID | Closed By | | |
| SD10388 | Internet Access malfunction | 1 | KM0038 | falcon | | |
| Department: | North America - Marketing | Total (| Closed Interactions | using Knowledge: 1 out of 1 | | |
| Interaction | Title | Severity | Knowledge ID | Closed By | | |
| SD10386 | Internet Access malfunction | 1 | KM0038 | falcon | | |
| Department: | North America - Sales | Total (| Closed Interactions | using Knowledge: 1 out of 1 | | |
| Interaction | Title | Severity | Knowledge ID | Closed By | | |
| SD10384 | Internet Access malfunction | 1 | KM0038 | falcon | | |
| Department: | North America - Service Desk | Total (| Closed Interactions | using Knowledge: 1 out of 2 | | |
| Interaction | Title | Severity | Knowledge ID | Closed By | | |
| SD10385 | Internet Access malfunction | 1 | KM0038 | falcon | | |
| | Nesth Assessed West- | T-4-1 (| Closed Interactions | using Knowledge: 1 out of 1 | | |
| Department: | North America - Warehouse | i otai C | | | | |
| Department: | Title | Severity | Knowledge ID | Closed By | | |
| • | | | | Closed By | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |
| Interaction | Title | Severity | Knowledge ID | | | |

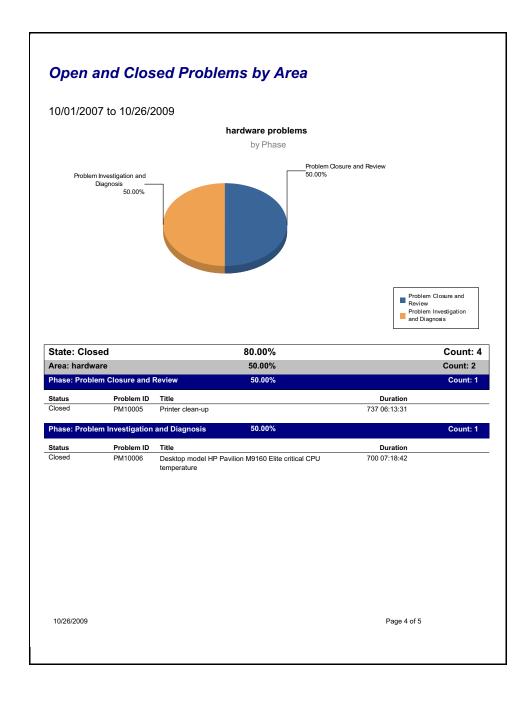
Problem Management Reports

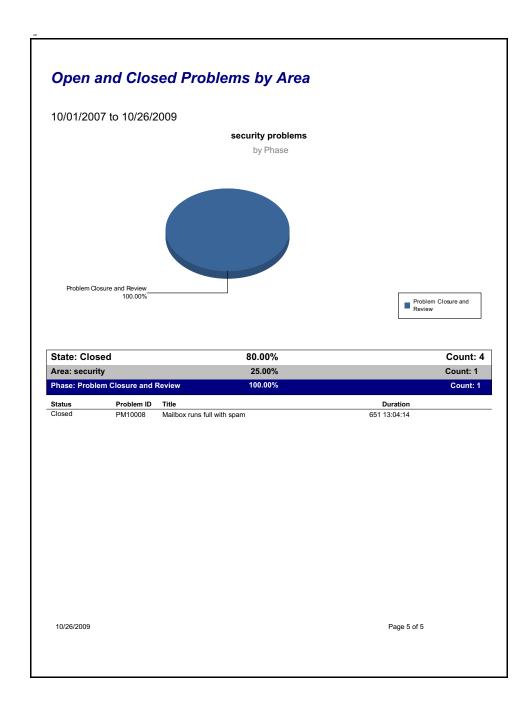
Open and Closed Problems by Area



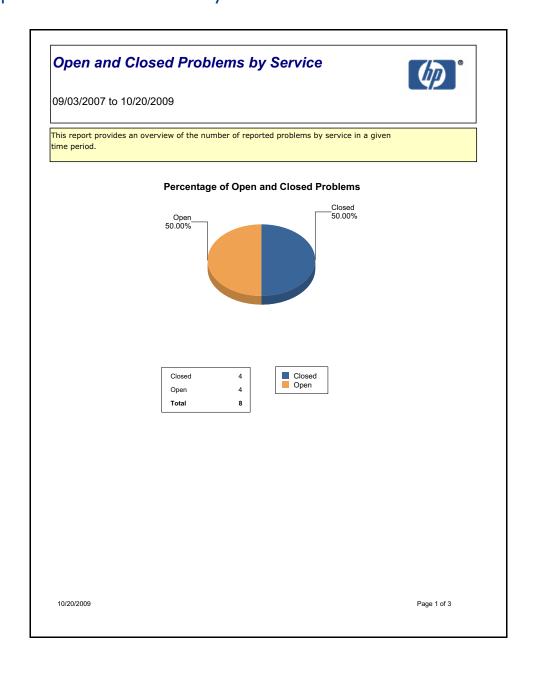


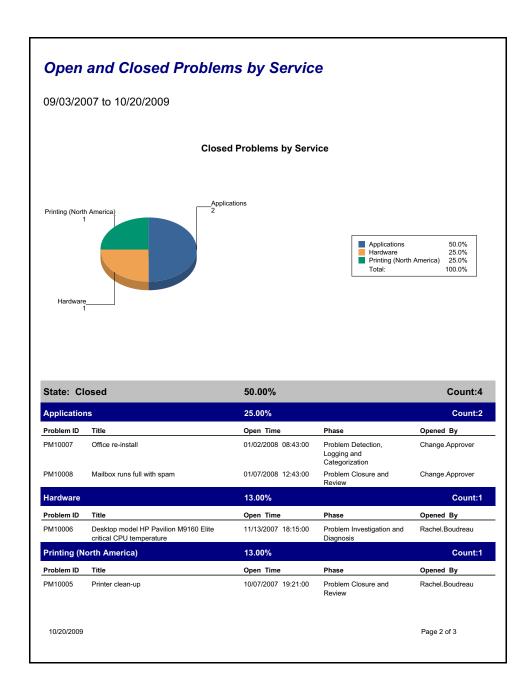


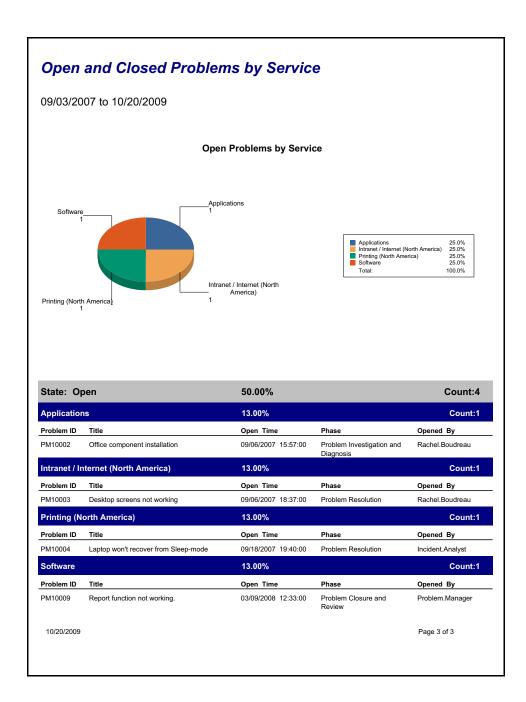




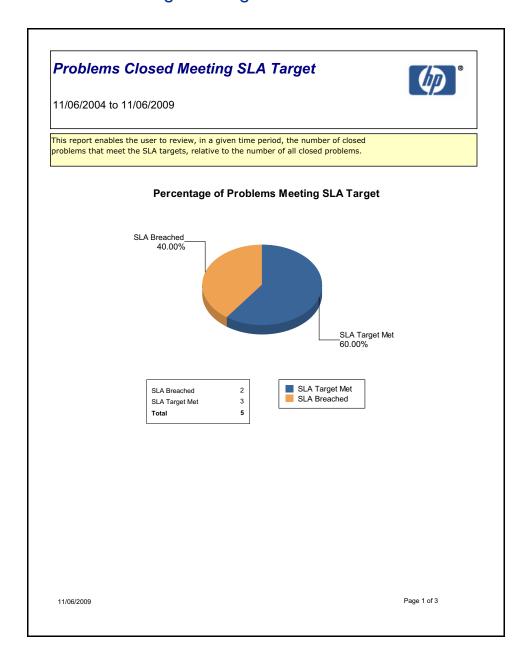
Open and Closed Problems by Service







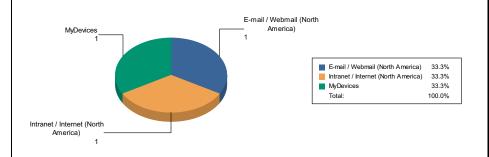
Problems Closed Meeting SLA Target



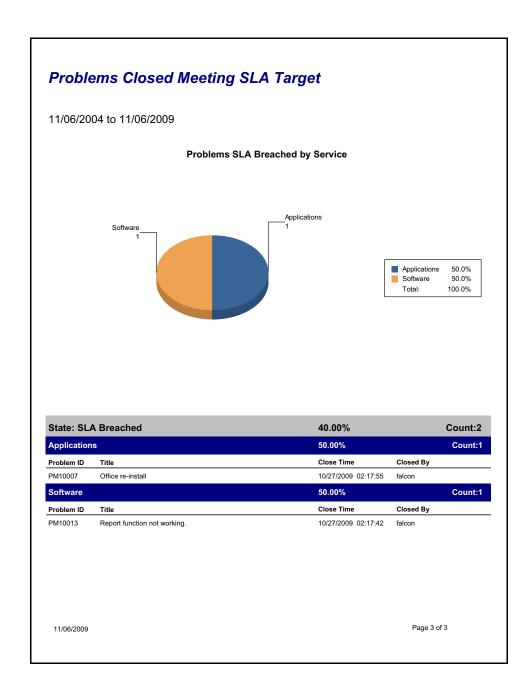


11/06/2004 to 11/06/2009

Problems SLA Target Met by Service

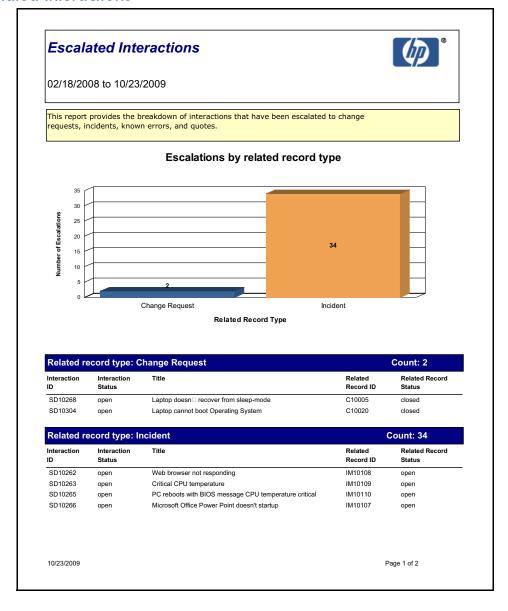


| State: SL/ | A Target Met | 60.00% | Count:3 |
|----------------------------------|-----------------------------|---------------------|-------------|
| E-mail / Webmail (North America) | | 33.33% | Count:1 |
| Problem ID | Title | Close Time | Closed By |
| PM10001 | Not enough internal memory | 09/07/2009 20:36:57 | falcon |
| Intranet / In | ternet (North America) | 33.33% | Count:1 |
| Problem ID | Title | Close Time | Closed By |
| PM10003 | Desktop screens not working | 10/26/2009 22:24:44 | falcon |
| MyDevices | | 33.33% | Count:1 |
| Problem ID | Title | Close Time | Closed By |
| PM10015 | another | 11/02/2009 23:06:02 | falcon |
| | | | |
| | | | |
| | | | |
| 11/06/2009 | | | Page 2 of 3 |



Service Desk Reports

Escalated Interactions

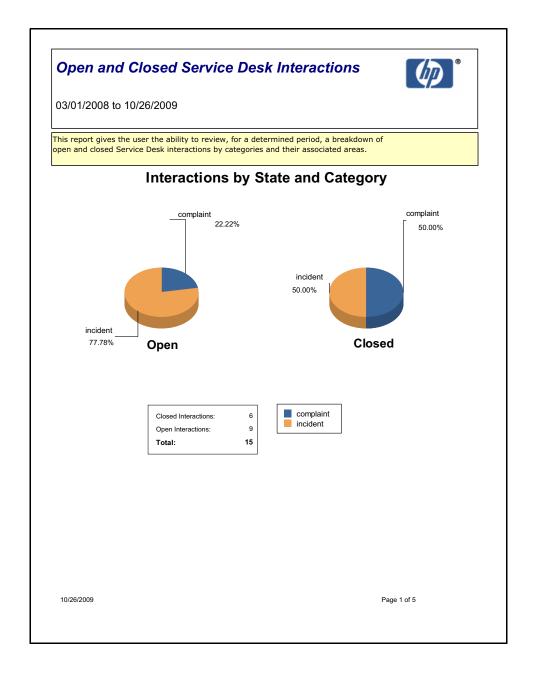


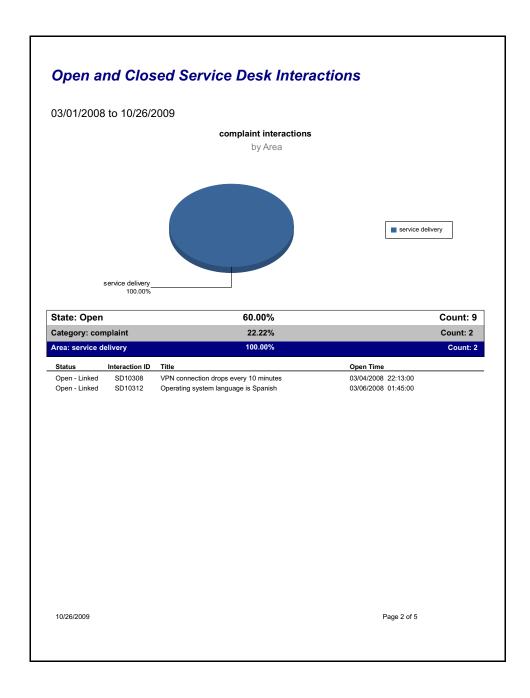
Escalated Interactions

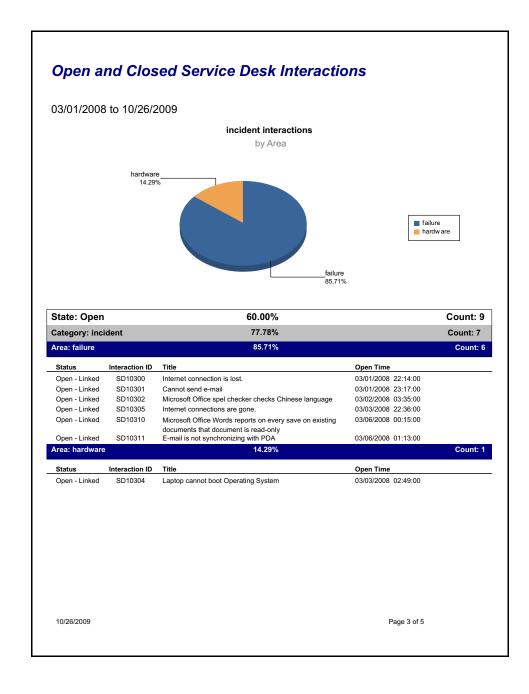
02/18/2008 to 10/23/2009

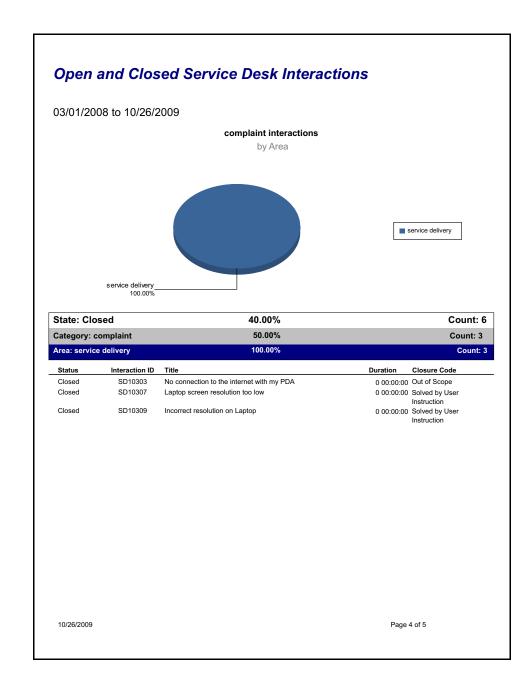
| Related re | coru type. II | licidelit | | Count: 34 |
|--------------------|-----------------------|-----------------------------------------------------------------------------------------------|----------------------|--------------------------|
| Interaction ID | Interaction Status | Title | Related Record ID | Related Record Status |
| SD10268 | open | Laptop doesn□ recover from sleep-mode | IM10015 | open |
| SD10269 | open | Not enough network patches | IM10111 | open |
| SD10271 | open | Network connection issue | IM10112 | open |
| SD10272 | open | Microsoft Office Power Point won't startup, error on startup | IM10107 | open |
| SD10275 | open | Microsoft Office Power Point can't startup, error on startup | IM10107 | open |
| SD10276 | open | BIOS message CPU temperature critical | IM10113 | open |
| SD10278 | open | Desktop reboots with BIOS message CPU temperature critical | IM10114 | open |
| SD10279 | open | Desktop can't boot from harddrive | IM10115 | open |
| SD10281 | open | Laptop keyboard out of order | IM10116 | open |
| SD10283 | open | Mail stays in outbox | IM10117 | open |
| SD10284 | open | Microsoft Office Words can't startup, error on startup | IM10118 | open |
| SD10286 | open | Unstable internet connection | IM10119 | open |
| SD10289 | open | Windows language keeps changing back to Japanese | IM10120 | open |
| SD10290 | open | Desktop screen out of order | IM10121 | open |
| SD10292 | open | Internet connection can't be made | IM10122 | open |
| SD10293 | open | Internet connection is lost all of the time | IM10123 | open |
| SD10295 | open | No connection to Internet available | IM10122 | open |
| SD10297 | open | Microsoft Office Excel startup failure | IM10124 | open |
| SD10298 | open | No connection to Internet | IM10122 | open |
| SD10300 | open | Internet connection is lost. | IM10122 | open |
| SD10301 | open | Cannot send e-mail | IM10125 | open |
| SD10302 | open | Microsoft Office spel checker checks Chinese language | IM10126 | open |
| SD10304 | open | Laptop cannot boot Operating System | IM10127 | open |
| SD10305 | open | Internet connections are gone. | IM10122 | open |
| SD10308 | open | VPN connection drops every 10 minutes | IM10128 | open |
| SD10310 | open | Microsoft Office Words reports on every save on existing documents that document is read-only | IM10129 | open |
| SD10311 SD10312 | open | E-mail is not synchronizing with PDA | IM10130 IM10131 | closed |
| SD10312 SD10314 | open closed | Operating system language is Spanish | IM10131 IM10132 | open |
| | | Missing data in report | | open |
| SD10315 | closed | Data is missing in report | IM10133 | open |
| 10/23/2009 | | | F | Page 2 of 2 |

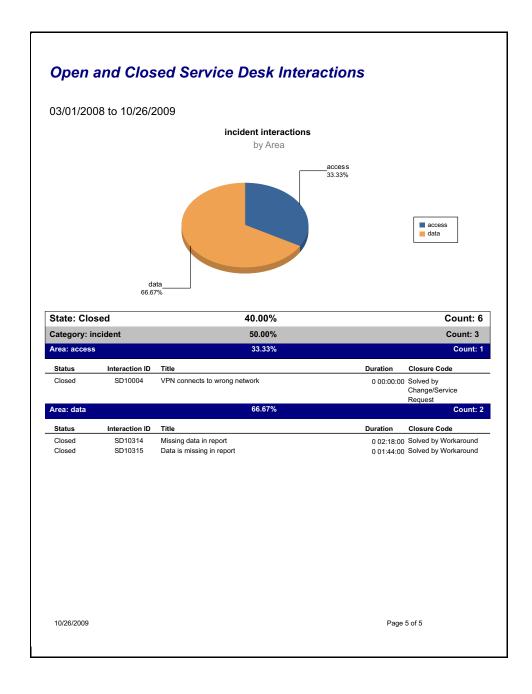
Open and Closed Service Desk Interactions



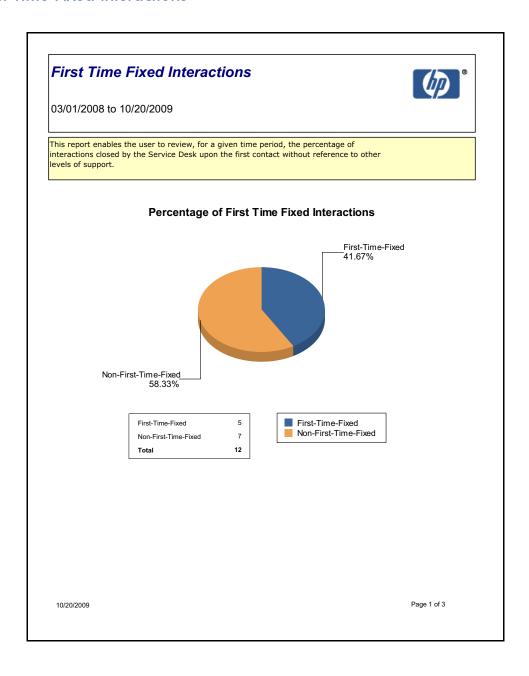


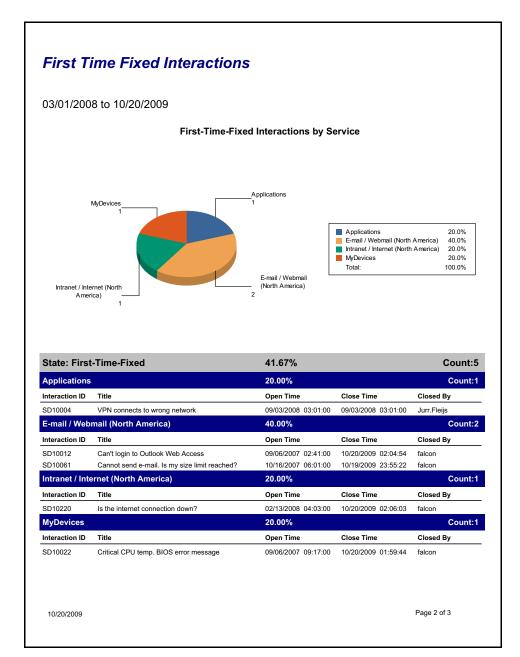






First Time Fixed Interactions

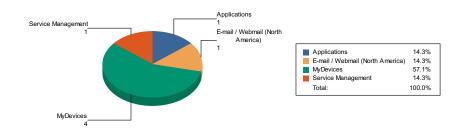




First Time Fixed Interactions

03/01/2008 to 10/20/2009

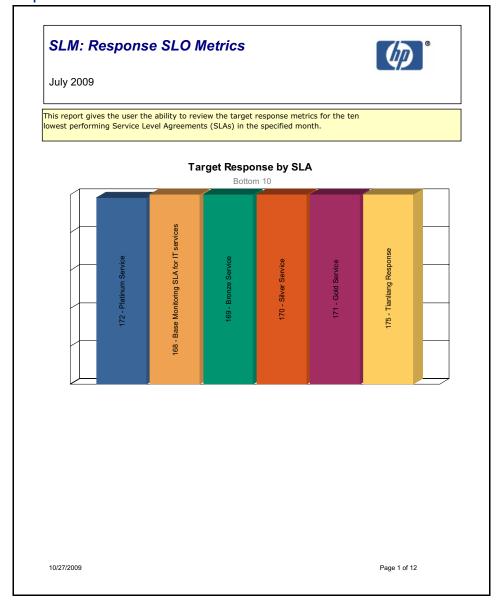
Non-First-Time-Fixed Interactions by Service

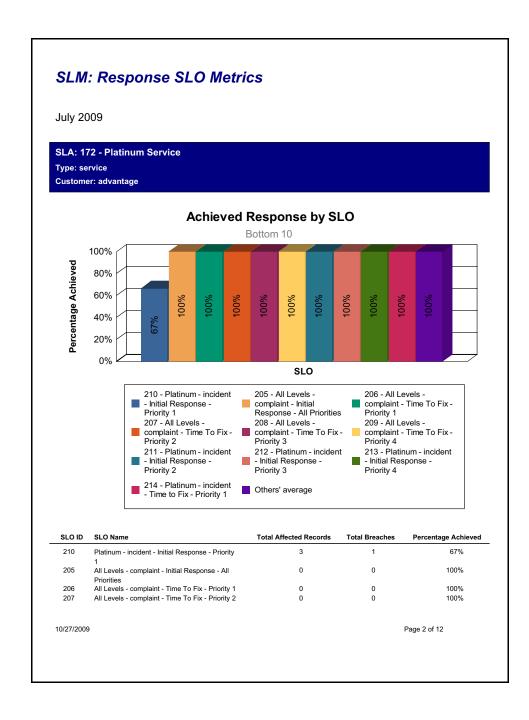


| State: Non-First-Time-Fixed Applications | | 58.33% | Count:7 | |
|------------------------------------------|-------------------------------------------|---------------------|---------------------|-------------|
| | | 14.29% | 14.29% | |
| Interaction ID | Title | Open Time | Close Time | Closed By |
| SD10315 | Data is missing in report | 03/09/2008 12:17:00 | 03/09/2008 14:01:00 | Sandra.Jans |
| E-mail / Web | mail (North America) | 14.29% | | Count:1 |
| Interaction ID | Title | Open Time | Close Time | Closed By |
| SD10184 | My new mails are not coming in | 01/13/2008 01:13:00 | 10/20/2009 02:02:51 | falcon |
| MyDevices | | 57.14% | | Count:4 |
| Interaction ID | Title | Open Time | Close Time | Closed By |
| SD10003 | Not enough memory | 09/02/2007 09:49:00 | 10/19/2009 23:51:14 | falcon |
| SD10303 | No connection to the internet with my PDA | 03/02/2008 22:44:00 | 03/02/2008 22:44:00 | Jaco.Staple |
| SD10307 | Laptop screen resolution too low | 03/04/2008 03:15:00 | 03/04/2008 03:15:00 | New.Jelle |
| SD10309 | Incorrect resolution on Laptop | 03/05/2008 23:07:00 | 03/05/2008 23:07:00 | New.Jelle |
| Service Mana | agement | 14.29% | | Count:1 |
| Interaction ID | Title | Open Time | Close Time | Closed By |
| SD10314 | Missing data in report | 03/09/2008 09:16:00 | 03/09/2008 11:34:00 | Sandra.Jans |
| 10/20/2009 | | | | Page 3 of 3 |

Service Level Management Reports

SLM: Response SLO Metrics





SLM: Response SLO Metrics

July 2009

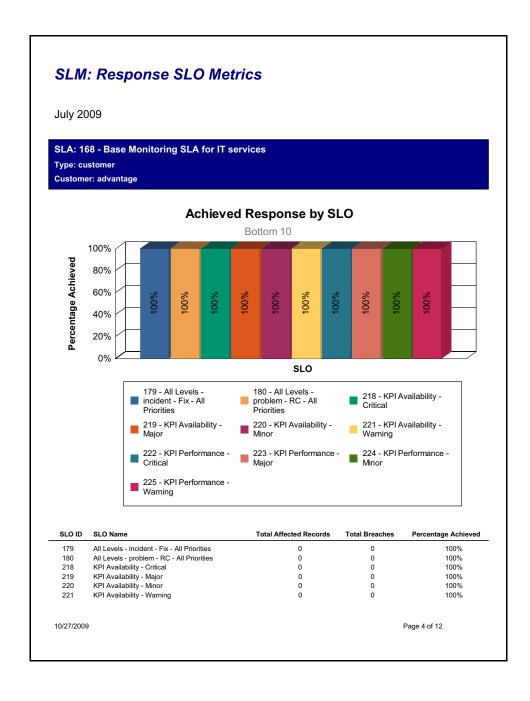
SLA: 172 - Platinum Service

Type: service

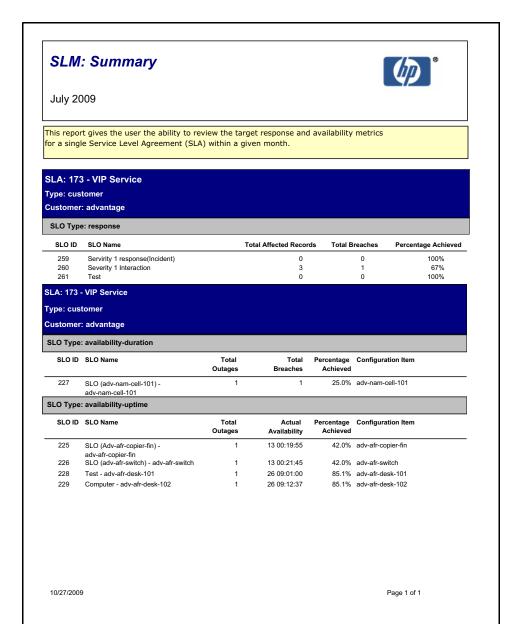
Customer: advantage

| SLO ID | SLO Name | Total Affected Records | Total Breaches | Percentage Achieved |
|--------|-----------------------------------------------------|------------------------|----------------|---------------------|
| 208 | All Levels - complaint - Time To Fix - Priority 3 | 0 | 0 | 100% |
| 209 | All Levels - complaint - Time To Fix - Priority 4 | 0 | 0 | 100% |
| 211 | Platinum - incident - Initial Response - Priority 2 | 0 | 0 | 100% |
| 212 | Platinum - incident - Initial Response - Priority 3 | 0 | 0 | 100% |
| 213 | Platinum - incident - Initial Response - Priority 4 | 0 | 0 | 100% |
| 214 | Platinum - incident - Time to Fix - Priority 1 | 3 | 0 | 100% |
| 215 | Platinum - incident - Time to Fix - Priority 2 | 0 | 0 | 100% |
| 216 | Platinum - incident - Time to Fix - Priority 3 | 0 | 0 | 100% |
| 217 | Platinum - incident - Time to Fix - Priority 4 | 0 | 0 | 100% |
| 250 | KPI Availability - Critical | 0 | 0 | 100% |
| 251 | KPI Availability - Major | 0 | 0 | 100% |
| 252 | KPI Availability - Minor | 0 | 0 | 100% |
| 253 | KPI Availability - Warning | 0 | 0 | 100% |
| 254 | KPI Performance - Critical | 0 | 0 | 100% |
| 255 | KPI Performance - Major | 0 | 0 | 100% |
| 256 | KPI Performance - Minor | 0 | 0 | 100% |
| 257 | KPI Performance - Warning | 0 | 0 | 100% |

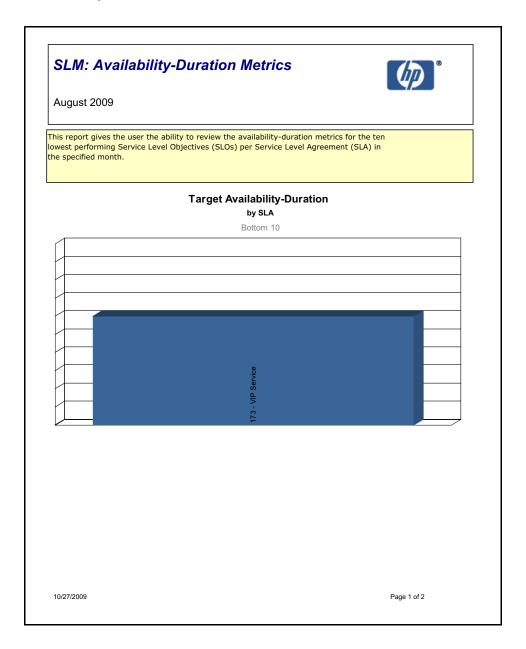
10/27/2009 Page 3 of 12

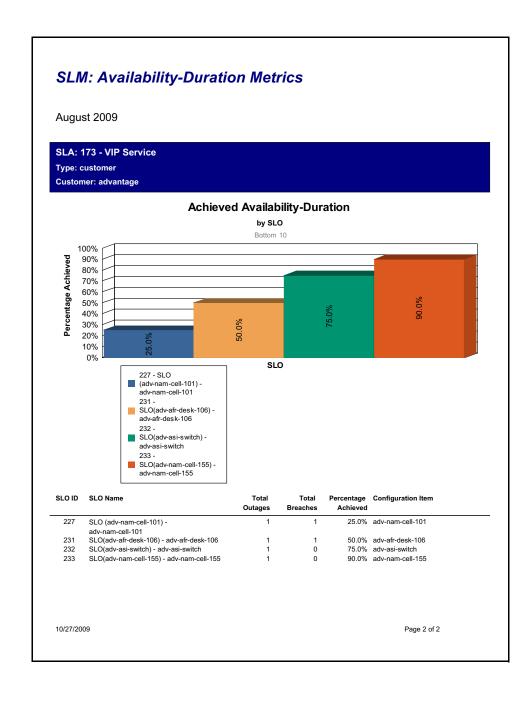


SLM: Summary



SLM: Availability-Duration Metrics





SLM: Availability-Uptime Metrics

