

**BigFix  
Patch for Raspbian - User's Guide**



# Special notice

Before using this information and the product it supports, read the information in [Notices](#) (on page 12).

# Edition notice

This edition applies to BigFix version 10 and to all subsequent releases and modifications until otherwise indicated in new editions.

# Contents

Special notice.....	2
Edition notice.....	3
<b>Chapter 1. Overview.....</b>	<b>1</b>
Supported Versions and Platforms.....	1
Site subscription.....	2
<b>Chapter 2. Managing security updates with Patch for Raspbian.....</b>	<b>3</b>
Deploying patches by using Fixlets.....	3
Patches for Raspbian Fixlet sites.....	5
Superseded Fixlets.....	5
Frequently Asked Questions - Supersedence.....	6
Installing multiple package baselines.....	9
Frequently asked questions.....	10
Notices.....	12

# Chapter 1. Overview

BigFix Patch for Raspbian provides Fixlets that you use to manage the latest updates and service packs that Raspberry Pi releases. These Fixlets are available through the Patches for Raspbian sites.

BigFix Patch for Raspbian keeps your Raspbian clients up-to-date with the latest updates and service packs. Patch management is available through the Patches for Raspbian sites. For each new security update that becomes available, BigFix releases a Fixlet that identifies and updates all the computers in your enterprise that require the particular update.

With a few keystrokes, the BigFix Console operator applies the patch to all the relevant computers and monitors its progress as it deploys the patch throughout the network. The BigFix agent checks the operating system version, processors, and the installed packages to determine when and why a patch is necessary.

By using Fixlets, you can manage large numbers of updates and patches with comparative ease, enabling automated, highly targeted deployment on any schedule that you want. Large downloads can be phased to optimize network bandwidth and the entire deployment process can be monitored, graphed, and recorded for inventory or audit control.

## Supported Versions and Platforms

Patch for Raspbian sites support Raspbian version 10 (buster).

Patch for Raspbian Fixlet sites provide support for the following versions and platforms:

**Table 1. Versions and platforms supported by Patch for Raspbian Fixlet sites**

<b>Version</b>	<b>Platform (Supports servers and desktops)</b>	<b>Fixlet site name</b>
Raspbian 10	armhf	Patches for Raspbian 10

Raspbian releases packages without associated announcements. Hence packages have "Unspecified" indicated in the Fixlet title.



**Note:** The repository includes the packages from **required**, **standard**, **important** and **extra** categories. The packages from the **optional** category are not included.

## Site subscription

Sites are collections of Fixlet messages that are created internally by you, by HCL, or by vendors.

Subscribe to a site to access the Fixlet messages to patch systems in your deployment.

You can add a site subscription by acquiring a Masthead file from a vendor or from HCL or by using the Licensing Dashboard. For more information about subscribing to Fixlet sites, see the BigFix Installation Guide.

For more information about sites, see the BigFix Console Operator's Guide.

Before you can deploy Raspbian Fixlets, the BigFix server must be subscribed to the Patching Support site. After gathering the site, select the following task based on your deployment and run the task.

### **Task ID: 71 Setup Download Whitelist for Raspbian (Windows Server)**

This task applies to Windows servers.

### **Task ID: 72 Setup Download Whitelist for Raspbian (Linux Server)**

This task applies to Linux servers.

You must run the task, otherwise, you might encounter the following error: `The requested URL does not pass this deployment's download whitelist.`

Raspbian uses dynamic downloads while it fetches the packages. As a security measure, the server blocks every dynamic download request except the ones with URLs that match the patterns in the white list file. Except for the endpoints, ensure that the BigFix relay server is subscribed to Raspbian Fixlets.

# Chapter 2. Managing security updates with Patch for Raspbian

Access Raspbian Fixlets sites for Raspbian updates from the BigFix console.

You can manage the security updates that Raspbian releases with the use of the Patch Management for Raspbian Fixlets. These Fixlets are available in the Patches for Raspbian Fixlets sites, which you can access from the Endpoint Manager console.

In Bigfix, Superseded Fixlets are Fixlets that contain outdated packages. If a Fixlet is superseded, a newer Fixlet exists with newer versions of the packages. You can find the new Fixlet ID in the description of the superseded Fixlet.

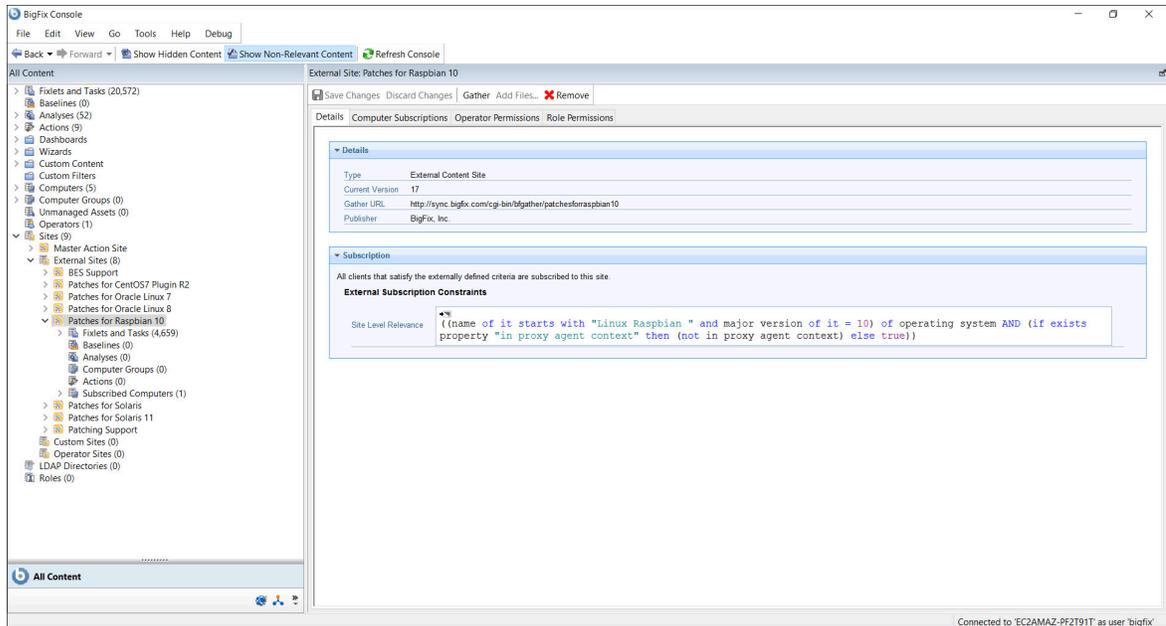
## Deploying patches by using Fixlets

This topic describes how to deploy Patches by using Fixlets.

From the console, select the action for the appropriate Fixlets that you want to deploy. The action propagates throughout your deployment and applies patches based on the settings that you make in the Fixlet work area and the Take Action dialog box.

Deploy the Raspbian Fixlets from the BigFix Console:

1. In the BigFix Management domain, click **Management Sites**.
2. From the BigFix Management navigation tree, click **External Sites**. The navigation tree expands.
3. Select the correct version of Patches for Raspbian.

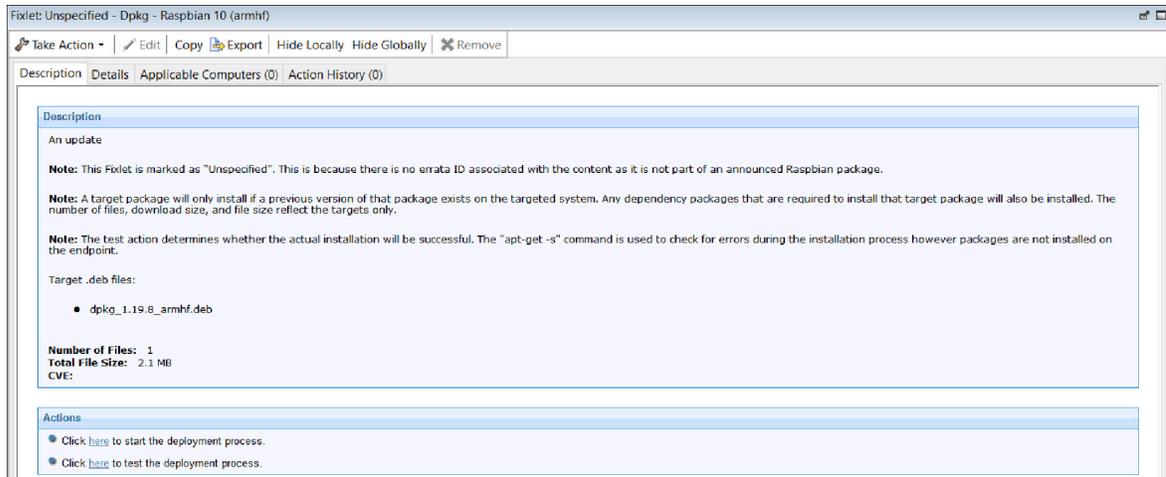


4. From the list panel on the right, double-click the Fixlet to deploy.

Name	Source Sev...	Site	Applicable ...	Open Actio...	Category	Download ...	Source	Source ID	Source Rele
Unspecified - Dpkg - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	required	2.04 MB	Raspbian	Unspecified	5/25/2022
Unspecified - Htcondor - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	3.22 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Dbg - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	45.53 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Dev - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	288 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Doc - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	1.26 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Libclassad-Dev - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	218 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Libclassad8 - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	163 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Ecdsautils - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	13 KB	Raspbian	Unspecified	5/9/2022
Unspecified - Iceweasel - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	118 KB	Raspbian	Unspecified	5/5/2022
Unspecified - Iceweasel-L10n-Ach - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	118 KB	Raspbian	Unspecified	5/5/2022

The Fixlet opens in the work area. Click the individual tabs to review details about the selected Fixlet.

5. Click the link in the **Actions** group to start the deployment. The Raspbian website opens to display the package information and links to download files.



## Patches for Raspbian Fixlet sites

Raspbian updates are available through the Raspberry Pi website.

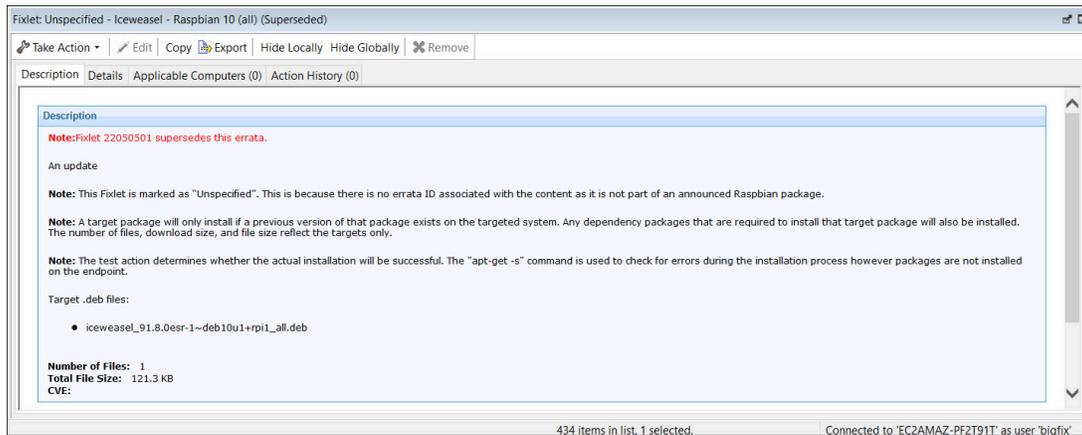
The Patches for Raspbian Fixlet sites provide the corresponding Fixlet content for Raspbian updates. Installation packages and details of the security notices are also released through the Raspbian website. The Raspbian website maintains an archive of the security notices.

## Superseded Fixlets

Superseded Fixlets are Fixlets that contain outdated packages. If a Fixlet is superseded, a newer Fixlet exists with newer versions of the packages. You can find the new Fixlet ID in the description of the superseded Fixlet.

In BigFix, supersedence is a property of Fixlets that provides multiple packages. In Launchpad, the host website for applications such as Raspbian, supersedence is a property of every package.

Figure 1. Description of a superseded Fixlet showing the newer Fixlet ID



BigFix for Patch Management and Launchpad use the term *supersedence* differently. A package with superseded status on the Launchpad website does not mean the same as when a fixlet is described as superseded in BigFix.

In Launchpad terminology, *supersedence* is a property of every package. For BigFix for Patch, *supersedence* is a property of Fixlets that provides multiple packages. When a Fixlet is superseded, it means that there is an newer and more advanced Fixlet with the same set of packages.

## Frequently Asked Questions - Supersedence

Learn the answers to frequently asked questions about Supersedence in Raspbian patching with BigFix.

### What is Supersedence?

Supersedence is all about replacing an outdated Fixlet with the latest Fixlet.

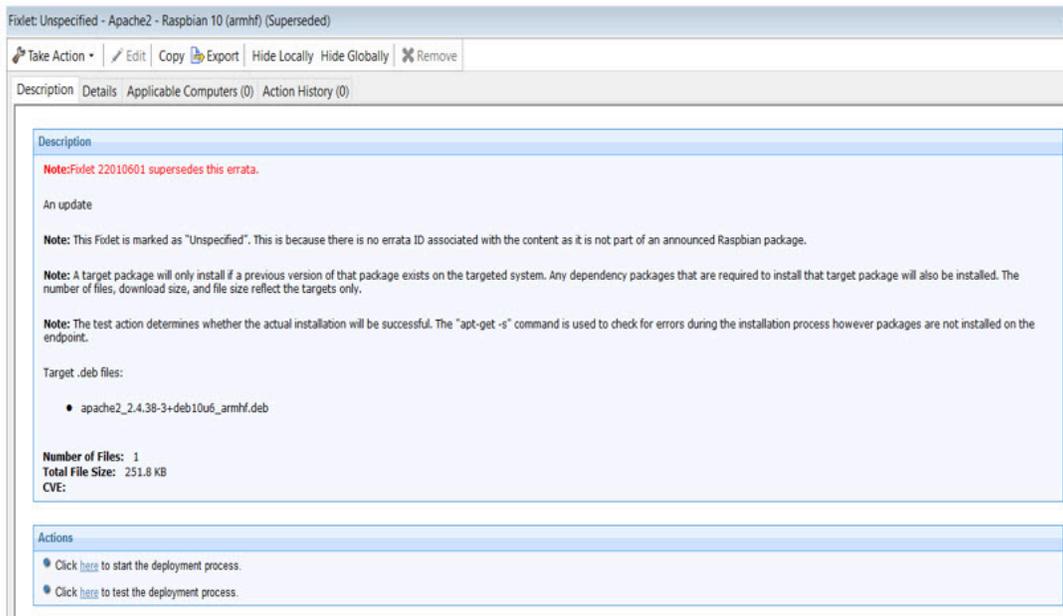
### How does Supersedence work in Bigfix Patching?

Supersedence helps you update BigFix application Fixlets to their latest version by using newly released Fixlets. The superseded Fixlet replaces the outdated Fixlet containing the following details for backtracking.



**Note:** The `x-Fixlet-Superseded` field in the Fixlet states the newer version number.

Figure 2. Supersedence Information



The **superseded by** version (newer version) is displayed in the Description tab as shown in the sample Raspbian Fixlet screenshot.

### What is a superseder?

Superseder is the **latest** Fixlet that replaces or updates the outdated version.

### What is a supersedee?

Supersedee is an **outdated** Fixlet that is replaced by the latest Fixlet.

### Can I use the superseded Fixlet to deploy an application even if a latest version is available for the same application?

Yes. You can update the application to the latest version. You can also still use the superseded Fixlet to deploy the application. The Fixlet description mentions that there is an update available for the application.

### What are the exceptions when the superseded Fixlets cannot be used?

Applications like Google Chrome allows you to download only the latest version available.

- **Downloadable version:** In such applications, the superseded Fixlets would deploy only the **latest** available version.
- **Reason:** The download link remains constant in all the Fixlets regardless of being a regular Fixlet or a superseded Fixlet.

### **Does the architecture of the package play a role in supersedence?**

Yes. For example, the amd64 architecture Fixlet can be superseded only by another amd64 architecture Fixlet and not by any other architecture Fixlet.

### **How does supersedence work in Raspbian?**

Superseding Fixlets in Raspbian work based on the package name and version number.

### **What are Kernel Fixlet and how does supersedence work in Raspbian Kernel Fixlets?**

Kernel Fixlets are the fixlets that have the package names preceeded by *Linux-image*, for example - `linux-image-<version>-<flavour>`.

### **Supersedence in Kernel Fixlets:**

- In a Kernel Fixlet with version X.Y.Z-W, X.Y is called as the **minor version**. It is a prerequisite that the minor versions **match** for the supersedence to work. That is, the minor version of superseder should match the supersedee packages since HWE (Hardware Enablement) scenario is required for Raspbian kernel Fixlets.

For example, `linux-image-4.4.x` can only supersede another `linux-image-4.4.x`, `linux-image-4.8.x` can only supersede another `linux-image-4.8.x`, and so on.

- Supersedence occurs only if it is part of the **same type**, that is `linux-image-<version>-generic` can only supersede another `linux-image-<version>-generic`. This applies to those that have the extra flavour type in its name.

For example, `linux-image-extra-4.4.0-101-generic` will be superseded by `linux-image-extra-4.4.0-103-generic`, but cannot be superseded by `linux-image-4.4.0-103-generic`.

### **Will the same Fixlet be superseded two or more times?**

No, when a Fixlet is superseded by the latest version, the Fixlet is marked as superseded:True in the `seenfile` of the corresponding OS code to avoid superseding the Fixlet again.

### Are there any relevance changes for the superseded Fixlets?

Yes, additional relevance checks are required for superseded Fixlet as shown below.

```
<Relevance>(value of setting "_BESClient_Raspbian_EnableSupersededEval" of  
client as integer = 1) | false</Relevance>
```

## Installing multiple package baselines

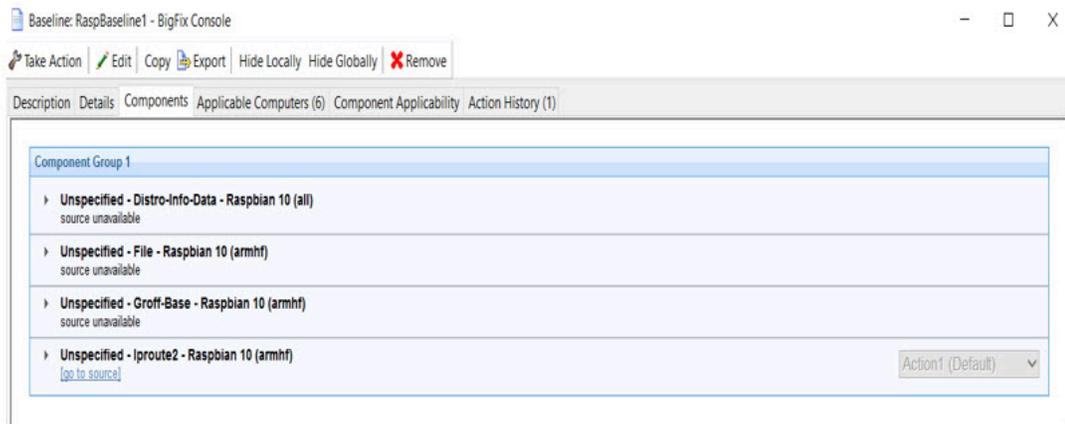
With BigFix Patch you can combine the installation of updates for multiple packages in a baseline into a single task, which can reduce the execution time of the baseline installation.

Baselines can help you gather multiple Fixlets into groups, which you can apply immediately to any set of target computers. Baselines are powerful ways to deploy a group of actions across an entire network. The multiple-package baseline installation solution helps address the poor performance that arises because of the dependency resolution and package installation that is done separately for each Fixlet.

The multiple-package baseline installation feature helps you to save time when you deploy Fixlets with multiple unique packages from a baseline.

1. Create a baseline.

Highlight the Fixlets from a Fixlet site and select **Add to New Baseline** from the menu. You can also select **Create New Baseline** from the **Tools** menu. You can give a custom name to the baseline.



## 2. Selectively add the patch Fixlets to the baseline.

Ensure that for all Fixlets, the baseline remains relevant on applicable computers where this component is relevant option is selected.



**Note:** If you add two or more Fixlets to the baseline that affect different versions of the same package, the installation task will skip the older versions of the package and install the latest version of the package.



**Attention:** Before you run the baseline, ensure that you meet the following requirements:

- The repositories that are registered on the endpoint must contain the target packages and all the required dependency packages.
- Do not run multiple baselines from the same site on the same endpoint.
- Follow the baseline best practices that are documented in the following technote: [https://hclpnpsupport.service-now.com/csm?id=kb\\_article&sys\\_id=d288c2021b098c9477761fc58d4bcbdf](https://hclpnpsupport.service-now.com/csm?id=kb_article&sys_id=d288c2021b098c9477761fc58d4bcbdf)

## Frequently asked questions

The questions and answers in this section can help you to better understand Patch for Raspbian.

### **What do I do when Fixlets fail to install with the following message in the EDR log?**

**"Warning: Nothing to install. Please check if you are using the latest kernel."**

This message is logged only with Fixlets that deploy kernel packages. A kernel Fixlet becomes irrelevant if the endpoint does not have the target kernel package installed or if the endpoint's active kernel is at a lower version than the target kernel package. An endpoint is still considered subject to kernel vulnerabilities even if it has the latest kernel installed but not using it actively.

To remediate the issue, restart the endpoint and ensure it is using the latest kernel available.

# Notices

This information was developed for products and services offered in the US.

HCL may not offer the products, services, or features discussed in this document in other countries. Consult your local HCL representative for information on the products and services currently available in your area. Any reference to an HCL product, program, or service is not intended to state or imply that only that HCL product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any HCL intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-HCL product, program, or service.

HCL may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*HCL*

*330 Potrero Ave.*

*Sunnyvale, CA 94085*

*USA*

*Attention: Office of the General Counsel*

For license inquiries regarding double-byte character set (DBCS) information, contact the HCL Intellectual Property Department in your country or send inquiries, in writing, to:

*HCL*

*330 Potrero Ave.*

*Sunnyvale, CA 94085*

*USA*

*Attention: Office of the General Counsel*

HCL TECHNOLOGIES LTD. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. HCL may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-HCL websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this HCL product and use of those websites is at your own risk.

HCL may use or distribute any of the information you provide in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*HCL*

*330 Potrero Ave.*

*Sunnyvale, CA 94085*

*USA*

*Attention: Office of the General Counsel*

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by HCL under terms of the HCL Customer Agreement, HCL International Program License Agreement or any equivalent agreement between us.

The performance data discussed herein is presented as derived under specific operating conditions. Actual results may vary.

Information concerning non-HCL products was obtained from the suppliers of those products, their published announcements or other publicly available sources. HCL has not tested those products and cannot confirm the accuracy of performance, compatibility or

any other claims related to non-HCL products. Questions on the capabilities of non-HCL products should be addressed to the suppliers of those products.

Statements regarding HCL's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to actual people or business enterprises is entirely coincidental.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to HCL, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. HCL, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS," without warranty of any kind. HCL shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work must include a copyright notice as follows:

© (your company name) (year).

Portions of this code are derived from HCL Ltd. Sample Programs.

## Trademarks

HCL Technologies Ltd. and HCL Technologies Ltd. logo, and hcl.com are trademarks or registered trademarks of HCL Technologies Ltd., registered in many jurisdictions worldwide.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other product and service names might be trademarks of HCL or other companies.

## Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions.

### **Applicability**

These terms and conditions are in addition to any terms of use for the HCL website.

### **Personal use**

You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of HCL.

### **Commercial use**

You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of HCL.

### **Rights**

Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

HCL reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by HCL, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

HCL MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.