

Sterling B2B Integrator

Release Notes

Version 5.2



Contents

Release Notes5

Copyright

Before using this information and the product it supports, read the information in *Notices*.

This edition applies to Version 5 Release 2 of Sterling B2B Integrator.

Licensed Materials - Property of IBM.

© Copyright IBM Corp. 2000, 2011. All Rights Reserved.

US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Referenced Products

The following products are referenced in this guide:

- IBM® Sterling B2B Integrator
- IBM® Sterling B2B Integrator for Financial Services
- IBM® Sterling B2B Integrator Mobile
- IBM® Sterling Certificate Wizard
- IBM® Sterling Connect:Direct®
- IBM® Sterling Connect:Enterprise®
- IBM® Sterling Control Center
- IBM® Sterling Customer Center
- IBM® Sterling e-Invoicing
- IBM® Sterling File Gateway
- IBM® Sterling Gentran Integration Suite
- IBM® Sterling Gentran:Basic®
- IBM® Sterling Gentran:Server®
- IBM® Sterling Gentran:Server® for Microsoft Windows
- IBM® Sterling Gentran:Server® for UNIX
- IBM® Sterling Information Broker®
- IBM® Sterling Secure Proxy

Release Notes

The following issues have been identified for this release:

Issue Description	Resolution
Adapters	
Under the Services > Configuration menu, summary views of the EDIINTPipelineService instances are missing the Contract ID parameter.	If you set the Action parameter in the instance to Build, you will not see the Contract ID parameter.
If you create a new service using MESA Studio and install it using MESA Studio or the SI command, the new service type is not displayed in the tree view of the service configuration page.	Select the new service type from the List view in the configuration page. The service type appears in the List View.
When editing the service configuration of an adapter deployed on a node in a multi-node environment, if you cancel the edit, you are returned to the service list page for Node 1, not the selected node.	From the service list page, select the desired node from the Select Node drop down list.
In some cases, a CDSA adapter deployed into a Windows container can experience an out of memory error during startup. Adapters are configured directly in the command file or shell script, and the default values may be too low for some configurations.	<p>Increase the Max Heap size to at least 512m by the following steps:</p> <ol style="list-style-type: none"> 1. In bin/InstallContainerWindowsService.cmd.in, locate -Xmx 2. Modify the -Xmx256m to -Xmx512m <pre>echo -XX:MaxPermSize=128m >> %PARAM_FILE% echo -XX:CompileThreshold=1000 >> %PARAM_FILE% echo -Xss256k >> %PARAM_FILE% echo -Xms64m >> %PARAM_FILE% echo -Xmx256m >> %PARAM_FILE%</pre> <ol style="list-style-type: none"> 3. Save the file 4. Run stopContainerWindowsService.cmd 5. Run setupfiles.cmd. 6. Run uninstallContainerWindowsService.cmd 7. Run installAllACNodes.cmd

Issue Description	Resolution
	8. Run startContainerWindowsService.cmd
The "SFTP_SERVER_ADAPTER" name appears under the Adapter node list even though no SFTP adapter is configured on the container JVM.	Use the service configuration UI to view the correct listing of adapter and service configurations on each node.
In very slow network, file transfers using FTP Server Adapter might fail because they time out.	Increase the connectionTimeout in ftpserver.properties to be larger than the largest expected file transfer duration.
If you use the SFTP Client adapter to connect to the SFTP Server adapter configured with the payload repository as file system, you might see an "EOF Exception" displayed instead of a generic error message (for example, "Error occurred during connection") in the status report of the BP's SFTP Begin Session service step.	The file system virtual root for the user is not correctly configured. See the SFTP Server adapter documentation to set up the FS Virtual Root.
The following error message: com.sterlingcommerce.woodstock. services.cmdline2.CmdLine2Result; local class incompatible can occur when Sterling B2B Integrator connects to a remote CLA2 listener installed from an older version.	The remote CLA2 listener jar must be upgraded to the version that ships with Sterling B2B Integrator 5.2. See the online documentation for information on how to install the remote CLA2 listener.
Stopping an adapter from the SoftStop UI should be avoided if the intent is not to do the soft stop.	"Stop All Adapters" on the Softstop page is meant to stop all adapters on the server before shutting down the JVM. You cannot then go back to the adapters page and try to reuse the adapter by enabling it. If the adapter is stopped from the SoftStop UI, it should be disabled and re-enabled from the UI. This will make the adapter work again.
For a normal JMS Business flow like this: Start ---->JMS Acquire Connection Service ----> JMS Receive Service ----> JMS Release Connection Service ----> End only the acquire and release steps are persisted. Any steps between these two services, as with Receive service in the example, are not persisted. If a BP fails in Receive service, on resumption the BP starts from Acquire Connection service and not from Receive service. If a message has already been received by the Receive service before failing, this message is lost. On resumption, the BP will start from Acquire service again and will receive a fresh message and the last received message will not be retrievable because the receive service was not persisted.	Use Transaction service: Start ----> Begin Transaction Service ----> JMS Acquire Connection Service ----> JMS Receive Service ----> End Transaction Service ----> JMS Release Connection Service ----> End
Archiving	
New archive options have been added to the Scheduler, such as Name/Value/Append.	You should not use these options on some of the default scheduled system BPs, such as Backup, Index, and Purge.
AS2	

Issue Description	Resolution
SSL_OPTIONAL in the transport wizard is not supported.	Use the AS2 wizard rather than the transport wizard.
When you select the Exchange Certificate for an AS2 Profile, an error message appears ("Error on this web page might cause it to work incorrectly"). This temporarily prevents you from configuring the exchange certificate when creating a new AS2 profile within the AS2 wizard.	Close the certificate selection popup window and re-open it.
The AS2 Edition allows you to select mailbox options within the AS2 Edition UI, even though mailboxing options are not available.	None. Mailbox options are not available for the AS2 Edition.
BP	
SI email notifications are sent without a subject line when index business process fails.	See the email content for more information.
Clustering	
When a node goes down in a Windows clustered environment and is restarted, sometimes a business process using a mandatory node fails.	Run the business process again. It will run successfully.
GPM	
BPs can fail when created in the GPM and added to Sterling Integrator using the Manager Process Definition Create feature. If you edit a process ID in a BP, multiple sequence name fields or assignments are autogenerated and validation fails. If you add new BPML to Sterling Integrator using the BPML Editor with *.bp file, the BP name will be assigned in the editor. The BP file with problem will not be able to be checked into Sterling Integrator and compiling error will result.	Edit the BPML when checking it into Sterling Integrator. The BP file created in the GPM will not take effect until it is in Sterling Integrator.
The Business Process name and the BPML process name contained therein must be the same. If the names do not match, the BPML is changed to force a match. The BP/BPML process name mismatch error message does not appear when the Validate button is clicked. It appears when you click Next.	The Business Process name and the BPML process name should be the same.
Import/Export	
When exporting Communities, a pop-up window displaying the message, "Passphrase is invalid. Please try again," appears after clicking Next on the Security: Export Private Certificates? page.	This message is invalid and can be ignored. The next page in the wizard provides inputs for the passphrase and confirm passphrase fields.
An input XML file identifies resources in a way that calls the same versioned resource twice, which causes the output export file to contain two identical copies of the same resource. Re-importing that file brings in both copies.	Modify the input XML so that the affected resources are only identified once, or ignore the additional copy of the resource.

Issue Description	Resolution
<p>Importing a permission from a source system with a different Permission ID and same Permission Name as a permission on the target system creates a duplicate permission on the target system.</p>	<p>Use the import report to view the warnings for each duplicated permission name. Delete any duplicate permissions in the target system.</p>
<p>Exporting a business process using a resource tag exports only the default version of the business process. It does not export all versions of the business process.</p>	<p>Use the following process instead:</p> <ol style="list-style-type: none"> 1. Under Deployment > Resource Manager > Import/Export, click Export Resource to export all versions of a business process. 2. When the wizard prompts, "Do you wish to export resources based on a tag name?", select "No." 3. When the wizard prompts, "Which type of export should be performed on versioned resources?", select "Advanced - specify default or all versions on specific resource pages." 4. Continue through the export wizard prompts to export the business process.
<p>Importing a system certificate, Trusted Certificate, or CA Certificate with the same name as an existing certificate in the target system results in a duplicate certificate on the target system. The certificates are then unique by ID but not by name.</p>	<p>Use the import report to view the warnings for each duplicated certificate name. Delete any duplicate certificates in the target system.</p>
Installation	
<p>During Silent install ICONS field in the silent file is given as "true," but after the installation no icon is seen on the desktop.</p>	<p>Manually create an icon after installation.</p>
<p>During execution of the InstallService script, an error message might appear stating "'Integrator' is not a valid property." This is caused by a space character in the PRODUCT_LONGNAME value in the sandbox.cfg.</p>	<p>This property is not leveraged by the InstallService script. It is a harmless error message and can be safely ignored.</p>
<p>After installing on Windows, a Sterling Integrator\Install.* subdirectory is left in the current working directory. The Java installer cannot delete the Sterling Integrator\Install.*\platform_core_2000.jar because it is "in use" by the JVM. This is an issue on Windows operating systems only.</p>	<p>On Windows, manually delete the Sterling Integrator\Install.* subdirectories after the installation has completed. These are temporary staging directories and are not needed after installation.</p>
<p>Using the Install Wizard on Windows, when you click to select a folder or file, the buttons at the top right of the dialog box are not visible.</p>	<p>Use other controls on the dialog to navigate the file system. OR Use JDK 1.6 Build 21 to start the GUI for a Windows install. During the install, you are prompted to select the JDK. You must select JDK 1.6 Build 14.</p>
<p>Only MSSQL2005 is available to select in the install SC\wizard UI, even though both MSSQL2005 and MSSQL2008 are supported.</p>	<p>If you are using MSSQL2008, enter your database configuration information even though MSSQL2005 is displayed. Your information will be applied to MSSQL2008.</p>

Issue Description	Resolution
<p>When running Install Service on an SI instance where no JVM container nodes have been configured, the following error message is displayed at the end of the install service execution:</p> <pre>"/patchContainerNodes.sh: -1: bad number."</pre>	<p>InstallService works normally and successfully completes the service install. This error message can be safely ignored.</p>
<p>During a Windows installation, the following error message is sometimes displayed in the Install output or is written to the InstallSI.log file: "The syntax of the command is incorrect."</p>	<p>This error message can be safely ignored. It does not indicate any problem or issue with the installation.</p>
<p>When you open SCInstallWizard.jar to start the install, using Java Standard edition, the ant.install.log throws this error:</p> <pre>NoSuchMethodException.</pre>	<p>This error message can be safely ignored. The GUI install will continue to execute and finish normally.</p>
<p>If you want to deploy Sterling Integrator on VMWare, you cannot override the IP address to the virtual machine during install time.</p>	<p>To override the IP address, modify HOST_ADDR and EXT_HOST_ADDR in sandbox.cfg and run setupfiles.</p>
<p>The following may appear inside InstallSI.log when IBM Sterling B2B Integrator is installed:</p> <pre>./tmp.cfg: line 9: OS Check=true: command not found ./tmp.cfg: line 14: IBM: command not found ./tmp.cfg: line 46: JDK Version Check=true: command not found ./tmp.cfg: line 59: /YOUR_PATH/YOUR_DRIVER.jar: No such file or directory ./tmp.cfg: line 59: ,,,/YOUR_PATH/YOUR_DRIVER.jar,: No such file or directory</pre>	<p>These messages are harmless and can be ignored.</p>
<p>MESA Studio</p>	
<p>No error message is displayed when applying a blank or invalid XML file as a license in Mesa Developer Studio.</p>	<p>Normally licenses that the user will update have a valid format and the update succeeds. After a successful update, the licenses are refreshed and you can verify that the updated license is in the list. However, if the XML file containing the license is invalid, the file will not be imported, and will not appear in the list of the refreshed items. If this happens, check Sterling Integratordav.log for a ServiceAccessException.</p>
<p>When a service is created and deployed using Mesa Developer Studio, the service type is not present in the tree view under All Services. The service type is present in the List View, however.</p>	<p>When creating a service, use the List View to select a service type. The Service Type List View reads directly from the database and shows services deployed through Mesa Developer Studio. The Service Type Tree reads cached data, and therefore does not automatically pick up new services added through Mesa Developer Studio.</p>
<p>In the Mesa Studio Skin Editor preview UI, changes to the background UI color are not displayed.</p>	<p>Manually update the preview file in the plugin directory for the Skin Editor:</p>

Issue Description	Resolution
	<p>In the eclipse\plugins\com.sterlingcommerce.mesa. skineditor_1200.0.0\html\mbi_files\ directory, edit leftnav.htm file by changing this: <body class="MAINbody" topmargin="0" leftmargin="0"> to this: <body topmargin="0" leftmargin="0"> The MESA Studio skin preview now shows the correct UI.</p>
Performance	
<p>When you enable or disable the Performance Stat Report from Operations > System > Performance, the following system log error messages are generated:</p> <pre> ERROR stop perf logger for sterling logger failed id=InvokeService_AE type=SERVICE [2011-01-28 15:35:13.227] ERROR This perf logger for id=InvokeService_AE type=SERVICE hasn't been started yet [2011-01-28 15:35:13.228] ERROR stop perf logger for sterling logger failed id=Cycle_AE type=WORKFLOW [2011-01-28 15:35:13.228] ERROR This perf logger for id=Cycle_AE type=WORKFLOW hasn't been started yet [2011-01-28 15:36:18.067] ALL There are some started perf logging not yet reach stop perf: [2011-01-28 15:36:18.067] ALL Performance Framework disabled [2011-01-28 15:36:35.594] ALL Performance Framework enabled [2011-01-28 15:36:43.261] ERROR stop perf logger for sterling logger failed id=InvokeService_AE type=SERVICE [2011-01-28 15:36:43.261] ERROR This perf logger for id=InvokeService_AE type=SERVICE hasn't been started yet [2011-01-28 15:36:43.262] ERROR stop perf logger for sterling logger failed id=Cycle_AE type=WORKFLOW </pre>	<p>These log messages can be safely ignored.</p>
Reporting Services	

Issue Description	Resolution
The measure 'avg' is not correctly computed. The expected value is not an aggregate average, but a rolling average.	Calculate the average using SQL with an aggregate sum and count as the data points.
The JDBC Report shows Tracking not enabled, however JDBC Tracking is showing enabled on the JDBC Monitor screen.	The JDBC monitoring page has a caching issue. Re-navigate to JDBC Monitor page and enable JDBC tracking.
You can no longer create columns that only allow unique values using Fact Models.	Update the database directly to make columns unique.
Deprecation report does not provide entire list of retired resources.	See the Performance Management guide - Monitoring Deprecated Resources section for complete list.
Reports	
When using Reports > Generate Reports, it's not clear what format is required for the timespan field. If an incorrectly formatted timespan is submitted, an inconclusive error message is displayed.	When generating a report, timespan values must be entered in the HH:MM:SS format.
Scheduling	
The time format on the Schedule Settings page does not change when "Use 24 Hour Clock Display" is changed.	Once "Use 24 Hour Clock Display" is unchecked you must re-enter the time so that the UI reflects the correct time format (either 24 or 12 hr).
The scheduling of a BP or a service accepts invalid time input when edited.	Do not enter the time value as 24 hours. The time must be in the 00:00 - 23:59 range.
After deleting a schedule and clicking on the "return" button, the Create schedule frame is missing.	Click on the schedules menu again so that the create schedule frame is reflected.
When you edit a schedule, the "Use 24 Hour Clock Display" check box is unchecked, even though it was checked when the schedule was created.	Re-check the "Use 24 Hour Clock Display" check box when editing a schedule.
Security	
If you change "number of days valid" in the password policy, it is not reflected in the System News for a user.	Expiration notices are not sent for users with password policies if the Password Policy "Number of Days Valid" value is set to 0 Days. Additionally, the password does not expire when "Number of Days Valid" value is set to 0 Days. It becomes valid for an infinite period. Valid values for the "Number of Days Valid" are Integer values greater than 0.
Browser tabs and browser windows in Internet Explorer 8 share session information. This can cause unexpected behavior when separate browser tabs or separate browser windows are used to log onto Sterling B2B Integrator with different user IDs.	Use a new Internet Explorer 8 session when logging onto Sterling B2B Integrator with a different user ID. New sessions can be started by selecting File > New Session from the Internet Explorer 8 menu bar.
Logging onto the Sterling B2B Integrator dashboard using the fg_architect user account and then selecting the My Account page will result in the following error being displayed in the Internet Explorer status bar: "Done, but with errors on page."	fg_architect is a Sterling File Gateway user ID and should only be used to log onto Sterling File Gateway.

Issue Description	Resolution
Services	
If you edit the JMS 1.1 Acquire Connection and Session Service using the GPM, the selected certificate is not listed on the Property tab.	View the certificate for the JMS 1.1 Acquire Connection and Session Service using the Deployment > Services > Configuration page.
If a service is not set to "Allow Process Data Write" (DIRECT_PD_MODE), the ERROR_SERVICE info is only available in the Message From Service. It is not available inside the process data.	Set the service to DIRECT_PD_MODE using the "Allow Process Data Write" setting on the Message from Service tab, or use the Message From Service link to view the ERROR_SERVICE info.
<p>On startup or refresh of the JDBC Service (if you edit the JDBC pool definitions), you might see the following log errors:</p> <pre> [2010-09-28 01:04:15.004] ERROR 000000000000 GLOBAL_SCOPE [JDBCService] Could not create the initial objects for the 'suppress' pool: The driver manager could not obtain a database connection. [2010-09-28 01:04:15.002] ERROR 000310100002 UTIL.FRAME_JDBC.ERR_ConnectionFactory _create [ConnectionFactory].create() [2010-09-28 01:04:15.003] ERROR 000000000000 GLOBAL_SCOPE [1285650255002] null [2010-09-28 01:04:15.004] ERRORDTL 000000000000 GLOBAL_SCOPE [1285650255002] java.lang.NullPointerException [2010-09-28 01:04:15.007] ERROR 000310100376 UTIL.FRAME_JDBC.ERR_JDBCService_ initJDBCService2 [JDBCService].initJDBCService(): ERROR ERROR ERROR Could not create the pool suppress ERROR ERROR ERROR [2010-09-28 01:04:15.008] ERROR 000000000000 GLOBAL_SCOPE [1285650255008] The maximum size must be greater than zero. PoolName : suppress [2010-09-28 01:04:15.008] ERRORDTL 000000000000 GLOBAL_SCOPE [1285650255008]com. sterlingcommerce.woodstock.util. frame.pool.PoolCreationException: The maximum size must be greater than zero. PoolName : suppress </pre>	<p>These exceptions in the system or ops logs can be safely ignored.</p>

Issue Description	Resolution
Upgrade	
Not all links appear in the Site Map screen corresponding those visible in the menus.	Access to individual screens that do not appear in the site map should be accessed through the menus.
User Interface	
On UNIX, the status report is missing for the EDI Overdue Acknowledgement Check service.	The status report is also set as the primary document by the service. So, when viewing the business process details, the overdue acknowledgements are viewable in the Primary Document on that step in the business process.
Known issue: Some alert messages in the Schedule Exclusions pages are present only in English.	None.
The Environment Pool Usage portlet display does not match the Dashboard display.	The Database Usage pop-up window under Troubleshooting on the Dashboard is much more useful and informative, making the Environment Pool Usage portlet superfluous. Use the Database Usage display instead.
If you add the maxRefreshCount parameter to the ui.properties.in file, the thread monitor page cannot be set to auto-refresh.	Manually refresh the page by clicking the thread monitor link on the dashboard.
The site map may not list all of the links that should be available to you from the Dashboard menu (based on your product license).	Use the Dashboard menu to navigate the Sterling Integrator user interface. The Dashboard menu correctly displays the items you have permission to use.
Stopping a Windows SI instance from the Troubleshooter page may not shut down the instance properly (softstop).	Ensure that all processing on the instance is complete, then use stopWindowsServices.cmd to stop the Windows SI instance.
On Windows installed instances, you cannot view the DB/Cache usage from the Operator tab.	Use the Dashboard Troubleshooter page to view this information.
If any node or container of Sterling B2B Integrator is restarted using hardstop.sh/run.sh or stopWindowsService.cmd/startWindowsService.cmd, and there are active communication sessions on the affected node or container, searching for those communication sessions using Business Processes>Monitor>Advanced Search>Communication Sessions will show them as active.	This is a UI issue only and does not impact the operation of any of the adapters.
The Central Search page does not display properly when you access it using HTTPS on Node 2.	Access the Central Search page using HTTP and the URL for any cluster node. If HTTPS is required, access Central Search using the URL for node 1.
Changing the date format inside ui.properties.in from U.S. format to U.K. format is currently not supported by all of the pages that display a date.	Some pages in the Admin UI will continue to display the date in U.S. format.
Web Services	
When editing a Web Service configuration after deleting a certificate, the two pages that show the currently selected certificates still display the name of the certificate that was deleted.	When you edit the Web Service configuration that references a deleted certificate, click the list button next to the certificate name to select a new certificate.
Workflow Engine	

Issue Description	Resolution
If an adapter goes down during a file transfer, the file transfer fails. This does not cause any data loss, but the BP remains in Waiting_on_io state forever.	Reattempt the file transfer.

Notices

This information was developed for products and services offered in the U.S.A.

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

IBM 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:

*IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.*

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

*Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan*

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION 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 states 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. IBM 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-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply 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:

*IBM Corporation
J46A/G4
555 Bailey Avenue
San Jose, CA 95141-1003
U.S.A.*

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 IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

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

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

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 the names and addresses used by an actual business enterprise 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 IBM, 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. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM 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:

© IBM 2011. Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. 2011.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

The following terms are trademarks of the International Business Machines Corporation in the United States, other countries, or both: <http://www.ibm.com/legal/copytrade.shtml>.

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.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

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

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

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

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

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

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Other company, product, and service names may be trademarks or service marks of others.