IBM Sterling Gentran:Basic for z/OS

Standards Update Worksheet



This edition applies to IBM® Sterling Gentran:Basic® for z/OS®.

Before using this information and the product it supports, read the information in Notices on page N-1.

Licensed Materials - Property of IBM IBM® Sterling Gentran:Basic® for z/OS® © Copyright IBM Corp. 1988, 2024. All Rights Reserved.
US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Completing the Standards Update Worksheet

Introduction

Step 1a

Use this procedure to add, replace, and delete versions on your online standards files and to create a new Optimized Table file for inbound/outbound compliance processing.

X12 Licensing Information

Standards information and related data embedded in the data table in the Licensee Software, Outsourcing Services and Combined Software Solutions are protected by copyright and other the intellectual property of X12 Incorporated, a non-profit organization chartered by the American National Standards Institute to develop and maintain EDI standards and XML schemas. In order to provide and fund these activities in serving American industry, X12 is willing to grant to all end users of the Licensee Software, Outsourcing Services or Combined Software Solutions a license at a royalty of \$180 per year. IBM strongly recommends that you contact X12 at https://x12.org/products/licensing-program/partners/ibm to obtain a license to use and access X12 metadata, represented in, for example, more than 30 versions of more than 300 transaction sets and implementation guides, through X12's online viewer, Glass.

Transferring Standards Files to the Mainframe

CD-ROM or a download from the Internet, perform **Step 1a**.

If you downloaded standards from the IBM[®] Sterling Customer Center Web site, perform **Step 1b**.

Transfer files to your PC.

Note: If you are updating standards using the Standards

Typically performed by: System Installer
 Check the box beside each task as you complete it.
 If you are installing from the Internet, decompress the file that you downloaded to extract the file named Gentran_Standards.exe. This launches a self-extracting .zip file that contains all of the standards.
 If you are installing from CD-ROM, insert the Sterling Gentran standards CD-ROM into your computer's CD-ROM drive and locate the file named Gentran_Standards.exe. This launches a self-extracting .zip file that contains all

of the standards.
Double-click the file name to begin extracting the files onto the local hard disk on
your PC. A system message prompts you with a default folder name to which the
system will save the files it is extracting. If you want to select a different location,

change the default folder name to your desired location in this system message.

Ш	At the completion of the process, note the location. It should contain the following
	files:

File	Description
STD1	The standards file part 1
STD2	The standards file part 2
STDINCL.TXT	A detailed listing of versions included in these files. This file will be used later for space allocations.
PCSTAND1.TXT	The JCL to allocate the target standards file
PCSTAND2.TXT	The JCL to build the sequential standards files
PCSTDCLN.TXT	The JCL to delete the sequential standards files
StandardsWorksheet	Instructions for performing the standards update

Completed by:		
Date:	Time:	

Step 1b	Unload	standards data from the	ne Sterling Customer Center Web site.	
	Typically performed by: System Installer			
	Check t	the box next to each ta	sk as you complete it.	
		Locate the file Gentran_Standards_Vxxxx.zip on your PC. This is the file you downloaded. The xxxx represents the identifier for the standards package (for example, 5040 for the 005040 package or un06 for D 06A/B package).		
		Decompress Gentran_Standards_Vxxxx.zip, a self-extracting .zip file that contains all of the standards in this package. This produces Gentran_Standards_Vxxxx.exe.		
		your PC. A system me system will save the f	name to begin extracting the files onto the local hard disk on essage prompts you with a default folder name to which the files it is extracting. If you want to select a different location, lder name to your desired location in this system message.	
	the process, note the location. It should contain the following			
		File	Description	
		STD1	The standards file part 1	
		STD2	The standards file part 2	
		STDINCL.TXT	A detailed listing of versions included in these files. This file will be used later for space allocations.	
		PCSTAND1.TXT	The JCL to allocate the target standards file	
		PCSTAND2.TXT	The JCL to build the sequential standards files	
		PCSTDCLN.TXT	The JCL to delete the sequential standards files	
	Compl	eted by:		
	Date:		Time:	

Step 2	Upload the standards JCL files to your mainframe.				
	You must upload the JCL needed to build the sequential standards files on your mainframe.				
	Туріс	Typically performed by: System Installer			
	Chec	k the box next to each task	as you complete it.		
		nually from your PC using FTP configured in an ASCII files to be uploaded are:			
		File	Description		
		PCSTAND1.TXT	The JCL to allocate the target standards file		
		PCSTAND2.TXT	The JCL to build the sequential standards files		
		PCSTDCLN.TXT	The JCL to delete the sequential standards files.		
	Choose target file names that are appropriate for your installation requirements.				
	Com	pleted by:			
	Date	:	Time:		

	Date:	Time:		
	Comp	leted by:		
		Verify the job results. You should never receive a return code greater than 0 .		
		Submit the job.		
		Read the comments within the JCL and follow any additional instructions.		
		Change the data set names as required by your installation. Change only the first index level (GENTRAN).		
		Change the text string XXXXXX of VOL=SER= to an appropriate volume serial number used at your installation.		
		Change DISK of UNIT=DISK as required by your installation.		
		Add a job card.		
		Customize JCL member PCSTAND1 that you uploaded in Step 2.		
	Check	the box next to each task as you complete it.		
	Туріса	lly performed by: System Installer		
	Before you can upload the standards files to your mainframe, the target files must be pre- allocated by this step.			
Step 3	Alloca	te the target standards files on your mainframe.		

Step 4	Upload	d the standards files from you	nr PC to your mainframe.		
	Typically performed by: System Installer				
	Check the box next to each task as you complete it.				
		Perform this upload manually from your PC using FTP configured in BINARY data transfer mode. The target files on the mainframe must be the files that you allocated in Step 3 . The files to be uploaded are:			
		File	Description		
		STD1	The standards file part 1		
		STD2	The standards file part 2		
	 At the completion of the uploads, verify the integrity of the files on the by looking for the following: Column 2 of the first record in the file should begin with the value. 				
	No	ote: If neither of these value unreadable, verify that in BINARY data transf	es transferred should match the size of the source file. es are true or an entire file is your FTP session was configured er mode. Using an incorrect s the most common cause of a d.		
		If a file is not acceptable, perform the upload process again and verify the integrity of the uploaded file again until it is acceptable.			
	Comp	leted by:			
	Date:		Time:		

Step 5 Build the sequential standards files on your mainframe.

This step reads the standards files that you uploaded in the previous step and extracts the files that will be needed to complete the installation of the standards on your mainframe.

Typically performed by: System Installer

The following table lists the abbreviated names of the data sets to be extracted. In the job, they are referenced by complete data set name, with the prefix

GENTRAN.STDS.PC.SEQ. followed by the text in the table below (for example, the full name for ASSOC is GENTRAN.STDS.PC.SEQ.ASSOC).

Note: All of the files are used to initially seed the permanent Sterling Gentran:Basic files; you can delete them when

the installation is complete.

Data Set Name	Description
ASSOC	Sequential data set used to seed the Standards Association file
ACTIVITY	Sequential data set used to seed the Standards Activity file
VERSION	Sequential data set used to seed the Standards Version file
CODE1	Sequential data set used to seed the Standards Code1 file
CODE2	Sequential data set used to seed the Standards Code2 file
CODE3	Sequential data set used to seed the Standards Code3 file
CODE4	Sequential data set used to seed the Standards Code4 file
ELEMENT	Sequential data set used to seed the Standards Element file
SEGMENT	Sequential data set used to seed the Standards Segment file
SEGDESC	Sequential data set used to seed the Standards Segment Description file
TRANS	Sequential data set used to seed the Standards Transaction file
DICT	Sequential data set used to seed the Standards Dictionary file
ELEDESC	Sequential data set used to seed the Standards Element Description file

Check the box next to each task as you complete it.

Customize JCL member PCSTAND2 that you uploaded in Step 2 .
Add a job card.
Change DISK of UNIT=DISK as required by your installation.
Change the text string XXXXXX of VOL=SER= to an appropriate volume serial number used at your installation.

Transferring Standards Files to the Mainframe

Verify the job results. You should never receive a return code greater than 0 .
Submit the job.
Read the comments within the JCL and follow any additional instructions.
Change the data set names as required by your installation. Change only the first index level (GENTRAN).

Step 6	Back up o	current VSAM	standards	files.
--------	-----------	--------------	-----------	--------

Typically performed by: System Installer

Note: Important! You must create sequential backup files for your online standards files BEFORE beginning the standards update process.

Check the box next to the task as you complete it.

Using IDCAMS, create sequential backup files for the online standards files.

The following table lists the DD names and record sizes.

DD Name	File Name	Record Size
EDISVER	Version	110
EDISTRN	Transaction	160
EDISSEG	Segment	100
EDISSGD	Segment Description	120
EDISACT	Activity	170
EDISELE	Element	130
EDISELD	Element Description	130
EDISDIC	Dictionary	70
EDISCD1	Code 1	140
EDISCD2	Code 2	140
EDISCD3	Code 3	150
EDISCD4	Code 4	170
EDISASC	Association	80

Completed by:		
Data	T:ma.	

Step 7	Create	sequential data sets for the Standards Update process.						
	Typically performed by: Application Programmer							
	Check the box next to each task as you complete it.							
		Customize the JCL member UPDSTD1.						
		Add the appropriate job card.						
		Change DISK of UNIT=DISK as required by your installation.						
		Change the text string xxxxxxx to the appropriate volume serial number used at your installation.						
		Change the data set names to match your installation's internal requirements. The following list shows the high level portion of the name that should be changed:						
		• GENTRAN.V6X?.VSAM For permanent VSAM files						
		• GENTRAN.V6X?.SEQ For the sequential files						
		Submit the JCL.						
		Verify that the job completed with all condition codes less than 8. Make note of the record counts; they are used in Step 4 of this procedure. These will be the Existing record counts.						
	Compl	eted by:						
	Date:	Time:						

Step 8	Determine which standards are to be added, replaced, or deleted from your online
	standards files.

STDINCL.TXT contains a detailed listing of versions included in these files. This listing was extracted from the CD in **Step 1** and can be used to help you determine what versions/actions to be performed by the standards update processes.

Use the chart below to record the versions and actions. The information from this step will be used in **Step 10** to format the input parameters to the UPDSTD2 job.

Typically performed by: EDI Coordinator

Check the box next to the task as you complete it.

BYPASS CODES:

Complete the following chart to indicate which versions are to be affected by this standards maintenance run.

standards maintenance run.

Key
to
Chart:

VERSION:
The 12-position Version ID.
AGENCY:
The 3-position Agency.
ACTION:
ADD = Add a new version.
REPLACE = Replace an existing version.
DELETE = Delete an existing version.

Version Agency Action Bypass Codes

Y = Codes should not be unloaded.

N = Codes should be unloaded.

Completed by:		
Date:	Time:	

Step 9 Determine DASD allocations needed for the new online standards files.

See Appendix B, "Determining DASD Standard Space Requirements," in the *IBM® Sterling Gentran:Basic® for z/OS® Technical Reference Guide* for instructions to help you determine the amount of DASD space you will need for the UPDSTD2 job.

Typically performed by: Application Programmer

Check the box next to each task as you complete it.

Using the Standards report, complete the following chart to record the record counts for versions to be added/replaced during this standards maintenance run.

Log the record counts from your current online standards files under the "Existing" heading. Add the New counts and the Existing counts, and log the result under the "Total" heading.

New											
Version ID	Tran	Seg	Seg Desc	Ele	Ele Desc	Act	Dict	Code 1	Code 2	Code 3	Code 4
Existing											
Version ID	Tran	Seg	Seg Desc	Ele	Ele Desc	Act	Dict	Code 1	Code 2	Code 3	Code 4
Total											
Version ID	Tran	Seg	Seg Desc	Ele	Ele Desc	Act	Dict	Code 1	Code 2	Code 3	Code 4

Follow the instructions in Appendix B, "Determining DASD Standards Space Requirements" in the *IBM® Sterling Gentran:Basic® for z/OS® Technical Reference Guide* to calculate the amount of DASD space you will need for UPDSTD2. Record your results in the following chart.

File Name	File Type	Tracks
EXTVER	Sequential	
EXTTRN	Sequential	
EXTSEG	Sequential	
EXTSGD	Sequential	

(Continued) File Name		
	File Type	Tracks
EXTELE	Sequential	
EXTELD	Sequential	
EXTDIC	Sequential	
EXTACT	Sequential	
EXTCD1	Sequential	
EXTCD2	Sequential	
EXTCD3	Sequential	
EXTCD4	Sequential	
NEWVER	Sequential	
NEWTRN	Sequential	
NEWSEG	Sequential	
NEWSGD	Sequential	
NEWELE	Sequential	
NEWELD	Sequential	
NEWDIC	Sequential	
NEWACT	Sequential	
NEWCD1	Sequential	
NEWCD2	Sequential	
NEWCD3	Sequential	
NEWCD4	Sequential	
Version	VSAM KSDS	
Transaction	VSAM KSDS	
Segment	VSAM KSDS	
Segment Description	VSAM KSDS	
Element	VSAM KSDS	
Element Description	VSAM KSDS	
Dictionary	VSAM KSDS	
Activity	VSAM KSDS	
Code 1	VSAM KSDS	
Code 2	VSAM KSDS	
Code 3	VSAM KSDS	
Code 4	VSAM KSDS	

Completed by:		
Date:	Time:	

Step 10	Execute the Standards Maintenance JCL.								
	Typically performed by: Application Programmer								
	Check the box next to each task as you complete it.								
		Close and disable the following standards files in the CICS environment where SIM represents your three-character system image:							
		• SIMSACT • SIMSCD3 • SIMSELE • SIMSVER							
		• SIMSASC • SIMSCD4 • SIMSSEG							
		• SIMSCD1 • SIMSDIC • SIMSSGD							
		• SIMSCD2 • SIMSELD • SIMSTRN							
		Customize the JCL member UPDSTD2 .							
		Add the appropriate job card.							
		Change DISK of UNIT=DISK as required by your installation.							
		Change the text string xxxxxxx to the appropriate volume serial number used at your installation.							
		Change the data set names to match your installation's internal requirements. The following list shows the high level portion of the name that should be changed:							
		• GENTRAN.STDS For sequential standards files							
		• GENTRAN.V6X?.VSAM For permanent VSAM files							
		• GENTRAN.V6X?.SEQ For the sequential files							
		• GENTRAN.V6X?.BATCH.LOAD For the LOADLIB file							
		• GENTRAN.V6X?.EXTRACT For sequential extract files							
		• GENTRAN.V6X?.PGM038 For Input Parameter file							
		• GENTRAN.V6X?.PGM039 For EBDI039 Control file							
		• GENTRAN.V6X?.SORTED For sort files							
		Update STEP2 in the JCL for Parameter Records Selection.							
		Using the chart from Step 4 , format the Input Parameter records. These records will be sorted in STEP2 and then passed into STEP3 EBDI038.							

Τŀ	ne	parameter	lay	out	fol	low	s:
----	----	-----------	-----	-----	-----	-----	----

	File	COBOL						
Positions	Content	Picture	Format	Length	Description			
01 – 12	Version ID	X(12)	AN	12	Version ID of standard			
13 – 13	Filler	X(01)	AN	01	Filler			
14 – 16	Agency	X(03)	AN	03	Agency associate Version	ed with		
17 – 17	Filler	X(01)	AN	01	Filler			
18 – 24	Action	X(07)	AN	07	ADD =	Add new version		
					REPLACE =	Replace existing version		
					DELETE =	Delete existing version		
25 – 25	Filler	X(01)	AN	01	Filler			
26 –26	Bypass Codes	X(01)	AN	01	Y =	Do not unload codes		
					N =	Codes will be unloaded		
					Space =	Codes will be unloaded		
27 – 80	Filler	X(54)	AN	54	Filler			

Place parameter records after the SORTIN DD statement in STEP2 of the JCL.

```
//SORTIN DD *

???????????? YYY REPLACE Y

??????????? YYY ADD

??????????? YYY ADD Y

???????????? YYY DELETE
```

Change sequential and VSAM space allocations to reflect DASD requirements for versions selected.

Use the chart prepared in the previous step of this procedure to update the SPACE allocations in the JCL.

- The EXTxxx files are created in STEP3.
- The NEWxxx files are created in STEP7.
- The VSAM KSDS files are created in STEP8 through STEP30.

□ Submit the JCL. □ Verify that the job completed with all condition codes less than 8. Review the Processing Logs from STEP3 (EBDI038) and STEP7 (EBDI039) of the job to ensure that there were no errors encountered during processing. Completed by:

Date: _____ Time: ____

Transferring Standards Files to the Mainframe

Step 11	Select new transactions for loading to the Optimized Table file. In order to make the new transactions available to the Inbound and Outbound Sterling Gentran processes, you must select the transactions using the EDIM180 Transactions in Use screen.			
	See Chapter 3, "The Standards Subsystem," in the <i>IBM® Sterling Gentran:Basic® for z/OS® User Guide</i> for more information about this screen.			
	Note: Versions that are REPLACED will carry the Select Flags from your previous online standards files.			
	Typically performed by: Application Programmer			
	Check the box next to the task as you complete it.			
	Verify the Select Flags on the EDIM180 Transaction In Use screen for all Versions/Transactions that you plan to process through Sterling Gentran.			
	Completed by:			
	Data			

Step 12 Create new Optimized Table file.

The Selective Standards Download program (EBDI030) builds the Optimized Table file for the Inbound and Outbound Editors. The Optimized Table file is the repository for all information that describes the ASC X12, TDCC, UCS, WINS, ANA, TRADACOMS, ODETTE, and EDIFACT standards. Those versions with transactions selected through the EDIM180 Transaction In Use screen will be processed by this program.

Typical	ly pe	erformed by: Application Programmer			
Check	the b	ox next to each task as you complete it.			
	Customize the JCL member EXEC030 .				
	Add the appropriate job card.				
	Change DISK of UNIT=DISK as required by your installation.				
	Change the text strings xxxxxxx and yyyyyy to the appropriate volume serial number used at your installation.				
	Change the data set names to match your installation's internal requirements. The following list shows the high level portion of the name that should be changed:				
	•	GENTRAN.V6X?.VSAM	For permanent VSAM files		
	•	GENTRAN.V6X?.SEQ	For the sequential files		
	•	GENTRAN.V6X?.BATCH.LOAD	For the LOADLIB file		
	•	GENTRAN.V6X?.EXTRACT	For sequential extract files		
	•	GENTRAN.V6X?.SORTED	For sort files		
	Verify that the job completed with all condition codes less than 8.				
	Review the Processing Logs from STEP2 EBDI030 to ensure that there were no errors encountered during processing.				
Compl	eted	by:			
Date:		Time:			

You have now completed the procedure for maintaining your standards files and creating the Optimized Table file. Proceed to Step 13.

Step 13 (Optional)

Delete sequential standards files.

Once you have completed standards maintenance and no longer need the sequential standards files uploaded from the Standards CD, you may choose to run job PCSTDCLN. This job will delete the standards files that were created during the PCSTAND2 job.

Note: This job is optional and should only be run when you have finished standards maintenance and no longer want to keep the sequential standards files on your system.

Typically performed by: Application Programmer Check the box next to each task as you complete it. Customize JCL member PCSTDCLN that you uploaded in **Step 2**. Add a job card. Change the data set names as required by your installation. Change only the first index level (GENTRAN). Read the comments within the JCL and follow additional instructions. Submit the job. Verify the job results. You should never receive a return code greater than **0**. Completed by:

Date: _____ Time: ____

Transferring Standards Files to the Mainframe						

Notices

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.

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 ficticious 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 2024. Portions of this code are derived from IBM Corp. Sample Programs.
- © Copyright IBM Corp. 2024.

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

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at 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.

Connect Control Center®, Connect:Direct®, Connect:Enterprise, Gentran®, Gentran:Basic®, Gentran:Control®, Gentran:Director®, Gentran:Plus®, Gentran:Realtime®, Gentran:Server®, Gentran:Viewpoint®, Sterling Commerce™, Sterling Information Broker®, and Sterling Integrator® are trademarks or registered trademarks of Sterling Commerce, Inc., an IBM Company.

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