



Teradata Database

Release Definition

Release 15.10.01 or later
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Introduction

Audience

This document is intended for Teradata customers, field engineers (FEs), and support staff.

Supported Software Releases and Operating Systems

This book supports Teradata® Database 15.10.01 or later.

Teradata Database 15.10 runs on the following operating systems:

- SUSE Linux Enterprise Server (SLES) 10 SP3
- SUSE Linux Enterprise Server (SLES) 11 SP1
- SUSE Linux Enterprise Server (SLES) 11 SP3 (Release 15.10.01 or later)

Teradata Database client applications run on many operating systems. See *Teradata Tools and Utilities 15.10 Supported Platforms and Product Versions* at: <http://www.info.teradata.com>.

Note: The following operating systems are not supported for running Teradata Database 15.10:

- MP-RAS
- Windows
- SLES 9

Changes to This Book

Date	Description
April 2016	<ul style="list-style-type: none">• SLES 11 SP3 now available.
December 2015	<ul style="list-style-type: none">• TeraGSS can now be installed in a directory chosen by the user. See User Selectable Installation Directory for TeraGSS and Changes to the TDGSS Configuration in TTU.• The tdgsspkg utility is removed and the tdgssversion utility no longer supports version switching. See User Selectable Installation Directory for TeraGSS.• Java 8.0 is required before installing Teradata Database Release 15.10.01.• If you upgrade from a Teradata Database release prior to 15.0, and you were using Teradata Temporal Tables, you can choose to either continue using them or convert to using ANSI standard temporal tables and syntax. See Upgrading Teradata Temporal Tables.
July 2015	For systems with Teradata Secure Zones, SELECT privilege on DBQL tables is revoked from PUBLIC. Users can access DBQL table information through DBC.QryLog* views only, to prevent zone users from accessing information not related to their zones.
June 2015	Initial release.

Additional Information

URL	Description
http://www.info.teradata.com/	Use the Teradata Information Products site to: <ul style="list-style-type: none"> View or download a manual: <ol style="list-style-type: none"> Under Downloadable Publications, select General Search. Enter your search criteria and click Search. Download a documentation CD-ROM: <ol style="list-style-type: none"> Under Downloadable Publications, select General Search. In the Publication Product ID field, enter B035-1909, and click Search.
http://www.teradata.com	The Teradata home page provides links to numerous sources of information about Teradata. Links include: <ul style="list-style-type: none"> Executive reports, case studies of customer experiences with Teradata, and thought leadership Technical information, solutions, and expert advice Press releases, mentions and media resources
http://www.teradata.com/t/TEN/	Teradata Customer Education designs, develops and delivers education that builds skills and capabilities for our customers, enabling them to maximize their Teradata investment.
https://tays.teradata.com	Use Teradata @ Your Service to access Orange Books, technical alerts, and knowledge repositories, view and join forums, and download software patches.
http://developer.teradata.com/	Teradata Developer Exchange provides articles on using Teradata products, technical discussion forums, and code downloads.

To maintain the quality of our products and services, we would like your comments on the accuracy, clarity, organization, and value of this document. Please email teradata-books@lists.teradata.com.

Understanding This Release

Before you install or upgrade to this release of Teradata Database, you should read the following publications:

- Release Definition* provides information about basic system requirements.

This revision of *Release Definition* is applicable to Teradata Database 15.10. It contains references to features, functions, and requirements that may not apply to releases prior to 15.10.

Note: If you are upgrading from an older Teradata Database release, you should read the *Release Definition* for every intervening release.

- Release Summary* provides information on new features, and changes to existing features, that may affect the way you use Teradata Database. If you are upgrading from an older release of Teradata

Database, you should also read the *Release Summary* for every intervening release to understand how the features in Release 15.10 differ from your current version.

- If you are new to Teradata Database, you should read *Introduction to Teradata* for an overview of Teradata Database features, functions, and capabilities before implementing this release.

References to Teradata Platforms:

Teradata Platform Name	Abbreviated Teradata Platform Name
Teradata Active Enterprise Data Warehouse 5650/6650/6650-SSD/6680/6690/6700/6750/6800	Teradata Active EDW 5650/6650/6650- SSD/6680/6690/6700/6750 (Note: 6750 and 6800 - SLES 11 only)
Teradata Data Warehouse Appliance 2650/2690/2700/2750/2800	Teradata DW Appliance 2650/2690/2700/2750/2800 (Note: 2750 and 2800 - SLES 11 only)
Teradata Integrated Big Data Platform 1650//1700	Same as full name
Teradata Data Mart Appliance 560P/670/680	Teradata Data Mart 560P/670/680 (Note: 680 - SLES 11 only)

Items Available with this Release

Software CD-ROMs/DVDs/Downloads

Teradata Database Software CD-ROM/DVD

You will receive a Teradata Database software CD-ROM/DVD that includes one of the following Teradata Database software variations based on your order:

- Teradata Database for SUSE Linux Enterprise Server 10 SP3
- Teradata Database for SUSE Linux Enterprise Server 11 SP1
- Teradata Database for SUSE Linux Enterprise Server 11 SP3

Other Software CD-ROMs/DVDs

Based on your system requirements, other software CD-ROMs/DVDs may accompany your order, including:

- Two operating system software DVDs that contain the Teradata Database for SLES operating system, service packs, and third-party software (not supplied for non-Teradata SMPs).
- Optional Teradata Tools and Utilities software: One or more CD-ROMs depending on software purchased.
- Teradata 16xx, 26xx, 27xx, 56xx, 66xx, and 67xx platforms use SMWeb and a Service Workstation (SWS).

Software for SMWeb and the SWS is available from Teradata @ Your Service at:

<https://tays.teradata.com>. Select the **Software Downloads** tab, click the **Certified** tab, click **Current Lists**, and select the NodeType from the pull-down menu to select the SWS type.

Note: SWS/SMWeb is required for all MPP systems.

NodeType	Supported OS	Required Software	Supported Platforms
SWS Managed	<ul style="list-style-type: none"> • SLES 10 SP3 64-bit • SLES 11 SP1 64-bit • SLES 11 SP3 64-bit 	Software available from: https://tays.teradata.com .	<ul style="list-style-type: none"> • Teradata Active EDW 5650 and higher
SWS Unmanaged	<ul style="list-style-type: none"> • SLES 10 SP3 • Windows Server 32-bit SP2 (for migrations from AWS on Windows 32-bit only) 	Software available from: https://tays.teradata.com .	<ul style="list-style-type: none"> • Teradata Extreme Data Appliance 1xxx • Teradata DW Appliance 26xx and higher • Teradata Active EDW 5650 and higher

Additional Source of Software

You can find additional software and software updates (e-fixes) on Teradata @Your Service: <https://tays.teradata.com>.

User Documentation CD-ROM

Teradata provides user documentation on a CD-ROM entitled *Teradata User Documentation: Teradata Database 15.10 and Teradata Tools and Utilities 15.10* (B035-1909) with the Release 15.10 software.

- In a browser, navigate to: <http://www.info.teradata.com>.
- Under Downloadable Publications, select General Search.
- In the Publication Product ID text box, enter the product ID (B035-1909), and click Search.

Teradata Client Software

Customers with active Service Agreements can find information on Teradata Database and Teradata Tools and Utilities release and client product compatibility in the Teradata Maintenance Release Roadmap on Teradata @ Your Service (<https://tays.teradata.com>).

Customers without support agreements should contact their sales or support team.

Note: For detailed BAR compatibility information, see the BAR application software compatibility matrix located at <http://cks.teradata.com/skb/i/S11000CFF6E>.

For detailed information on the full range of tools and utilities, and the individual Teradata client product versions compatible with Teradata Database 15.10, see *Teradata Tools and Utilities Supported Platforms and Product Versions* at: <http://www.info.teradata.com>.

Library of User Defined Functions (UDFs)

A library of UDFs is available at the Teradata Developer Exchange download center at: <http://downloads.teradata.com/download>.

The terms under which these UDFs are available (“as is” with no support) are described on the website.

Software and Hardware Requirements

Supported Operating Systems and Platforms

The platforms listed in this section are certified with Teradata Database Release 15.10, regardless of future platform discontinuation notices. For information on platform discontinuation, see the Knowledge Base Tech Note entitled “Teradata Hardware Discontinuation Roadmap” (available to Teradata personnel only).

See [KAP1B3136](#) “Teradata Platform and Minimum Database Version Compatibility Matrix” for the minimum database/PDE version supported on a particular platform for specific operating systems.

Operating System Requirements

SLES 10

TD 15.10.00 runs on SLES 10 SP3.

SLES 11

TD 15.10.00 runs on SLES 11 SP1.

TD 15.10.01 or later runs on SLES 11 SP1 or SLES 11 SP3.

Mixed Operating Systems

A mixed operating system includes both Trusted Parallel Application (TPA) nodes and non-TPA nodes.

Following are the basic system requirements for mixed operating systems:

- All TPA nodes must run the same operating system, but you can mix non-TPA nodes in any combination of the allowable operating systems.
- TPA nodes need not run on the same operating system as non-TPA nodes.
- Mixed OS allows two consecutive generations of nodes/storage across TPA and/or non-TPA nodes.
- The same version of BYNET must be deployed across the system.

Allowable platform combinations are the same as allowed for coexistence and coresidence systems.

For details see the platform, database, and operating system compatibility matrix: [KAP1B3136](#).

Teradata Tools and Utilities (TTU) 15.10

TTU 15.10 is the new version of Teradata Tools and Utilities released with Teradata Database 15.10.

TTU 15.10 supports two database releases forward (Release 16.0 and Release 16.10) and supports four releases back (Releases 15.0, 14.10, 14.00, and 13.10).

Current documentation about TTU and Database compatibility can be found in *Teradata Tools and Utilities Supported Platforms and Product Versions* at <http://www.info.teradata.com>.

Hardware Enhancement Options

You can upgrade Teradata system nodes, or add new nodes to a system, to enhance system capacity or performance. Teradata offers the following system enhancements, which are subject to some limitations by platform type:

- **Coexistence** allows you to combine existing system nodes with certain newer, more powerful node models, while assigning an unbalanced number of AMPs per node to optimize the usage of both current and new platform resources.
- **Coresidence** allows you to combine existing system nodes with certain newer, more powerful node models, while assigning a fixed number of AMPs per node, which may limit the usage of newer platform resources.
- **Upgrade** allows you to replace processors in an existing node to make it functionally equivalent to a more powerful node model.

Platform Coexistence and Coresidence Requirements

Determining whether a Teradata node can coexist or coreside with other node models depends on the platform type, performance class, the operating system, and the installed BYNET version of each node.

Coexistence and coresidence requirements are not part of the standard user documentation set, and are only available to Teradata personnel at <http://infocentral.daytonoh.teradata.com/tsd-library/isupr.cfm>.

Node Memory Recommendations

For best performance, Teradata recommends that each node has at least the minimum recommended RAM shown in the table below and at least 2 GB per Vproc (AMP, PE, TVS, GTW).

| When upgrading to Release 15.10.01, several factors (including workload, more use of large memory features, newer OS Service Packs, new Teradata features and functionality, more AMPs/node, more nodes/system) can cause some systems, especially large ones, to require additional memory.

The general guidelines for memory follow; however, memory requirements are workload dependent, so your system's actual memory requirements may differ.

Note: To use the in-memory feature for EDW systems (67xx and 6800) the minimum required RAM is 512 GB and for appliances (27xx and 2800) the minimum required RAM is 256 GB.

General Guidelines:

- 2.0 GB memory per Vproc (AMP, PE, TVS, GTW)
- Additional memory based on size of system, AMPs per node, AWT use, and feature

Please see Knowledge Article [KAP1B3136](#) for node memory recommendations, including the default installed RAM per node, recommended minimum RAM per node, and recommended maximum RAM per node.

Note: The maximum amount of memory allowed per node may be increased between database releases. Always double check what the maximum memory is for your platform.

For memory requirements on third-party SMP platforms, see *Teradata Database Node Software Field Installation Guide: Third-Party, Single Node Systems* at www.info.teradata.com.

While Release 15.10 can run on a system with the recommended minimum RAM, performance may not be optimal, depending on the system configuration and the Teradata Database features you use. You should also factor in the following to determine the optimal memory configuration:

- Workload
- Memory-consuming features
- Performance requirements
- Cost of memory

Memory-Consuming Features

These features may require more memory for optimum system performance:

Release First Available	Memory Consuming Features
Pre-14.0	<ul style="list-style-type: none">• PPI and multi-value compression• Join index, hash-join, stored procedures, and 128K data blocks• Cylinder read• LOBs and UDFs• 1 MB response buffer• Larger than 1 MB plan cache• External stored procedures• Table functions• Array INSERT• Java stored procedures• Online archive memory enhancements• More than 80 AWTs per AMP

Release First Available	Memory Consuming Features
	<ul style="list-style-type: none"> • Expanded table header • Geospatial data type • Increased join/subquery limits • Teradata Virtual Storage • Tunable UDF memory limit • Algorithmic compression and block level compression • XML DBQL logging • Global and Persistent Data (GLOP) • Large cylinder with cylinder read • More than 20 AMPs/Vprocs per node (all releases) • Temporal DBS support
14.0	<ul style="list-style-type: none"> • Teradata Columnar • Partial Online Reconfiguration • SLES 11 (first available in Release 14.0.2)
14.10	<ul style="list-style-type: none"> • Auto Stats Enhancements • Data Stream Architecture • Extended object naming • Geospatial indexing • Incremental planning and execution • Teradata Intelligent Memory • Teradata XML • 1 MB data block • 1 MB spool row • 128K parser tree segments
15.0	<ul style="list-style-type: none"> • JSON data type • 3D Geospatial • Scripting and Language support • DBQL – Show Parameters • 1 MB Phase 2 • Script Table Operators • QueryGrid: Teradata Database-to-Hadoop
15.10	<ul style="list-style-type: none"> • XSLT_SHRED_BATCH • In-memory optimizations • BSON and UBSON • Columnar Primary AMP/Primary Index • SQL Interface for Ferret SHOWBLOCKS • Parameterized Query Logging

For further information on memory requirements refer to the “Performance Management” Appendix C in the *Database Administration* book at <http://www.info.teradata.com/>.

Free Disk Space Requirements

For information on the amount of free disk space required on each Teradata Database node to upgrade to this release, see Teradata Knowledge Article IDA00108C82. The article is found at <http://cks.teradata.com>. Enter the ID (IDA00108C82) in the Search text box. Select Minimum Starting Version and Free Space Requirements for Teradata Database Upgrades and Migrations.

Additional Disk Space for Trace Files

The Write Ahead Logging (WAL) feature requires 5 MB per AMP of disk space for File System trace files. For example, if there are 10 AMPs per node, then trace files would require 50 MB per node of additional disk space, located in /var/opt/teradata/tdtemp.

Supported External Disk Arrays

Teradata Database 15.10 supports the following disk array/platform combinations.

Disk Array	Supported Platform
EMC 6294-300x	Teradata Active EDW 5600 and lower
EMC 6295-400x	Teradata Active EDW 5600 and lower
Teradata 6843	Teradata Active EDW 56xx
Teradata 6844	Teradata Active EDW 56xx

Notes:

- All supported external disk arrays are compatible with both RAID 1 and RAID 5, except:
 - Teradata 6844 arrays do not support RAID 5.
- The following platforms are bundled with storage media and are not separately configurable:
 - Teradata Data Mart 560P, 670, 680
 - Teradata Integrated Big Data Platform 16xx and 17xx
 - Teradata Data Warehouse Appliance 26xx, 27xx, and 28xx
 - Teradata Enterprise Data Warehouse 66xx, 67xx, and 68xx

Requirements for Third-Party Backup and Restore (BAR) Software

Supported Hardware

- 9200 SL500 *
- 9202 SL8500
- 9208 SL3000 *
- 9209 Key Management System Tape Encryption

- 9205 EMC Disk Library
- 9211 Teradata Managed Server for BAR
- EMC Data Domain DD890
- Quantum i80, i500, and i6000 Tape Libraries

* This hardware is no longer sold, but is still supported for Release 15.10.

Supported BAR Software

For information on backup and restore software product versions (IBM Tivoli, Symantec NetBackup, and Dell NetVault), see the BAR release matrix: <http://cks.teradata.com/skb/i/S11000CFF6E>.

For more information on backup and restore software products, see the following documents on <http://www.info.teradata.com>:

For more information on...	See the following documents...
Supported software	<i>Teradata BAR Backup Application Software Release Definition</i>
Symantec NetBackup	<i>Teradata Extension for NetBackup Administrator Guide</i>
IBM Tivoli	<i>Teradata Extension for Tivoli Storage Manager Administrator Guide</i>
Teradata Archive/Recovery Utility (ARC)	<ul style="list-style-type: none">• <i>Teradata Archive/Recovery Utility Reference</i>• For information on ARC versions compatible with this release, see <i>Teradata Tools and Utilities Release Definition</i>

Data Stream Architecture (DSA) Characteristics Compared to Teradata Archive/Recovery Utility

In addition to Teradata Archive/Recovery Utility (ARC) and third-party BAR solutions, Teradata offers Data Stream Architecture to meet customer BAR needs. DSA support differs from ARC. For example:

- DSA restore processes index builds in parallel for a table. This shortens the time to complete the restore but uses more resources. For this reason DSA allows the customer to use Teradata dynamic workload management software to control the number of parallel DSA jobs that can be run at one time.
- Unlike legacy BAR, DSA establishes a consistency point for offline archive. DSA locks all tables at the beginning of the archive. There is a 100,000 database lock limit on the system.
- Legacy BAR solutions processed privileges separately for each object accessed by a BAR operation. This allowed for the possibility that some BAR tasks assumed to be complete were actually incomplete due to the BAR user lacking the necessary access privileges. DSA checks all access privileges for a job and prevents the job from running if the user does not have the necessary access privileges on all objects in the job.
- Actions automatically performed by DSA that required special action in legacy BAR applications:
 - Compile UDFs and stored procedures
 - Alter PPI tables

- Revalidate indexes
- Run post_dbc_restore
- DSA has no restart capability.
- DSA removes HUT locks after ABORT but ARC does not.
- DSA does not archive or restore PJ tables.
- DSA does not do PPI partition-level archive or restore.
- DSA does not do cluster dump and restore.
- DSA does not operate with a down AMP.

Compilers

Installation of a C++ compiler is required on at least one database node configured with a PE VPROC. C++ compilers are included with each Teradata Database release as part of the operating system software disks.

Software Restrictions

Features Not Available in the Initial 15.10 Release

The following features are not available in the initial Teradata Database 15.10 release, but they are expected to be available in a future 15.10 efix or maintenance release.

Feature	Planned Availability
Teradata QueryGrid connectors	Additional Teradata QueryGrid connectors will be available in the future. Note: Current Teradata QueryGrid Release 15.0 connectors work with Teradata Database Release 15.10: <ul style="list-style-type: none"> • Teradata QueryGrid: Teradata Database-to-Hadoop • Teradata QueryGrid: Teradata Database-to-Oracle Database
Unity Director/Loader 14.11 (the current release) do not support Teradata Database 15.10.	Unity Director/Loader for Teradata Database 15.10 will be available in the future.

Use of Teradata Unity Director

Unity Director is not supported for use with Teradata Database 15.10. It will be available in the future.

TDGSS Single Mechanism to Log-On (TDNEGO) Unity Director Support

When Unity Director becomes available for Teradata Database 15.10 it will not support TDNEGO. Teradata recommends disabling TDNEGO on Unity Director servers when the Unity Director version for 15.10 is installed. See *Security Administration* for details.

TDGSS Single Mechanism to Log-On Client Support

TDNEGO does not support Windows .NET and JDBC clients. These clients will be available in a future release.

Deprecated Kanji1 Character Set

As of Release 14.0 and up, Kanji1 support is deprecated and planned for discontinuation. Although many Kanji1 queries and applications may continue to operate, you should prepare to convert Kanji1 data to another character set as soon as possible.

During an upgrade to Teradata Database from a pre-14.0 release, the system automatically replaces DEFAULT CHARACTER SET KANJI1 with DEFAULT CHARACTER SET UNICODE in existing user definitions.

Kanji1 Restrictions

As part of the plans for discontinuing Kanji1 support, creation of new Kanji1 objects is highly restricted. For example, inclusion of the phrase CHARACTER SET KANJI1 in the following statements returns a syntax error:

- CREATE USER/MODIFY USER
- CREATE TABLE/ALTER TABLE
- CREATE FUNCTION/REPLACE FUNCTION
- CREATE TYPE/ALTER TYPE
- CREATE PROCEDURE/REPLACE PROCEDURE
- CREATE MACRO/REPLACE MACRO
- CREATE VIEW/REPLACE VIEW
- CAST function

Use the TRANSLATE function to convert existing Kanji1 data to Unicode or another supported server character set. See “TRANSLATE” in *SQL Functions, Operators, Expressions, and Predicates*.

Security-Related Restrictions

Custom Authentication Mechanisms

Development and deployment of a custom authentication mechanism for use with this release can only be achieved by purchasing the Teradata Security Software Developer Kit.

Note that development and deployment of a custom authentication mechanism results in the creation of a custom encryption software product. Distribution of a custom encryption product outside the U.S. and Canada is regulated by the U.S. Department of Commerce (DOC). An export authorization must be filed for and obtained from DOC in order to export such custom products. For information on obtaining an export authorization, please see the DOC website at [BIS Website](#).

If additional information is required, customers should contact their Teradata representative. Teradata representatives requiring help should contact Teradata Corporate Export Compliance in the Law Department of WHQ.

Note: A custom authentication mechanism is a user authentication mechanism that is above and beyond the eight (8) mechanisms that are provided with Teradata Database:

1. Teradata Method 1
2. Teradata Method 2
3. KRB5 (Kerberos authentication)
4. KRB5C (Kerberos authentication)
5. NTLM
6. NTLMC
7. LDAP
8. SPNEGO (used for Kerberos authentication for logons from Windows.Net clients)

System-Level Software Restrictions

- JRE 1.7 must be installed on the database server prior to installing Teradata Database 15.10.
- Only one instance of the Teradata Database is supported on a system.
- Teradata Tools and Utilities, including utilities running on mainframes, must be installed at or upgraded to Teradata Tools and Utilities 15.10 to take advantage of all Teradata Database 15.10 features and functions. Teradata Tools and Utilities will support two database releases forward (the future Teradata 16.0 and Teradata 16.10) and support four releases back (Teradata 15.0, 14.10, 14.00, and 13.10).
- For coexistence and coresidence systems, all nodes within a single MPP system must run the same version of the operating system and the Teradata Database software.
- For additional restrictions, dependencies, and performance considerations when running the Teradata Database applications, see [Running Teradata Database with Other Applications](#).
- Backup and restore management utilities are not provided as part of Teradata Database but are available as separate products. For information, see [Supported BAR Software](#).
- A maximum of 1200 concurrent LAN-connected sessions are allowed per node.
- The maximum number of sessions for mainframe clients is 120 x the number of configured Parsing Engines (PEs) for each TDP (Logical Host ID).

Obsolete and Unsupported Tools, Utilities, Options, and Record Types

Utility	Description
dbcontrol	<ul style="list-style-type: none"> • The SHAPasswordEncryption field is obsolete. • Priority scheduler functions must be controlled through Viewpoint (Teradata Database on SLES 11 only). SLES 10 systems continue to support priority scheduler. • The ObjectUseCountCollectRate option is obsolete. Use the DBQL USECOUNT option.
dbscsp	The dbscsp tool, used only on MP-RAS systems, is no longer supported. The executable /usr/ntos/bin/dbgscsp now links to fdlcsp instead of dbscsp.
DUL/DULTAPE	Due to discontinuation of support for Teradata Database on Windows, DUL/DULTAPE for

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Utility	Description
	Windows is also discontinued.
Filer	CSA WAL log record type is not supported. /V option of the FIB command is not supported.
Teradata Multitool	Discontinued in Release 14.0 – use Teradata Database command line utilities.
PMON	Discontinued in Release 14.0 – use Teradata Viewpoint.
Teradata Dynamic Workload Manager	Discontinued in Release 14.0 – use Teradata Viewpoint.
Teradata Manager	Discontinued in Release 14.0 – use Teradata Viewpoint.
Teradata Query Director	Discontinued in Release 14.0 – use Teradata Unity.
gdoviewer	Utility is no longer supported.
gtwcontrol	Removed -b option. Deprecated logons are no longer allowed.
rcvmanager	F7 help is not available.
rssmon	The rssmon utility (Resource Sampling System Monitor) was only usable on MP-RAS systems, and is obsolete now that Teradata Database is no longer supported on MP-RAS.
tdgsspkgrm	Discontinued in Release 15.10.01.
tdssearch	Due to limited functionality tdssearch has been replaced by ldapsearch, which is included with Teradata Database 13.10 and up.
xschmon	No longer supported.
vpacd	Mostly for older hardware; rarely used. May be ported to open-PDE (Linux).
Replication Services	<p>TRS (Teradata to Teradata replication) was discontinued for new sales as of August 2011. Aligned with that discontinuation, no further enhancements have been made since the TRS 13.10 release. TRS 13.10 has been certified with Teradata DB 14.00 and 14.10 versions but with no new feature support and for existing customers only. The Unity product portfolio is positioned as the replacement for TRS, either through a Unity Director / Loader implementation or possibly Data Mover dependent on latency tolerance.</p> <p>Note: Replication from third-party solutions to Teradata is still supported by Oracle GoldenGate.</p>
Teradata Statistics Wizard (TSWIZ)	Discontinued in Release 15.0 – the last release that contained this product was TTU 14.10. Replaced by Teradata Viewpoint Stats Manager.
OLE DB Provider for Teradata	Discontinued in Release 15.10 – the last release that contained this product was TTU 15.0. Use Microsoft's OLE DB Provider for ODBC and Teradata ODBC Driver products together as the replacement.
Transparency Series/Application Programming Interface (TS/API) (mainframe)	Discontinued in Release 15.10 – the last release that contained this product was TTU 15.0. Capped at supporting Query Management Facility (QMF) 9.1. Use an SQL query tool, such as Teradata Studio, as a replacement.
Teradata Monitor	Discontinued in Release 15.10 – the last release that contained this product was TTU 15.0. Replaced with a set of Teradata table functions embedded in the Teradata Database.
Teradata Data Mart Edition	Discontinued in Release 15.10 – the last release that supported this product was Teradata Database 15.0. Teradata Database is no longer natively supported on 3 rd party SMP computers running specific versions of SUSE Linux. The replacement product is Teradata Virtual Machine Edition (TVME). Please refer to the separately published <i>Order and Configuration Information</i> document for TVME.
DBS Check tool (dbschk)	Discontinued in Release 15.10 – the last release that contained this product was Release 15.0. Replaced by the Mailbox Check (mboxchk) tool. See the man page for information.
Teradata Administrator	Discontinued in Release 16.0 – the last release that contains this product is TTU 15.10. Note: Teradata Administrator was not enhanced for Release 15.10, so there is no new feature support in this product for Release 15.10. Replaced by Teradata Studio.

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Utility	Description
SQL Assistant	Future – Release 15.10 is the last release to contain this product. It will be discontinued in TTU 16.0 and replaced by Teradata Studio and/or Teradata Studio Express. Note: Teradata SQL Assistant Web Edition was discontinued in Release 14.0.
Dultape	Future – Release 15.10 is the last release to contain this product. It will be discontinued in Release 16.0.

Changes in System Behavior

Default Feature Status

In previous releases some features were activated by default and others were manually activated, depending on whether the Teradata Database system had a fresh installation (sysinit) or an upgrade.

Release 15.10 features do not require a sysinit to be enabled. Features in earlier releases that required a sysinit still require a sysinit (see the 15.0 *Release Definition* for details).

Feature	Upgrade	Sysinit	Effects and Comments
In-Memory Optimizations	Disabled	Disabled	To enable, contact Teradata Support.
Columnar Primary AMP Index or Primary Index	Disabled	Disabled	Columnar must be enabled and NoDot0backdown=true to get full functionality. To enable, contact Teradata Support.
Teradata Secure Zones	Disabled	Disabled	Teradata Secure Zones must be enabled and NoDot0backdown=true to get full functionality. To enable, contact Teradata Support.
PMPC Enhancements for Release 15.10	Enabled	Disabled	The PMPC Enhancements must be enabled and NoDot0backdown=true to get full functionality.
Block loads between RLS tables and non-RLS tables	Disabled	Disabled	To enable, contact Teradata Support.
JSON UDF and external stored procedures	Enabled	Enabled	Prior to backing down, remove Java UDFs and external stored procedures that have a JSON type parameter.

Note: For upgrades set NoDot0Backdown=true to use the full functionality of Release 15.10 features.

Default activation may cause changes in system behavior compared to previous releases. Even after activation, some features may require additional configuration.

Features in prior releases that required the DBS Control NoDot0Backdown flag no longer check the flag because you cannot back down from Release 15.10. If enabling a particular feature required a special method, then that method must still be followed for that feature.

An upgrade to Teradata Database 15.10 is allowed from the following versions:

- TDBMS/PDE/PDEGPL 14.00.06.09
- TDBMS/PDE/PDEGPL 14.10.01.01
- TDBMS/PDE/PDEGPL 15.00.00.02

Note: An upgrade is supported across one major release (xx.0); for example, to upgrade a Release 13.00 system to Release 15.10 requires a two-step upgrade:

1. 13.00 to 14.10
2. 14.10 to 15.10

Checksum Settings

You cannot change the checksum settings for different classes of tables as you used to be able to do using the DBS Control utility. By default all checksumming is turned off. To enable checksumming, contact the Teradata Support Center. Additionally, checksumming sampling levels no longer exist; checksumming can only be ON (equivalent to previous setting of ALL) or OFF (equivalent to previous setting of NONE).

The CHECKSUM option for CREATE TABLE and ALTER TABLE has changed from multiple levels (ALL, HIGH, MEDIUM, LOW, NONE) to a simple ON or OFF choice.

DBS Check Tool Replaced

The DBS Check tool (dbschk) has been replaced by a more capable Mailbox Check (mboxchk) tool. See the man page for information.

Java Runtime Environment (JRE 1.8)

Java 8.0 is required before installing Teradata Database. Users can now run Java UDFs and external stored procedures compiled with JDK 8.0 on Teradata JRE 1.8

JSONExtractValue and JSONExtractLargeValue Now Extract a Single Value

In accordance with the Proposed JSON standard, the Teradata methods JSONExtractValue and JSONExtractLargeValue now extract a single scalar value or JSON null. If more than one value matches the JSONPath query expression, a warning and a default string (signifying multiple results were found) are returned. See *Teradata JSON* for details.

New Scalar Subquery Restriction

Scalar sub-queries (SSQ) are sub-queries that result in a single value. SSQ is not supported in table operators with multiple ON clauses or ON clauses using PARTITION BY or HASH BY.

Profile Query Band

A profile query band has been added in addition to transaction and session query bands. When using the Query Band APIs, the return value includes the profile query band as well as the transaction and session query bands.

Recovery Manager

In the Recovery Manager utility, DBC and Permanent Journal (PJ) tables are no longer excluded from the list of rollback tables.

Teradata Secure Zones

For sites using this feature:

- SELECT privilege on DBQL tables is revoked from PUBLIC. Users can access DBQL table information through DBC.QryLog* views only, to prevent zone users from accessing information not related to their zones. See *Security Administration* and *Data Dictionary*.
- The DBC user has system-wide dictionary access including access to zone restricted dictionary data.

Session Collection Rate

The sample rate must be non-zero for SET SESSION RATE and SetSessionRate. In previous releases it could be set to zero. See *Application Programming Reference*.

SQL Interface to Ferret SHOWWHERE

A new feature, SQL Interface to Ferret SHOWWHERE, is available. When using SHOWWHERE with PopulateFsysInfoTable or PopulateFsysInfoTable_ANSI, the input_class is only supported for SHOWWHERE.

The input_class option is not available if the macro is used to generate SHOWBLOCKS information, due to high resource utilization.

SHOWWHERE is documented in *SQL Functions, Operators, Expressions, and Predicates*.

Trusted Sessions

For a permanent proxy user, if the user is logged on directly and running queries and is also logged on to a middle tier application with queries being run as a proxy, the SPOOL and TEMP usage accumulation includes both. An individual user's query fails when the collective usage exceeds the individual user's limits.

Recommendations for Update DBC and Database Window

- Only run the Update DBC utility on a quiescent system (no one logged in).
- Do not use the Database Window (CNS) STOP command to abort a run of Update DBC.

Teradata GSS Client Software Package (TeraGSS)

Starting with Teradata Tools and Utilities 15.10.04, only a single version of TeraGSS is allowed to be installed and run on the client at one time. The 15.10.01 version of TeraGSS cannot be installed until all pre-15.10.04 versions of TTU software have been uninstalled. This restriction applies to installations, but does not apply to upgrades, because an upgrade removes the previous versions automatically.

User Selectable Installation Directory for TeraGSS

Users may now select their own directory structure for TeraGSS installations; a default directory structure is provided, if one is not specified during installation. The following is changed:

- The default installation directories are different than previous TeraGSS directories
- The installation process is changed. The run_tdgssconfig utility will not be run automatically during installation. It must be run manually when changes are made to the TdgssUserConfigFile.xml file.
- The tdgsspkgm utility is removed
- The tdgssversion utility no longer supports version switching

Changes to the TeraGSS Configuration in TTU

Installation of Teradata Tools and Utilities (TTU) client software includes installation of the TeraGSS security module. For 14.00.xx and previous versions of TTU software, the install process sometimes failed during the creation of the tdgssconfig.bin file.

Beginning with TTU 14.10 the TTU install process only creates a tdgssconfig.bin file when required. As a result of the new install procedure, additional action may be required on some clients to avoid:

- Causing the system to ignore any custom configuration settings in the TdgssUserConfigFile.xml.
- Possible future upgrade failures related to the tdgssconfig.bin file.

The effects of the TTU 14.10.xx install process and further required action vary with the TTU/TeraGSS pre-upgrade and post-upgrade versions, and whether the TdgssUserConfigFile.xml has custom settings.

Note: Actions shown in the table below are required whenever you install one of the listed post-upgrade TTU versions on a client that is currently running a listed pre-upgrade version.

Pre-Upgrade TTU Version	Post-Upgrade TTU Version	Status of Tdgss UserConfigFile	Required Action
TTU 14.00.xx and previous	TTU 14.10.00 through 14.10.02 (TeraGSS 14.10.00.00)	Without custom settings	No action required.
		With custom settings	No action required.
TTU 14.00.xx	TTU 14.10.03	Without custom	No action required.

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and previous	and up (TeraGSS 14.10.00.01 and up)	settings	
		With custom settings	Execute the "run_tdgssconfig" script manually after the TTU upgrade, to automatically create tdgssconfig.bin files on future upgrades. If you do not run the script, custom settings in TdgssUserConfigFile.xml are no longer in effect.
TTU 14.10.00 through TTU 14.10.02 (TeraGSS 14.10.00.00)	TTU 14.10.03 and up (TeraGSS 14.10.00.01 through 15.10.00)	Without custom settings	After completing the upgrade to the new TTU version, remove the tdgssconfig.bin file, if present. For details, see Deleting tdgssconfig.bin Files on Teradata Clients . Removing the file avoids creating a tdgssconfig.bin file (not needed if there are no custom settings) which could cause problems in future TTU upgrades.
		With custom settings	Execute the "run_tdgssconfig" script manually after the TTU upgrade, to automatically create tdgssconfig.bin files on future upgrades. If you do not run the script, custom settings in TdgssUserConfigFile.xml are no longer in effect.
TTU 14.00.00 through 15.10.03 (TeraGSS 14.00.00 through 15.10.00)	TTU 15.10.04 and up (TeraGSS 15.10.01 and up)	Without custom settings	<ul style="list-style-type: none"> Remove the old version of TeraGSS. Install the new version of TeraGSS (version 15.10.01 or later) in a user selected directory.
		With custom settings	<ul style="list-style-type: none"> Save the custom configuration file (TdgssUserConfigFile.xml). Remove the old version of TeraGSS. Install the new version of TeraGSS (version 15.10.01 or later) in a user selected directory or in the default directory. Create the client/etc/site directory in the new installation by running client/version/bin/run_tdgssconfig. Copy the saved custom configuration file to the site directory. Execute run_tdgssconfig to initialize the custom configuration.

For more information on run_tdgssconfig, see “Changing the TDGSS Configuration” in *Security Administration*. For installation information, see the Teradata Tools and Utilities installation guide for your operating system at <http://www.info.teradata.com>.

Deleting tdgssconfig.bin Files on Teradata Clients

After completing the upgrade to the new TTU version, if required by the rules in [Changes to the TeraGSS Configuration in TTU](#), remove the tdgssconfig.bin file, if present in the following locations.

Note: The *<version>* to be removed is always 14.10.00.01 or higher.

Affected 64-bit Teradata clients contain both 32-bit and 64-bit tdgssconfig.bin files. You must remove both the 32-bit and 64-bit files.

Note: For upgrades to TeraGSS 15.10.01, the older version is removed entirely as part of the installation, which includes removing the tdgssconfig.bin file, so the following does not apply.

For upgrades to TeraGSS 15.10.00 and before, remove the tdgssconfig.bin file from the following locations depending on your operating system:

Client Operating System	File to Be Removed
Windows 32-bit (nt-i386)	<ul style="list-style-type: none"> \Program Files\Teradata\Teradata GSS\Site\nt-i386\<version>\tdgssconfig.bin
Windows 64-bit (nt-x8664)	<ul style="list-style-type: none"> 32-bit file: \Program Files\Teradata\Teradata GSS\Site\nt-i386\<version>\tdgssconfig.bin 64-bit file: \Program Files\Teradata\Teradata GSS\Site\nt-x8664\<version>\tdgssconfig.bin
UNIX 32-bit	<ul style="list-style-type: none"> Linux: /opt/teradata/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin HP-UX and AIX: /usr/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin Solaris: Path is similar to either Linux or HP-UX/AIX, depending on file options used. <p>Where the <i><operating_system-cpu_type></i> can be: linux-i386, aix-power.32, hpux-ia64.32, hpux-pa.32, solaris-sparc.32, solaris-i386, or linux-390.32.</p>
UNIX 64-bit	<p>32-bit files:</p> <ul style="list-style-type: none"> Linux: /opt/teradata/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin HP-UX and AIX: /usr/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin Path is similar to either Linux or HP-UX/AIX, depending on file options used. <p>Where <i><operating_system-cpu_type></i> can be: linux-i386, aix-power.32, hpux-ia64.32, hpux-pa.32, solaris-sparc.32, solaris-i386, or linux-390.32.</p> <p>64-bit files:</p> <ul style="list-style-type: none"> Linux: /opt/teradata/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin HP-UX and AIX: /usr/teragss/site/<operating_system-cpu_type>/<version>/tdgssconfig.bin Path is similar to either Linux or HP-UX/AIX, depending on file options used. <p>Where <i><operating_system-cpu_type></i> can be: linux-x8664, aix-power, hpux-ia, hpux-pa, solaris-sparc, solaris-x8664, or linux-390.</p>
Mac OS	/Library/Application Support/teradata/teragss/<version>/etc/tdgssconfig.bin

System Views

Some Teradata Database releases make changes to system views. See "Changes to This Book" in *Data Dictionary* for a list of changes to system views for this release.

Space Requirements for 4K Disk Sector Size

As part of the 4K Disk Alignment feature, the system uses 4K disk sectors instead of the previous 512 byte sector size. Use of this feature requires increased space. For big tables the space is a very small percentage of overall space and may not be noticeable. For small tables, the change may represent a significant percentage increase in space consumption.

Recompiling Stored Procedures

When you upgrade to or across a major Teradata Database release, for example, when upgrading or migrating to Release 15.0 from any previous release, including 14.10, you must recompile stored procedures.

System Limits

The following system limits are increased for Teradata Database 15.0 and later:

- 1024 nodes
- 16,200 AMP VPROC's
- 30,720 total VPROC's

Other system limit increases may apply when a specific new 15.10 feature is enabled. For a comprehensive list of system limits, see *Database Design*.

Documentation Changes

This section lists additions and changes to the released user documentation, until the documentation is updated to include the changes. This section also includes changes that happened from the previous release to the current release.

- *Utilities 1* and *Utilities 2* are merged into one book called *Utilities*.

Installation, Upgrade, Migration, and Backdown (IUMB)

Teradata supports customer-performed maintenance and patch upgrades. Contact your sales or customer support representative (CSR) for questions.

For changes in behavior that impact upgrade or migration, see [Changes in System Behavior](#).

Supported IUMB Operations

Teradata Database 15.10 supports the following IUMB operations:

- Installation of Teradata Database 15.10 on all supported platforms and operating systems.
- Upgrade to Teradata Database 15.10 from the releases shown in Knowledge Article IDA00108C82, available from Teradata @ Your Service (<https://tays.teradata.com>). If your current Teradata Database version is not listed as an approved upgrade starting version, you must first upgrade to an approved starting version before upgrading to this release. Contact the Teradata Support Center for details.

For information on upgrades from older releases, see [Upgrading from Older Releases](#).

- Migration from Release 13.x and later.

IUMB Planning

- Upgrade scripts and the upgrade estimator tool are available in the PUTTools package. Always get the latest version, which, as of this document, is 02.00.00.02. For all IUMB Change Controls obtain PUTTools from the patch server at <https://tays.teradata.com>. Click the Software Downloads tab, and then click the Certified tab.
- Teradata @ Your Service (<https://tays.teradata.com>) provides access to copies of other items required for IUMB procedures such as:
 - The Certified List of software packages for each supported Teradata Database version, including recently updated versions of software packages.
 - Required application and operating system software patches, firmware, drivers, service packs and hotfixes.
- You must upgrade your Teradata Client software to at least the minimum supported release before or at the same time as you upgrade to this release.
- Some features are enabled by default during a sysinit when upgrading or migrating and may affect system behavior. To see if the current release is affected, see [Default Feature Status](#).

Upgrading Teradata Temporal Tables

Teradata originally introduced support for creating and manipulating temporal tables before an ANSI/ISO standard had been developed. Consequently the original Teradata Temporal Tables and SQL syntax do not conform to the ANSI standard. If you upgrade from a Teradata Database release prior to 15.0, and you were using Teradata Temporal Tables, you can choose to either continue using them or convert to using ANSI standard temporal tables and syntax.

For more information on the differences and ramifications, see the *Utilities* manual, **DBS Control** chapter description of the `Temporal Behavior` DBS Control field, and read the **ANSI Temporal Tables** appendix in the *Temporal Table Support* manual.

Parallel Upgrade Utility (PUT)

Use PUT to install or upgrade Teradata Database and other software, as well as install and configure the Teradata Database.

PUT is provided with each copy of this release, but you should download the latest version of PUT from <http://tssprod.teradata.com:8080/TSFS/home.do>. Click the Certified tab, and select PUT from the left menu.

You can download the document *Parallel Upgrade Tool (PUT) Reference* from <http://www.info.teradata.com/>.

Replacing Unsupported Operating Systems

If your system runs on an unsupported OS (MP-RAS, SLES 9, or Windows), you must replace the unsupported operating system with a supported version of SLES before upgrading or migrating to Teradata Database 14.10 or higher. See [Supported Software Releases and Operating Systems](#).

Note: Installation of SLES 11 changes the workload management options available on the system.

Upgrading from Older Releases

To upgrade to Release 15.10 from an older release, perform a multi-stage upgrade process. For example, to upgrade from Release 13.00 requires two upgrades:

- 13.00 to 14.10
- 14.10 to 15.10

All customers upgrading or migrating to Release 15.10 from 13.10 or higher automatically receive a copy of the necessary intermediate version(s) of Teradata Database to use during the upgrade process. Customers are licensed to use the intermediate software CD only as part of the upgrade process.

After the upgrade is complete, customers should dispose of the intermediate software CD, while retaining the Release 15.10 CD.

Contact Teradata Support if you are upgrading from a version that is more than two major releases back.

About Returning to an Older Release

Although moving to a new Teradata Database release is automated, there is no automated way to reverse the process and the required conversions to move to a previous release. Backing down across a major release (xx.0), such as Release 15.0, is not supported.

System Performance

Performance Regressions

Any regressions that Teradata identifies, either by further testing or in field-deployed systems, are fixed as soon as possible. To find out the latest information about performance regressions that have been identified for the new release and how they may affect your system, see: <https://tays.teradata.com>.

Use of Recoverable Network Protocol and Redrive

If Recoverable Network Protocol is enabled, the extra message communication between the client and Teradata Database may slow the performance of tactical queries.

If Redrive is also on, PJSK queries are further slowed by the overhead of creating persistent spools for response spool.

SLES 10 to SLES 11 Migration - Performance

When migrating from SLES 10 to SLES 11, the system may experience decreased performance. SLES 11 uses more CPU capacity and CPU power than SLES 10 for the same workload.

- Workloads that are CPU-bound on SLES10 may be negatively impacted on SLES11.
- The increase in CPU consumption is due largely to the new priority scheduler mechanism. Although the new priority scheduler consumes more CPU, it provides excellent benefits for tactical workload SLA control.
- The increase in CPU consumption is also due to more accurate CPU accounting in SLES 11, as it tabulates usage that was not counted in SLES 10.

Note: The new SLES11 compiler and enabling AMFS helps to reduce the performance impact.

With SLES 11, Linux offers a new operating system scheduler, the Completely Fair Scheduler (CFS). Leveraging this new feature of SLES 11, Teradata has built a new Priority Scheduler on top of the CFS to improve workload management.

Running Teradata Database with Other Applications

Other applications (including Teradata applications) may execute concurrently with the Teradata Database on approved system platforms. However, this is not encouraged, as it may negatively impact database:

- Throughput and response time performance
- Availability

It is strongly recommended that you do not run applications that are large consumers of system resources (such as other databases) concurrently without understanding the performance and availability impact to both the applications and Teradata Database.

If you do run applications on the same system or node as the Teradata Database:

- The system or node may need additional hardware (for example, memory) to support the applications.
- Monitoring and tuning the system may be more complex.
- Compromises (for example, in the settings of tuning parameters) may need to be made to provide satisfactory and consistent performance for both Teradata Database and applications.
- If a problem does occur, it may be necessary to determine whether the problem also occurs in isolation.

If an application does not run properly or interferes with Teradata Database, it may be necessary to move it to another node or system. For instance, such applications may:

- Require a different version of the operating system
- Require a different set of operating system-level patches
- Require different settings of tuning parameters
- Be unable to obtain adequate system resources, or obtain too many system resources due to the UNIX scheduler or other OS-specific resource limitations.
- Adversely affect performance
- Require significant use of the BYNET bandwidth

Reliability and availability may be a concern if an application failure tends to bring down UNIX and thereby bring down Teradata Database, or vice versa.

By default, the Teradata memory allocation algorithms are based on Teradata Database using 100% of the memory on a node. If other applications use a significant amount of node memory, you may need to add memory, and you should adjust the option controlling this percentage. For these reasons, avoid running non-Teradata applications on nodes running Teradata Database, if possible, as shown in the table that follows.

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Software Type	Runs on Nodes That Run Teradata Database?	Considerations
Non-Teradata applications	No	Run on nodes that do not run Teradata Database, so that: <ul style="list-style-type: none">• Expected throughput, expected response time, and parallel efficiency are not impacted.• Detrimental impact on the system is reduced.• Problems can be more easily isolated.• Fixes needed by one application can be made without having to apply them to nodes that do not need those fixes (or for which those fixes are detrimental).
Teradata applications and Teradata client software	Yes	Run on nodes that run Teradata Database if the software: <ul style="list-style-type: none">• Puts a very small load on a system.• Evenly distributes the workload across the nodes.• Is used periodically for system maintenance.• Has an impact that is well-understood and acceptable.

Note: Even if applications are run on separate nodes (non-TPA nodes), they may still share the BYNET and thereby potentially interfere with Teradata Database or vice versa.

Software Maintenance Schedule

Purchasers of Teradata Database software are entitled to a period of continuing support after initial installation or upgrade.

Teradata Database Maintenance Roadmap

The Teradata Maintenance Release Roadmap shows the detailed code-level remedy and support for each Teradata Database version. The times shown for code-level remedies are defined in terms of maintenance releases. Longer periods of support may be offered depending on the schedule for subsequent releases and whether they are delayed.

Customers with active Service Agreements can find the Teradata Maintenance Release Roadmap on Teradata @ Your Service (<https://tays.teradata.com>).

Customers without support agreements should contact their sales or support team.

User Documentation

Software orders include, free of charge, the following:

- PDF versions of individual user documents, and user documentation CD-ROM image downloadable from the Teradata Information Products website at: <http://www.info.teradata.com>.
- HTML documentation accessible from the Teradata Information Products website at: <http://www.info.teradata.com>
- Physical copy of fully indexed and searchable CD-ROM, when software is ordered in physical format.

Documentation on IUMB is not part of the standard user documentation set. It is available to Teradata personnel at: <http://infocentral.daytonoh.teradata.com/tsd-library/isupr.cfm>

Downloading a Document

To download a document for the current release from the Teradata Information Products website:

1. Go to: <http://www.info.teradata.com>
2. Select **Data Warehousing**.
3. Select **Teradata Database**.
4. Select the current release.
5. Select the desired document.

Reserved Words

Teradata Database reserved words cannot be used as identifiers to name host variables, correlations, local variables in stored procedures, objects (such as databases, tables, columns, or stored procedures), or parameters (such as macro or stored procedure parameters).

The new reserved words for Teradata Database 15.10 can be found in Appendix A of *Release Summary*.

For instructions on how to generate the complete list of reserved words, see Appendix B in *SQL Fundamentals*.

Both are available at <http://www.info.teradata.com>.

DRs and RFCs

Discrepancy Reports (DRs) document areas of the Teradata Database software that require change. DRs exist for two basic reasons:

- To fix an identified software problem
- To record a Request for Change (RFC) that adds a new feature to the software

Teradata Database Discrepancy Reports Summary lists the DRs and RFCs that were incorporated into this release. Go to:

- <http://infoportal.daytonoh.teradata.com/discrepancy-reports/pD-reports.cfm> (note that this site is available to Teradata personnel only).

Customer Education

Teradata Customer Education delivers training for your global workforce - from scheduled public courses, customized on-site training, to the latest E-learning solutions. For more information on the latest classes, schedules, the Teradata Certification Program, and to enroll in classes online, go to the Teradata Customer Education website at:

<http://www.teradata.com/TEN/>

The representative for your region can also assist you. To find the representative for your region, use the Contact Us link at the bottom of the Teradata Education Network page.

Customer Support

Customer support is available at all hours, seven days a week. Trained professionals at a Remote Services Center (RSC) are available to assist you. To learn more about Teradata Customer Services, go to Teradata @ Your Service: <https://tays.teradata.com>

If you purchased an ESS support contract, a customized support plan was created for you. Please refer to your support plan for contact information. In addition, a unique PIN (Personal Identification Number) was given to your site. If you are an ESS customer, you must contact the regional RSC to request support and you must use your PIN.

PINs are not published. If you inadvertently misplace your PIN, contact your account representative.

Technical Alerts, Knowledge Articles, and Orange Books

Customers can access technical alerts, knowledge articles, and Orange Books on Teradata @ Your Service: <https://tays.teradata.com>

White Papers

White papers are executive level documents that target business or technical management, and address why a feature is valuable for an active data warehouse.

Customers can access white papers at: <http://www.teradata.com/Resources/White-Papers/>.

List of Acronyms and Abbreviations

Acronym	Definition
AMP	Access Module Processor
AWT	AMP Worker Task
BAR	Backup, Archive, and Restore
BTEQ	Basic Teradata Query Language
CLI	Call-level Interface
CS-RSC	Customer Services Remote Service Center
DR	Discrepancy Report
DSA	Teradata Data Stream Architecture (BAR tool)
EMEA	Europe, Middle East, Africa
GB	Gigabyte
GCA	General Customer Availability
GSC	Global Support Center
GSS	Global Sales Support
GTW	Abbreviation for Teradata Gateway
HCL	Hardware Compatibility List
IUM	Installation, Upgrade, and Migration
JRE	Java Runtime Environment
MPP	Massively Parallel Processing
PDE	Parallel Database Extensions
PDF	Portable Document Format
PE	Parsing Engine
PM/API	Performance Monitor/Applications Programming Interface
PUT	Parallel Upgrade Tool
RAID	Redundant Array of Inexpensive Disks
RAM	Random Access Memory
RFC	Requests for Change
SMP	Symmetric Multi-processor
SUPR	Single Unified Procedures Repository
SLES	SUSE Linux Enterprise Server
TeraGSS	Teradata Generic Security Services is an extension of the industry-standard GSS-API
TDGSS	Teradata Generic Security Services
TPA	Trusted Parallel Application
TSS	Teradata Software Server
TVI	Teradata Vital Infrastructure
TVS	Teradata Virtual Storage
UDF	User-Defined Function
VMF	Version Migration and Fallback
WAL	Write Ahead Logging