



Release Notes | Version 5.6.0/0 | 08 July 2019

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## Installing an HVR Upgrade

Previously HVR had a concept of 'upgrade type', which is no longer used.

Often all machines are upgraded at the same time.

Current HVR version are fully compatible with 5.5 and 5.3 major versions; it is not necessary to upgrade all machines in a channel at once. Instead it is possible to only upgrade certain machines (e.g. only the hub machine, GUI machine, remote capture or target). If this is done, it should be understood that each HVR release fixes some bugs and/or contains new features. Each bug fix or feature is only effective if the specific machine(s) indicated for it are upgraded. New features should not be used until all machines that are specified for that feature are upgraded, otherwise errors can occur.

For example, if a new HVR release fixes an integrate bug, then that release must be installed on the machine(s) which do integrate. So, if only the GUI and/or hub machine is upgraded, then there will be no benefit.

To decide whether each machine needs to be upgraded, see the descriptions in the release notes below. Each description ends with a line says which machine must be upgraded for that specific bug fix or feature to be effective.

## Platform Compatibility and Minimum Requirements

This section provides information on HVR's compatibility and minimum requirements for each supported platform.

- [AIX 6.1-PowerPC-64bit](#)
- [Linux glibc2.5-x64-64bit](#)
- [macOS-x64-64bit](#)
- [Solaris 10-SPARCv9-64](#)
- [Solaris 10-x64-64bit](#)
- [Windows-x64-64bit](#)

### AIX 6.1-PowerPC-64bit

- **Operating System:** AIX version 6.1 and higher
- **Ingres:** version 9.1, 9.2, 9.3, 10.0, 10.1 and 10.2
- **Oracle:** version 10.x, 11,2 and 12.1
- **DB2 on Linux, Unix, Windows:** version 9.7, 10.5 and 11.1
- **DB2 for z/OS:** version 11.1  
Requires DB2 client, DB2 server or DB2 Connect version 10.5 or higher
- **File replication:** local, FTP/FTPS and SFTP
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **Salesforce:** supported
- **HVR user interface:** remote GUI or command-line

### Linux glibc2.5-x64-64bit

- **Operating System:** Linux (x86 64 bit) based on GLIBC 2.5 and higher.
- **Operating System:** Red Hat Enterprise Server version 5 and higher
- **Operating System:** SuSE Enterprise Server version 10.0 and higher
- The 64-bit executable will not run on a 32-bit Linux machine.
- **Ingres:** 64-bit (a64.lnx) version 9.1, 9.2, 9.3, 10.0, 10.1, 10.2 and 11.0  
Capture of X100 tables is not supported
- **Vector:** version 2.x, 3.x, 4.x, 5.0 and 5.1 as hub and target, not capture.
- **Vector Hadoop Edition:** version 4.x as hub and target, not capture
- **Oracle:** version 11.1, 11.2, 12.1, 12.2 and 18.0, Exadata
- **DB2 on Linux, Unix, Windows:** version 9.7, 10.1, 10.5 and 11.1
- **DB2 for i:** version 7.1 and 7.2  
Requires ODBC driver manager UnixODBC 2.3.1  
Requires IBM i Access Client Solutions ODBC Driver 64-bit
- **DB2 for z/OS:** version 11.1  
Requires DB2 client, DB2 server or DB2 Connect version 10.5 or higher
- **PostgreSQL:** version 9.4, 9.5, 9.6 and 10

- **PostgreSQL:** version 8.x, 9.0 - 9.3 as target and hub, not capture  
XtremeData dbX 1.x as target and hub, not capture  
Requires PostgreSQL 9 or 10 client (libpq.so.5 and its dependencies)
- **MySQL:** version 5.6, 5.7 and 8
- **MariaDB:** version 10.0, 10.1, 10.2 and 10.3
- **Aurora MySQL:** version 5.6 and 5.7
- **SQL Server:** version 2017 and Azure SQL Database  
Requires ODBC driver manager UnixODBC 2.3.2  
Requires ODBC Driver for SQL Server 11 or higher
- **Snowflake:** version 2.x as target, but not hub or capture  
Requires ODBC driver manager UnixODBC 2.3.1 or 2.3.2  
Requires Snowflake ODBC driver 2.13.20 or higher
- **HANA:** version 1.0 SPS 11 and 12, and version 2.0 SPS 0, SPS 1, SPS 2 and SPS3  
Requires ODBC driver manager UnixODBC 2.3.2  
Requires HANA ODBC driver 1.00.110 or 1.00.120
- **Teradata:** version 14.x, 15.x and 16.x, as target and hub, not capture  
Requires Teradata ODBC driver 16.10 or 15.00  
Requires TTU 16.10 or 15.00 libraries
- **Greenplum:** version 4.0, 4.2, 4.3, 5.5 and 5.10 as target, not as capture or hub.  
Requires DataDirect Connect64 XE ODBC 7.1.3.99 - 7.1.5 driver for Greenplum provided by Pivotal.
- **Redshift:** version 1.0.x, as target, not as capture or hub.  
Requires ODBC driver manager UnixODBC 2.3.0.  
Requires Amazon Redshift driver 1.2.6.1006-1
- **File replication:** local, FTP/FTPS and SFTP
- **Apache Hadoop HDFS:** version 2.2.0 and above  
HVR requires Hadoop 2.4+ libraries and Java 7 on its local machine to access HDFS (Java 8 if Hadoop 3.0.0alpha1 or later). 'hadoop' command must be in \$PATH or Hadoop home must have been configured via one of the following environment variables: \$HADOOP\_COMMON\_HOME, \$HADOOP\_HOME, \$HADOOP\_PREFIX.
- **Apache Hive:** version 1.1, 2.1, 2.3, 3.0, 3.1 with UnixODBC driver manager 2.3.2  
HVR can create Hive external tables above S3/HDFS files. HVR only uses these during compare.  
Refresh or integration of this data is done into the S3/HDFS file location.  
Capture from Hive and hub database in Hive are not supported.  
Requires ODBC driver manager UnixODBC 2.3.2.  
Requires HortonWorks ODBC 2.1.2 or above for Hadoop Hive  
Requires Cloudera ODBC 2.5.12 or above for Hadoop Hive
- **Apache Kafka:** version 0.8 and above (including 0.11)
- **Apache HBase:** version 1.1, 1.2 and 1.3
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **Azure Blob FS:** supported
- **Azure Data Lake Store:** Gen1 supported
- **Salesforce:** supported
- **HVR user interface:** native GUI (X client), remote GUI or command-line  
Native GUI requires X11 client libraries (libX11, libXext, libXrender), font rendering libraries libfontconfig and libfreetype.



## macOS-x64-64bit

- **Operating System:** MacOS Sierra (10.12.1) and higher
- **File replication:** local, FTP/FTPS and SFTP
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **HVR user interface:** native GUI, remote GUI or command-line

## Solaris 10-SPARCv9-64bit

- **Operating System:** Solaris for SPARC, version 9 and higher
- **Ingres:** version 9.1, 9.2, 9.3, 10.0, 10.1, 10.2 and 11.0  
Capture of X100 tables is not supported
- **Oracle:** version 10.1, 10.2, 11.1, 11.2 and 12.1
- **DB2 on Linux, Unix, Windows:** version 10.5
- **Teradata:** version 14.x, 15.x and 16.x, as target and hub, not capture  
Requires Teradata ODBC driver 16.10 or 15.00
- **File replication:** local, FTP/FTPS and SFTP
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **Salesforce:** supported
- **HVR user interface:** remote GUI or command-line

## Solaris 10-x64-64bit

- **Operating System:** Solaris for Intel/AMD, version 10 and higher
- **Oracle:** version 11.2 and 12.1
- **File replication:** local, FTP/FTPS and SFTP
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **Salesforce:** supported
- **HVR user interface:** remote GUI or command-line

## Windows-x64-64bit

- **Operating System:** Windows XP, 2003, Vista, 2008, 7, 8 and 10. Windows Server 2012 R2 and 2016.  
NTFS and FAT file systems
- **Ingres:** version 10.0, 10.1, 10.2 and 11.0  
Capture of X100 tables is not supported  
Trigger based capture is not supported
- **Vector:** version 2.x, 3.x, 4.x, 5.0 and 5.1 as hub and target, not capture.
- **Vector Hadoop Edition:** version 4.x as hub and target, not capture
- **Oracle:** version 10.1, 10.2, 11.1, 11.2, 12.1, 12.2 and 18.0
- **SQL Server:** 2005, 2008, 2012, 2014, 2016, 2017 and Azure SQL Database.  
Azure SQL Data Warehouse as target, but not capture and not hub
- **DB2 on Linux, Unix, Windows:** version 10.5 and 11.1

- **DB2 for i:** version 7.1 and 7.2  
Requires IBM i Access Client Solutions ODBC Driver 13.64.11.00
- **DB2 for z/OS:** version 11.1  
Requires DB2 client, DB2 server or DB2 Connect version 10.5 or higher
- **PostgreSQL:** version 9.4, 9.5, 9.6 and 10  
PostgreSQL version 9.0 - 9.3 as target and hub, not capture  
Requires PostgreSQL 9 or 10 client (libpq.dll and its dependencies)
- **MySQL:** version 5.6, 5.7 and 8
- **MariaDB:** version 10.0, 10.1, 10.2 and 10.3
- **Aurora MySQL:** version 5.6 and 5.7
- **Snowflake:** version 2.x as target, but not hub or capture  
Requires Snowflake ODBC driver 2.13.20 or higher
- **HANA:** version 1.0 SPS 11 and 12, and version 2.0 SPS 0 SPS 1, SPS 2 and SPS 3 as target, but not capture.  
Requires HANA ODBC driver 1.00.110 or 1.00.120
- **Teradata:** version 14.x, 15.x and 16.x, as target and hub, not capture  
Requires Teradata ODBC driver 16.10 or 15.00  
Requires TTU 16.10 or 15.00 libraries
- **Greenplum:** version 4.0, 4.2, 4.3, 5.5 and 5.10 as target, not as capture or hub.  
Requires DataDirect Connect64 XE ODBC 7.1.3.99 - 7.1.5 driver for Greenplum provided by Pivotal
- **Redshift:** version 1.0.x, as target, not as capture or hub.  
Requires Amazon Redshift driver 1.2.6.1006-1
- **File replication:** local, FTP/FTPS and SFTP
- **Apache Hadoop HDFS:** version 2.2.0 and above  
HVR requires Hadoop 2.4+ libraries and Java 7 on its local machine to access HDFS (Java 8 if Hadoop 3.0.0alpha1 or later). 'hadoop.cmd' command must be in \$PATH or Hadoop home must have been configured via one of the following environment variables: \$HADOOP\_COMMON\_HOME, \$HADOOP\_HOME, \$HADOOP\_PREFIX.
- **Apache Hive:** version 1.1, 2.1, 2.3, 3.0, 3.1 with UnixODBC driver manager 2.3.2  
HVR can create Hive external tables above S3/HDFS files. Hvr only uses these during compare.  
Refresh or integration of this data is done into the S3/HDSF file location.  
Capture from Hive and hub database in Hive are not supported.  
Requires ODBC driver manager UnixODBC 2.3.2.  
Requires HortonWorks ODBC 2.1.2 or above for Hadoop Hive  
Requires Cloudera ODBC 2.5.15 or above for Hadoop Hive
- **Apache Kafka:** version 0.8 and above (including 0.11)
- **Apache HBase:** version 1.1, 1.2 and 1.3
- **WebDAV/Sharepoint:** version 2010 and Online
- **S3:** supported
- **Azure Blob FS:** supported
- **Azure Data Lake Store:** Gen1 supported
- **Salesforce:** supported
- **HVR user interface:** native GUI, remote GUI or command-line

## Log Based Capture Support

- **Ingres**
  - Log based capture is supported for all Ingres versions supported by HVR.
  - No support for dual or partitioned DBMS log-files.
  - No support for page-spanning rows.
  - DDL replication (using action AdaptDDL) is not supported.
  
- **Oracle**
  - Log based capture is supported for all Oracle versions supported by HVR.
  - Oracle RAC (cluster) and Oracle ASM are supported.
  - For Oracle version 9, log-based capture is not supported for LOBs or tables without a primary key.
  - Compressed tables are only supported for Oracle 11.2 and higher.
  - Log based capture is supported from Data Guard standby database for Oracle 11 and higher. HVR can also capture from a database that was previously a Data Guard target. If HVR was capturing changes from one primary Oracle database and a role transition occur (so that a different Data Guard target becomes the new primary) then HVR can continue capturing from the new primary, including capturing any changes which occurred before the transition. This process is automatic, providing that the HVR location is connecting to Oracle in a way which 'follows the primary'.
  - Log based capture from tables that are encrypted using Oracle TDE is supported for Oracle version 11 and higher. Both tables in an encrypted tablespace and tables with encrypted columns are supported.
  - HVR supports software and hardware (HSM) wallets. If the wallet is not configured as auto-login (Oracle internal file **ewallet.sso**), the password for the software wallet or HSM needs to be set on the HVR Live Wallet port using the **hvrwallet** command.
  - The software wallet can be in ASM or in a local filesystem.
  - Capturing from Oracle TDE is not supported on HP-UX.
  
- **SQL Server**
  - Log based capture is supported for SQL Server 2005, 2008, 2012, 2014, 2016 and 2017.
  - Data Compression is supported.
  - Capture from compressed backup transaction log files is supported.
  - Encryption is not supported.
  - Capture from memory optimized tables is not supported.
  
- **DB2 on Linux, Unix, Windows (LUW)**
  - Log based capture is supported for DB2 on Linux, Unix, Windows (LUW).
  - DDL replication (using action AdaptDDL) is not supported.
  - The following table types are supported - regular tables, multidimensional clustering (MDC) tables, insert time clustering (ITC) tables, uncompressed tables, row compressed tables (both static and adaptive) and value compressed tables (both static and adaptive).

- **DB2 for i**
  - Log based capture is supported for DB2 for i.
  
- **DB2 for z/OS**
  - Log based capture for DB2 for z/OS is supported and has currently beta status.
  - DDL replication (using action AdaptDDL) is not supported.
  - The following table types are supported - regular tables, partitioned tables and compressed tables.
  - Capture of TRUNCATE is supported, but it will replicated as delete statements.
  - Capture rewind is not supported.
  - Capture from compatibility modes CM and ENFM are not supported.
  - Capture from LOAD is not supported.
  
- **PostgreSQL**
  - Log based capture is supported for PostgreSQL 9.4, 9.5, 9.6 and 10.
  - Capture of TRUNCATE is not supported.
  - When capturing via the SQL interface (/LogMethod=SQL) bi-directional replication is not supported because replicated changes will be re-captured and replicated back.
  - When capturing via the SQL interface (/LogMethod=SQL) versions before 9.4.12 should be avoided due to a PostgreSQL bug (detected in 9.4.6) which affected this HVR feature.
  - DDL replication (using action AdaptDDL) is not supported.
  
- **HANA**
  - Log based capture is supported on Linux (not Windows) for HANA: version 1.0 SPS 11 and 12, and version 2.0 SPS 0, SPS 1, SPS 2 and SPS 3.
  - Only column-store tables are supported (no row-store tables).
  - Capture of TRUNCATE is not supported.
  - DDL replication (using action AdaptDDL) is not supported.
  
- **MySQL and MariaDB**
  - Log based capture is supported for all MySQL and MariaDB versions supported by HVR.

## HVR Network Encryption

An HVR connection to a remote location can be configured so that all communication over the network is encrypted. For network encryption, HVR uses [OpenSSL](#), which is developed by the OpenSSL Project.

- On aix\_6.1-powerpc-64bit, HVR uses OpenSSL version 1.1.1c
- On all linux 64bit versions, HVR uses OpenSSL version 1.1.1c
- On macOS 64bit version, HVR uses OpenSSL version 1.1.1c
- On solaris\_10-x64-64bit, HVR uses OpenSSL version 1.1.0k
- On solaris\_10-sparcv9, HVR uses OpenSSL version 1.1.1c
- On all other UNIX versions, HVR uses OpenSSL version 1.1.1c
- On windows, HVR uses OpenSSL version 1.1.1c

**Note:** On UNIX, HVR's encryption will attempt to exploit the entropy (randomness) generation capability supplied by the '/dev/urandom' device. For optimal security, it is recommended that this Operating System option is installed, especially on the machine used to generate public/private key pairs.

## Windows Cluster Compatibility

The windows services in this product can operate as part of a Windows Cluster. The services ([hvrremotelistener](#) and [hvrscheduler](#)) can be created, started, stopped and deleted in the Windows Cluster. The services will act as 'Generic Service' resource within the cluster. To achieve this, an extra cluster option (-c) must be specified in addition to the windows service administration option (-a) with the administration command. The syntax for this is `-c cluster-name\clustergroup-name`.

For example, to create and start the hvrscheduler service in cluster group 'mygroup' in cluster 'mycluster', use:  
`hvrscheduler -acs -c mycluster\mygroup [-options] hubdb`

Note that both the cluster and the cluster group should already exist before executing this command.

## New Features

This section lists the New Features in each release of HVR since 5.5.0/1. All features introduced in releases since 5.5.0/1 are available in HVR 5.6.0/0.

### New Features in HVR 5.6.0/0

- **HVR-7403:** ADDED PARAMETER INTEGRATE /MESSAGEKEY TO CONTROL CONSTRUCTION OF "KEY" IN KAFKA MESSAGE IN JSON/AVRO FORMATS.  
To use this feature, upgrade HVR on the hub and integrate machine(s).
- **HVR-6041:** DISABLED XLSX FORMAT FOR HVRSTATS HISTORY EXPORT.  
To use this feature, upgrade HVR on the gui and hub machine(s).
- **HVR-7664:** RENAMED HVREVENT TO HVREVENTTOOL, REMOVING REDUNDANT FEATURES AVAILABLE VIA HVREVENTVIEW.  
To use this feature, upgrade HVR on the hub machine(s).

### New Features in HVR 5.5.5/8

- **HVR-8007:** ADD SUPPORT FOR PARTITIONED TABLES FOR DB2 LUW SOURCE.  
To use this feature, upgrade HVR on the capture and integrate machine(s).
- **HVR-7783:** ADDED A NEW SUBSTITUTION {HVR\_KEY\_NAMES SEP} (WITH SINGLE CURLY BRACES) TO /INTEGRATE EXPRESSION.  
To use this feature, upgrade HVR on the hub and integrate machine(s).
- **HVR-7952:** ADDED SUPPORT FOR KO16MSWIN949 (KOREAN) AND IBM-836 (SIMPLIFIED CHINESE) CHARSETS.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-3026:** ADDED {HVR\_TBL\_BASE\_NAME} IN INTEGRATE /RENAMEEXPRESSION.  
To use this feature, upgrade HVR on the hub and integrate machine(s).
- **HVR-7496:** IMPLEMENTED TABLE LEVEL LOCKING HINTS FOR TERADATA.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-7681:** ONLINE COMPARE USING 'DIFF\_CAP' ALGORITHM.  
To use this feature, upgrade HVR on the capture, hub, integrate and gui machine(s).
- **HVR-2933:** ONLINE COMPARE USING DOUBLE PASS 'DIFF\_DIFF' ALGORITHM.  
To use this feature, upgrade HVR on the gui, hub and integrate machine(s).
- **HVR-7232:** PREVENT USAGE OF /EXTRA COLUMNS WITH THE SAME NAME AS HVR'S INTERNAL COLUMNS.  
To use this feature, upgrade HVR on the hub machine(s).

- **HVR-6901:** SUPPORT DB2I CAPTURE WITH TABLE ATTRIBUTE IMAGES SET TO \*AFTER.  
To use this feature, upgrade HVR on the hub and capture machine(s).
- **HVR-6662:** SUPPORT CAPTURE OF RRN (RELATIVE RECORD NUMBER) FROM DB2I.  
To use this feature, upgrade HVR on the hub and capture machine(s).
- **HVR-4196:** TABLEEXPLORE IMPROVEMENTS FOR (M)VIEW AND ROW-STORE/COLUMN STORE.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-6147:** TRUNCATE PARTITION SHOULD EMIT A DISTINCT ERROR.  
To use this feature, upgrade HVR on the capture machine(s).

### New Features in HVR 5.5.5/7

- **HVR-7292:** ADDED ISO-8859-15 ENCODING SUPPORT.  
To use this feature, upgrade HVR on the hub, capture and integrate machine(s).

### New Features in HVR 5.5.5/6

- **HVR-6766:** ADD ABILITY TO USE TPT LOAD (FASTLOAD) DURING INTEGRATE INTO TERADATA.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-6375:** ADD TOPOLOGY COMPONENT.  
To use this feature, upgrade HVR on the gui machine(s).
- **HVR-7497:** ADDED RECOVERY LOGIC TO HVRSTATS JOB.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-4938:** ADDED SUPPORT FOR DB2 FOR Z/OS.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-7431:** AUTOMATIC JOB CREATION AND CANCELING OF OLD EVENTS BY EVENT-DRIVEN COMPARE.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6750:** CAPTURE /CHECKPOINTRETENTION AND HVRINIT -R TO RESTORE FROM RETAINED CHECKPOINT DIRECTORIES.  
To use this feature, upgrade HVR on the hub and capture machine(s).
- **HVR-2109:** CAPTURE LOG ENHANCEMENT: REPORT OPERATIONS PER TABLE.  
To use this feature, upgrade HVR on the hub and capture machine(s).
- **HVR-7015:** COMPRESSION PERFORMANCE IMPROVEMENTS.  
To use this feature, upgrade HVR on the capture machine(s).

- **HVR-7312:** EVENT-DRIVEN COMPARE ENHANCEMENTS ON SPEED REPORTING AND SORT SPILL ANALYSIS.  
To use this feature, upgrade HVR on the hub, capture and integrate machine(s).
- **HVR-7477:** GUI SUPPORT FOR EVENT-DRIVEN COMPARE.  
To use this feature, upgrade HVR on the gui machine(s).
- **HVR-6807:** MANAGED COMPARE (HVRCOMPARE -E) ENHANCEMENTS ON EVENT RESULTS.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6887:** MANAGED COMPARE ENHANCEMENTS FOR BETTER TIME REPORTING AND BETTER LOAD DISTRIBUTION.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6705:** MANAGED COMPARE FOR FILE LOCATIONS; HVR OPTIONS -E [MANAGED COMPARE] -D [DUPLICATE EVENT] AND -W [PRE-READERS].  
To use this feature, upgrade HVR on the hub and integrate machine(s).
- **HVR-7115:** PERFORMANCE IMPROVEMENTS FOR ORACLE WHEN SELECTING VARCHAR,VARBINARY COLUMNS FOR COMPARE AND REFRESH.  
To use this feature, upgrade HVR on the capture and integrate machine(s).
- **HVR-7137:** PERFORMANCE IMPROVEMENTS ON COALESCING ROWS.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-6944:** PERFORMANCE IMPROVEMENTS ON SORTING MEMORY USAGE, SORT ROW SPILLING AND TERADATA LOB ROW CACHING.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-3461:** READ ORACLE ARCHIVES FROM A OS DIFFERENT PLATFORM.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-7460:** RENAMED HVR REFRESH AND HVR COMPARE COMMAND EVENTS.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6882:** RENAMED ROUTER LATENCY METRICS.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6403:** REST APIS FOR MONITORING AND 'INSIGHTS'.  
To use this feature, upgrade HVR on the hub and gui machine(s).
- **HVR-2945:** RICH THIN-CLIENT STATISTICS VISUALIZATION FOR TIME-SERIES IN REAL-TIME.  
To use this feature, upgrade HVR on the gui and hub machine(s).
- **HVR-7124:** SSL CONNECTIONS WILL ACCEPT A CHAIN OF CERTIFICATES IF PEER CERTIFICATE IN THE CHAIN MATCHES THE EXPECTED PEER CERTIFICATE.  
To use this feature, upgrade HVR on the gui and hub machine(s).



- **HVR-7570:** SUPPRESS AGENT AND TRANSFORM OUTPUT IN HVRSTATS OUTPUT.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6714:** TABLEPROPERTIES /MAPBINARY SUPPORT FOR DATABASE CAPTURE AND COMPARE.  
To use this feature, upgrade HVR on the capture and integrate machine(s).
- **HVR-1553:** USES FILESYSTEMOPTION\_IO PARAMETER AND USED FILE SYSTEM TO DEFINE READING MODE FOR ORACLE REDO FILES.  
To use this feature, upgrade HVR on the capture and hub machine(s).
- **HVR-7346:** HVR-7345: ADDED EVENT AUDIT TRAIL AND COMPARE EVENT RESULTS VIEW.  
To use this feature, upgrade HVR on the gui machine(s).
- **HVR-6396:** HVRINIT TO HAVE SUPPLEMENTAL LOGGING OPTION FOR DB2I WORK.  
To use this feature, upgrade HVR on the hub and capture machine(s).
- **HVR-7062:** HVRLOGJOURNALPURGE.QSH FOR QSHELL ON I NOW RETAINS FILES STILL ATTACHED OR ONLINE.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6745:** ADD SUPPORT FOR HIVE 3.  
To use this feature, upgrade HVR on the hub and integrate machine(s).

### New Features in HVR 5.5.5/5

- **HVR-7296:** ADD DISTINCT ERROR WHEN BURST TABLES ARE DROPPED.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-2956:** ADDED AUDIT LOG TO RECORD CHANGES TO HVR SYSTEM.  
To use this feature, upgrade HVR on the gui and hub machine(s).
- **HVR-7313:** IMPROVE HVR INITIALIZE PERFORMANCE FOR HANA 2 SPS 03.  
To use this feature, upgrade HVR on the capture machine(s).

### New Features in HVR 5.5.5/4

- **HVR-6041:** ADDED XLSX FILE FORMAT FOR HVRSTATS.  
To use this feature, upgrade HVR on the gui and hub machine(s).
- **HVR-6972:** ADDED SUPPORT OF AZURE BLOB FS.  
To use this feature, upgrade HVR on the gui, hub and integrate machine(s).
- **HVR-5653:** ALLOW USING MS AZURE BLOB FS FOR STAGING WITH SNOWFLAKE AND HIVE.  
To use this feature, upgrade HVR on the integrate, hub and gui machine(s).

- **HVR-6567:** SUPPORT MYSQL 8 AS SOURCE, REPOSITORY DATABASE, AND TARGET.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-6744:** HVRSTATS TO REPORT ABSOLUTE TIMESTAMPS FOR LATENCIES.  
To use this feature, upgrade HVR on the hub machine(s).

### New Features in HVR 5.5.5/3

- **HVR-7173:** ADD SUPPORT FOR DECFLOAT DATA TYPE.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-6608:** IMPROVE PERFORMANCE FOR CAPTURE FROM ORACLE DIRECT NFS AND OTHER DIRECT IO.  
To use this feature, upgrade HVR on the capture machine(s).

### New Features in HVR 5.5.5/2

- **HVR-6958:** ADD SUPPORT FOR EASTERN EUROPEAN AND LATIN AMERICAN EBCDIC ENCODINGS.  
To use this feature, upgrade HVR on all machine(s).
- **HVR-5374:** ADDED ZIZ\_FILE\_OPEN\_MSG\_LVL TO ENHANCE CAPTURE LOGGING AND AVOIDING THE NEED TO SET ZIZ\_FILE\_TRACE.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6923:** ADDED JOURNAL RECEIVER PURGE SCRIPT HVRLOGJOURNALPURGE.QSH FOR QSHELL ON ISERIES.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6194:** ADDED NEW ACCESS RIGHT 'REFRESH' AND IMPROVED ACCESS CONTROL POLICY.  
To use this feature, upgrade HVR on the hub and gui machine(s).
- **HVR-6894:** ADDED NEW ENCODING RULES FOR DECIMAL DATATYPE FOR FILEFORMAT /PARQUET.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-6786:** ALLOW DATE/TIME FORMATTING ON USER COLUMNS FOR /RENAMEEXPRESSION.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-4806:** CAPTURE DATA FROM ORACLE RAC BY USING LOGMINER.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6849:** CHANGED F\_JR036B /TIMEKEY ON HANA SOURCE INTO A WARNING.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-3323:** IMPROVED DISK IO USAGE DURING CAPTURE FROM HANA.  
To use this feature, upgrade HVR on the capture machine(s).

- **HVR-6764:** INCREASED MAXIMUM AND DEFAULT FOR HVR\_TD\_STMT\_PACK.  
To use this feature, upgrade HVR on the integrate machine(s).
- **HVR-6584:** INTRODUCED HVREVENTVIEW COMMAND LINE TO SHOW HVR EVENTS.  
To use this feature, upgrade HVR on the hub machine(s).
- **HVR-6374:** MYSQL DIRECT CAPTURE PERFORMANCE ENHANCEMENT.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6373:** MYSQL/MARIADB: ISSUE WARNING IF THE BINARY LOGGING FORMAT IS NOT SET TO 'ROW' AT HVR INITIALIZE TIME.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-4696:** SUPPORT CAPTURE FROM AURORA POSTGRESQL.  
To use this feature, upgrade HVR on the capture, hub and gui machine(s).
- **HVR-4731:** SUPPORT CAPTURE OF LOB COLUMNS FOR HANA.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6789:** HVRMANIFESTAGENT LISTENS TO CONTEXT VARIABLES (HVR\_VAR\_... SUBSTITUTIONS) IN CUSTOM VALUES (OPTION -V).  
To use this feature, upgrade HVR on the integrate machine(s).

## New Features in HVR 5.5.5/0

- **HVR-6576:** ADD SUPPORT FOR DB2 (LINUX, UNIX, WINDOWS) 10.1.  
To use this feature, upgrade HVR on the capture, hub and integrate machine(s).
- **HVR-6310:** ADD SUPPORT FOR HIVE ACID PARTITIONED TABLES.  
To use this feature, upgrade HVR on the hub and integrate machine(s).
- **HVR-6304:** ADDED SUPPORT FOR HIVE ACID AND HIVE EXTERNAL TABLES RUNNING ON AZURE HDINSIGHT CLUSTER.  
To use this feature, upgrade HVR on the gui and hub machine(s).
- **HVR-3755:** USE NAME OF MARKED TRANSACTION AS SESSION NAME FOR SQL SERVER.  
To use this feature, upgrade HVR on the capture machine(s).
- **HVR-6143:** ADDED SUPPORT FOR ORACLE PROXY AUTHENTICATION (CONNECT THROUGH) ON HUB.  
To use this feature, upgrade HVR on the hub and gui machine(s).
- **HVR-6614:** ADDED AUDIT LOG EVENTS FOR HVRINIT, HVRREFRESH, HVRCOMPARE AND HVRCONTROL.  
To use this feature, upgrade HVR on the hub machine(s).

## Problems Fixed

This section lists the problems fixed in each release of HVR since 5.5.0/1. All problems fixed in releases since 5.5.0/1 are fixed in HVR 5.6.0/0.

### Problems Fixed in HVR 5.6.0/0

Jira ID	Description	Resolution
HVR-6791	LOGMINER OCI ERROR CODE 3113 ON OMAN ORACLE 11.2.02 ENCAP 711	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7031	FIXED RETRY LOGIC WHEN UPDATING HVR_COUNTER VALUES	To fix this bug, upgrade HVR on the gui and hub machine(s).
HVR-7899	FIXED ERRONEOUS TRANSACTIONS SKIPPED AS ALREADY PROCESSED BY A PREVIOUS INTEGRATE JOB	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7931	FIXED ONLINE COMPARE COULD NOT HANDLE TABLEPROPERTIES /DUPLICATEROWS	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-8031	CHANGED COLUMN LENGTH (UP TO 25) TO CORRECTLY CONVERT TIME DATA TYPE WITH TIMEZONE TO HIVE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-8038	FIXED LIBHDFS CRASH WHILE READING FILE FROM HDFS/ADL/AZURE BLOB FS LOCATIONS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-8060	FIXED FLOAT DATA IN SQL SERVER GETS TRUNCATED WHEN REPLICATING TO SNOWFLAKE	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-8061	FIXED FLOAT DATA IN SQL SERVER IS REPLICATING INCORRECT VALUE IN SNOWFLAKE WHEN USING COLUMNPROPERTIES ACTION TO MAP FLOAT TO NUMBER DATATYPE IN SNOWFLAKE WITH PRECISION 38 AND SCALE 16	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-8124	FIXED SAVING LOCATION WITH NO GROUP IN GUI CAUSES SIGSEGV	To fix this bug, upgrade HVR on the gui machine(s).
HVR-8125	FIXED INTEGRATE JOB PROCESSING HALF A TRANSACTION WITH INTEGRATE /CYCLEBYTELIMIT WITH NOT INTEGRATING ALL TABLES INTO A LOCATION	To fix this bug, upgrade HVR on the hub machine(s).
HVR-8126	FIXED F_JZ9211 WHILE CAPTURING FROM DB2 FOR Z/OS (VARIANT 6)	To fix this bug, upgrade HVR on the capture machine(s).
HVR-8166	FIXED MISSING TOOLTIPS FOR INTERACTIVE AND EVENT SCHEDULING OPTIONS IN REFRESH AND COMPARE DIALOGS	To fix this bug, upgrade HVR on the gui machine(s).
HVR-8181	FIXED INSIGHT APP SHOWING BLANK PAGE WHEN OPENED ON A OLD HUB	To fix this bug, upgrade HVR on the gui machine(s).

**Problems Fixed in HVR 5.5.5/8**

Jira ID	Description	Resolution
HVR-476	FIXED UNABLE TO USE CASE SENSITIVE TABLE/COLUMN NAMES FOR GREENPLUM	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-3134	FIXED ILLEGAL ATTRIBUTE TYPE ERROR THAT COULD OCCUR WITH ORACLE 12 ON AIX	To fix this bug, upgrade HVR on all machine(s).
HVR-3501	FIXED SQL SERVER LOG-BASED CAPTURE MAY CAPTURE TRANSACTIONS COMMITTED BEFORE INITIALIZE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6177	FIXED REFRESH DOES NOT RECREATE TABLES WITH MISMATCHING DISTRIBUTION KEYS	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6611	FIXED F_JT0406 WHEN SQL SERVER CAPTURE STARTS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6907	FIXED W_JQ010 WHILE REPLICATING ORACLE NUMBER(19) TO PARQUET	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6956	FIXED RESTRICT /SELECTDISTINCT FOR BULK REFRESH	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7023	LOGMINER ENCAP TEST RETURNS F_JD241E NULL IN NON-NULL COLUMN	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7040	FIXED SUPPORT FOR SALESFORCE DATALOADER >= 44 ON WINDOWS	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7066	FIXES F_JG355E ON WINDOWS WITH LONG RUNNING HVRSCHEULER/HVRREMOTELISTENER/HVRPROXY	To fix this bug, upgrade HVR on the hub and remote machine(s).
HVR-7270	FIXED F_JD220C DELETE UNEXPECTEDLY AFFECTED ZERO ROWS WHILE TRYING TO DELETE FROM MYSQL 8.0 TABLE WITH CHAR KEY COLUMN	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7314	FIXED HVRREFRESH SHOWS WRONG TASK-NAME TO UNSUSPEND JOBS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7315	NO LONGER ALLOWING RESTRICT /CAPTURECONDITION OR /INTEGRATECONDITION FOR CHANNELS WITH HANA SOURCES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7330	ORACLE LBC: ALTER TABLE MOVE SHOULD BE A NO-OP BUT IS CAPTURED AS DIRECT PATH INSERTS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7436	FIXED ROW-WISE REFRESH USING /SESSIONNAME ON INTEGRATE NOT SUPPORTING CASCADING CAPTURE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7478	FIXED CAPTURE BOOMERANGING WITH BI-DIRECTIONAL REPLICATION OF TRUNCATE TABLE IN AN ORACLE SOURCE/TARGET WHEN TABLEPROPERTIES /SCHEMA IS DEFINED	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7492	FIXED BULK REFRESH USING /SESSIONNAME ON INTEGRATE NOT SUPPORTING CASCADING CAPTURE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7506	FIXED HVRREFRESH DOES NOT CREATE TABLES WITH CORRECT COLUMN NAMES IN GREENPLUM WHEN THESE CONTAIN CHINESE CHARACTERS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7514	HVR TRIES TO CONNECT TO ASM WHEN LOGREADMETHOD IS LOGMINER/SQL	To fix this bug, upgrade HVR on the capture machine(s).

Jira ID	Description	Resolution
HVR-7525	FIXED F_JD22B9 DURING BULK COMPARE AGAINST GREENPLUM TARGET	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7540	FIXED F_JT0578 FOR /SOFTDELETE COLUMNS WITH OLDER INTEGRATE LOCATIONS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7552	FIXED MILLISECOND AND MICROSECOND PRECISION TIMESTAMP VALUES BEING TRUNCATED DURING SELECT FROM HIVE EXTERNAL TABLES	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-7561	FIXED LOOPBACK DETECTION ON POSTGRESQL AURORA	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7592	CROSS-ENDIAN LOGMINER: ORA-27048: SKGFIFI: FILE HEADER INFORMATION IS INVALID	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7647	CAPTURE FAILS ON ORACLE CLUSTER IN SQL MODE. 'SCANORADBNROLL' ENCOUNTERED UNEXPECTED OPTION '-P'	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7658	FIXED HVREVENT -L: F_JG0E66: MANDATORY KEY DESCRIPTION DOES NOT EXIST	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7660	FIXED F_JD21BA: "TABLE OR VIEW NOT FOUND" DURING COMPARE AGAINST HIVE3 EXTERNAL TABLES WITH FILEFORMAT /JSON OR /AVRO	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7667	FIXED HVRSTATS JOB KEY VIOLATION WHEN HUB MACHINE RUNS IN NEGATIVE UTC TIMEZONE OFFSET	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7691	FIXED BCOMPAT: OLD HUB'S HVRSTATISTICS FAILS ON NEW CAPTURE JOBS LOGGING	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7705	FIXED HIVE EXTERNAL TABLES WITH 'FILEFORMAT /PARQUET /PARQUETVERSION=V2' FAILING WITH VERTEX ERROR DURING COMPARE OF DATE COLUMNS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7730	FIXED ABSENCE OF 'CAPTURE CHANGES' IN STATISTICS WHEN CAP_MODE=TRIGGER	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7732	FIXED CAPTURE OUTPUT WHEN RUNNING WITH AN OLDER HUB THAT CAUSED IRREGULAR INPUT ERROR IN HVRSTATISTICS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7739	ORACLE LBC: F_JZ0902: DUPLICATE KEY ENCOUNTERED WHILE ADDING ELEMENT TO HASH LIST SET TX PARENT	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7740	FIXED BULK COMPARE REPORTS DIFFERENCES BASED ON VARCHAR TRAILING SPACES ON INSENSITIVE DBMSES	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7745	GENERATE VALID JSON FILE WITH /JSONMODE=TABLE_ARRAY ACCORDING TO RFC4627	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7758	FIXED F_JT0733 WHEN DEFINING TABLEPROPERTIES /COERCEERRORPOLICY IN A SAPXFORM CHANNEL	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7765	FIXED /TIMEKEY DELETES WITH /BURST OR /REORDERROWS=SORT_COALESCE RECORD INTERMEDIATE NON-KEY VALUES	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7808	FIXED F_JD21BA 'RELATION PG_CATALOG.PG_PARTITIONED_TABLE DOES NOT EXIST' WHILE RUNNING HVRADAPT FOR POSTGRESQL VERSION 9	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7824	FIXED F_JG2489 WHEN SPECIFYING SLICE RANGES IN COMPARE GUI	To fix this bug, upgrade HVR on the gui machine(s).

Jira ID	Description	Resolution
HVR-7839	FIXED REFRESH GIVES MISLEADING ERROR MESSAGE WHEN TABLE CANNOT BE RE-CREATED	To fix this bug, upgrade HVR on the hub, capture and integrate machine(s).
HVR-7848	RECOGNIZE 0, 1, F, T AS BOOLEAN VALUES IN CSV-BASED HIVE EXTERNAL TABLES DURING BURST INTEGRATION	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7872	FIXED MICROSECOND PRECISION TIMESTAMP VALUES BEING TRUNCATED DURING INTEGRATION INTO HIVE ACID FROM ORACLE 12.2	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-7910	FIXED HVRINIT FAILING WITH F_JR0337: INTEGRATE /ONERRORSAVEFAILED IS NOT SUPPORTED FOR CLASS SALESFORCE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7911	FIXED HVRINIT DID NOT VALIDATE THE CHANNEL PROPERLY FOR REQUIRED LOCATION PROPERTY /STAGINGDIRECTORYXXX	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7948	FIXED EXPORT STATS HISTORY HELP BUTTON SHOWING 404	To fix this bug, upgrade HVR on the gui machine(s).
HVR-7971	FIXED INTEGRATE INTO GREENPLUM FAILS WITH F_JD22AF WHEN DATABASE ISSUES WARNING	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7972	FIXED F_JD024D WHILE RUNNING HVRADAPT ON UNIX/LINUX HUB WITH SNOWFLAKE TARGET WITH NON-ASCII COLUMN NAMES	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-7991	FIXED SALESFORCE DATALOADER ERROR [CANNOT ACCESS KEY FILE] FOR DATALOADER < 44	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7996	FIXED XLSX DURATION AND TIME VISUALIZATION FORMAT	To fix this bug, upgrade HVR on the hub machine(s).
HVR-8010	FIXED F_JG0555 AND RELATED ERRORS FOR LONG RUNNING SCHEDULERS WITH FEW JOBS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-8023	FIXED F_JZ9208 WHILE CAPTURING FROM DB2 FOR Z/OS	To fix this bug, upgrade HVR on the capture machine(s).

### Problems Fixed in HVR 5.5.5/7

Jira ID	Description	Resolution
HVR-7612	FIXED F_JT04A5 WHILE CAPTURING LARGE LOBS CONTAINING QUOTES FROM POSTGRES SQL-BASED CAPTURE	To fix this bug, upgrade HVR on the capture machine(s).

### Problems Fixed in HVR 5.5.5/6

Jira ID	Description	Resolution
HVR-101/ HVR-6726	FIXED PARSING CSV FILES WITH AN /ESCAPECHARACTER WITHOUT A /QUOTECHARACTER	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-101/ HVR-6811	FIXED PARSING CSV FILES WITH SOME COMBINATIONS OF /ESCAPECHARACTER AND /QUOTECHARACTER	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6685	FIXED F_JTOD21 PIPE 'KAFKA' COULD NOT DELIVER ALL MESSAGES TO BROKER DUE SMALL TIMEOUT ON WINDOWS PLATFORM	To fix this bug, upgrade HVR on the integrate machine(s).

Jira ID	Description	Resolution
HVR-6719	FIXED HVREVENT -E /COMPAREPATTERN AND /CHARACTERMAPPING CAUSING F_JD213E: TOO LONG VALUE ENCOUNTERED DURING CONVERSION	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6727	FIXED CAPTURE OF SETWISE KEY UPDATE OPERATIONS FROM SQL SERVER	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6729	FIXED HVRCOMPARE -E (EVENT) WITH /COMPAREPATTERN AND /CSV IGNORES /COERCEERRORPOLICY	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-6730	FIXED MINOR ISSUES WITH MANAGED COMPARE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6737	FIXED HVRCOMPARE -E /COMPAREPATTERN DOESNT RESPECT /TRIMDATATYPE ON FILE LOCATIONS, REDUCING PERFORMANCE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6747	FIXED S3 FILE READING (CAPTURE AND HVRCOMPARE -E) DOES NOT RETRY: F_JG3505: URL ERROR 56: FAILURE WHEN RECEIVING DATA FROM PEER	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6767	USE TPT FASTLOAD TO POPULATE NOPI TABLES IN TERADATA	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6812	FIXED EXCESSIVE SYSCALLS DURING DATETIME COERCIONS IF TZ IS NOT SET IN ENVIRONMENT UNDER LINUX/GLIBC	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6816	FIXED S3 FILE READING DURING RETRY: F_JG3505: URL ERROR 33: REQUESTED RANGE WAS NOT DELIVERED BY THE SERVER	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6821	FIXED HANGING HVR PROCESS WITH /CHARACTERMAPPING AND TRUNCATED INPUT GLYPH	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6822	FIXED HVRCOMPARE -E AGAINST FILE LOCATIONS MIGHT USE IMPROPER DATE DATATYPES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6845	FIXED S3 FILE READING DURING RETRY: F_JT059C, F_JT059D, OTHER FILE FORMAT RELATED ERRORS	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6846	FIXED HVRCOMPARE -E AGAINST FILE LOCATIONS REPORTS CHARACTER ENCODING DIFFERENCES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6855	FIXED HIGH CPU USAGE OF HVRSTATS JOB ON AN IDLE SYSTEM	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6864	FIXED F_JG072F DURING MANAGED COMPARE (HVRCOMPARE -E) IF NO -G OPTION WAS SUPPLIED	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6867	FIXED EXCESSIVE MEMORY USAGE DURING SELECT IF MANAGED COMPARE INTERMEDIATE DIRECTORY IS ON S3 LOCATION	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6868	FIXED MANAGED REFRESH IGNORING IMPROPERLY TERMINATED ROW IN CSV FILE	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7036	FIXED INFECTION OF HUB PROCESS WITH TZ=UTC WHILE CONNECTING TO SNOWFLAKE	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-7050	FIXED MEMORY LEAK AFTER MANAGED COMPARE PREREADING PHASE IF SPILLING MANY SORT FILES	To fix this bug, upgrade HVR on the integrate machine(s).



Jira ID	Description	Resolution
HVR-7071	FIXED ORACLE LIMIT IMPLEMENTATION	To fix this bug, upgrade HVR on the hub, capture and integrate machine(s).
HVR-7123	FIXED FILE COMPARE PERFORMANCE ISSUES DURING MERGING INTERMEDIATE FILES STORED ON S3 LOCATIONS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7139	FIXED HVRSTATS JOB FAILING WITH KEY VIOLATION AGAINST SQL SERVER	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7150	FIXED S3 MULTIPART UPLOAD FAILS WITH AND DOES NOT RETRY: F_JG290D: RECEIVED STATUS CODE 200. S3 ERROR [CODE:INTERNALERROR]	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7238	FIXED REFRESH/INTEGRATE FAIL DUE EXPIRING OF SNOWFLAKE AUTHENTICATION TOKEN	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7261	FIXED S3 MULTIPART UPLOAD FAILS WITH AND DOES NOT RETRY: F_JG290D: RECEIVED STATUS CODE 200. S3 ERROR [CODE:INTERNALERROR] (RELATED WITH HVR-7150)	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7262	FIXED CAPTURE TIMESTAMP VOLATILITY ON ORACLE AMONGST DIFFERENT CHANNELS IF REDO LOGS HAVE TIMESTAMP REGRESSIONS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7286	FIXED HVRSTATS PERFORMANCE PROBLEMS WITH MYSQL	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7287	FIXED MYSQL, HVRSTATS: DUPLICATE ENTRY WHILE INSERTING INTO HVR_STATS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7291	FIXED DDL CAPTURE FROM MYSQL IGNORING CREATE UNIQUE INDEX AND DROP INDEX STATEMENTS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7299	FIXED MISSING \$HVR_TABLE_NAMES IN AGENT PLUGINS FOR MODE 'INTEG_END' FOR INTEGRATE /BURST	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7384	FIXED DATALOS DURING RECOVERY FROM SWITCH FROM INTEGRATE /BURST TO CONTINUOUS INTEGRATE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7402	FIXED EVENT-DRIVEN DIRECT FILE COMPARE DOES NOT STORE LOCATION CREDENTIALS IN JOBSTATE ANYMORE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7432	FIXED LATENCY CALCULATION IN HVRSTATISTICS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7435	ORACLE LBC: ERRONEOUS CALCULATION OF BUFFER BOUNDARIES FOR REDOS BIGGER THAN 2GB WHEN USING READ-AHEAD BUFFERING IN DIRECT IO MODE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7450	F_JD0A71 DURING CAPTURE OF LOBS FROM SQL SERVER SOURCE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7456	FIXED PORT NUMBER BEING IGNORED FOR HIVE EXTERNAL TABLE LOCATION ON HDFS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7488	FIXED F_JG2204 AND F_JG21A6 DURING AUDIT LOG WHEN CONNECTED TO OLD HUB	To fix this bug, upgrade HVR on the gui machine(s).
HVR-7493	FIXED CONVERSION FROM IBM01141 TO IBM277 AND SEVERAL OTHER EBCDIC ENCODINGS	To fix this bug, upgrade HVR on all machine(s).
HVR-7516	FIXED HVRSTATS FAILING WITH 'F_JG21B3' WHEN CHANGING THE COMMIT FREQUENCY	To fix this bug, upgrade HVR on the hub machine(s).

Jira ID	Description	Resolution
HVR-7533	FIXED HVRROUTERVIEW FOR EVENT DRIVEN VERBOSE COMPARE DIFF FILES: F_JT04BA: PIPE UNLZIV SENT DATA WHICH DOES NOT BEGIN WITH ITS MAGIC BYTES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7539	BURST CYCLE - CAPTURE ERRONEOUSLY CAPTURES NULL FOR UNCHANGED COLUMNS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7559	FIXED F_JD028B STRING CONTAINS A VALUE WHICH IS TOO BIG TO FIT IN THE DECFLOAT WHILE COMPARING DB2 FOR I TABLE CONTAINING A LARGE DECFLOAT VALUE	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7560	RECOGNIZE 0, 1, F, T AS BOOLEAN VALUES IN CSV-BASED HIVE EXTERNAL TABLES	To fix this bug, upgrade HVR on the integrate and hub machine(s).
HVR-7596	FIXED SILENT DATALOSS, F_JT147F AND INCORRECT SKIPS DURING RECOVERY OF INTEGRATE /BURST WITH /BURSTCOMMITFREQUENCY=STATEMENT OR TABLE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7600	FIXED HVRSTATISTICS IRREGULAR OUTPUT MESSAGES ON EVENT BASED COMPARE LOGS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7603	FIXED CAPTURE STARTUP MESSAGE MIGHT DISPLAY RESCAN DURATION AS NEGATIVE (REGRESSION OF HVR-7262)	To fix this bug, upgrade HVR on the capture machine(s).

### Problems Fixed in HVR 5.5.5/5

Jira ID	Description	Resolution
HVR-7325	ACCESS TO S3 (DURING FILE CAPTURE, INTEGRATE, REFRESH) FAILS WITH F_JG290D WHEN USING IAM ROLES	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7189	FIXED ERROR IN ORACLE DRIVER AND ADDED GUI SLICING EXCEPTION RESILENCE	To fix this bug, upgrade HVR on the capture and gui machine(s).
HVR-7110	FIXED HVR_STATS CAPTURE ERROR READING UNEXPECTED TIMESTAMP FORMAT	To fix this bug, upgrade HVR on the hub machine(s).

### Problems Fixed in HVR 5.5.5/4

Jira ID	Description	Resolution
HVR-7032	FIX F_JG200A DURING INTEGRATE INTO MYSQL TABLE WITHOUT PK	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7038	FIXED SLOW PERFORMANCE DURING COERCION ON WINDOWS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7077	FIXED ENCODING ERROR IN SLICEBOUNDARY FPROC AND REFACTORED	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7078	FIXED MASS-UPDATE PERFORMANCE ISSUE WITH SAPXFORM AND INTEGRATE /BURST	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7092	FIXED F_JZ0A18 DURING CAPTURE FROM HANA	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7126	FIXED SAPXFORM FAILING WITH 'ARRAY DIMENSIONS EXCEEDED SUPPORTED RANGE'	To fix this bug, upgrade HVR on the hub and integrate machine(s).

Jira ID	Description	Resolution
HVR-7155	HVR ORACLE DIRECT CAPTURE DOES NOT CAPTURE IOT CHANGES THAT USES 10.4 AND 10.30 OPERATIONS TO GENERATE UPDATE ZOP PAIRS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7167	FIXED F_JV0D00 WHILE ADDING JAR TO THE CLASSPATH BECAUSE IT IS BEING USED BY ANOTHER PROCESS ON WINDOWS PLATFORM	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7200	FIXED CRASH WHEN SCHEDULER WAS RUNNING TOO MANY JOBS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7219	TBL_NAME NOT SHORTENED FOR BI-DIRECTIONAL CHANNELS	To fix this bug, upgrade HVR on the hub and gui machine(s).
HVR-7223	FIXED LOGICAL UNIQUE INDEX IN DB2 FOR I NOT RECOGNIZED AS REPLICATION KEY	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7239	FIXED BULK REFRESH WITH ORACLE BFILE DATATYPE RESULTS IN DUPLICATE VALUES	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-7260	FIXED HVREVENTVIEW -F SHOWING NEW EVENTS TWICE	To fix this bug, upgrade HVR on the hub machine(s).

### Problems Fixed in HVR 5.5.5/3

Jira ID	Description	Resolution
HVR-6966	FIXED ESCAPING QUOTE CHARACTER IN LINUX TERMINAL	To fix this bug, upgrade HVR on the gui machine(s).
HVR-7047	FIXED REGRESSION OF HVR-5561: SEGFALT IN HVRCATALOGIMPORT	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7053	TEMPORARY FILES IN HVRSTATISTICS HAVE NOW A UNIQUE NAME WHICH INCLUDES THE CURRENT HUB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7102	FIXED HVRSTATS JOB COMPUTING INCORRECT AGGREGATE VALUES FOR 'MIN' METRIC	To fix this bug, upgrade HVR on the hub machine(s).
HVR-7129	FIXED COLUMNPROPERTIES /EXTRA EXPRESSIONS BEING IGNORED ON KEY-UPDATES WITH STREAMING INTEGRATE MODE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7131	REINTRODUCED ABILITY TO CHANGE TASK NAME FOR NON-SCHEDULED REFRESH IN HVRGUI	To fix this bug, upgrade HVR on the gui machine(s).
HVR-7151	FIXED HIGH LATENCY CAUSED BY INCORRECT HANDLING OF ALTER TABLE STATEMENT	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7153	CHANGED SNOWFLAKE ODBC DRIVER LOG LEVEL TO WARNING	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7179	FIXED FINGERPRINTS ON EC2 GOVCLOUD AND EC2 CHINA REGIONS REPORTED INCORRECTLY	To fix this bug, upgrade HVR on the hub machine(s).

**Problems Fixed in HVR 5.5.5/2**

Jira ID	Description	Resolution
HVR-5263	FIXED F_JD20F0 WHILE COMPARING LARGE DB2 FOR I NCLOB VALUES	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-5431	FIXED 'MAINTENANCE TASK' DIALOG SHOWING OPTION FIELDS MULTIPLE TIMES	To fix this bug, upgrade HVR on the gui machine(s).
HVR-5561	HVRCATALOGIMPORT OF A SINGLE CHANNEL MAY IMPACT OTHER CHANNELS IF THEY REFERENCE THE SAME LOCATION	To fix this bug, upgrade HVR on the hub and gui machine(s).
HVR-5841	FIXED W_JT044C MULTIPLE WARNINGS AFTER START OF CAPTURE JOB FOR MARIADB IF LOG_READ=DIRECT	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6140	SUPPRESS CAPTURE FROM HANA REPORTING 'SCANNED 0 BYTES'	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6195	FIXED HVR SCHEDULER BECOMING UNRESPONSIVE WHEN ADDING TRACING	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6319	FIXED SQL SERVER CAPTURE FAILS WITH F_JDOA42 'NO TRANSACTION LOG BACKUP IS FOUND' DESPITE THE TRANSACTION LOG NOT BEING TRUNCATED YET	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6380	FIXED F_JD0216 WHEN SELECTING DATA FROM BOOLEAN COLUMNS FOR HANA 2 SPS 03	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6446	W_JT0452 WARNING TRANSFORMED TO INFORMATION MESSAGE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6468	FIXED MYSQL CAPTURE MAY RESCAN UNNECESSARILY LARGE AMOUNT OF ALREADY PROCESSED LOG RECORD ON CAPTURE JOB START	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6486	FIXED F_JT04B1 IN REFRESH/COMPARE DIALOG	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6521	FIXED HVRSTATS JOB FAILING WITH DEAD-LOCK ON INGRES AND SQL SERVER HUB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6522	FIXED HVRSTATS PERFORMING UNNECESSARY UPDATES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6543	FIXED ENCODING BOOLEAN VALUES INTO FILEFORMAT /PARQUET	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6551	ORACLE LBC: LOG PARSING ERROR F_JZ113B. SHRINKABLE DATA BLOCK IS EXPECTED TO HAVE EQUAL NUMBER DRP AND IRP OPERATIONS ASSOCIATED WITH IT	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6579	FIXED HVRSTATS.STEP FAILING ON INGRES WITH F_JD2103	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6601	FIXED HVR_STATS CHANNEL NO LONGER POPULATES COLUMNS LAST_ERROR OR LAST_WARNING	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6617	FIXED HANGING REMOTELISTENER PROCESS ON WINDOWS	To fix this bug, upgrade HVR on all machine(s).
HVR-6625	FIXED LISTEN(2) BACKLOG PARAMETER IS SET TO 5 AND SHOULD BE INCREASED	To fix this bug, upgrade HVR on all machine(s).
HVR-6656	DB LOCATION DIALOGS ARE SCROLLABLE WITH LOW SCREEN RESOLUTION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6677	FIXED F_JD2012 DEADLOCK ON HVR_COUNTER ON INGRES AND TERADATA HUBS	To fix this bug, upgrade HVR on the hub machine(s).

Jira ID	Description	Resolution
HVR-6693	FIXED MYSQL CAPTURE BOOMERANG ON BIDIRECTIONAL REPLICATION	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6700	FIXED CERTIFICATE AND KEY PATHS BEING RESET IN THE ENCRYPTION PROPERTIES DIALOG WHEN BROWSING FOR A NEW CERTIFICATE OR KEY IS CANCELLED	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6703	FIXED SMALL MEMORY LEAK	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6713	FIXED BAD USAGE OF SCROLLBARS IN LOCATION PROPERTIES DIALOG	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6715	FIXED MEMORY CORRUPTION DURING MYSQL CAPTURE IF IGNORED COLUMN IS NULL	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6722	FIXED ACCESS RIGHTS ARE INCORRECTLY DISPLAYED IN SOME ERROR MESSAGES	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6724	FIXED F_JD0A03 WHEN CAPTURING FROM ORACLE 11.2.0.1 TO 11.2.0.3 THROUGH TNS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6727	FIXED CAPTURE OF SETWISE KEY UPDATE OPERATIONS FROM SQL SERVER	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6734	FIXED W_JZ0A08 ON CAPTURE JOB START AFTER HVR INITIALIZE WITH CAPTURE REWIND	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6735	FIXED NORMAL QUERIES INSTEAD OF REPEATED QUERIES USED WHEN INTEGRATING INTO INGRES	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6736	ORACLE LBC: ADAPT ENGINE CANNOT RECOGNIZE TABLE REDEFINITION	To fix this bug, upgrade HVR on the capture and hub machine(s).
HVR-6739	FIXED /TIMEKEY COLUMNS WERE USED AS PART OF DISTRIBUTION KEY	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6748	FIXED F_JG2901 DURING ESTABLISHING CONNECTION TO HUB	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6770	FIXED FILEFORMAT /JSON MIGHT ESCAPE UTF8 MULTIBYTE SEQUENCES INCORRECTLY	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6792	LOGMINER MISSED THREE TRANSACTIONS ON ORACLE 11.2.0.2	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6813	FIXED F_JG200A WHEN ACCESSING A TABLE IN HIVE WITH SPECIAL CHARACTERS IN THE NAME	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6827	FIXED F_JD20E8: ORACLE SID IS NOT SPECIFIED AS PART OF THE CONNECTION STRING WITH TNS CONNECTION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6834	DB LOCATION DIALOGS AND LOCATION MENU ARE SCROLLABLE WITH LOW SCREEN RESOLUTION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6839	FIXED CONVERSION ERROR DURING APPLYING TIME FORMAT SPECIFIER TO USER DATE COLUMN	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6853	F_JD0AFE WHEN READING FROM A TRANSACTION LOG BACKUP FILE CREATED BY SQL SERVER 2005 RUNNING IN SQL SERVER 2000 COMPATIBILITY MODE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6853	FIXED F_JD0A5D DURING CAPTURE FROM SQL SERVER 2016 AND NEWER USING DIRECT LOG READ METHOD	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6857	FIXED /CHARACTERMAPPING APPLIED UNNECESSARILY ON TARGET ROWS DURING COMPARE	To fix this bug, upgrade HVR on the hub machine(s).

Jira ID	Description	Resolution
HVR-6873	FIXED INCORRECT ROW GROUP METADATA VALUES FOR PARQUET FILES	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6875	FIXED TABLEPROPERTIES /CHARACTERMAPPING WITH UNKNOWN INPUT ENCODING	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6879	FIXED MEMORY LEAK PER WARNING-ROW IF /COERCEERRORPOLICY=WARNING,WARNING_FILE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6881	FIXED MISSING KEY-UPDATE EDGE CASE DURING FIRST INTEGRATE AFTER ONLINE REFRESH	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6889	FIXED F_JZ0A87 DURING CAPTURE FROM HANA	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6897	FIXED MISSING KEY-UPDATE EDGE CASE DURING FIRST INTEGRATE AFTER ONLINE REFRESH, FOR TABLES WITH DUPLICATE ROWS	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6899	FIXED WRONG ERROR AGGREGATE NUMBERS IN HVRSTATS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6910	FIXED JD20F0 SQL_NO_DATA WHEN SELECTING DATA FROM NCLOB COLUMNS IN HANA	To fix this bug, upgrade HVR on the capture and integrate machine(s).
HVR-6915	FIXED INCORRECT F_JR036B WHEN ADDING /EXTRA COLUMN WITH /TIMEKEY	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6920	FIXED HVRSTATS JOB FAILING WITH DEADLOCK ON INGRES HUB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6930	FIXED COMPARE BETWEEN INGRES AND HIVE FAILS IF A COLUMN OF TYPE INGRESDATE CONTAINS DATE VALUE WITHOUT TIME	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6937	FIXED 'F_JD2100' WHILE INSERTING EVENT ON VECTORWISE HUB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6953	FIXED 'F_JR071D: CLOCK REGRESSION...' WHEN HUB TIME ZONE CHANGES	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6957	ORACLE LBC: PARALLEL INSERTS ARE NOT CAPTURED	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6971	FIXED F_JD0206 "UNEXPECTED LENGTH" ERROR WHILE CAPTURING INSERT FROM POSTGRES SQL ROWS WITH OIDS ON DIRECT LOG READING	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6993	FIXED SQL SERVER TRACE LOGIC AND MESSAGES	To fix this bug, upgrade HVR on the hub, capture and integrate machine(s).
HVR-7008	FIXED HVR4 HUB -> HVR5 REMOTE LOCATION BINARY INCOMPATIBILITY FOR SOME LOCATION CLASSES	To fix this bug, upgrade HVR on the remote machine(s).
HVR-7019	ORACLE LBC: PARALLEL INSERTS CAPTURING DOES NOT WORK TOGETHER WITH ALTER TABLE DDLS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7020	IMPROVE BUILDING CLASSPATH AND CHECKING MODULES ACCESSIBILITY TO GENERATE ACCESSERROR INSTEAD OF 'CLASSNOTFOUNDEXCEPTION'	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7024	FIXED BLOB CORRUPTION OF BURST INTEGRATE INTO GREENPLUM	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7056	FIXED F_JG2459 WHILE CAPTURING FROM DB2 FOR I WITH A JOURNAL SCHEMA NAME CONTAINING A @	To fix this bug, upgrade HVR on the hub machine(s).

Jira ID	Description	Resolution
HVR-7060	FIXED F_JT150B FOR SAPXFORM FOR "INDEX AND COUNT MUST REFER TO A LOCATION WITHIN THE BUFFER"	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-7065	FIXED F_JZ621A TRANSACTION ENCOUNTERED TOAST CHUNK IDS WHILE CAPTURING COPY FROM STATEMENTS WITH LARGE LOB VALUES FROM POSTGRESQL USING DIRECT CAPTURE METHOD	To fix this bug, upgrade HVR on the capture machine(s).
HVR-7070	FIXED ENCODING NULL VALUES INTO FILEFORMAT /PARQUET	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7079	FIXED F_JD0250 UNEXPECTED DATATYPE -7 BIT ENCOUNTERED WHILE DESCRIBING SNOWFLAKE SELECT	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-7101	LOGMINER UPDATE CHANGE ROLLBACKS ONLY ROLLBACK 'UPDATE AFTER' CHANGE PART	To fix this bug, upgrade HVR on the capture machine(s).

### Problems Fixed in HVR 5.5/1

Jira ID	Description	Resolution
HVR-6569	FIXED STATISTICS WEB APP URL IN "SHOW WEB APP URL" DIALOG CAN NOT BE COPIED	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6598	'SSL OPTION' DIALOG ALLOWS TO SET TRUSTED CA CERTIFICATES FOR HIVE LOCATION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6657	'SSL OPTION' DIALOG CORRECTLY DISPLAYS PATHS FROM REMOTE LOCATION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6658	FIXED F_JD0A9E DURING CAPTURE FROM SQL SERVER LOG BACKUP FILE THAT CONTAINS DESCRIPTOR BLOCK OF TYPE 'PH6S'	To fix this bug, upgrade HVR on the capture machine(s).

### Problems Fixed in HVR 5.5/0

Jira ID	Description	Resolution
HVR-743	FIXED CHECKING HVR_HUB_CHARSET DURING ECHO -C	To fix this bug, upgrade HVR on the hub machine(s).
HVR-2767	FIXED F_JD0A46: SQL SERVER SYSTEM DATA TYPE 0 [UNKNOWN] DOES NOT MATCH THE ENROLLED DATATYPE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-2836	FIXED REPORTING OF KAFKA BROKER ERRORS IN AGENT	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-3458	FIXED CHARACTER MAPPING SILENTLY COPYING THE MAPPING VALUE WHEN IT'S INVALID	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-3474	FIXED BINARY DATA (ZERO BYTE) REPLICATION TO JSON IS NOT CONSISTENT FOR THE DIFFERENT MODES	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-4535	IN SAPXFORM DEMOS LOGMINER REPORTS F_JT0A07 ERRORS ON ENCOUNTERING ROLLBACK ON REFRESH TABLE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-5180	LOGMINER PIPE TXGROUP ENCOUNTERED A CHANGE WITH AN INCOMPLETE COLUMN VALUE	To fix this bug, upgrade HVR on the capture machine(s).

Jira ID	Description	Resolution
HVR-5412	LOGMINER: F_JT0471: PIPE TXGROUP ENCOUNTERED A CHANGE FOR TABLE WITH AN INCOMPLETE COLUMN VALUE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-5530	LOGMINER LOB F_JZ180F/F_JZ1811 (HVR-5366). UNEXPECTED LOB WRITE/TRIM ENCOUNTERED	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6043	ORACLE LOGMINER LBC: F_JT0527: COALESCE ENCOUNTERED ILLEGAL DELETE-UPDATE PAIR	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6224	F_JD2420: DATA VALUE IN LOG RECORD COLUMN OF COMPRESSED TABLE IS TOO LARGE	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6292	F_JD080C: OCI ERROR CODE 310 ENCOUNTERED WHEN FETCHING LOGMINER CHANGE ROWS	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6306	FIXED HVRSTATS NOT RETURNING CORRECT DATA IF HUB DBMS RUNS IN DIFFERENT TIMEZONE THAN HOST	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6365	FIXED F_JG2142 PROTOTYPE ERROR WHEN OPENING REFRESH DIALOG WHEN LOCATION IS NOT AVAILABLE	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6438	LOGMINER SINGLE NODE RAC CAPTURE: F_JD20DB: DBMS ERROR (ORA-01291: MISSING LOGFILE)	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6477	FIXED F_JT048E IF EXTRA COLUMN NAME CONTAINS \$ SIGN	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6511	DO NOT EMIT W_JR090C WARNING FOR HIVE UNLESS FILEFORMAT /CSV IS DEFINED	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6515	FIXED HVRSTATS ON INGRES FAILING WITH 'F_JD2103' ABORTED TRANSACTION DUE TO LOG FILE OVERFLOW	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6546	FIXED F_JD22D3 PWS0001 FUNCTION DID NOT COMPLETE SUCCESSFULLY WHILE CAPTURING FROM DB2 FOR I	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6547	FIXED F_JD0A6A DURING CAPTURE FROM COMPRESSED SQL SERVER TRANSACTION LOG BACKUP FILES	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6549	FIXED COLUMNPROPERTIES /DATATYPE NOT BEING EFFECTIVE FOR FILE FORMATS OTHER THAN AVRO	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6552	FIXED UNEXPECTEDLY PERFORMING ALTER TABLE FOR TABLE CONTAINING INGRES DATE COLUMN	To fix this bug, upgrade HVR on all machine(s).
HVR-6557	FIXED SIGSEGV DURING PURGING OF STATS DATA IN MYSQL HUB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6578	FIXED QUOTING OF SQL SERVER OBJECT NAMES THAT CONTAIN ] CHARACTER	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6603	FIXED MISSING UPDATES WITH INTEGRATE /BURST WHEN A KEY IS DELETED AND RE-INSERTED IN THE SAME CYCLE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6609	FIXED LOB CORRUPTION WHEN CAPTURE /COALESCE IS CONFIGURED	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6640	FIXED REMOTE FILE BROWSER DIALOG MAY USE A WRONG HOST WHEN EDITING ODBC SETTINGS FOR HIVE EXTERNAL TABLES	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6643	FIXED 'INVALID VALUE FOR PARAM -S.' WITH HVRCSV2XML.PL	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6649	HPUX - F_JZ150F. STRUCTURE OF EXPECTED TYPE 'OPCODE52' HAS UNEXPECTED SIZE	To fix this bug, upgrade HVR on the capture machine(s).



Jira ID	Description	Resolution
HVR-6659	FIXED CERTIFICATE AND KEY PATHS BEING RESET IN THE SSL PROPERTIES DIALOG WHEN BROWSING FOR A NEW CERTIFICATE OR KEY IS CANCELLED	To fix this bug, upgrade HVR on the gui machine(s).

### Problems Fixed in HVR 5.5.0/1

Jira ID	Description	Resolution
HVR-4141	FIXED HVRINIT CREATING CAPTURE/INTEGRATE JOBS MIGHT INADVERTENTLY TRIGGER PENDING REFRESH/COMPARE JOBS IN SAME CHANNEL	To fix this bug, upgrade HVR on the hub machine(s).
HVR-4709	FIXED /EXTRA /SOFTDELETE COLUMN ORDERING INCONSISTENCY BETWEEN REFRESH AND INTEGRATE FOR FILE LOCATIONS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6290	FIXED F_JT0527 RACE CONDITION DURING BURST INTEGRATE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6359	FIXED SEGMENTATION FAULT IN 'TABLE EXPLORE' ON CHANNEL WITHOUT LOCATIONS	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6378	FIXED FRESH HVR GUI INSTALLATION ON WINDOWS WARNING ABOUT EXTRA FILES	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6381	FIXED NON-STANDARD-SQL SYNTAX ERROR IN HANA->TERADATA BURST INTEGRATION AFTER ONLINE REFRESH	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6391	FIXED SIGSEGV WHEN PURGING EMPTY HVR_STATS TABLE	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6392	FIXED SEGMENTATION VIOLATION IN REFRESH AND COMPARE DIALOG	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6415	FIXED HVRSTATS JOB USING BIG AMOUNTS OF MEMORY	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6422	FIXED F_JT1478 (TOO MANY DELETES) DURING BURST INTEGRATE OF KEY-UPDATES ON A TABLE WITH /DUPLICATEROWS	To fix this bug, upgrade HVR on the integrate machine(s).

### Problems Fixed in HVR 5.5.0/0

Jira ID	Description	Resolution
HVR-5363	FIXED LOST ERROR MESSAGES IN SOLARIS/SPARC SUCH AS F_JG2216: DESTRUCTION OF HANDLE (TYPE 'NET') FAILED	To fix this bug, upgrade HVR on all machine(s).
HVR-5890	ENHANCED HANA TABLE CREATION TO USE INVERTED HASH INDEXES TO REDUCE HANA MEMORY USAGE	To fix this bug, upgrade HVR on the integrate machine(s).
HVR-6151	SHOW CORRECT ERROR MESSAGE WHEN ATTEMPTING TO DO CAPTURE FROM ORACLE RAC USING LOGMINER	To fix this bug, upgrade HVR on the capture and hub machine(s).
HVR-6229	FIXED POTENTIAL F_JD2236 AFTER ONLINE REFRESH FROM DB2 (LUW) 10.5 OR LATER SOURCE	To fix this bug, upgrade HVR on the capture and hub machine(s).
HVR-6238	FIXED RARE F_JD2236 AFTER ONLINE REFRESH FROM SQL SERVER SOURCE	To fix this bug, upgrade HVR on the capture machine(s).

Jira ID	Description	Resolution
HVR-6243	FIXED QUERY ERRORS RESILIENT BURST INTEGRATE AFTER ONLINE REFRESH FROM HANA SOURCES	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-6252	FIXED F_JZ320A ENCOUNTERED COMMIT WITH PENDING LOB FRAGMENTS WHILE CAPTURING FROM DB2 (LUW)	To fix this bug, upgrade HVR on the capture machine(s).
HVR-6255	FIXED F_JR0321 TO ALLOW TABLES WITH ZERO COLUMNS IN HVR CATALOG	To fix this bug, upgrade HVR on all machine(s).
HVR-6312	FIXED SIMULTANEOUS SCHEDULED REFRESHES FOR SAME LOCATION MIGHT RESTART INTEGJOB TOO EARLY OR RECEIVE F_JG2142	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6318	FIXED F_JD20DB DURING REPLICATION OF ALTER TABLE TO DECREASE COLUMN SIZE	To fix this bug, upgrade HVR on the hub and integrate machine(s).
HVR-6322	FIXED F_JD20ED FOR SQLSERVER TIMESTAMP COLUMNS	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6329	FIXED F_JD20ED PREVENTING THE GUI FROM RESOLVING THE CAUSE	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6330	FIXED ADAPTDL /ONDROPTABLE DEPENDING ON /ADDTABLEPATTERN	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6332	FIXED ODBC DRIVER SELECTOR CAN'T REMOVE SELECTION FOR SQL SERVER LOCATION	To fix this bug, upgrade HVR on the gui machine(s).
HVR-6337	FIXED HVRSWITCHTABLE -A (ABORT) STILL REMOVING TABLE FROM CHN1 IF OPTIONS -S AND -T ARE USED	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6338	FIXED HVRSWITCHTABLE -A (ABORT) STILL DELETING INTEGRATE JOB OF CHN1 IF OPTION -S AND NO -T IS USED	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6350	FIXED HVRSWITCHTABLE -A (ABORT) NOT WORKING WITH A VERY BUSY RUNNING CAPTURE JOB	To fix this bug, upgrade HVR on the hub machine(s).
HVR-6357	FIXED BROKEN EXPIRY FOR HVRCONTROL -F	To fix this bug, upgrade HVR on the hub machine(s).