

SOFTWARE RELEASE DOCUMENT (SOFTDOC)

Product:	Shadowbase
Release:	Gravic Version 6.321 HP NonStop Shadowbase: T1122-AAH (SB Repl/Guardian)
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NOTE: **IMPORTANT:** Release 6.321, T1122H06^AAH is a *partial release* of the NonStop Shadowbase Replication software and requires Release 6.320, T1122H06^AAG to be installed prior to its installation.

NOTE: This softdoc covers new features and corrected problems for Shadowbase for H, J, and L series Guardian NonStop operating system versions. This softdoc is available in an Adobe PDF file (.PDF). Softdoc files are named IPMnnnn (where nnnn is the Shadowbase version number).

NOTE: This softdoc applies to the HPE NonStop Shadowbase Replication for Guardian component. Other softdocs document the releases of the other components in T1122H06, including:

- HPE Shadowbase Audit Reader,
- HPE Shadowbase Enterprise Manager, and
- HPE Shadowbase Compare for SQL.

You are advised to reference those other softdocs for the changes related to those specific components of T1122H06.

NOTE: **Supported Release Version Updates (RVUS):** This softdoc applies to all currently supported database and operating system versions as described by the [Shadowbase Supported Versions Cross-Reference](#). Alternatively, visit the <http://www.ShadowbaseSoftware.com> web site for the list of supported platforms and databases.

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Disclaimer

We are distributing this communication in an effort to bring important information to the attention of users of the affected products. We recommend that all users determine the applicability of this information to their individual situations and take appropriate action. We do not represent or warrant that this information is necessarily accurate or complete for all user situations and, consequently, we will not be responsible for any damages resulting from the user's use or disregard of the information provided. To the extent permitted by law, we disclaim all representations and warranties, whether express, implied, statutory, or otherwise, including the warranties of the merchantability, fitness for a particular purpose, title, and non-infringement.

Special Notes for Version 6.321

- 1) Version 6.321 is being released as a patch to Version 6.320, T1122H06^AAG to correct a critical error in Shadowbase Replication that could cause loss of data during replication. Version 6.321 requires Version 6.320 to be installed first.
- 2) **Due to the nature of the critical error fixed in this patch, ALL customers replicating NonStop to NonStop (whether using Expand or TCP/IP) are urged to upgrade to include this patch.** In other words, all customers that are currently on Version 6.320 and are replicating NonStop to Nonstop are urged to upgrade to Version 6.321. Similarly, **ALL** customers on previous versions that are also replicating NonStop to NonStop are also urged to upgrade to Version 6.320 and then to install the patches from Version 6.321.
- 3) Customers replicating Enscribe files and SQL/MP tables from NonStop to NonStop via TCP/IP with Expand in place are most likely to be affected by this problem. Other customers replicating NonStop to NonStop via TCP/IP with NOEXPAND set, replicating NonStop to NonStop via Expand, replicating SQL/MX tables, and replicating between NonStop and other systems are not as likely to be affected by this issue. **Regardless, we still urge all customers to upgrade to include this patch.**
- 4) Three Shadowbase NonStop components are shipped in this release: AUDCONSN (the Shadowbase Consumer), AUDCONSR (the linkable Shadowbase Consumer for user exits, and USRXLIBN (the User Exit library).

Problems Fixed

This patch fixes HPE Case 10-171002-6816, *STATS Coll show processing inserts and deletes, but target files aren't changed.*

The Shadowbase Consumer (AUDCONSN) uses a call to FILE_GETINFOLISTBYNAME_ to get information about the source file. This information is required to interpret the audit trail information sent from the Collector. In prior releases (Shadowbase Version 6.320 and earlier), the Consumer skipped, without logging an error, all events for which the FILE_GETINFOLISTBYNAME_ failed for any Guardian error other than error 11, *File Does Not Exist*. This can cause a loss of data when Expand is down and the source file is not accessible, for example.

The Consumer only does the check when it gets an event for a file or table that match its replication selection criteria (DBS SOURCEFILE setting) but it has not seen before (since process startup) to be replicated. Once the information has been obtained, it is cached in memory. If the information cannot be obtained, the file/table events will not be replicated (with no error being logged). As a result, data loss will occur. This issue is most likely to occur at Consumer startup or soon thereafter.

Issuing a STATS CONS command can help diagnose if the error is occurring. Events skipped due to this issue will show up in the event counts as received (in the NUM RCVD column), but not as used (NUM USED column). In general, any discrepancies between the NUM RCVD and NUM USED columns should be investigated.

With this patch, the Consumer will now log FILE_GETINFOLISTBYNAME_ errors and will shutdown, preventing any data loss.

New or Modified EMS Messages

2019	CAN'T DETERMINE SOURCE FILE STRUCTURE; FILE_GETINFOLISTBYNAME_ERROR <error> ON FILE <file_name>
------	---

Cause: The AUDCONS process was not able to obtain the source file structure due to an error on the FILE_GETINFOLISTBYNAME_ call. The error that occurred is specified by <error>, the file it was checking is specified by <file_name>

Effect: The Consumer will stop.

Recovery: There are a several methods of correcting this issue, depending on the root cause of the error. If possible, correct the Guardian error. For example, if the Consumer is running on the target node and the error indicates that Expand is down, restore Expand connectivity. If the error cannot be corrected, add a MAPTOFILE parameter to the DBS configuration to a file having the same structure on the target system that is accessible.

Installation Instructions (HPE NonStop Shadowbase)

Shadowbase is now built for HPE NonStop installations using the HPE PAK and UNPAK utilities. The SBPAK file described below for this release is not a self-extracting file and must be installed using the UNPAK utility as described below.

1. Binary FTP the SBPAK from your PC.
2. To “unpak” the files from the self-extracting SBPAK, enter the following command:

```
UNPAK SBPAK, *.*.*, VOL <SB 6320 Install SubVol>, LISTALL, MYID,  
PURGE
```

Where:

<SB 6320 Install SubVol> is the location HPE NonStop Shadowbase release version 6.320 is installed.

Three files, *AUDCONSN*, *AUDCONSR*, and *USXLIBN* will be replaced. The following example unpkas the patch into the \$DATA1.SB6320 release subvolume:

```
$DATA1 PAK6321 53> unpak sbpak, *.*.*,vol $data1.sb6320,listall,myid,purge
$DATA1 PAK6321 53..
UNPAK - File decompression program - T1255H01 - (2016-02-15)

Archive version: 1
File Mode RESTORE Program - T9074H01 (16JUN2016) (AGR)
(C)Copyright 2015 Hewlett Packard Enterprise Development LP
Drives: (\GRAVIC1.$X4C9)
System: \GRAVIC1 Operating System: J06 Tape Version: 3
Backup options: NO AUDITED, BLOCKSIZE 8, NO IGNORE, NO OPEN, PARTONLY OFF,
INDEXES IMPLICIT
*WARNING-7147* Files created and stored via OSS and SQL/MX objects are not
supported.
Restore time: 6Nov2017 19:54 Backup time: 26Oct2017 15:23 Page: 1

Tape: 1 Code EOF Last modif Owner RWE P Type Rec Bl
$DATA1.SB6320
AUDCONSN 800 11455784 26Oct2017 15:22 -1 NCNU
AUDCONSR 800 13615184 26Oct2017 15:22 -1 NCNU
USRXLIBN 800 1140088 26Oct2017 15:21 -1 NCNU

Summary Information

Files restored = 3 Files not restored = 0
$DATA1 PAK6321 54>
```

- Follow instructions in the Installing Shadowbase on a NonStop System section of the *HPE Shadowbase NonStop Installation and Planning Manual*. You must now run either the INSTALL or ENSINST script. Note: You must rerun the scripts again even if they were run for the original 6.320 installation.

IMPORTANT NOTES ABOUT USER EXITS:

IF YOU HAVE USER EXITS DEVELOPED WITH COBOL, YOU MUST RECOMPILE THE USER EXIT "PROGRAMS" SO THAT THE LATEST VERSION OF USRXLIBO OR USRXLIBN (the native library) IS ADDED TO THE RESULTING OBJECT FILE THAT WILL SUBSEQUENTLY BE INCLUDED IN THE FINAL BIND OR LINK.

AFTER COMPILING THE USER EXITS (IF NECESSARY AS DISCUSSED ABOVE), RUN BINDUSRX, BINDXYPR OR LINKUSRX TO GENERATE THE CUSTOM CONSUMER (AUDCONS OR AUDCONSN). NOTE THAT THIS SHOULD BE DONE AFTER THE STANDARD INSTALL IS RUN.

Known Problems Remaining

Please see the Software Release Document for Shadowbase Version 6.320 for a list of known problems remaining.

***** *END OF DOCUMENT* *****