Release Notes: IBM Aspera HSTS 4.2.0

Product Released: July 20, 2021
Release Notes Updated: July 19, 2021

This release of IBM Aspera HSTS 4.2.0 provides the new features, fixes, and other changes listed below. In particular, the Breaking Changes section provides important information about modifications to the product that may require you to adjust your workflow, configuration, or usage. Additional sections cover system requirements and known problems.

NEW FEATURES

- Added a new configuration option: `multi_session_enabled`. It defaults to `true`. When set to `false`, any transfer sessions that use the multi-session option of `ascp` (`-C`) will fail with the error message `Error: Server aborted session: Multi-session support is disabled`. (ATT-1596)
- Added capability to report the FASP Session Statistics to the AEJ session stop event. (ATT-1546)
- Improved reporting of packet loss between `ascp` sender and receiver at session stop event. (ATT-1521)
- Added a performance enhancement to the `--file-checksum` feature of `ascp` where the checksum of the file will be saved to a cache as the file is being transferred. In case a transfer is interrupted and resumed, `ascp` will use the cached checksum and resume the transfer.

  Prior to this feature, the already transferred bytes would be read again to compute the checksum. In some cases the computation of the checksum would be so long that `ascp` transfer sessions would be timed out. If the sender is a HSTS or HSTE, the Redis database is used to store the cache. If the sender is a client, then the cache is stored in the `aspx` file. (ATT-1473)
- Added support for RHEL 8 on Linux PPC. (ES-2074)
- Ubuntu Linux 20.04 LTS is a fully supported OS. (ES-1940)
- Added support for Google Cloud Storage in `lib_pvcl_cloud` module. (ES-1779)

BREAKING CHANGES

If you are upgrading from a previous release, the following changes in this release may require you to adjust your workflow, configuration, or usage.

- ES-1275 - HSTS and HSTE no longer install OpenSSH. The 4.2 update will remove OpenSSH installed by prior versions of HSTS/HSTE.

  Windows Users must install the Microsoft provided OpenSSH for their transfer server. Failure to install OpenSSH from Microsoft will result in a failure to act as a transfer server.

  https://docs.microsoft.com/en-us/windows-server/administration/openssh/openssh_install_firstuse

  Newer Windows versions make OpenSSH available from **Settings > Apps & Features**. Older Windows versions can install from a GitHub repository.
- ATT-1600 - This release deprecates these `aspera.conf` server configuration options:
  - `retain_storage_root_url`
  - `retain_storage_root`
  - `retain_storage_root_expiration`

  Use the `/access_keys` endpoint of the Node API to get same functionality. This feature will be removed in a future version of HSTS.
- ATT-1346 - The `replace_illegal_chars` option of `aspera.conf` has been expanded to support all platforms and takes a string of at least two characters. The first character is the character that will replace the subsequent characters in the configuration option.

For example, _<>?* will replace the characters **?** and ***** with _.

ISSUES FIXED IN THIS RELEASE

ATT-1605 - Fixed issue in `ascp4` where `--remove-after-transfer` argument was not removing files with the `.asp-meta` extension.

ATT-1604 - Fixed inconsistencies in `ascp4` when compared to `ascp` for session stop message outputted to AEJD.

ATT-1598 - Updated curl library to latest (7.77.0) to address these CVEs: CVE-2021-22897: schannel cipher selection surprise; CVE-2021-22898: TELNET stack contents disclosure; CVE-2021-22901: TLS session caching disaster.

ATT-1594 - Fixed issue with `nginx.conf` template to allow for better results when using Nginx to reverse proxy HTTP Fallback file transfers.

ATT-1592 - Fixed issue with `delay-adv` rate control module not working under specific condition.

ATT-1506 - Fixed issue with `lib_pvcl_cloud` for Amazon S3 to enable IAM role support.

ES-2130 - Fixed issue where Redis operating in sentinel mode did not accept password to authenticate.

ES-2128 - Fixed issue with TLS configuration for Redis running in Sentinel mode.

ES-2125 - Made an `init.d` startup script for Redis on AIX.

ES-2108 - Fixed issue with folder ownership of `/opt/aspera/etc/redis` directory to allow for easier configuration of High Availability Redis.

ES-2102 - Fixed issue with scheduled transfers in GUI not refreshing their transfer token.

ES-2100 - Set `aof-use-rdb-preamble` to no in default configuration of Redis.

ES-2099 - Fixed issue in GUI that allowed renaming of folders.

ES-2076 - Updated Java components to use newer JRE (JRE 11, versioned as 11.0.11+9, JVM Openj9-0.26.0).

NODE-1268 - Improved file-list argument processing of `ascp` to read from `stdin` to improve security when managing transfers with Node API.

NODE-1253 - Added support for `async` API to pass web socket `connect` and `resume` options to `async` sessions.

WAT-1029 - Fixed issue on with `async` in continuous mode on Windows whereby a file gets deleted and transferred because a modification event for the file was generated by the operating system.

WAT-1025 - Updated `sqlite` dependency for `async` and `asperacentral` to R 3.35.5.

SYSTEM REQUIREMENTS

Linux 64-bit: RHEL 7-8. CentOS 7-8. Ubuntu 20.04 LTS. Ubuntu 18.04 LTS. Ubuntu 16.04 LTS. SUSE Linux Enterprise Server (SLES) 12. Debian 8+. Fedora 19+. Kernel 3.10 or higher and Glibc 2.17+.

Windows: Windows Server (64-bit) 2012, 2016, and 2019. For client use only, you may also use Windows 10 (64-bit).

macOS: 10.13 (High Sierra), 10.14 (Mojave), 10.15 (Catalina), macOS 11.0 and 11.1 (Big Sur).

PowerLinux: RHEL 7-8. CentOS 7-8. Ubuntu 20.04 LTS. Ubuntu 18.04 LTS. Ubuntu 16.04.2 LTS. Your OS version must support little-endian (LE) ordering, and it must run on IBM Power hardware that supports LE ordering. Kernel: Linux 4.4.0-116-generic. Architecture: ppc64-le.

zLinux: Linux on z Systems s390, 64-bit. RHEL 7-8. SUSE Linux Enterprise Server (SLES) 12.

AIX: 7.1, 7.2.

PRODUCT SUPPORT

For online support, go to the IBM Aspera Support site at https://www.ibm.com/mysupport/. To open a support case, log in with your IBMid or set up a new IBMid account.