Changes or new features - 8.3.24

ⓘ **Summary:** CAST AIP 8.3.24 introduces a number of features and changes as listed below.

Mainframe Analyzer

Improved VSAM file support

- Support introduced for VSAM commands in "**SYSIN**" clauses, for example:
  - **ALLOCATE**
  - **ALTER**
  - **DEFINE**
  - **DELETE**
  - **EXAMINE**
  - **LISTALC**
  - **LISTCAT**
  - **LISTDS**
  - **PRINT**
  - **REPRO**
  - **VERIFY**
- Support introduced for **If IDCAMS** utility and **VSAM data-set types** (for Cobol and JCL) when they call indexed, relative and sequential organisation:
  - Entry-sequenced data set (ESDS)
  - Key-sequenced data set (KSDS)
  - Relative-record data set (RRDS)

New rules enabled

The following new rules have been enabled in CAST AIP 8.3.24:

8468	Program semantic should respect the logic of flow execution
8470	Avoid using STRING without overflow check
8476	Avoid calling unsafe C library functions from COBOL
8478	Avoid Buffer Overruns when using ADD, SUBTRACT, MULTIPLY, DIVIDE & COMPUTE statement inside a loop
8480	Avoid using PREPARE STMT statement (Dynamic SQL) with STRING containing HOST variables

SSL connection to CAST Storage Service/PostgreSQL

CAST AIP 8.3.24 introduces support for connecting to CAST Storage Service/PostgreSQL instances using an SSL encrypted connection. Support for encrypted SSL connections requires some configuration for both the CAST Storage Service/PostgreSQL instances and CAST AIP itself. More details can be found in **CAST Storage Service - SSL encrypted mode configuration**.

Note that some CAST applications cannot currently connect to CAST Storage Service/PostgreSQL instances using an SSL encrypted connection:

CAST AIP (any application provided with the CAST AIP "core" setup)	✅	8.3.24
CAST Architecture Checker (standalone)	✅	-
CAST Dashboards	❌	Will be supported in future releases of this application.

CAST Imaging System	❌
CAST AIP Console	❌
Sherlock (CAST Support tool)	❌

User Input Security

Rule documentation updates

The following changes have been applied to rule documentation (no impact on analysis results):

| **8438** | Avoid code injection | The **Reference** section has been updated to change the CWE reference from **78** to **94** and **95**. |

Miscellaneous

Long path support

When using CAST AIP, the path of some log files and other internal files may exceed the total number of characters permitted for a path in Microsoft Windows (260 characters by default). This is especially true when enabling the **User Input Security** feature for .NET and JEE techologies. When a path exceeds 260 characters, the analysis (or feature) would usually crash, for example the User Input Security would crash with the errors "System.IO. PathTooLongException" or "System.InvalidOperationException".

To avoid crashes due to situations where the long path limitation is exceeded, two changes need to be made:

- **Enable long path support** in Microsoft Windows (Windows 10/Windows Server 2016 or above only) - see **https://docs.microsoft.com/en-us /windows/win32/fileio/naming-a-file#enable-long-paths-in-windows-10-version-1607-and-later** for more information.
- Use **CAST AIP 8.3.13** and, where appropriate:
  - **JEE Analyzer extension 1.0.21**
  - **Security for Java extension 1.4.5**

Change to SET_DEFINITIONS table

The table SET_DEFINITIONS (Analysis schema) has been modified: the column "setprocedure" will now accept a procedure name up to 255 characters in CAST AIP 8.3.24. Previously this column only accepted procedure names with a maximum of 30 characters. Note that if extensions are to be compatible with older releases of CAST AIP, they must still use 30 characters max.