

CAST Storage Service and PostgreSQL - Deployment requirements

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 **Summary:** information to help you plan your **CAST Storage Service / PostgreSQL** installation.

Hardware

On-premise

| Server type | Architecture | CPU | RAM | DISK | OS | Notes |
|-------------------|--------------|---|----------|-------------------------|------------------|---|
| Physical /virtual | 64-bit | Minimum 2 processors: <ul style="list-style-type: none">• Intel Core i5, 2.6 GHz• Intel Xeon, 2.2 GHz Recommended 4 processors: <ul style="list-style-type: none">• Intel Core i7, 2.8 GHz• Intel Xeon, 2.6 GHz | 32GB min | 512GB (SSD recommended) | Windows or Linux | CAST highly recommends the use of PostgreSQL on a Linux instance as this consistently gives the best performance. |

Cloud services

Amazon Web Services EC2

The following requirements are based on CAST's own testing for the analysis of a single "large Application", using [Amazon EC2 R5 Instances](#):

| Minimum instance type | Volume Size | Volume Type | Minimum IOPS |
|--|-------------|---|--------------|
| <ul style="list-style-type: none">• r5.xlarge• r5d.xlarge | 512GB | General purpose SSD (gp2) or Provisioned IOPS SSD (io1) | 400 |

Amazon Web Services RDS

CAST supports PostgreSQL instances deployed via [Amazon Web Services RDS](#). See also [Accessing PostgreSQL on Amazon Web Services RDS](#).

Supported Operating Systems



Note that CAST highly recommends the use of a **Linux Operating System** to host a **PostgreSQL RDBMS**, instead of using the CAST Storage Service on a Microsoft Windows operating system. PostgreSQL installed on Linux has consistently proven to provide better performance than CAST Storage Service installed on Microsoft Windows.

CAST Storage Service

| Operating System | Supported | Supported by ref. | Deprecated support | Notes |
|---|-----------|-------------------|--------------------|---|
| Microsoft Windows Server 2019 | ✓ | | | Installations of Windows Server using only Server Core (i.e. without a GUI) are not supported. |
| Microsoft Windows 10 | ✓ | | | |
| Microsoft Windows Server 2016 | ✓ | | | Installations of Windows Server using only Server Core (i.e. without a GUI) are not supported. |
| Microsoft Windows 8.1 | ✓ | | | |
| Microsoft Windows 7 SP1 | ✓ | | | |
| Microsoft Windows Server 2012 R2 (Standard edition) | | ✓ | | Installations of Windows Server using only Server Core (i.e. without a GUI) are not supported. |
| Microsoft Windows Server 2012 (Standard edition) | | ✓ | | |
| Microsoft Windows 8 | | ✓ | | |
| Microsoft Windows Server 2008 R2 SP1 (Standard edition) | | ✓ | | |

PostgreSQL

| Operating System | Supported | Supported by ref. | Deprecated support | Notes |
|---|-----------|-------------------|--------------------|---|
| Recommended - all Linux distributions based on (or derived from) Red Hat. | ✓ | | | <p>See the following PostgreSQL documentation for more information:</p> <ul style="list-style-type: none"> https://www.postgresql.org/docs/14/supported-platforms.html https://www.postgresql.org/docs/13/supported-platforms.html https://www.postgresql.org/docs/12/supported-platforms.html https://www.postgresql.org/docs/11/supported-platforms.html https://www.postgresql.org/docs/10/supported-platforms.html https://www.postgresql.org/docs/9.6/supported-platforms.html https://www.postgresql.org/docs/9.2/supported-platforms.html |

Supported CAST Storage Service releases

| CSS release | Bundled PostgreSQL release | Architecture | Default port no. | Supported | Supported by ref. | Deprecated support | AIP Core compatibility | Bundled with AIP | Notes |
|---------------------|----------------------------|--------------|------------------|-----------|-------------------|--------------------|------------------------|------------------------|---|
| 4.13.x | 13.0 | 64bit | 2284 | ✓ | | | AIP Core 8.3.29 | - | |
| 3.0.1, 3.0.2, 3.0.3 | 9.6.11 | 64bit | 2282 | ✓ | | | AIP Core 8.2.6 | - | |
| 3.0.0 | 9.6 | 64bit | 2282 | ✓ | | | AIP Core 8.2.6 | - | |
| 2.0.7, 2.0.8 | 9.2.6 | 64bit | 2280 | | | ✓ | AIP Core 7.1.x | - | From release 2.0.7, CSS has been unbundled from CAST AIP and is provided as a standalone component. |
| 2.0.0 - 2.0.6 | 9.2.6 | 64bit | 2280 | | | ✓ | AIP Core 7.1.x | AIP Core 7.1.x - 8.2.5 | |
| 1.0.x | 8.4.5 | 32bit | 2278 | ✗ | | | AIP Core 7.0.x | AIP Core 7.0.x | |

Supported PostgreSQL releases

CAST does not provide a custom installer for **Linux Operating Systems**, however, you can install the following official **PostgreSQL RDBMS** on to a 64bit Linux Operating System (supported by PostgreSQL) and use it as a storage host for CAST AIP:

| PostgreSQL release | Supported | Supported by ref. | Deprecated support | Notes | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|-------------------|---|---|-----------|--------------|---------|-------|-------------------------------|----------------------|--------|---|--------------------------------|-------------------------|--------|---|---------------------------------|-------------|-------------------------------------|----------------------|----------------|---|---|---------------------------|----------------|---|
| 14.x | ✓ | | | Support is available for PostgreSQL 12.x, 13.x and 14.x (64bit) as storage , i.e. AIP schemas can be created on this version and analyses will run as expected. Some prerequisites do apply: <ul style="list-style-type: none"> • Minimum required release of CAST AIP core: 8.3.23 • Minimum required release of specific extensions - same as for PostgreSQL 10.x and 11.x - see below. | | | | | | | | | | | | | | | | | | | | | | |
| 13.x | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.x | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.x | ✓ | | | Support is available for PostgreSQL 10.x and 11.x (64bit) as storage , i.e. AIP schemas can be created on these versions and analyses will run as expected. Some prerequisites do apply: <ul style="list-style-type: none"> • Minimum required release of CAST AIP core: 8.3.16 • Minimum required release of some specific extensions: <table border="1" data-bbox="698 625 1485 1039"> <thead> <tr> <th>Extension</th> <th>Package Name</th> <th>Version</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>JEE Analyzer extension</td> <td>com.castsoftware.jee</td> <td>1.0.19</td> <td rowspan="3">The required minimum releases of these extensions are delivered as "shipped extensions" in AIP 8.3.16.</td> </tr> <tr> <td>.NET Analyzer extension</td> <td>com.castsoftware.dotnet</td> <td>1.0.13</td> </tr> <tr> <td>SAP BusinessObjects Analyzer extension</td> <td>com.castsoftware.businessobject</td> <td>1.0.4 (LTS)</td> </tr> <tr> <td>C and Cpp Analyzer extension</td> <td>com.castsoftware.cpp</td> <td>2.0.5-funcr el</td> <td>-</td> </tr> <tr> <td>iOS - Objective-C Analyzer extension</td> <td>com.castsoftware.cfamil y</td> <td>1.5.2-funcr el</td> <td>-</td> </tr> </tbody> </table> | Extension | Package Name | Version | Notes | JEE Analyzer extension | com.castsoftware.jee | 1.0.19 | The required minimum releases of these extensions are delivered as " shipped extensions " in AIP 8.3.16 . | .NET Analyzer extension | com.castsoftware.dotnet | 1.0.13 | SAP BusinessObjects Analyzer extension | com.castsoftware.businessobject | 1.0.4 (LTS) | C and Cpp Analyzer extension | com.castsoftware.cpp | 2.0.5-funcr el | - | iOS - Objective-C Analyzer extension | com.castsoftware.cfamil y | 1.5.2-funcr el | - |
| Extension | Package Name | Version | Notes | | | | | | | | | | | | | | | | | | | | | | | |
| JEE Analyzer extension | com.castsoftware.jee | 1.0.19 | The required minimum releases of these extensions are delivered as " shipped extensions " in AIP 8.3.16 . | | | | | | | | | | | | | | | | | | | | | | | |
| .NET Analyzer extension | com.castsoftware.dotnet | 1.0.13 | | | | | | | | | | | | | | | | | | | | | | | | |
| SAP BusinessObjects Analyzer extension | com.castsoftware.businessobject | 1.0.4 (LTS) | | | | | | | | | | | | | | | | | | | | | | | | |
| C and Cpp Analyzer extension | com.castsoftware.cpp | 2.0.5-funcr el | - | | | | | | | | | | | | | | | | | | | | | | | |
| iOS - Objective-C Analyzer extension | com.castsoftware.cfamil y | 1.5.2-funcr el | - | | | | | | | | | | | | | | | | | | | | | | | |
| 10.x | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.6.11 | ✓ | | | - | | | | | | | | | | | | | | | | | | | | | | |
| 9.2.x | | | ✓ | - | | | | | | | | | | | | | | | | | | | | | | |

CAST Storage Service/PostgreSQL running in encrypted SSL mode

Support is available for connecting to **CAST Storage Service/PostgreSQL instances running in encrypted SSL mode**. See [SSL encrypted mode configuration for CAST Storage Service and PostgreSQL](#):

| | | |
|--|---|---|
| CAST AIP core (any application provided with the CAST AIP "core" setup) | ✓ | 8.3.24 |
| CAST Architecture Checker (standalone) | ✓ | 1.2.0-funcr el |
| CAST Dashboards | ✓ | 2.0.0-beta1 |
| CAST Imaging (for Source Code configuration) | ✓ | 2.0.0-funcr el (when using Microsoft Windows traditional installer) |
| CAST AIP Console (AIP Node) | ✓ | 1.17.0-funcr el |
| Sherlock (CAST Support tool) | ✓ | Sherlock delivered in AIP Core 8.3.25. |

All official **CAST AIP Extensions** are compatible, however some extension require specific minimum releases:

| | | | |
|---|---------------------------------|----------------|--|
| JEE Analyzer extension | com.castsoftware.jee | 1.0.28 | The required minimum releases of these extensions are those that are delivered as " shipped extensions " in AIP 8.3.24 . |
| .NET Analyzer extension | com.castsoftware.dotnet | 1.0.17 | |
| SAP BusinessObjects Analyzer extension | com.castsoftware.businessobject | 1.0.6 (LTS) | |
| C and Cpp Analyzer extension | com.castsoftware.cpp | 2.1.0-funcr el | - |

| | | | |
|--------------------------------------|---------------------------|---------------|---|
| iOS - Objective-C Analyzer extension | com.castsoftware.cfamilly | 1.5.4-funcnel | - |
|--------------------------------------|---------------------------|---------------|---|



User or Lab extensions should be compatible provided the Python SDK is used to build them and built-in connections APIs are used, rather than any specific connection layers.

Required ports

The following TCP ports must be opened on the server hosting CAST Storage Service/PostgreSQL:

| CSS / PostgreSQL release | Listening Port |
|--------------------------|--|
| CSS 4.13.x | 2284 |
| CSS 3.0.x | 2282 |
| CSS 2.0.x | 2280 |
| PostgreSQL 10.x | Custom port (2282/2284 highly recommended) |
| PostgreSQL 9.6.11 | Custom port (2282 highly recommended) |
| PostgreSQL 9.2.x | Custom port (2280 highly recommended) |