


# CAST Storage Service and PostgreSQL - Deployment requirements

- [Hardware](#)
  - [On-premise](#)
  - [Cloud services](#)
    - [Amazon Web Services EC2](#)
    - [Amazon Web Services RDS](#)
- [Supported Operating Systems](#)
  - [CAST Storage Service](#)
  - [PostgreSQL](#)
- [Supported CAST Storage Service releases](#)
- [Supported PostgreSQL releases](#)
- [CAST Storage Service/PostgreSQL running in encrypted SSL mode](#)
- [Required ports](#)

 **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	<b>Minimum 2 processors:</b> <ul style="list-style-type: none"><li>• Intel Core i5, 2.6 GHz</li><li>• Intel Xeon, 2.2 GHz</li></ul> <b>Recommended 4 processors:</b> <ul style="list-style-type: none"><li>• Intel Core i7, 2.8 GHz</li><li>• Intel Xeon, 2.6 GHz</li></ul>	32GB min	512GB (SSD recommended)	Windows or Linux	CAST highly recommends the use of <b>PostgreSQL</b> on a <b>Linux</b> 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"><li>• r5.xlarge</li><li>• r5d.xlarge</li></ul>	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

**i** 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 <b>Server Core</b> (i.e. without a GUI) are not supported.
Microsoft Windows 10	✓			
Microsoft Windows Server 2016	✓			Installations of Windows Server using only <b>Server Core</b> (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 <b>Server Core</b> (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
Linux (all recent distributions)	✓			See the following PostgreSQL documentation for more information: <ul style="list-style-type: none"> <li><a href="https://www.postgresql.org/docs/13/supported-platforms.html">https://www.postgresql.org/docs/13/supported-platforms.html</a></li> <li><a href="https://www.postgresql.org/docs/12/supported-platforms.html">https://www.postgresql.org/docs/12/supported-platforms.html</a></li> <li><a href="https://www.postgresql.org/docs/11/supported-platforms.html">https://www.postgresql.org/docs/11/supported-platforms.html</a></li> <li><a href="https://www.postgresql.org/docs/10/supported-platforms.html">https://www.postgresql.org/docs/10/supported-platforms.html</a></li> <li><a href="https://www.postgresql.org/docs/9.6/supported-platforms.html">https://www.postgresql.org/docs/9.6/supported-platforms.html</a></li> <li><a href="https://www.postgresql.org/docs/9.2/supported-platforms.html">https://www.postgresql.org/docs/9.2/supported-platforms.html</a></li> </ul>

## 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
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13.x	✓			Support is available for <b>PostgreSQL 12.x and 13.x (64bit) as storage</b> , 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"> <li>• Minimum required release of <b>CAST AIP core: 8.3.23</b></li> <li>• Minimum required release of <b>specific extensions - same as for PostgreSQL 10.x and 11.x - see below.</b></li> </ul>																
12.x		✓																		
11.x	✓			Support is available for <b>PostgreSQL 10.x and 11.x (64bit) as storage</b> , 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"> <li>• Minimum required release of <b>CAST AIP core: 8.3.16</b></li> <li>• Minimum required release of <b>specific extensions:</b></li> </ul> <table border="1"> <tr> <td><b>JEE Analyzer extension</b></td> <td>com.castsoftware.jee</td> <td>1.0.19</td> <td rowspan="5">The required minimum releases of these extensions are delivered as "<b>shipped extensions</b>" in <b>AIP 8.3.16</b>.</td> </tr> <tr> <td><b>.NET Analyzer extension</b></td> <td>com.castsoftware.dotnet</td> <td>1.0.13</td> </tr> <tr> <td><b>SAP BusinessObjects Analyzer extension</b></td> <td>com.castsoftware.businessobject</td> <td>1.0.4 (LTS)</td> </tr> <tr> <td><b>C and Cpp Analyzer extension</b></td> <td>com.castsoftware.cpp</td> <td>2.0.5-funcrel</td> </tr> <tr> <td><b>iOS - Objective-C Analyzer extension</b></td> <td>com.castsoftware.cfamily</td> <td>1.5.2-funcrel</td> </tr> </table>	<b>JEE Analyzer extension</b>	com.castsoftware.jee	1.0.19	The required minimum releases of these extensions are delivered as " <b>shipped extensions</b> " in <b>AIP 8.3.16</b> .	<b>.NET Analyzer extension</b>	com.castsoftware.dotnet	1.0.13	<b>SAP BusinessObjects Analyzer extension</b>	com.castsoftware.businessobject	1.0.4 (LTS)	<b>C and Cpp Analyzer extension</b>	com.castsoftware.cpp	2.0.5-funcrel	<b>iOS - Objective-C Analyzer extension</b>	com.castsoftware.cfamily	1.5.2-funcrel
<b>JEE Analyzer extension</b>	com.castsoftware.jee	1.0.19	The required minimum releases of these extensions are delivered as " <b>shipped extensions</b> " in <b>AIP 8.3.16</b> .																	
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<b>iOS - Objective-C Analyzer extension</b>	com.castsoftware.cfamily	1.5.2-funcrel																		
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](#):

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

Official **CAST AIP Extensions** are compatible, however specific minimum releases are required:

<b>JEE Analyzer extension</b>	com.castsoftware.jee	1.0.28	The required minimum releases of these extensions are those that are delivered as " <b>shipped extensions</b> " in <b>AIP 8.3.24</b> .
<b>.NET Analyzer extension</b>	com.castsoftware.dotnet	1.0.17	
<b>SAP BusinessObjects Analyzer extension</b>	com.castsoftware.businessobject	1.0.6 (LTS)	
<b>C and Cpp Analyzer extension</b>	com.castsoftware.cpp	2.1.0-funcrel	-
<b>iOS - Objective-C Analyzer extension</b>	com.castsoftware.cfamily	1.5.4-funcrel	-

## Required ports

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

<b>CSS / PostgreSQL release</b>	<b>Listening Port</b>
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)