

# Supported Platforms



This documentation page is no longer maintained. Please see the relevant section in [Infrastructure sizing guide](#).

- Operating Systems
  - CAST AIP
    - 64-bit Operating System compatibility
    - Operating Systems running on Virtual Machines
    - CAST dashboards and Operating Systems
  - CAST Delivery Manager Tool
- DBMS
  - Supported DBMS Servers for storage services
    - CAST Analysis/Dashboard/Management Service schemas
    - CAST Measurement Service schema
    - Notes
      - CAST Storage Service / PostgreSQL
      - Oracle Server
      - Case Sensitivity
  - Supported DBMS connection subsystems for installing and using CAST Analysis/Dashboard/Management/Measurement Services
    - 64-bit client layer compatibility
      - When connecting to an Oracle Server for storage
      - When connecting to a Microsoft SQL Server for storage
    - Notes
  - Supported Character Sets
- Application Servers
  - Health Dashboard (HD), Engineering Dashboard (ED), CAST AIC Portal (AICP) and RestAPI
  - Legacy CAST Engineering Dashboard and CAST Discovery Portal
- Browsers
  - Current web applications
  - Legacy web applications
- Supported features of Directory Service systems
- Java JRE
- .NET Framework
- Source Code Management systems
- Remote Access



- See [Support category explanations](#) for more information about the categories **Supported**, **Supported by ref.** and **Deprecated support**.
- For all software listed below, the versions listed are the only versions supported. The versions not listed or listed under **Deprecated support** are not supported.

## Operating Systems

### CAST AIP

Excluding the **CAST dashboards** (CAST AIC Portal, Health Dashboard, Engineering Dashboard, legacy CAST Discovery Portal and legacy CAST Engineering Dashboard) and the **CAST Delivery Manager Tool**, CAST AIP components can be installed successfully on the following Operating Systems:

Operating System	Supported	Supported by reference	Deprecated support	Notes
Microsoft Windows Server 2019	✓			<ul style="list-style-type: none"> <li>• Installations of Windows Server using only <b>Server Core</b> (i.e. without a GUI) are not supported.</li> <li>• Support is provided from <b>CAST AIP 8.3.13</b>.</li> <li>• For <b>older 8.3.x</b> releases, support is "by reference".</li> </ul>
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)		✓		

## 64-bit Operating System compatibility

- CAST AIP is a **64-bit compliant application**, therefore you must only use a **64-bit version** of one of the Operating Systems mentioned in the tables above.
- The **Visual Basic analyzer** is delivered (in this release) as a 32-bit "application". Please read the section **Visual Basic analyzer and 64-bit compatibility** in [Visual Basic - Required third-party software](#).

## Operating Systems running on Virtual Machines

There are no known issues running CAST AIP on a supported Windows system, when the Windows system runs as a **virtual machine** on host VMWare or Hyper-V servers. However, it is inherent to such a system that performance may be affected.

## CAST dashboards and Operating Systems


All **CAST dashboards** can be installed on any **Microsoft Windows** or **Linux operating system** provided that the chosen JEE application server (which must be supported by CAST - see [below](#)) supports installation on that operating system.

 Note that "**CAST dashboards**" refers to the following:

- **Health Dashboard**
- **Engineering Dashboard**
- **CAST AIC Portal**
- **legacy CAST Engineering Dashboard**
- **legacy CAST Discovery Portal**

## CAST Delivery Manager Tool

Operating System	Supported	Supported by reference	Deprecated support	Notes
Microsoft Windows Server 2019	✓			<ul style="list-style-type: none"> <li>• Installations of Windows Server using only <b>Server Core</b> (i.e. without a GUI) are not supported.</li> <li>• Support is provided from <b>CAST AIP 8.3.13</b>.</li> <li>• For <b>older 8.3.x</b> releases, support is "<a href="#">by reference</a>".</li> </ul>
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)		✓		








Linux				<ul style="list-style-type: none"> <li>The <b>Java JRE</b> installed on the Linux operating system must be <b>64bit compliant</b> (see <b>Java JRE</b> section <a href="#">below</a>)</li> <li>The <b>X11 graphical interface</b> must be installed on the Linux machine on which you will use the CAST Delivery Manager Tool - in particular, the <b>DISPLAY environment variable</b> must be set and exported.</li> <li>In cases where the CAST Delivery Manager Tool is run in <b>command-line mode on text-only Linux</b>, refer to the <b>Troubleshooting Guides</b> page called "<b>Delivery Manager Tool - Error - DMT command line fails silently on text-only Linux</b>" for a workaround.</li> <li>It is not possible to extract and package: <ul style="list-style-type: none"> <li>source code stored on a <b>Team Foundation Server</b> (using the dedicated <b>Team Foundation Server</b> option in the CAST Delivery Manager)</li> <li><b>.NET</b> source code when using the <b>Automated extraction of required .NET assemblies</b> option in the CAST Delivery Manager (it is possible to extract .NET source code using the <b>Files on your system</b> options, however, any related dependencies cannot be extracted automatically using the <b>Automated extraction of required .NET assemblies</b> option)</li> </ul> </li> </ul>
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## DBMS

### Supported DBMS Servers for storage services

#### CAST Analysis/Dashboard/Management Service schemas

The following section lists RDBMS on which the **CAST Analysis/Dashboard/Management Service schemas** (required in all situations) can be installed:

Database System	Version /Service Pack	Architecture	Supported	Supported by reference	Deprecated support	Comments
CAST Storage Service / PostgreSQL	4.13.0 / 13.0	64 bit	 (from CAST AIP 8.3.29)			See notes below.
CAST Storage Service / PostgreSQL	3.0.x / 9.6.x	64bit				See notes below.
CAST Storage Service / PostgreSQL	2.0.x / 9.2.x	64bit				See notes below.
PostgreSQL	13	64bit				See notes below.
PostgreSQL	12	64bit				See notes below.
PostgreSQL	11.x	64bit				See notes below.
PostgreSQL	10.x	64bit				See notes below.
Oracle Standard or Enterprise Edition	11.2.0.x with x 1	32bit or 64bit	<i>Not supported yet</i>			See notes below.
Oracle Standard or Enterprise Edition	10.2.0.x with x 2	32bit or 64bit	<i>Not supported yet</i>			See notes below.
Microsoft SQL Server 2008 Standard Edition	RTM (10.0.1600.22)	64bit	<i>Not supported yet</i>			See notes below.
Microsoft SQL Server 2008 Standard Edition	SP1, SP2, SP3	32bit	<i>Not supported yet</i>			See notes below.
Microsoft SQL Server 2008 Enterprise Edition	RTM, SP1, SP2, SP3	32bit or 64bit	<i>Not supported yet</i>			See notes below.
Microsoft SQL Server 2008 R2 Standard /Enterprise Edition	RTM, SP1, SP2	32bit or 64bit	<i>Not supported yet</i>			See notes below.



Please note that CAST highly recommends that you use the **CAST Storage Service** to host your **CAST Analysis/Dashboard/Management Service schemas** as it is the "preferred" storage host. See [Migrating CAST AIP schemas from Oracle Server and Microsoft SQL Server](#) for more information.

#### CAST Measurement Service schema

The following section lists RDBMS on which the **CAST Measurement Service schema** (required for the **Health Dashboard**) can be installed:

Database System	Version/Service Pack	Architecture	Supported	Supported by reference	Deprecated support	Comments
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CAST Storage Service / PostgreSQL	4.13.0 / 13.0	64 bit	✓ (from CAST AIP 8.3.29)			See notes below.
CAST Storage Service / PostgreSQL	3.0.x / 9.6.x	64bit	✓			See notes below.
CAST Storage Service / PostgreSQL	2.0.x / 9.2.x	64bit			✓	See notes below.
PostgreSQL	13	64bit	✓			See notes below.
PostgreSQL	12	64bit			✓	See notes below.
PostgreSQL	11.x	64bit	✓			See notes below.
PostgreSQL	10.x	64bit			✓	See notes below.

## Notes

### CAST Storage Service / PostgreSQL

- CAST recommends that an **official PostgreSQL RDBMS** (the RDBMS used in the CAST Storage Service) is installed on a **64bit Linux Operating System** to take advantage of **improved performance** over CAST Storage Service installed on Windows. Please see [deploying CAST Storage Service on Linux](#) for more information.
- Support for **CSS 2.0.x / PostgreSQL 9.2.x** will be withdrawn in **CAST AIP 8.4.x** since the underlying PostgreSQL database (9.2.x) reached End of Life in September 2017. Please see: <https://www.postgresql.org/support/versioning/>.
- 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](#).
- Support is available for **PostgreSQL 12 and 13 (64bit) as storage**, i.e. AIP schemas can be created on this version and analyses will run as expected. Some prerequisites do apply:
  - Minimum required release of **CAST AIP core: 8.3.29**
  - Minimum required release of **specific extensions - same as for PostgreSQL 10 and 11 - see below**.
- Support is available for **PostgreSQL 10 and 11 (64bit) as storage**, i.e. AIP schemas can be created on these versions and analyses will run as expected. Some prerequisites do apply:
  - Minimum required release of **CAST AIP core: 8.3.16**
  - Minimum required version of **specific extensions**:

<b>JEE Analyzer extension</b>	com.castsoftware.jee	1.0.19	The required versions of these extensions are those that are delivered as "shipped extensions" 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	-

### Microsoft SQL Server

- When using any CAST products (CAST Enlighten, CAST Management Studio etc.) in a Microsoft SQL Server environment, make sure that the login you are using has been granted the **VIEW SERVER STATE** privilege. This is not necessary if the "sa" or "sysadmin" logins are used (not recommended), which already have this privilege. This privilege grants access to the server's current process list via master.sysprocesses or via sys.dm\_exec\_requests. This information is required by CAST products for internal management of database locking and the analyzer save process. To avoid product usage errors, users will be prevented from accessing the database if their login does not have access to the current process list. Please see [Appendix - Login privileges for CAST Products](#) for more information.

### Oracle Server

- CURSOR\_SHARING parameter must be set to default (i.e. EXACT) on Oracle servers hosting CAST databases. Please see the **CURSOR\_SHARING parameter** section in [Appendix - RDBMS requirements and configuration](#) for more information.

### Case Sensitivity

- CAST does NOT support the installation of Analysis, Dashboard, Management and Measurement Services on "case insensitive" DBMS servers. This is particularly important if you plan to use a Microsoft SQL Server to host the CAST databases, which is by default configured as **case insensitive**. Please see [Supported Platforms](#) for more information about Case Sensitivity/Insensitivity.

## Supported DBMS connection subsystems for installing and using CAST Analysis/Dashboard /Management/Measurement Services

When installing or accessing the CAST databases on a commercial RDBMS (Oracle/Microsoft SQL Server) via the end-user applications, please ensure that you use one of the following supported connection subsystems (client driver or layer):

<b>For connecting to an Oracle Server:</b>
Oracle SQL*Net 2.3.x
Oracle Net8 8.0.x with x 6
Oracle Net8 8.1.x with x 5
Oracle Net 9.0 (9.0.1.1.1 or higher)
Oracle Net 9.2 (9.2.0.x with x 7)
Oracle Net 10.2.0.x with x 3
Oracle Net 11.2.0.x, with x 1
<b>For connecting to a Microsoft SQL Server:</b>
ODBC 3.5

### 64-bit client layer compatibility

#### When connecting to an Oracle Server for storage

You need to use a **64-bit** version of the Oracle Client software. If a 32-bit Oracle Client already exists on your machine, you need to install, in addition, a **64-bit Oracle Client**. CAST is a **64-bit application** and can only link to 64-bit client driver/layer DLLs. Please also read the sections **Required third-party software** and **Visual Basic analyzer and 64-bit compatibility** in [Visual Basic - Required third-party software](#).

#### When connecting to a Microsoft SQL Server for storage

When connecting to a server you will need to create an ODBC entry (regardless of whether the RDBMS is local or remote to the machine on which CAST is installed). Please use the **ODBC Data Source Administrator** (located in Control Panel > Administrative Tools) to create the ODBC entry - this will create a 64-bit ODBC connection using the 64-bit Microsoft SQL Server driver provided with Windows.

### Notes

- No client connection layer or driver is required for installing the CAST databases on a **CAST Storage Service**.
- For **Oracle Server**, the **Full Oracle Client** must be used to connect to CAST.
- Please also take into account installation requirements given by the DBMS vendor, such as:
  - Compatibility between the DBMS server version and the DBMS connection subsystem.
  - Compatibility between the DBMS connection subsystem and the operating system version.
  - Compatibility between the DBMS connection subsystem and 64-bit operating systems.

## Supported Character Sets

Please see [Supported Character Sets](#) for more information.

## Application Servers

The following section lists the application servers supported by CAST to run the CAST web applications:

### Health Dashboard (HD), Engineering Dashboard (ED), CAST AIC Portal (AICP) and RestAPI

Application Server	Supported	Supported by reference	Deprecated support	Notes
Apache Tomcat 7.0.x 64-bit (where x 20)	✓			<ul style="list-style-type: none"> <li>• Apache Tomcat is supported when installed on either a <b>Microsoft Windows</b> or a <b>Linux Operating System</b>.</li> <li>• A <b>Java JRE</b> or <b>JDK v. 1.8.x</b> must be installed on the machine that will host the Application Server.</li> <li>• <b>Apache Tomcat 9.0 x64-bit</b> is supported with <b>CAST Dashboard Package v. 1.17 only</b>.</li> </ul>
Apache Tomcat 8.0.x 64-bit	✓			
Apache Tomcat 8.5.x 64-bit	✓			

Apache Tomcat 9.0.x 64-bit	✓			
IBM WebSphere Application Server 8.5.x	✓			Please note: <ul style="list-style-type: none"> <li>• IBM WebSphere Application Server is <b>only supported</b> when installed on a <b>Linux Operating System</b>.</li> <li>• the <b>CAST AIC Portal (AICP)</b> is <b>NOT supported</b> on IBM WebSphere Application Server</li> </ul>

The above named CAST AIP web applications are developed using the following Java specifications. This information will help you decide whether the web applications will function on an application server other than Apache Tomcat:

Specification	AICP	Health Dashboard / Engineering Dashboard
Servlet API	2.5	3.0
Java EE	5	6

**i** Note that although the CAST AIP web applications may function correctly on application servers other than those listed above, CAST provides **no official support** for these application servers.

## Legacy CAST Engineering Dashboard and CAST Discovery Portal

**i** **Java JDK 6 (or above)** is required.

Application Server	Supported	Supported by reference	Deprecated support
Apache Tomcat 5.5			✓
Apache Tomcat 6.0.x (where x >= 29)			✓
Apache Tomcat 7.0.x 64-bit (where x >= 20)	✓		
BEA WebLogic 9	✓		
BEA WebLogic 10	✓		
IBM WebSphere Application Server 6.1	✓		
IBM WebSphere Application Server 7.0	✓		
IBM WebSphere Application Server 8.0.0.x (where x is >= 2)		✓	
Oracle Application Server 10g R3	✓		

## Browsers

**i** Note that in order to view certain reports in the CAST Management Studio (the "View execution unit" report for example), XML files must be configured to open with a browser.

This section lists the browsers supported by CAST to connect to a CAST AIP web application, split into two categories:

### Current web applications

- Health Dashboard (HD)
- Engineering Dashboard (ED)
- CAST AIC Portal (AICP)
- RestAPI

### Legacy web applications

- CAST Engineering Dashboard
- CAST Discovery Portal

### Current web applications

Browser	Supported	Supported by	Deprecated	Notes
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		reference	support	
Microsoft Internet Explorer 9			✓	
Microsoft Internet Explorer 10			✓	
Microsoft Internet Explorer 11	✓			
Microsoft Edge	✓			Minimum supported release: Windows 10 Creators Update (1703)
Mozilla Firefox	✓			Minimum supported release: 52 and above
Google Chrome	✓			Minimum supported release: most recent only
Safari (iOS 10)	✓			Only supported for the Health Dashboard

## Legacy web applications

Browser	Supported	Supported by reference	Deprecated support
Microsoft Internet Explorer 6.0 SP3			✓
Microsoft Internet Explorer 7		✓	
Microsoft Internet Explorer 8	✓		
Microsoft Internet Explorer 9	✓		
Mozilla Firefox 25 and above	✓		
Google Chrome 30 and above	✓		


## Supported features of Directory Service systems

The following section lists the features of Enterprise Directories (such as Active Directory) that are supported by the CAST web applications:

Feature	Supported	Notes
Directory Services	✓	<ul style="list-style-type: none"> <li>Microsoft Active Directory is full supported.</li> <li>The legacy CAST Engineering Dashboard/Discovery Portal ONLY supports Microsoft Active Directory</li> <li>Other Directory Services are supported in the CAST AIC Portal, CAST Health and CAST Engineering Dashboards but will generally require additional configuration</li> </ul>
Microsoft Active Directory Lightweight Directory Services	Partially	Microsoft AD LDS does not have all the information in the server itself, but may provide a pointer to another server where that information is stored. Depending on what is stored, authentication and authorization may fail if pointing to a AD LDS server and not enough information is present. If this occurs, the configuration should be modified to point to a full Microsoft Active Directory server.
Global Catalog Servers (GCS)	✓	Sometimes required if an Active Directory or other Directory Services server contains multiple domains or domains and sub-domains. as the Global Catalog Server contains LDAP information for all domains. In this case the LDAP URL should point to the GCS server URL (normally same as LDAP URL with port 3268 for LDAP and 3269 for LDAPS)
Proxies	Partially	<ul style="list-style-type: none"> <li>If the proxy has no authentication configured, then they are supported.</li> <li>No support for any Single Sign On (SSO) proxies.</li> </ul>
Referrals	Partially	If a referral is used, the machine name needs to be able to be resolved the Doman Name Service (DNS) process. This may require that DNS or a local hosts file is modified to ensure that it occurs.
SSO (Single Sign On)	✓	Supported for Health/Engineering Dashboards/RestAPI/AIC Portal via SAML <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> Note that SAML is not supported for connections to the dashboard RestAPI made via CAST Report Generator.</p> </div>
Nested Groups	Partially	<ul style="list-style-type: none"> <li>Not supported for the legacy CAST Engineering Dashboard/Discovery Portal</li> <li>Supported for Health/Engineering Dashboards/RestAPI/AIC Portal</li> </ul>

# Java JRE

The following end user applications require an installation of the Java JRE on the local machine:

Application	JRE	Supported	Supported by reference	Deprecated support	Notes
<b>CAST Delivery Manager Tool (DMT) accessed via the CAST AIC Portal</b>	<ul style="list-style-type: none"> <li>1.7uX where X is 06</li> <li>1.8ux</li> </ul>				<ul style="list-style-type: none"> <li>When using the CAST Delivery Manager Tool on a <b>Linux based Operating System</b>, the Java JRE must be <b>64bit</b> compliant.</li> <li>When using the CAST Delivery Manager Tool to package source code stored on <b>Team Foundation Server (TFS)</b> and if your TFS repository requires <b>SSL</b> access (https) and <b>256bit ciphers</b> are being used to secure this access, note the following:               <ul style="list-style-type: none"> <li>you should ensure that you install a <b>JRE 1.8uX</b> where <b>X 161</b> on the machine where the CAST Delivery Manager Tool will be downloaded and used. This version of the JRE has unlimited encryption ciphers built-in. If you use an older version of the JRE the error "<b>TransportException:Received fatal alert: handshake_failure</b>" will be seen when trying to access the TFS repository.</li> <li>you must always use the CAST Delivery Manager Tool accessed via the <b>CAST AIC Portal</b> - otherwise when using the CAST Delivery Manager Tool from the CAST Management Studio, the JRE v 1.7ux embedded with CAST AIP will be used and the error "<b>TransportException:Received fatal alert: handshake_failure</b>" will be seen when trying to access the TFS repository.</li> </ul> </li> </ul>



Notes:

- If you only have an older major version of the Java JRE installed on your workstation (i.e. 1.6 or 1.5), you cannot use the CAST Delivery Manager Tool via the CAST AIC Portal: you will instead be prompted to install a Java JRE 1.7.
- If you have an older major version of the Java JRE installed on your workstation (i.e. 1.6 or 1.5) with the JAVA\_HOME or JRE\_HOME environment variable set to the older version, as well as an installation of version 1.7, you can use the CAST Delivery Manager Tool without changing your configuration.
- If you have a version of the Java JRE installed on your workstation that is supported by CAST but is not the most recent Java JRE version (for example version 1.7u17), then the Oracle Java Updater will warn you that your JRE is insecure and prompt you to update it. However, it is not mandatory to update your Java JRE installation to use the CAST Delivery Manager Tool - you can click the "Later" option to continue loading the CAST Delivery Manager Tool. Note that if you decide to update the JRE at this point, you must have local Administrator rights on the workstation - without this, the update will fail.

Note about the **JVM Memory Size** option available in the CAST Delivery Manager for database/schema extractions:

- This option allows you to configure the Maximum Java Heap Size of your JVM for use during the database/schema browse and extraction processes. By default 1GB of memory is allocated and in most scenarios this value can be left as is. You may need to change the amount of memory allocated to the JVM if you are getting out of memory exceptions for the Java Heap Space when you either browse to select a database/schema or when you use the Package action to invoke the extraction - this can occur more specifically when attempting to extract a large single database/schema or multiple databases/schemas. Please increase the memory allocation until you no longer receive errors, however, please bear the following in mind:
  - 32bit JRE: If you are running the CAST Delivery Manager Tool via the CAST AIC Portal and have installed a 32bit JRE for this purpose, or when the CAST Delivery Manager Tool is launched from the CAST Management Studio (when it will use a 32bit JRE that is provided with the CAST installation), CAST recommends that you do not increase the JVM Memory Size value to above 2GB, otherwise you risk running out of system memory.
  - If your database/schema extraction consistently runs out of memory despite having allocated the maximum possible with a 32bit JRE, you may need to ensure you are using a 64bit JRE to take advantage of increased memory availability. To do so, you must launch the CAST Delivery Manager Tool from the CAST AIC Portal, rather than directly from the CAST Management Studio (when it will use a 32bit JRE that is provided with the CAST installation). And before you do so, you must manually modify the shortcut to the CAST Delivery Manager Tool (available in the Windows Start menu) to replace the existing path to the 32bit JRE (C:\Windows\SysWOW64\javaws.exe) with your 64bit JRE path ("C:\Program Files\java\jre1.7.0\_20\bin\javaws.exe" for example). You can add the -Xmx parameter (maximum memory allocation), that will allow the process to use the memory defined. The shortcut should now look similar to this:  
 "C:\Program Files\java\jre1.7.0\_20\bin\javaws.exe" -Xmx4096M -localfile "C:\Users\xxx.CASTCORP\AppData\LocalLow\Sun\Java\Deployment\cache\6.0\61c274146-29c73860"

# .NET Framework

The following CAST AIP features require the presence of a .NET Framework on the target workstation:

Feature	Summary
<b>User Input Security</b>	This feature requires the .NET Framework <b>4.7.1</b> . This requirement is valid regardless of the technology (JEE or .NET) that is being targeted in the User Input Security feature.



**.NET Analyzer extension**

This extension requires the .NET Framework. Please see the documentation for the specific extension release you are using for more details about the .NET Framework version that is required.

## Source Code Management systems

The CAST Delivery Manager Tool can access the following Source Code Management systems "out of the box" to extract source code:

SCM	Supported
Apache Subversion (SVN)	✓
Team Foundation Server (TFS) 2008, 2010, 2012	✓

## Remote Access

CAST products can be executed through one of the following remote access systems:

Remote Access System
Microsoft Terminal Services
Citrix XenApp 7.6