

Introduction to PowerServer

Appeon® PowerServer® 2020
FOR WINDOWS & UNIX & LINUX

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1 Editions

Apeon PowerServer 2020 contains the following editions. For more details, refer to Section 1.3, “Editions and components” in *Installation Guide for .NET* and [PowerServer \(PB Edition\) VS. Other PowerServer Editions](#) section in the PowerBuilder release bulletin.

Table 1.1: Apeon edition

OS	Editions	Application Servers	Components
Windows	PowerBuilder CloudPro Edition ^a (including Developer Edition, Standalone Production Edition, & Clustered Production Edition for PowerServer)	Microsoft .NET Framework\IIS	<ul style="list-style-type: none"> PowerServer Toolkit^b PowerServer (PB Edition)^c Apeon Workspace PowerServer (PB Edition) Help
	Enterprise Edition Workgroup Edition Developer Edition	Microsoft .NET Framework\IIS JBoss Oracle WebLogic IBM WebSphere TmaxSoft JEUS	<ul style="list-style-type: none"> PowerServer (Mobile & Web) Apeon Workspace PowerServer Help
Unix (IBM AIX, Sun Solaris, HP Unix), Linux (RedHat Linux)	Enterprise Edition	JBoss	PowerServer (Mobile & Web)
	Workgroup Edition	Oracle WebLogic	Apeon Workspace
		IBM WebSphere	
		TmaxSoft JEUS	

^a[PowerBuilder CloudPro Edition](#) contains installations of PowerBuilder and PowerServer (PB Edition).

^bPowerServer Toolkit 2017 can deploy apps to PowerServer (Mobile & Web) 2017 or 2016.

^cPB Edition is only available in the [PowerBuilder CloudPro Edition](#).

Because of differences between different application servers (.NET Framework\IIS, JBoss, WebLogic, WebSphere, or JEUS) and different platforms (Windows and Linux\Unix), some features are only available in certain circumstance. Refer to the following table for details.

Table 1.2: Feature difference

Feature	.NET (IIS)	JBoss \WebLogic \WebSphere \JEUS
	Windows	Windows \Linux\Unix
Web Demos	-	Yes

Feature	.NET (IIS)	JBoss \WebLogic \WebSphere \JEUS
	Windows	Windows \Linux\Unix
EJB Components	-	Yes
Com/Com+/.NET Components	Yes	-
DataWindow Data Caching ^a	Yes	Yes
LDAP Security	Yes ^b	Yes

^aAll types of PowerServer support Application Server data cache and client-side data cache, but support Web server data cache on Windows platform only. If data caching feature is enabled in Web server, but if it does not work due to improper configuration or unsupported platform (such as Unix, Linux), then the Application Server data cache is automatically enabled.

^b.NET (IIS) Version supports only Microsoft Active Directory, while J2EE edition supports IBM LDAP, Netscape LDAP, Sun LDAP, and Microsoft Active Directory.

2 PowerServer Web

PowerServer Web extends the capabilities of PowerBuilder so that a PowerBuilder application can be deployed to the Web. The deployment process produces a true n-Tier Web application with a J2EE-based or .NET-based back-end and an HTML UI front-end. The source PowerBuilder application that will be deployed to the Web may be an existing 2-tier application or a new 3-tier Web application in PowerBuilder. A 3-tier Web application can be constructed quickly and easily, using only your PowerBuilder skills. Either way, PowerServer Web is the fastest way to: 1) convert PowerBuilder applications into bona fide Web applications, and 2) convert PowerBuilder developers into highly productive Web application developers.

PowerServer Web is composed of a developer tool and a set of runtime server components: PowerServer Toolkit, PowerServer (which includes AEM), PowerServer Web Component, and PowerServer Help:

- PowerServer Toolkit. An extension to PowerBuilder that enables the Web application generation, maintenance, and upgrades within the PowerBuilder IDE.
- PowerServer for J2EE Server. Composed of J2EE and PowerBuilder server components that provide runtime services for the deployed Web application such as data connectivity, complete DataWindows support, transaction management, printing, and security.
- PowerServer for .NET. Composed of Microsoft .NET components that provide runtime services for the deployed Web application such as data connectivity, complete DataWindows support, transaction management, printing, and security.

PowerServer also includes AEM, which is essentially the user interface for PowerServer. This UI is implemented as a JSP Web application enabling the system administrator to manage deployed Web applications and PowerServer over the Internet, an intranet or an extranet.

- PowerServer Web Component. A series of JavaScript-based Web components generating PowerBuilder-style GUI in standard Web browsers.
- PowerServer Help. Provides easy access to all user documents. It saves time and conveniently places the help information, such as, the Appeon supported features, at your fingertips.

PowerServer Web provides several additional tools (included in the installation package) to aid you in deploying existing PowerBuilder applications to the Web:

- Appeon Workarounds PBL. Provides you several Appeon workaround functions that can help work around the unsupported features, such as DataWindow GetFullState, SetFullState, GetChanges and SetChanges functions. Refer to Chapter 1, *Appeon Workarounds PBL Reference in Workarounds & APIs Guide* for the functions provided in Appeon Workarounds PBL.
- Appeon Sales Application Demo. Familiarize yourself with the PowerServer Toolkit in PowerBuilder and with the deployment process by converting the Sales Application Demo to the Web.

- **Apeon Code Examples and Apeon ACF Demo.** Explore examples of some of the rich PowerBuilder and PFC functionalities that PowerServer Web can support on the Web. Apeon Code Examples also serves as a reference for how to best implement these supported PowerBuilder features. An application that is compliant with PowerServer-supported features can be deployed to the Web in a few minutes with the click of a button.

3 PowerServer Mobile

PowerServer Mobile extends the capabilities of PowerBuilder so that a PowerBuilder application can be deployed and run on the mobile device. The deployment process produces a true native mobile application with a J2EE-based or .NET-based back-end and an mobile-style UI front-end.

PowerServer Mobile is composed of an application workspace, a developer tool, and a set of runtime server components: Appeon Workspace, PowerServer Toolkit, PowerServer (which includes the AEM), PowerServer Web Component, and PowerServer Help:

- **Appeon Workspace.** A native mobile application installed on the mobile device to simplify distributing, downloading, and running the PowerServer mobile applications.
- **PowerServer Toolkit.** An extension to PowerBuilder that enables the mobile application generation, maintenance, and upgrades within the PowerBuilder IDE.
- **PowerServer for J2EE Server.** Composed of J2EE and PowerBuilder server components that provide runtime services for the deployed application such as data connectivity, complete DataWindows support, transaction management, printing, and security.
- **PowerServer for .NET.** Composed of Microsoft .NET components that provide runtime services for the deployed application such as data connectivity, complete DataWindows support, transaction management, printing, and security.

PowerServer also includes AEM, which is essentially the user interface for PowerServer. This UI is implemented as a JSP Web application enabling the system administrator to manage the deployed applications and PowerServer over the Internet, an intranet or an extranet.

- **PowerServer Web Component.** A series of C++ and JavaScript libraries generating mobile-style UI.
- **PowerServer Help.** Provides easy access to all user documents. It saves time and conveniently places the help information, such as, the Appeon supported features, at your fingertips.

PowerServer Mobile provides several additional tools (included in the installation package) to aid you in deploying existing PowerBuilder applications to the mobile device:

- **Appeon Workarounds & API PBL.** Provides you APIs that can help work around the unsupported features and call the mobile device native features. Refer to Chapter 1, *Appeon Workarounds PBL Reference in Workarounds & APIs Guide* for the functions provided in Appeon Workarounds PBL.
- **Appeon Demo Applications.** Including Sales App Demo, Code Examples Demo, ACF Demo, SAPTechEd2012 Demo, and Order Demo (iPhone only) that can familiarize yourself with the features that PowerServer Mobile supports.

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