Microsoft

Analytics Platform System Pricing and Licensing

Product Overview

Microsoft can meet the demands of your growing and evolving data warehouse environments with the Microsoft Analytics Platform System (APS), a scale-out Massively Parallel Processing (MPP) fully integrated system for data warehouse specific workloads. APS provides industry leading price and performance, connectivity to predictive analytics in Azure Machine Learning, and the ability to query across relational and non-relational data through Microsoft PolyBase.

With traditional data warehouses that scale-up, organizations typically need to rebuild entire servers once the maximum physical capacity and performance of servers hosting the data warehouse is exceeded. APS is one of the most powerful distributed computing and scale-out systems on the market. As an organization's need for compute or storage grows, they can simply add more resources to scale out to 6 petabytes.

Simple to deploy, APS is delivered as a pre-built appliance with software, hardware, and networking components already pre-installed and configured to maximize data warehouse performance. Designed to grow with a customer's data warehouse needs, APS can scale from a quarter rack configuration to a multiple rack solution supporting petabytes of data. APS offers the flexibility to choose hardware from Dell, Hewlett Packard Enterprise, or Quanta Cloud Technology.

Licensing Overview

Beginning with SQL Server 2016, deploying and running SQL Server PDW software on the Microsoft Analytics Platform System (APS) appliance is done exclusively through SQL Enterprise Edition Per Core licensing with SA coverage.   The number of SQL Server Enterprise Edition core licenses for an APS appliance will depend on the total number of physical cores in the active compute servers configured within the appliance. Note that APS is defined to be a single unit made up of two or more active compute servers (or compute nodes) that are controlled by a single control server.
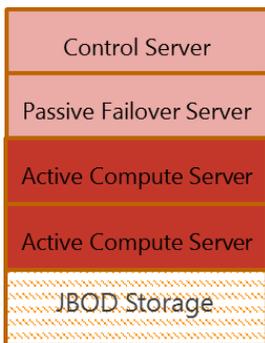
- SQL Server Enterprise core licenses are only required for the active compute servers in an appliance.
- All servers—including the control server and passive failovers servers configured in the appliance—must be fully licensed for both Windows Server 2012 R2 Standard Edition and System Center 2012 R2 Standard Edition software, and include SA coverage.
- All users accessing an Appliance Platform System appliance must also be licensed with Windows Server CALs.
- SQL Server software running on the APS control server is considered Additional Server Software and does not need to be licensed separately when all active compute servers are fully licensed.

Analytics Platform System Appliance Architecture

The following diagram shows a ¼ rack APS configuration:

Control Server

Passive Failover Server

Active Compute Server

Active Compute Server

JBOD Storage

Each Active Compute Server contains 16 physical cores
- Eight 2-core packs are required for each Server
- Windows Server and System Center licenses are required

Appliance Node	Function
Control Server	Control for compute and failover processes
Passive Failover Server	Failover server for compute nodes
Compute Server	Compute resources
JBOD Storage	Data storage

Analytics Platform System Component Licensing

SQL Server PDW software on the APS appliance is licensed through SQL Server Enterprise Per-Core licensing. Under the Per Core licensing model, all physical cores on all active compute servers must be fully licensed for SQL Server Enterprise software and include active Software Assurance (SA) coverage.

The APS appliance offerings are built using compute servers with two 8-core processors per server.

Appliance Partner	Minimum Appliance Configuration	Maximum Appliance Configuration
HPE	2 active compute servers (¼ Rack)	56 active compute servers (7 Full Racks)
Dell	3 active compute servers (¼ Rack)	54 active compute servers (6 Full Racks)
Quanta Cloud Technologies	3 active compute servers (¼ Rack)	54 active compute servers (6 Full Racks)

For more information on the Core-based licensing model, please download the **Introduction to Per Core Licensing** Volume Licensing Brief: http://www.microsoft.com/licensing/about-licensing/briefs/licensing-by-cores.aspx.

Appliance Software Requirements	Control Servers	Active Compute Servers	Passive Failover Servers
SQL Server Enterprise core licenses with SA	N/A	16 licenses per server	N/A
Windows Server 2012 R2 Standard Processor Licenses with SA	2 licenses per appliance	1 license per server	2 licenses per server
System Center 2012 R2 Standard Processor Licenses with SA	2 licenses per appliance	1 license per server	2 licenses per server

Note: SQL Enterprise core licenses are sold in packs of two, so eight 2-core license packs must be purchased to cover each 16-core server. Windows Server Standard and System Center Standard each cover two Operating System Environments

Frequently Asked Questions

Q. What software is licensed to create an APS appliance software solution?

A. Windows Server Standard, System Center Standard and SQL Server Enterprise software make up the APS appliance software solution.

Q. I have SQL PDW core licenses on my Enterprise Enrollment prior to June 1, 2016, can I true up additional PDW core licenses after June1, 2016?

A. Yes. Additional PDW licenses may be true'd up on your agreement until the end of your current enrollment term.

Q. How do I renew SA on SQL PDW core licenses on or after June 1, 2016?

A. For each SQL PDW core license you simply renew into SA coverage for SQL Enterprise core licenses.

Q. Where can I find more information on the license grant for eligible SQL PDW core licenses?

A. The license grant is detailed in the June 1, 2016 Volume Licensing Product Terms for SQL Server Enterprise Edition.

Q. Where can I find more information on the using SQL Server Enterprise core licenses to license APS?

A. Detailed information on licensing SQL Server, including deploying APS, can be found in the SQL Server 2016 Licensing Guide located at: http://www.microsoft.com/en-us/cloud-platform/sql-server-2016-pricing

Q. Is the APS appliance hardware acquired from Microsoft?

A. No. APS appliance hardware is acquired directly from the authorized hardware provider and not from Microsoft.

Q. Who are the authorized hardware providers for the APS appliance offerings?

A. Authorized hardware providers for the APS appliance offerings are Dell, HPE and Quanta Cloud Technology (QCT). QCT is authorized for distribution to the US and Taiwan only.

Q. How can I license the APS appliance for non-production use?

A. SQL PDW Developer is how you license an APS appliance for non-production, develop & test usage. SQL PDW Developer is available through MSDN subscriptions that provide access to SQL Server, and is also sold as a standalone offering. PDW Developer is licensed per user, and all users accessing the appliance must have a user license for an applicable MSDN subscription level or PDW Developer.