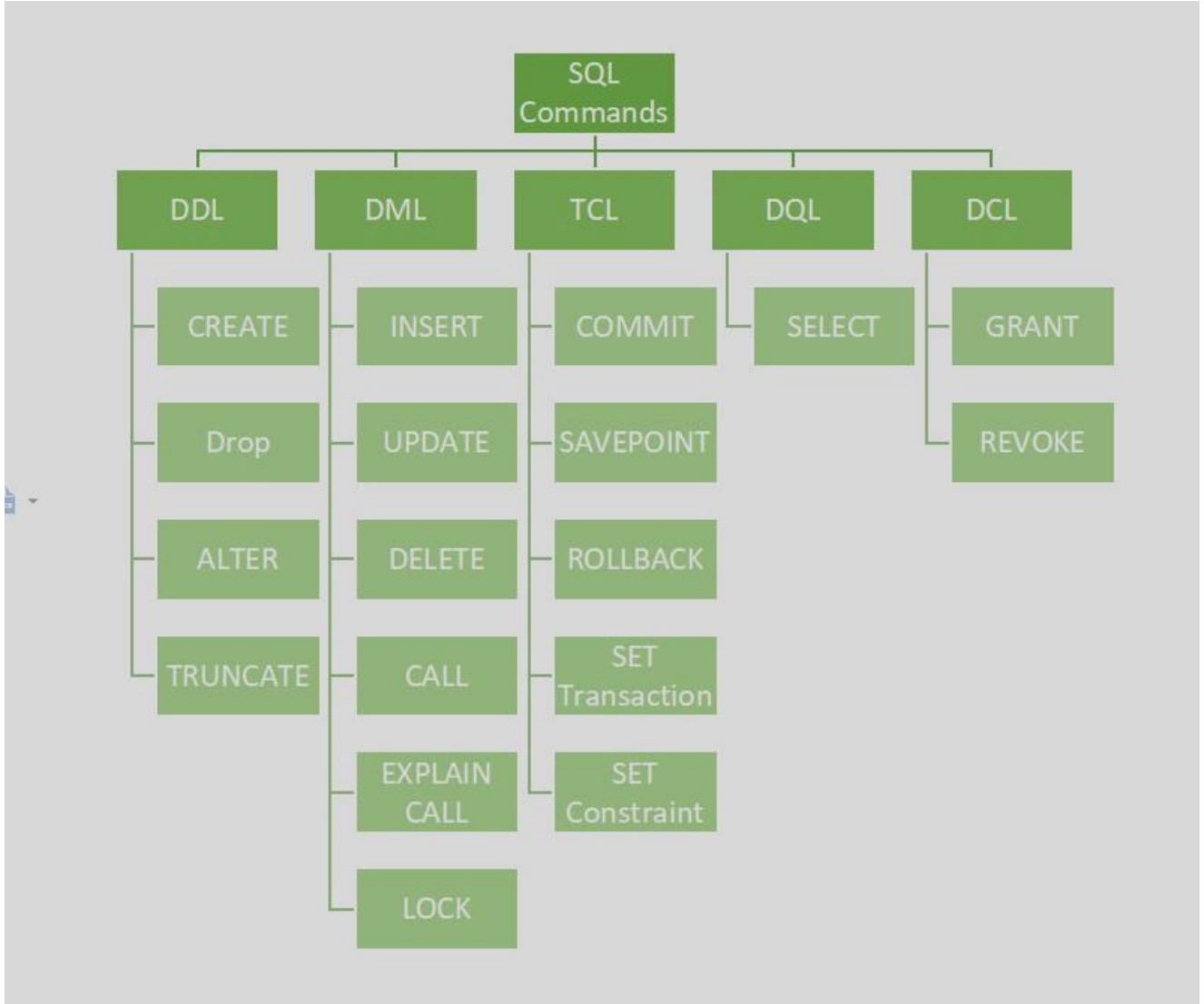
دستورات SQL


SQL Commands
DDL
DML
TCL
DQL
DCL
CREATE
Drop
ALTER
TRUNCATE
INSERT
UPDATE
DELETE
CALL
EXPLAIN CALL
LOCK
COMMIT
SAVEPOINT
ROLLBACK
SET Transaction
SET Constraint
SELECT
GRANT
REVOKE

مفهوم DDL در SQL چیست؟

دستورات SQL بر اساس عملکردی که دارند به دسته بندی های مختلف تقسیم می شوند. یکی از دسته بندی ها DDL یا Data Definition Language است. دستوراتی که در این بخش قرار میگیرند برای تعریف بانک اطلاعاتیاستفاده می شوند نه خود داده ها، دستوراتی برای ایجاد بانک اطلاعاتی، جداول، View ها.

مفهوم DQL در SQL چیست؟

DQL یا Data Query Language دستوراتی هستند که برای کوئری گرفتن و استخراج داده ها استفاده می شوند. دستورات DQL تغییری بر روی داده های داخل جداول ایجاد نمی کنند و فقط برای استخراج و مشاهده داده ها استفاده می شوند.

مفهوم DML در SQL چیست؟

دستورات DML یا Data Manipulation Language دستوراتی هستند که برای ایجاد تغییرات در داده های موجود در بانک اطلاعاتی از آن ها استفاده می شود. دستوراتی مانند INSERT برای درج داده ها، UPDATE برای به روز رسانی داده ها و DELETE برای حذف داده ها از دستورات دسته DML هستند.

مفهوم DCL در SQL چیست؟

یکی از مباحث مهم در بانک های اطلاعاتی بحث امنیت داده ها و کنترل دسترسی کاربران به بانک های اطلاعاتی و داده های داخل آن است. در SQL یکسری دستورات وجود دارند که برای ارائه مجوز دسترسی و کنترل سایر دسترسی در بانک اطلاعاتی استفاده می شوند و این دستورات در دسته DCL یا Data Control Language قرار میگیرند. دستوراتی مانند GRANT یا REVOKE نمونه هایی از این دستورات هستند.

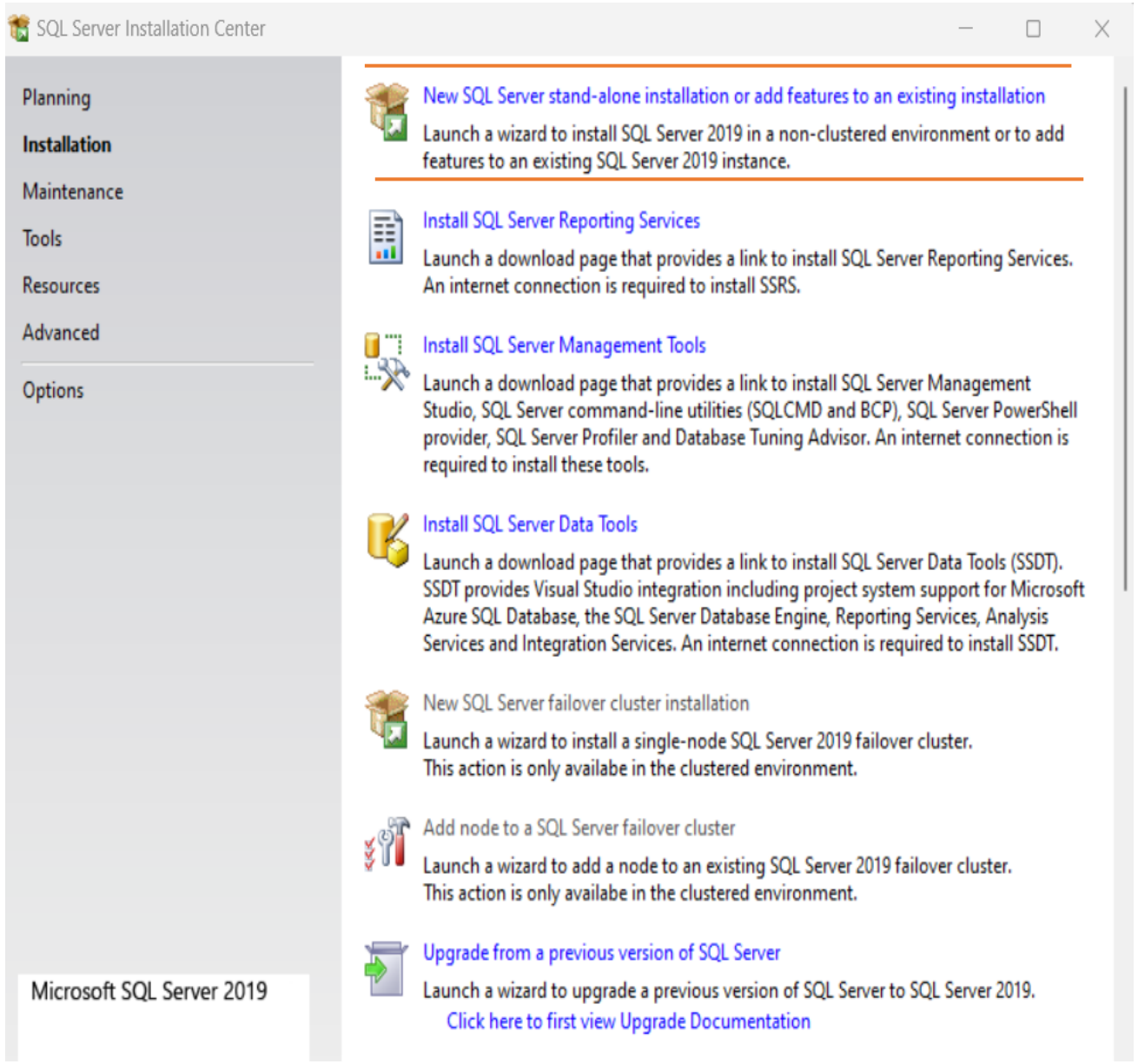
مفهوم TCL در SQL چیست؟

گاهی اوقات نیاز است که یکسری دستورات در SQL به صورت یک واحد یکپارچه اجرا شوند؟ به این معنی که موفقیت آمیز بودن عملیات مورد نظر در گرو اجرای یکسری دستورات است و در صورتی که یکی از دستورات با مشکل مواجه شود، بقیه دستورات باقی مانده نباید اجرا شود و دستورات اجرا شده قبلی نیز باید به حالت قبل برگردند یا بهتر بگویم تغییرات اعمال شده توسط دستورات قبلی به کنسل شوند. یکسری دستورات مانند COMMIT و ROLLBACK در SQL برای این منظور استفاده می شوند که به آن ها اصطلاحاً TCL یا Transaction Control Language گفته می شود.

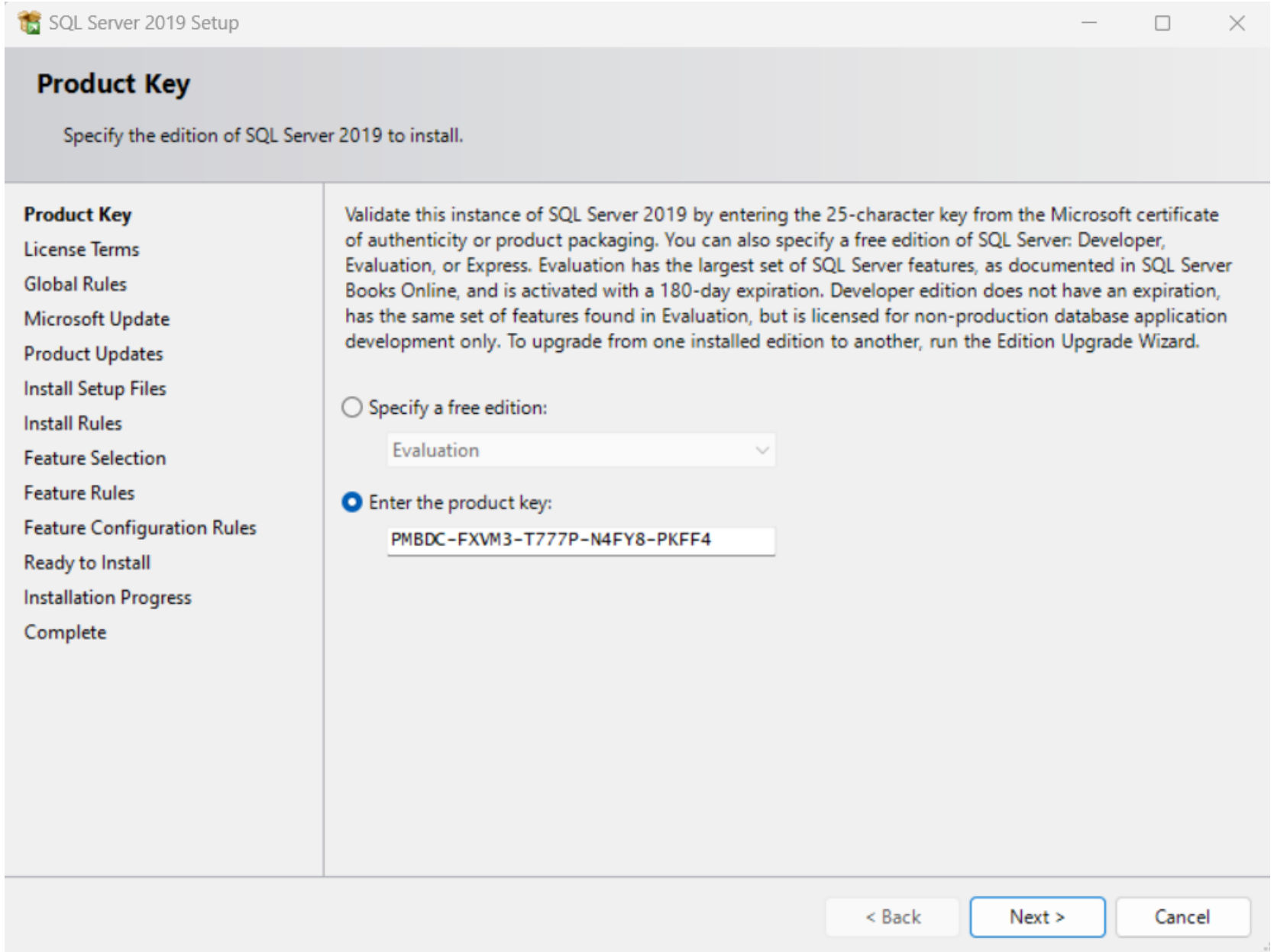
مراحل نصب
Microsoft Sql Server 2019

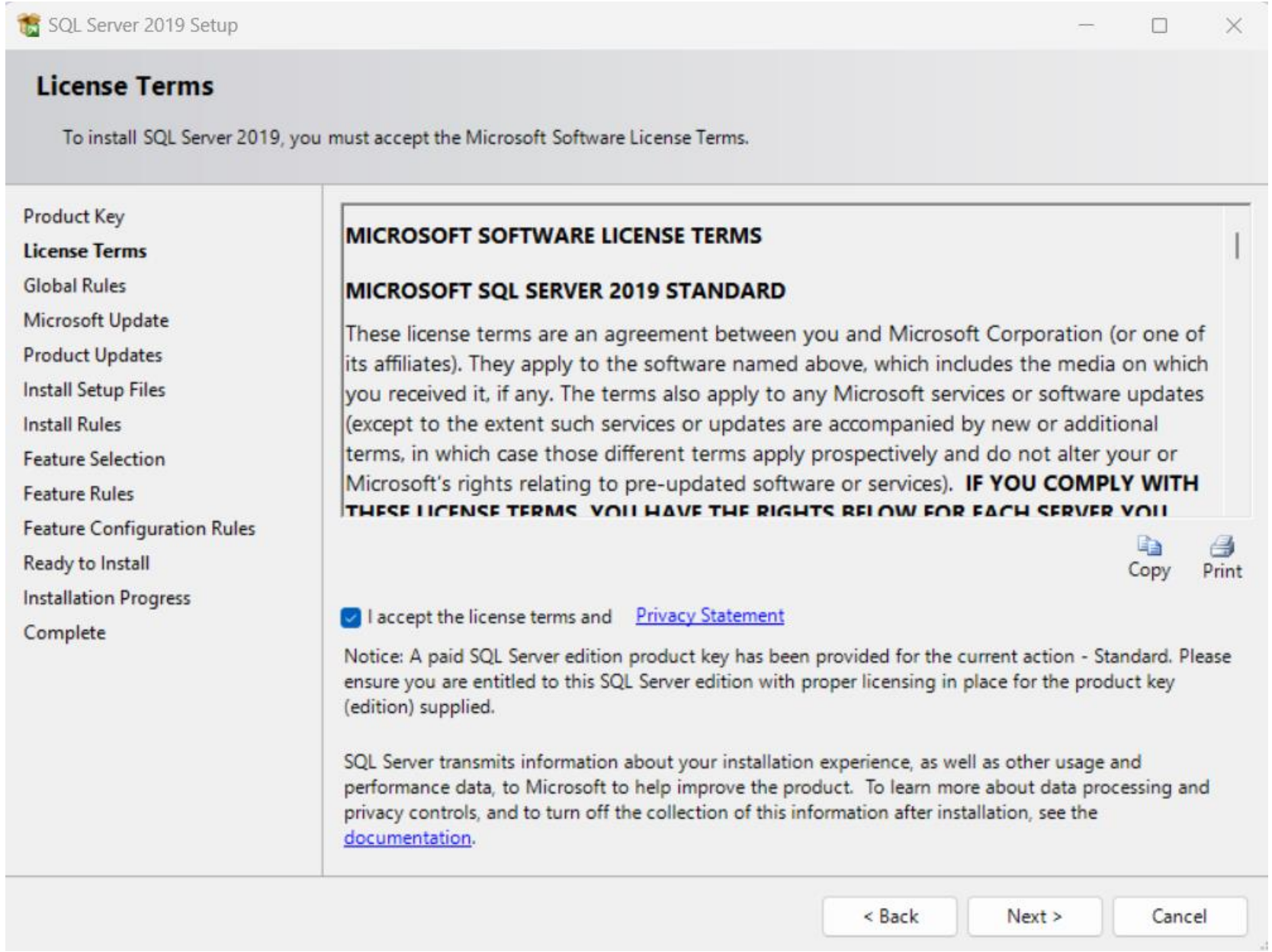
SQL Server Installation Center
Planning
Installation
Maintenance
Tools
Resources
Advanced
Options
Hardware and Software Requirements
View the hardware and software requirements.
Security Documentation
View the security documentation.
Online Release Notes
View the latest information about the release.
System Configuration Checker
Launch a tool to check for conditions that prevent a successful SQL Server installation.
Download Data Migration Assistant (DMA)
Data Migration Assistant (DMA) analyzes SQL Server components that are installed and identifies issues to fix either before or after you upgrade to SQL Server 2019.
Online Installation Help
Launch the online installation documentation.
How to Get Started with SQL Server 2019 Failover Clustering
Read instructions on how to get started with SQL Server 2019 failover clustering.
Upgrade Documentation
View the document about how to upgrade to SQL Server 2019 from a previous version of SQL Server.
Download SQL Server Migration Assistant (SSMA)
SQL Server Migration Assistant (SSMA) can migrate Oracle, SAP ASE, MySQL, DB2, and Access databases to SQL Server, Microsoft Azure SQL Database, and Microsoft Azure SQL Data Warehouse. SSMA automates all aspects of migration including migration assessment analysis, schema and SQL statement conversion, data migration, and
Microsoft SQL Server 2019

(1)


SQL Server Installation Center
Planning
Installation
Maintenance
Tools
Resources
Advanced
Options
New SQL Server stand-alone installation or add features to an existing installation
Launch a wizard to install SQL Server 2019 in a non-clustered environment or to add features to an existing SQL Server 2019 instance.
Install SQL Server Reporting Services
Launch a download page that provides a link to install SQL Server Reporting Services. An internet connection is required to install SSRS.
Install SQL Server Management Tools
Launch a download page that provides a link to install SQL Server Management Studio, SQL Server command-line utilities (SQLCMD and BCP), SQL Server PowerShell provider, SQL Server Profiler and Database Tuning Advisor. An internet connection is required to install these tools.
Install SQL Server Data Tools
Launch a download page that provides a link to install SQL Server Data Tools (SSDT). SSDT provides Visual Studio integration including project system support for Microsoft Azure SQL Database, the SQL Server Database Engine, Reporting Services, Analysis Services and Integration Services. An internet connection is required to install SSDT.
New SQL Server failover cluster installation
Launch a wizard to install a single-node SQL Server 2019 failover cluster.
This action is only availabe in the clustered environment.
Add node to a SQL Server failover cluster
Launch a wizard to add a node to an existing SQL Server 2019 failover cluster.
This action is only availabe in the clustered environment.
Upgrade from a previous version of SQL Server
Launch a wizard to upgrade a previous version of SQL Server to SQL Server 2019.
Click here to first view Upgrade Documentation
Microsoft SQL Server 2019

(2)


SQL Server 2019 Setup
Product Key
Specify the edition of SQL Server 2019 to install.
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Validate this instance of SQL Server 2019 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server: Developer, Evaluation, or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. Developer edition does not have an expiration, has the same set of features found in Evaluation, but is licensed for non-production database application development only. To upgrade from one installed edition to another, run the Edition Upgrade Wizard.
Specify a free edition:
Evaluation
Enter the product key:
PMBDC-FXVM3-T777P-N4FY8-PKFF4
< Back
Next >
Cancel


SQL Server 2019 Setup
License Terms
To install SQL Server 2019, you must accept the Microsoft Software License Terms.
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT SQL SERVER 2019 STANDARD
These license terms are an agreement between you and Microsoft Corporation (or one of its affiliates). They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft services or software updates (except to the extent such services or updates are accompanied by new or additional terms, in which case those different terms apply prospectively and do not alter your or Microsoft's rights relating to pre-updated software or services). IF YOU COMPLY WITH
Copy
Print
I accept the license terms and Privacy Statement
Notice: A paid SQL Server edition product key has been provided for the current action - Standard. Please ensure you are entitled to this SQL Server edition with proper licensing in place for the product key (edition) supplied.
SQL Server transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the documentation.
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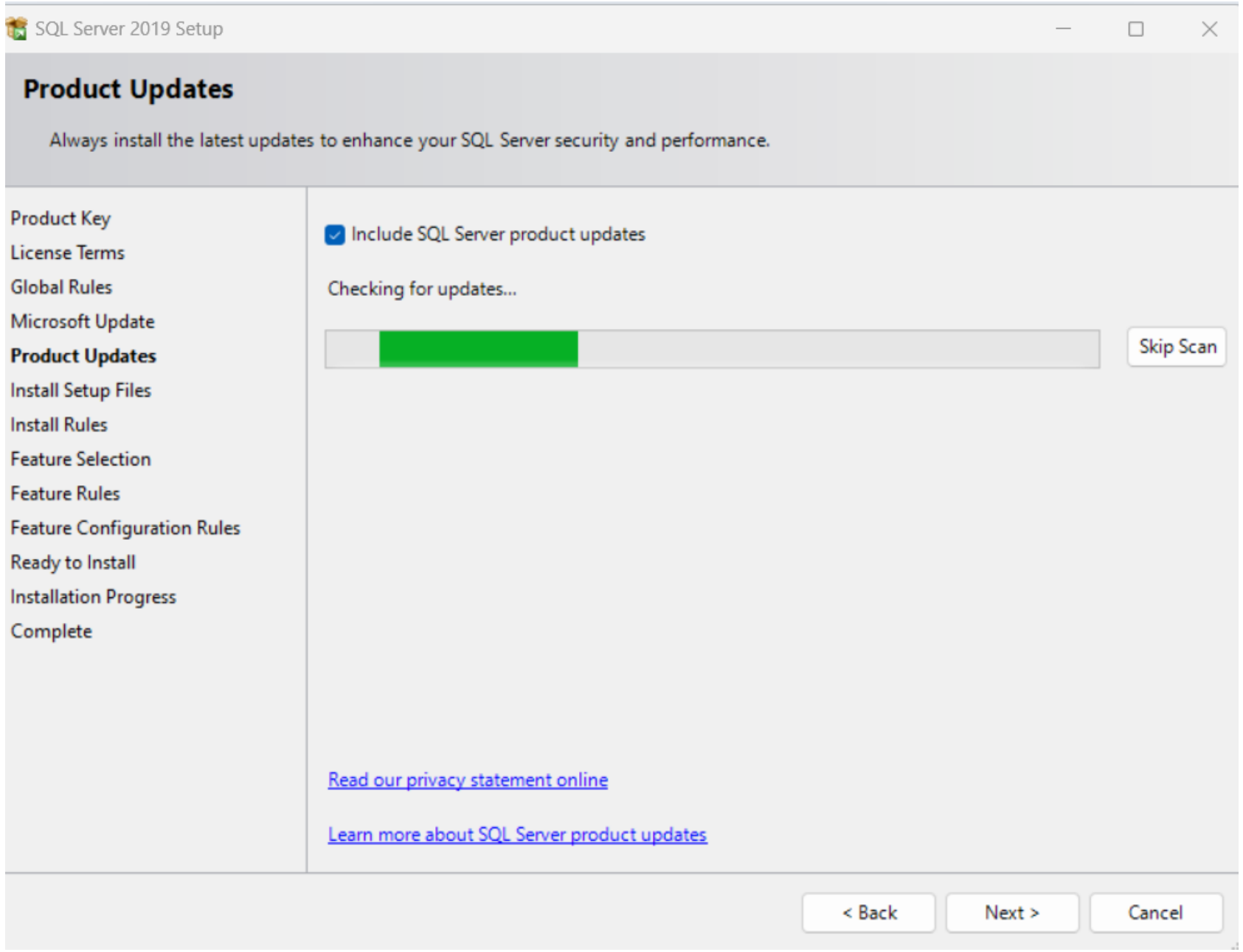
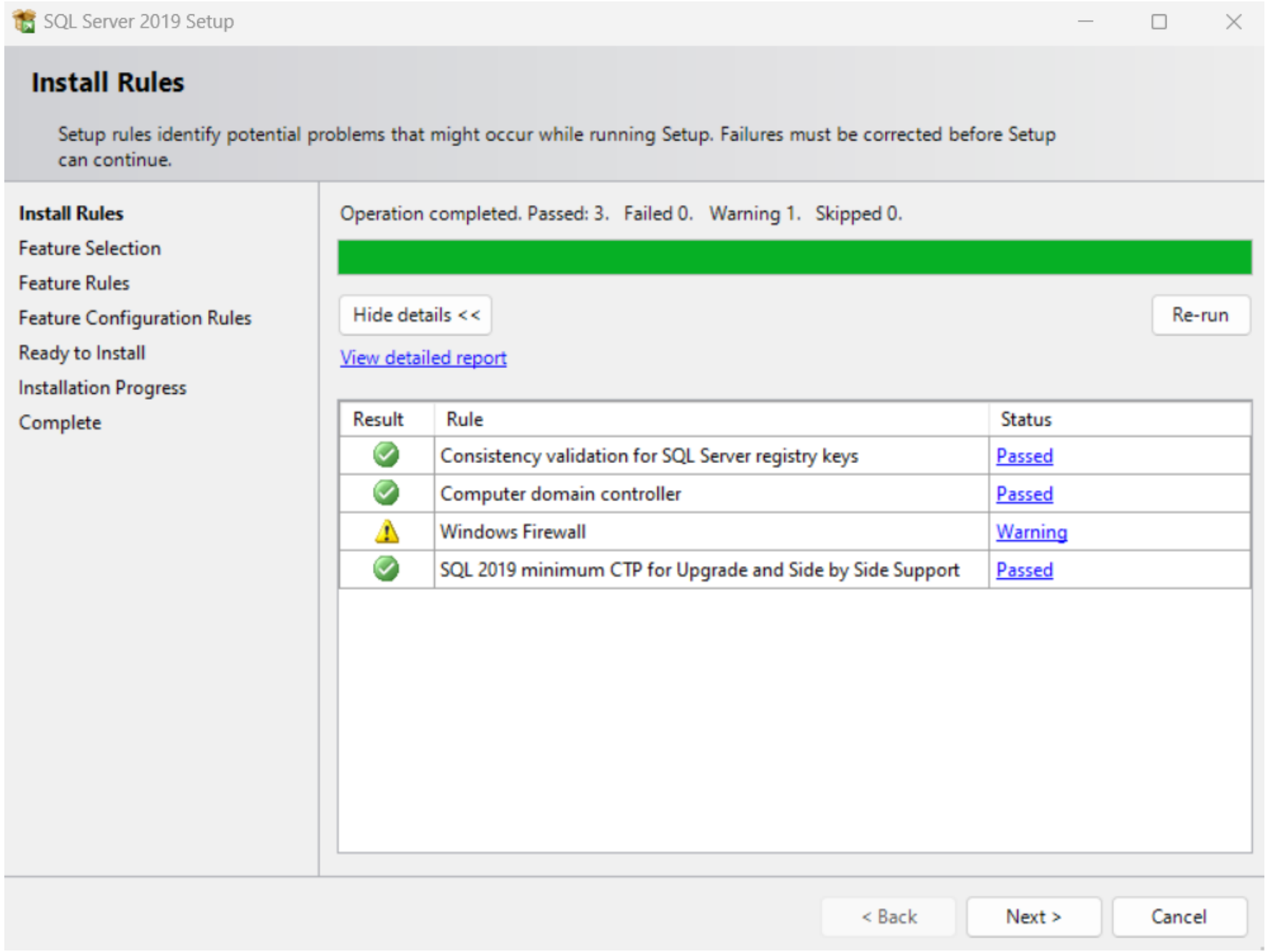
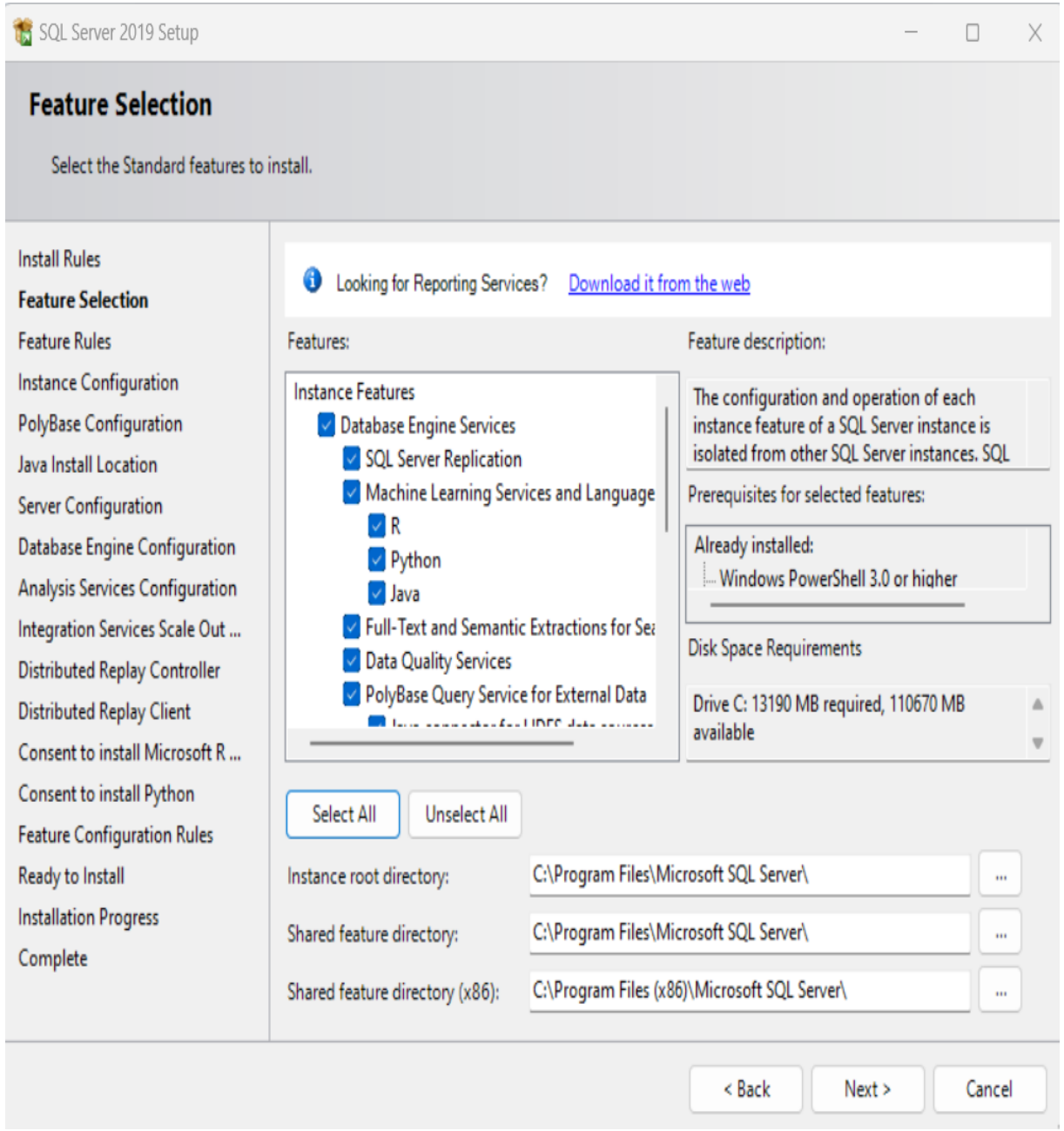
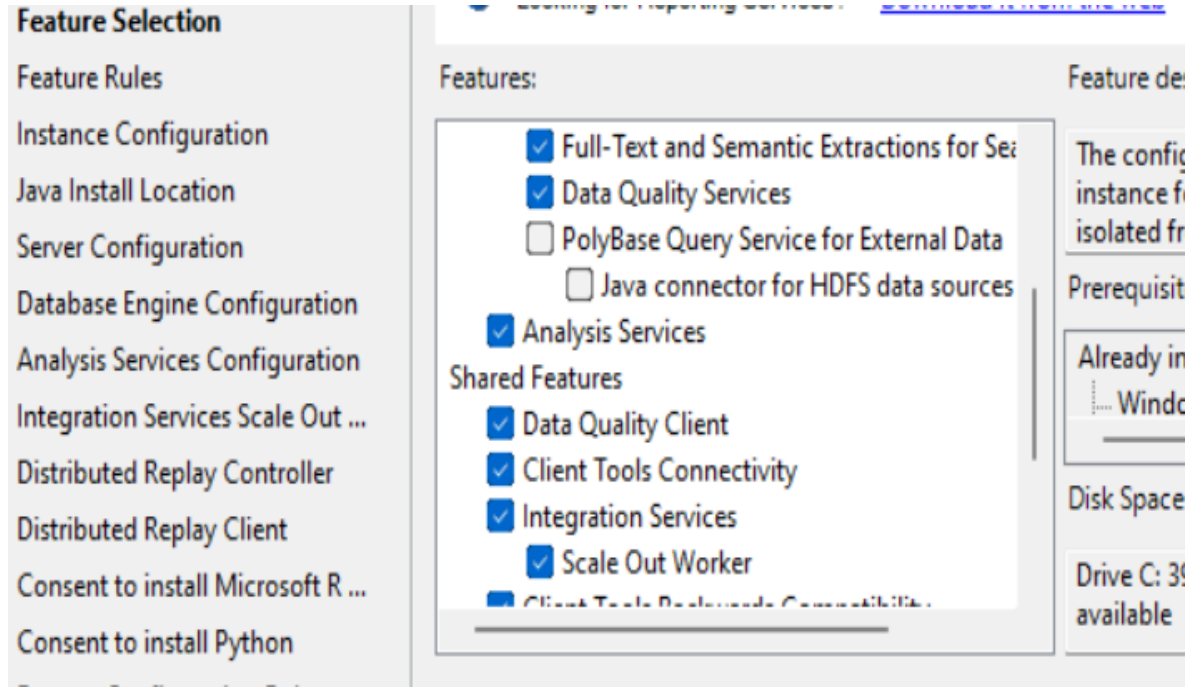
Cancel


SQL Server 2019 Setup
Product Updates
Always install the latest updates to enhance your SQL Server security and performance.
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Include SQL Server product updates
Checking for updates...
Skip Scan
Read our privacy statement online
Learn more about SQL Server product updates
< Back
Next >
Cancel


SQL Server 2019 Setup
Install Rules
Setup rules identify potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.
Install Rules
Feature Selection
Feature Rules
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Operation completed. Passed: 3. Failed 0. Warning 1. Skipped 0.
Hide details <<
Re-run
View detailed report
Result
Rule
Status
Consistency validation for SQL Server registry keys
Passed
Computer domain controller
Passed
Windows Firewall
Warning
SQL 2019 minimum CTP for Upgrade and Side by Side Support
Passed
< Back
Next >
Cancel


SQL Server 2019 Setup
Feature Selection
Select the Standard features to install.
Install Rules
Feature Selection
Feature Rules
Instance Configuration
PolyBase Configuration
Java Install Location
Server Configuration
Database Engine Configuration
Analysis Services Configuration
Integration Services Scale Out ...
Distributed Replay Controller
Distributed Replay Client
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Looking for Reporting Services?
Download it from the web
Features:
Instance Features
Database Engine Services
SQL Server Replication
Machine Learning Services and Language
R
Python
Java
Full-Text and Semantic Extractions for Sea
Data Quality Services
PolyBase Query Service for External Data
Feature description:
The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL
Prerequisites for selected features:
Already installed:
Windows PowerShell 3.0 or higher
Disk Space Requirements
Drive C: 13190 MB required, 110670 MB available
Select All
Unselect All
Instance root directory:
C:\Program Files\Microsoft SQL Server\
Shared feature directory:
C:\Program Files\Microsoft SQL Server\
Shared feature directory (x86):
C:\Program Files (x86)\Microsoft SQL Server\
< Back
Next >
Cancel


Feature Selection
Feature Rules
Instance Configuration
Java Install Location
Server Configuration
Database Engine Configuration
Analysis Services Configuration
Integration Services Scale Out ...
Distributed Replay Controller
Distributed Replay Client
Consent to install Microsoft R ...
Consent to install Python
Features:
Full-Text and Semantic Extractions for Sea
Data Quality Services
PolyBase Query Service for External Data
Java connector for HDFS data sources
Analysis Services
Shared Features
Data Quality Client
Client Tools Connectivity
Integration Services
Scale Out Worker

SQL Server 2019 Setup

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

- Install Rules
- Feature Selection
- Feature Rules
- **Instance Configuration**
- PolyBase Configuration
- Java Install Location
- Server Configuration
- Database Engine Configuration
- Analysis Services Configuration
- Integration Services Scale Out ...
- Distributed Replay Controller
- Distributed Replay Client
- Consent to install Microsoft R ...
- Consent to install Python
- Feature Configuration Rules
- Ready to Install
- Installation Progress
- Complete

(●) Default instance

( ) Named instance: MSSQLSERVER

Instance ID: MSSQLSERVER

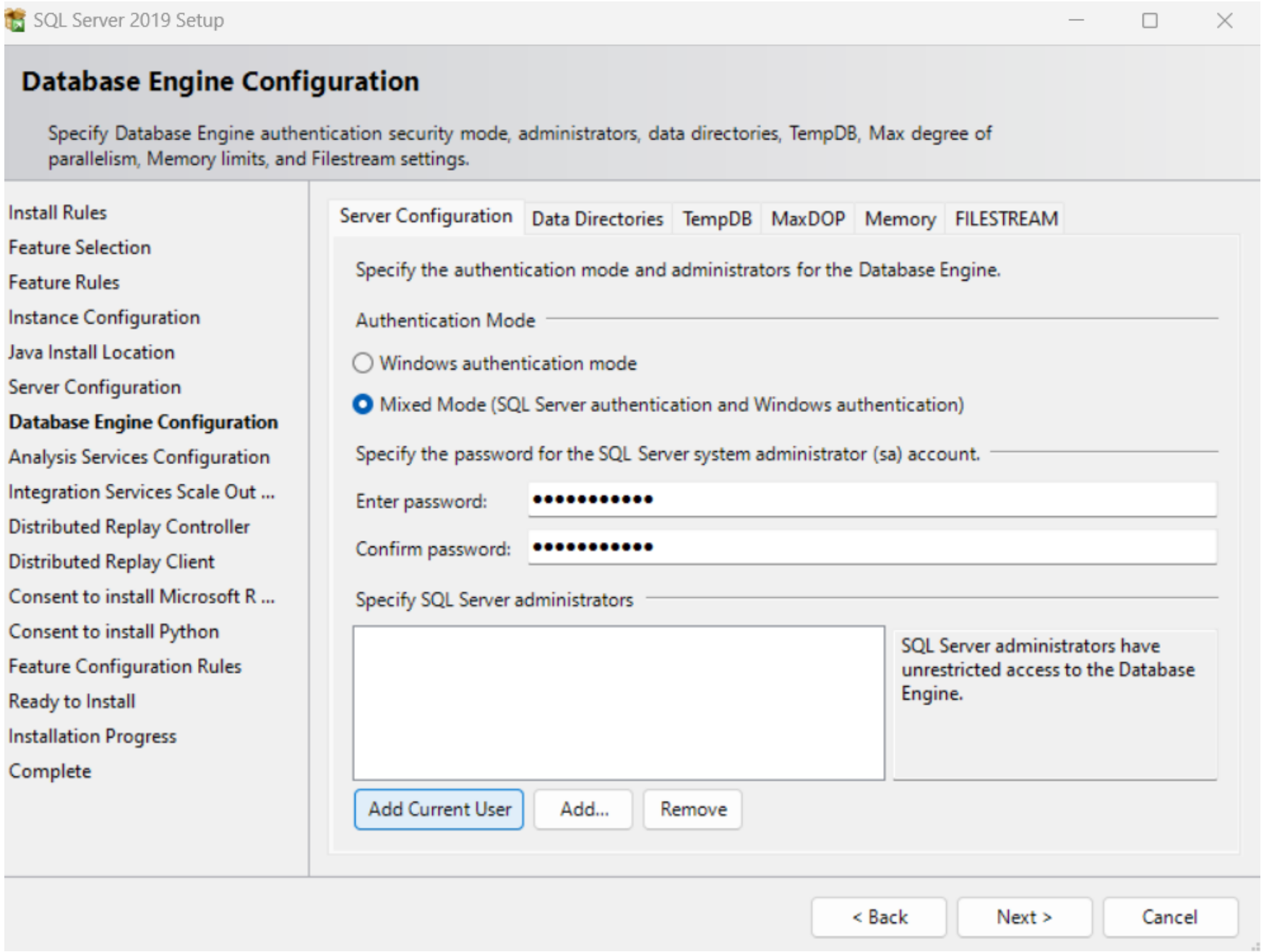
SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL15.MSSQLSERVER

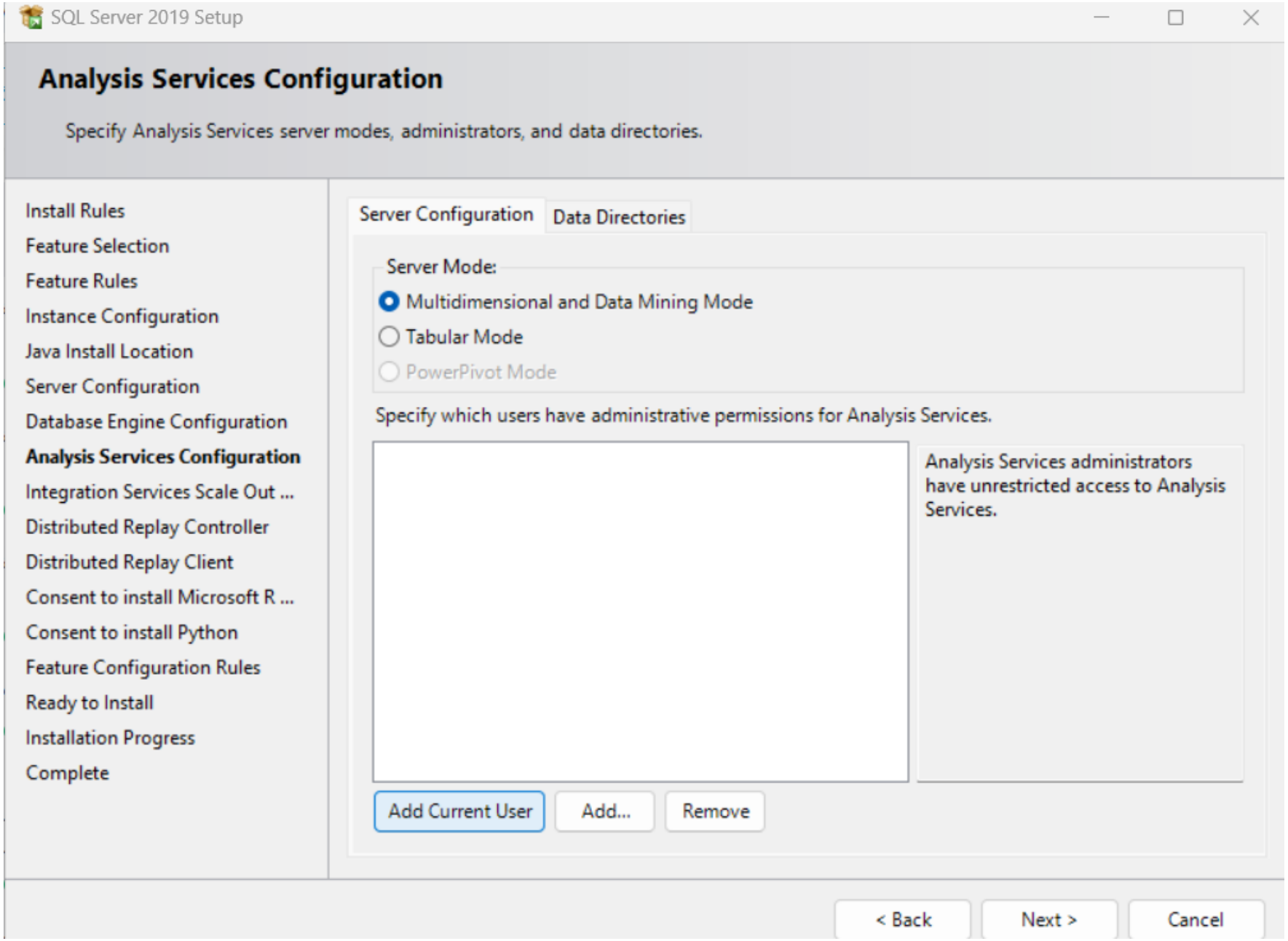
Analysis Services directory: C:\Program Files\Microsoft SQL Server\MSAS15.MSSQLSERVER

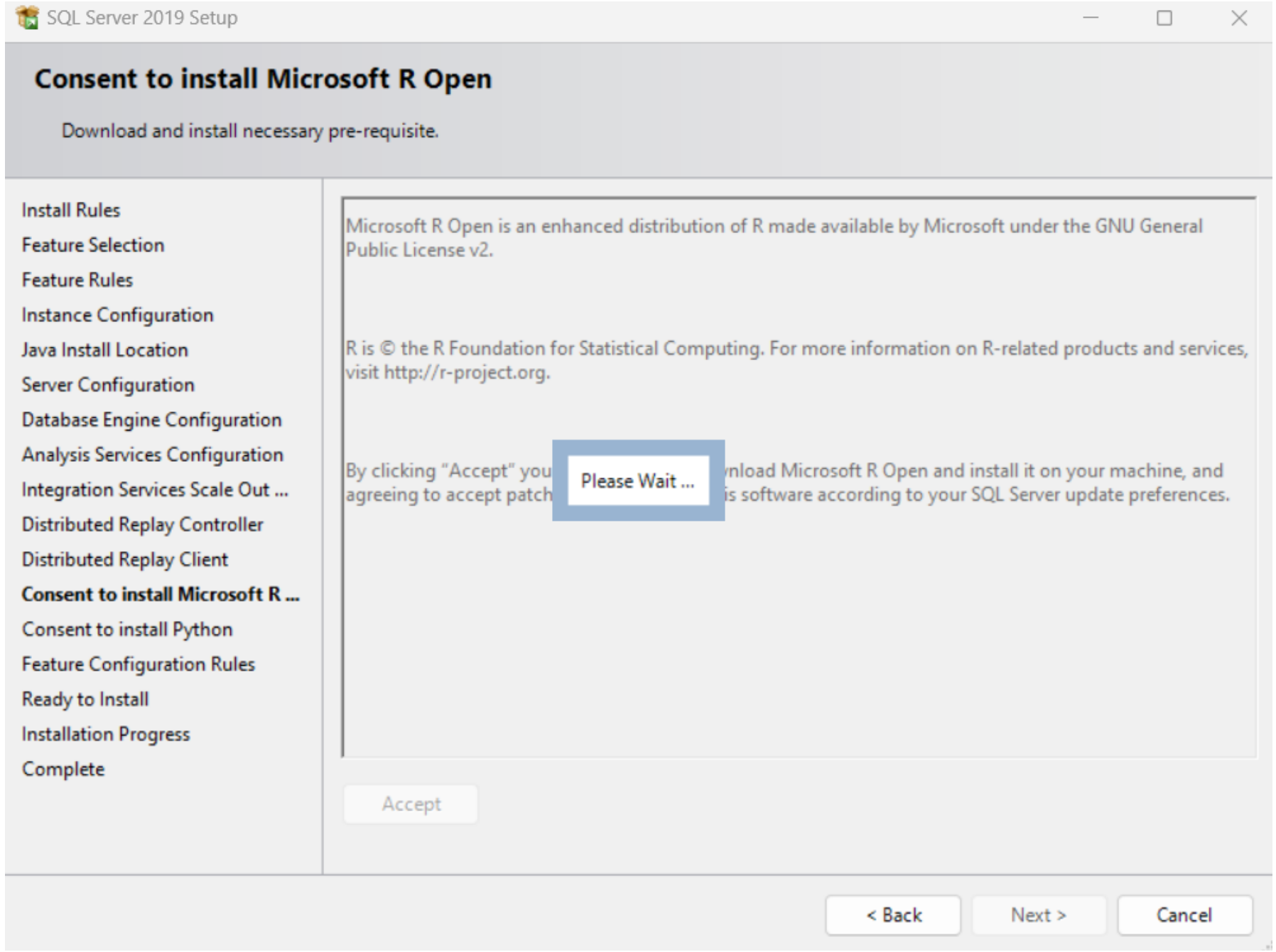
Installed instances:

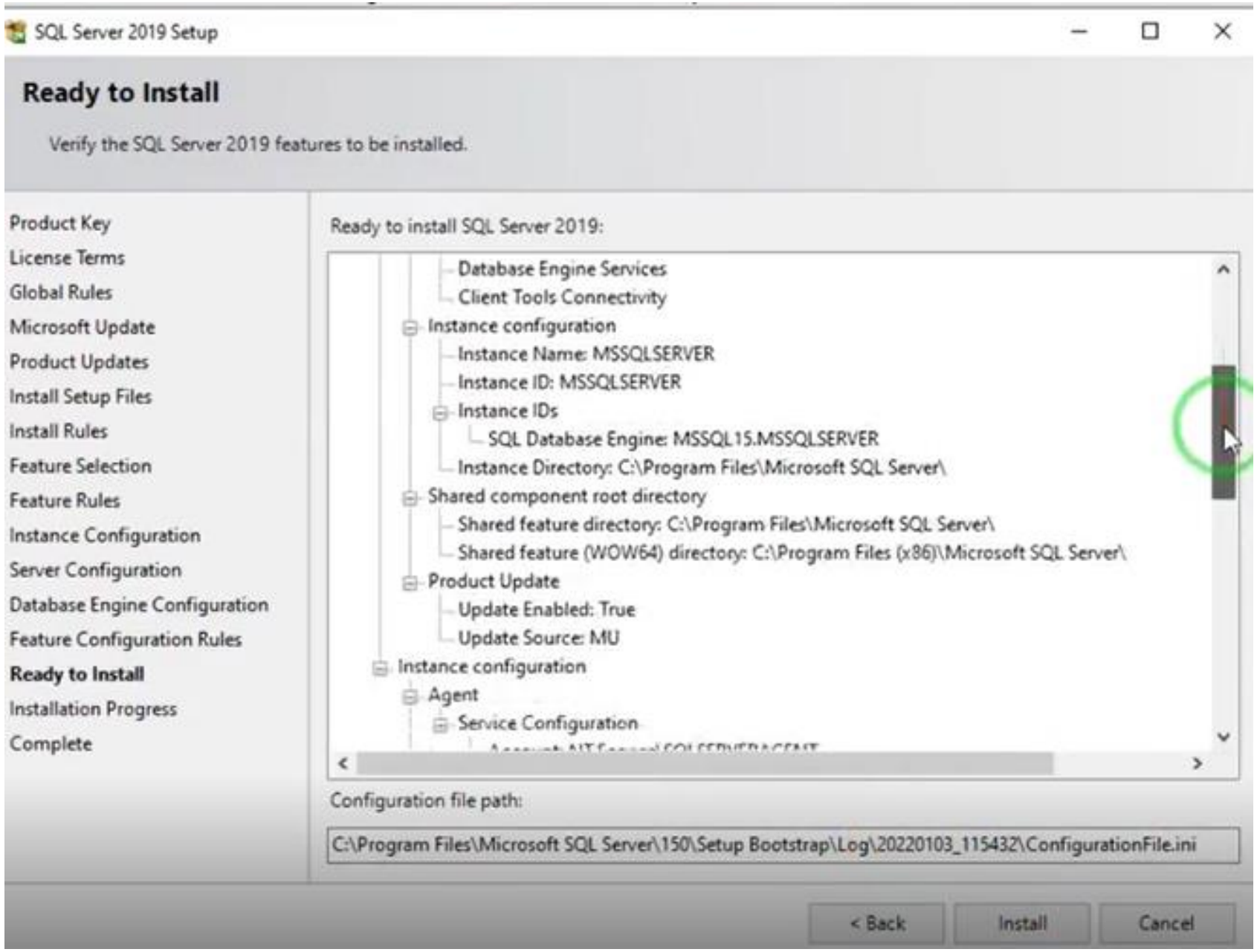
Instance Name	Instance ID	Features	Edition	Version

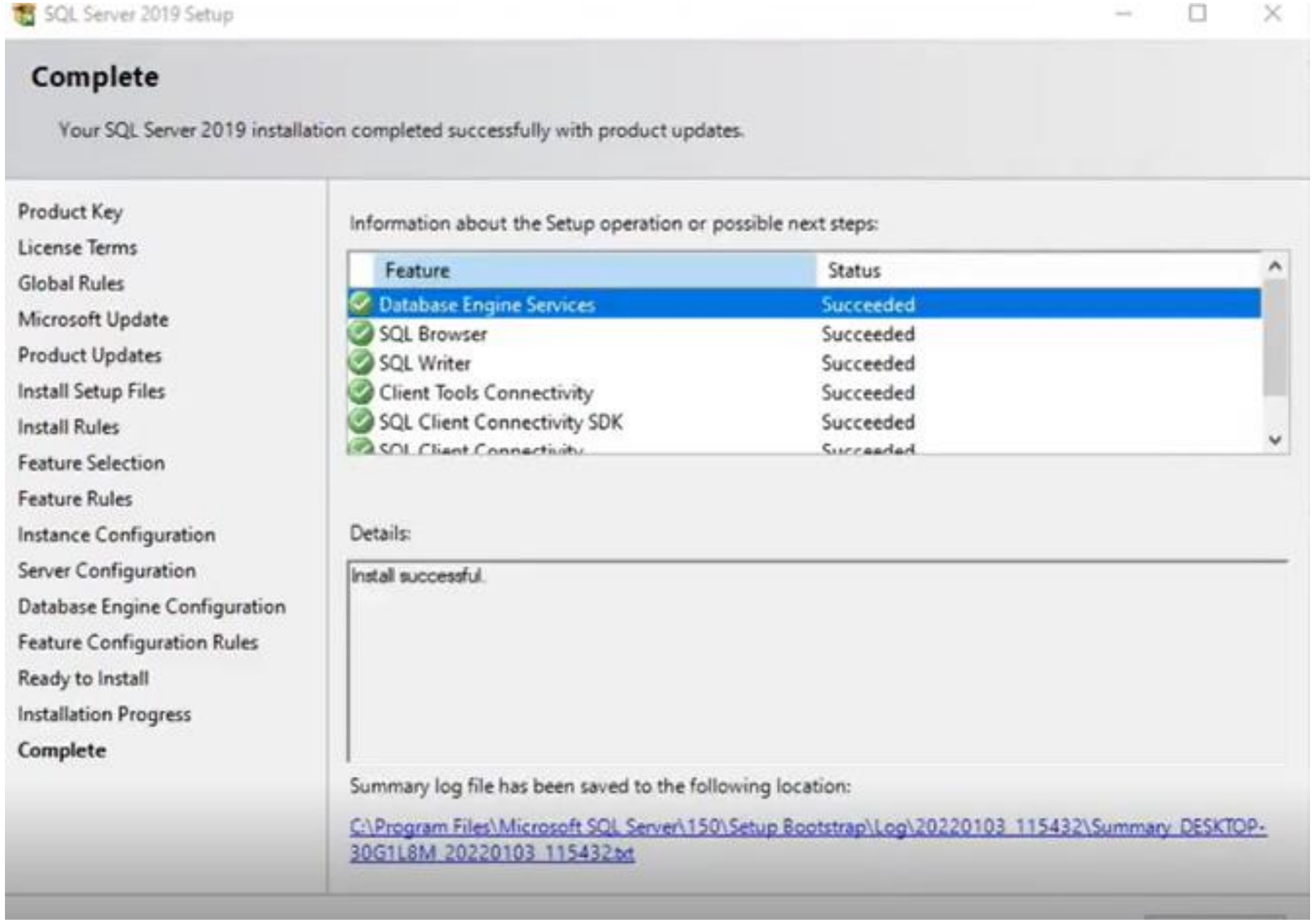
< Back | Next > | Cancel


SQL Server 2019 Setup
Database Engine Configuration
Specify Database Engine authentication security mode, administrators, data directories, TempDB, Max degree of parallelism, Memory limits, and Filestream settings.
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Java Install Location
Server Configuration
Database Engine Configuration
Analysis Services Configuration
Integration Services Scale Out ...
Distributed Replay Controller
Distributed Replay Client
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Server Configuration
Data Directories
TempDB
MaxDOP
Memory
FILESTREAM
Specify the authentication mode and administrators for the Database Engine.
Authentication Mode
Windows authentication mode
Mixed Mode (SQL Server authentication and Windows authentication)
Specify the password for the SQL Server system administrator (sa) account.
Enter password:
Confirm password:
Specify SQL Server administrators
SQL Server administrators have unrestricted access to the Database Engine.
Add Current User
Add...
Remove
< Back
Next >
Cancel

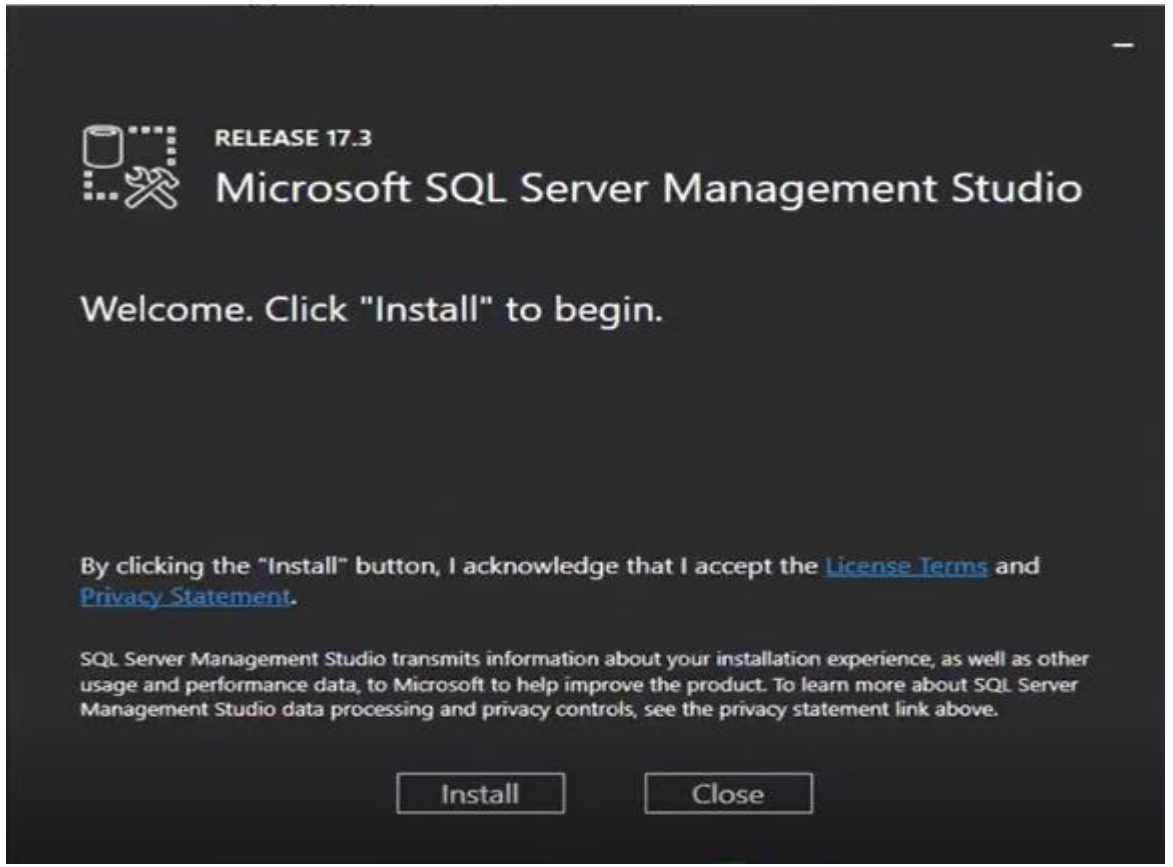

SQL Server 2019 Setup
Analysis Services Configuration
Specify Analysis Services server modes, administrators, and data directories.
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Java Install Location
Server Configuration
Database Engine Configuration
Analysis Services Configuration
Integration Services Scale Out ...
Distributed Replay Controller
Distributed Replay Client
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Server Configuration
Data Directories
Server Mode:
Multidimensional and Data Mining Mode
Tabular Mode
PowerPivot Mode
Specify which users have administrative permissions for Analysis Services.
Analysis Services administrators have unrestricted access to Analysis Services.
Add Current User
Add...
Remove
< Back
Next >
Cancel

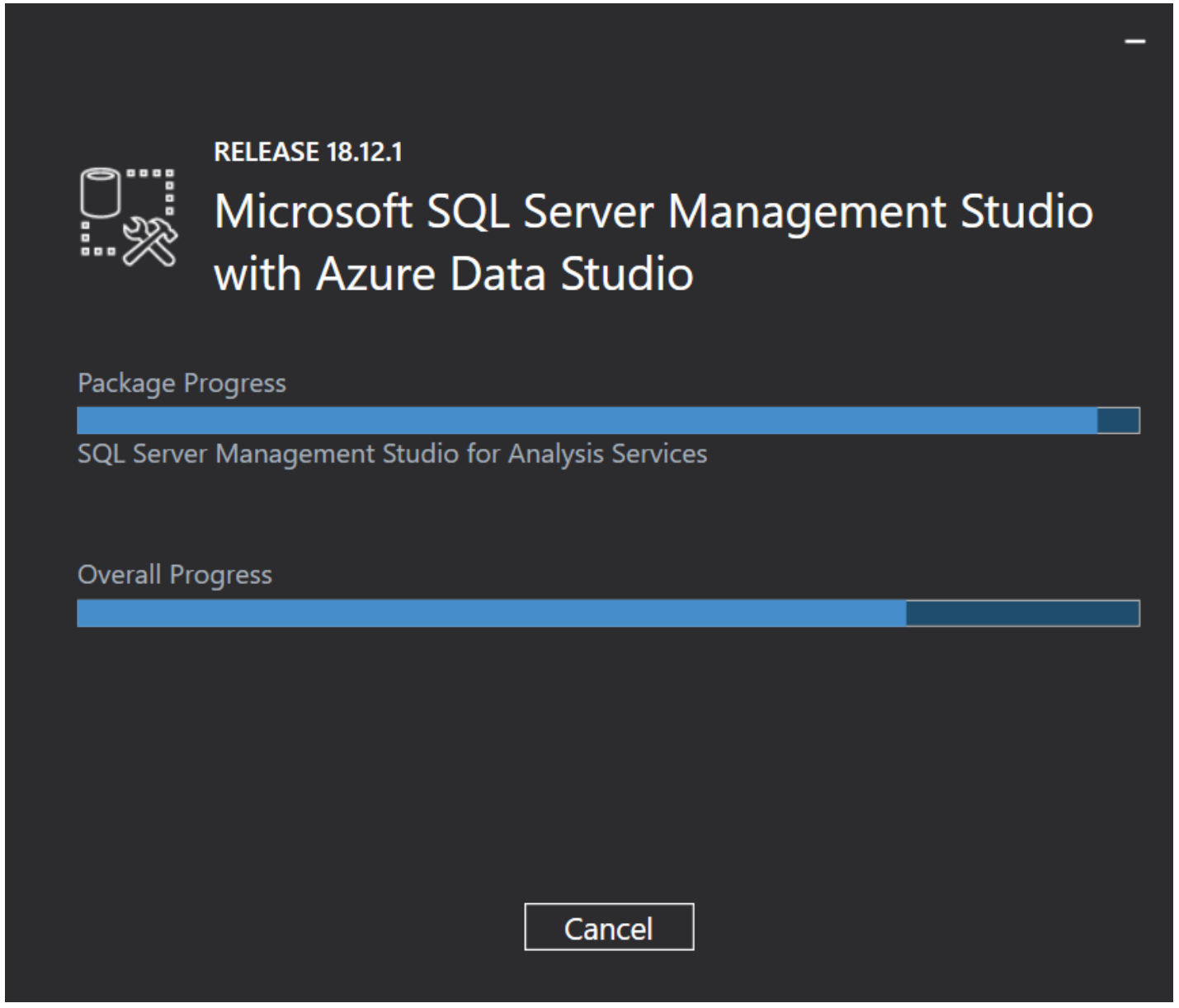

SQL Server 2019 Setup
Consent to install Microsoft R Open
Download and install necessary pre-requisite.
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Java Install Location
Server Configuration
Database Engine Configuration
Analysis Services Configuration
Integration Services Scale Out ...
Distributed Replay Controller
Distributed Replay Client
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Microsoft R Open is an enhanced distribution of R made available by Microsoft under the GNU General Public License v2.
R is © the R Foundation for Statistical Computing. For more information on R-related products and services, visit http://r-project.org.
By clicking "Accept" you
Please Wait ...
nload Microsoft R Open and install it on your machine, and agreeing to accept patch
is software according to your SQL Server update preferences.
Accept
< Back
Next >
Cancel


SQL Server 2019 Setup
Ready to Install
Verify the SQL Server 2019 features to be installed.
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Ready to install SQL Server 2019:
Database Engine Services
Client Tools Connectivity
Instance configuration
Instance Name: MSSQLSERVER
Instance ID: MSSQLSERVER
Instance IDs
SQL Database Engine: MSSQL15.MSSQLSERVER
Instance Directory: C:\Program Files\Microsoft SQL Server\
Shared component root directory
Shared feature directory: C:\Program Files\Microsoft SQL Server\
Shared feature (WOW64) directory: C:\Program Files (x86)\Microsoft SQL Server\
Product Update
Update Enabled: True
Update Source: MU
Instance configuration
Agent
Service Configuration
Configuration file path:
C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20220103_115432\ConfigurationFile.ini
< Back
Install
Cancel


SQL Server 2019 Setup
Complete
Your SQL Server 2019 installation completed successfully with product updates.
Product Key
License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Information about the Setup operation or possible next steps:
Feature
Status
Database Engine Services
Succeeded
SQL Browser
Succeeded
SQL Writer
Succeeded
Client Tools Connectivity
Succeeded
SQL Client Connectivity SDK
Succeeded
Details:
Install succesaful.
Summary log file has been saved to the following location:
C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20220103_115432\Summary_DESKTOP-30G1L8M_20220103_115432.txt

پارت دوم
نصب
Microsoft Sql Server Management Studio




RELEASE 18.12.1
Microsoft SQL Server Management Studio with Azure Data Studio
Package Progress
SQL Server Management Studio for Analysis Services
Overall Progress
Cancel