

# Agenda

SQL  
Database

SQL on  
IaaS

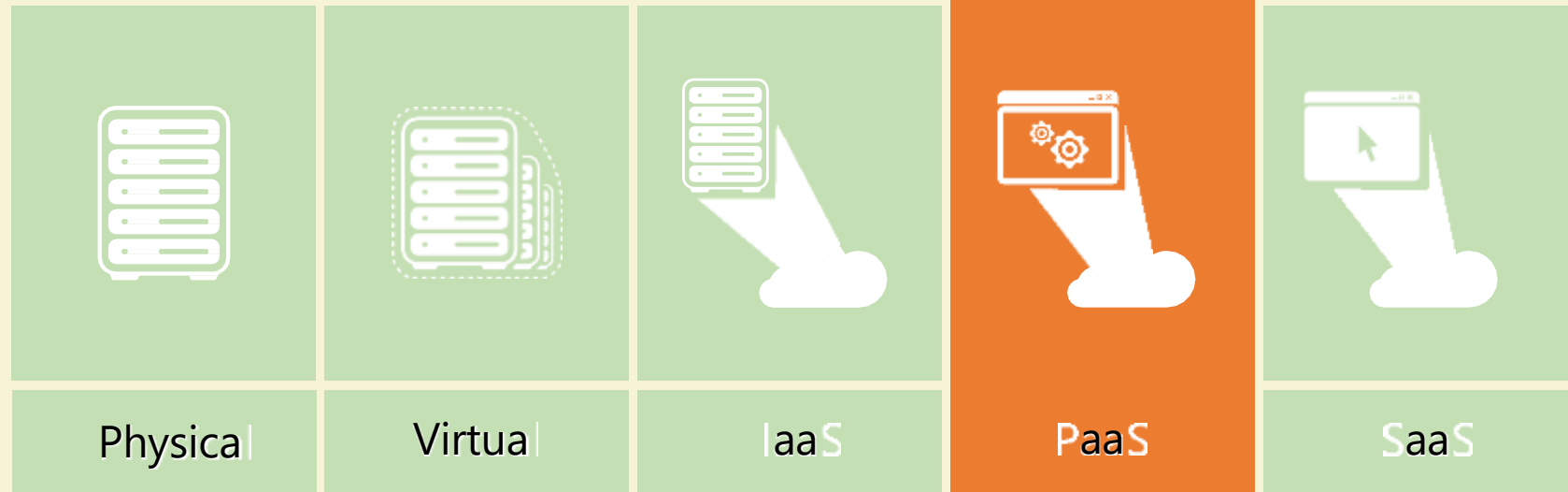
NoSQL

Blobs

Files



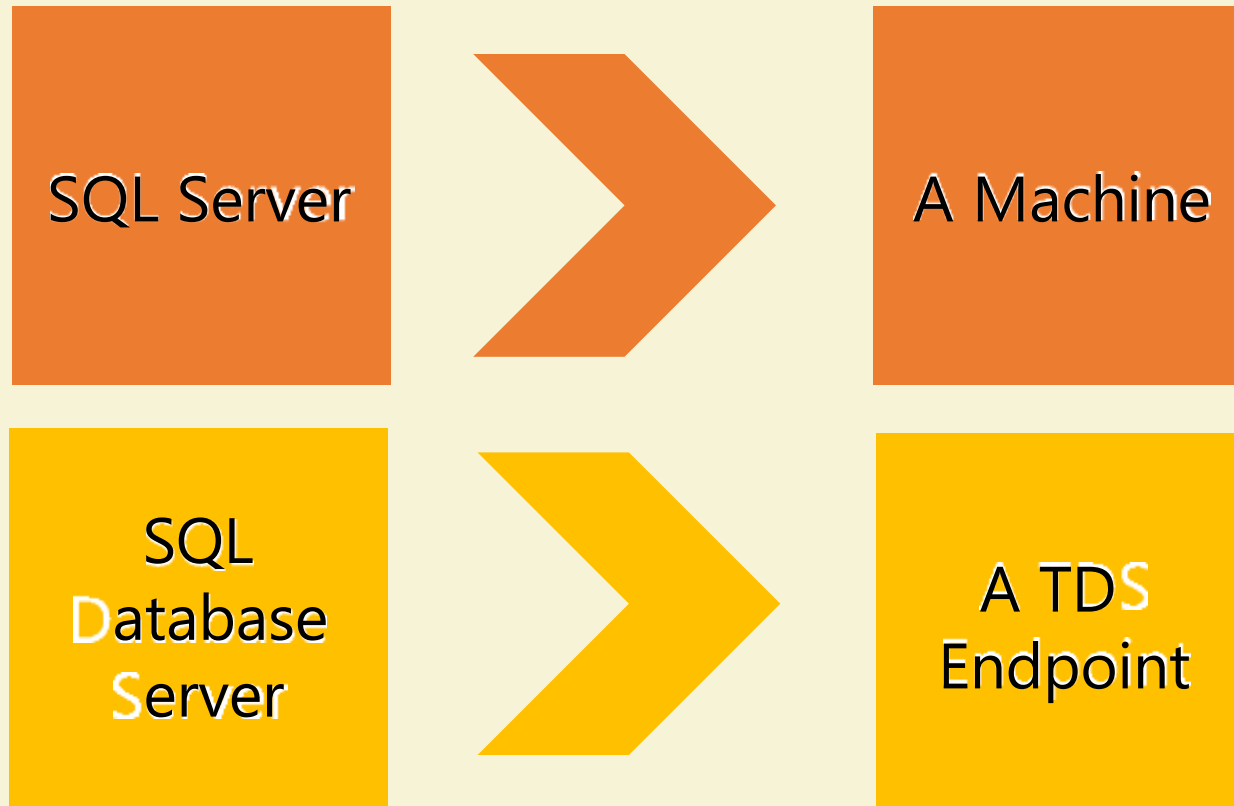
# A Continuous Offering From Private To Public Cloud



Architecture

SQL Database

# A Server Is Not A Machine



# How It Works

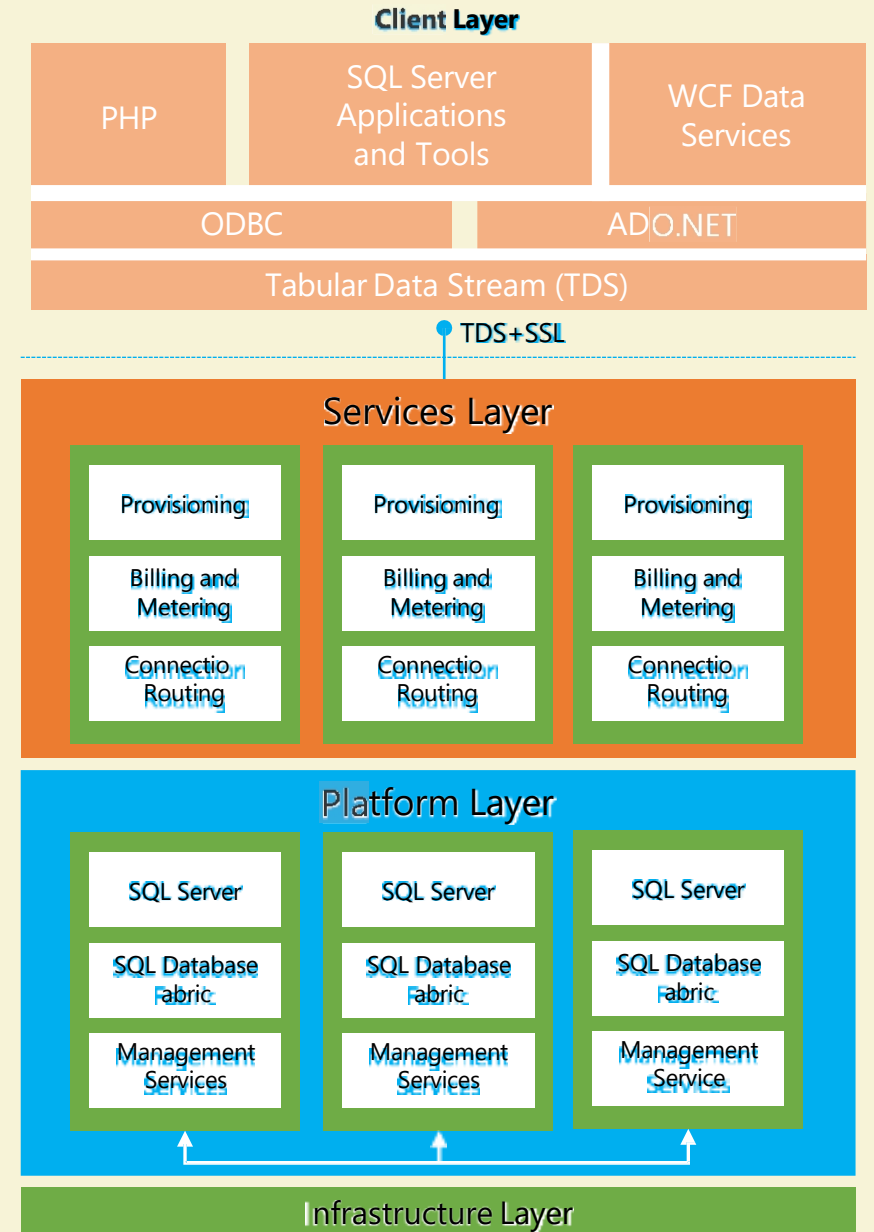
## Architecture

**Client Layer** - Used by application to communicate directly with SQL Database.

**Services Layer** - Gateway between Client layer and Platform layer.

**Platform Layer** - Includes physical services and services that support the Services layer.

**Infrastructure Layer** - IT administration of the physical HW and OS.



# Starting With The Basics

SQL Database

# The Basics



## SQL Database

SQL Server database technology as a service  
Fully Managed

Enterprise-ready with automatic support for HA  
Designed to scale out elastically with demand  
Ideal for simple and complex applications





# Selecting the right Edition

Service Tier	Performance Level	Common App Pattern	Performance			Business Continuity	
			Max DB Size	Trans. Perf. Objective	DTUs	PITR	DR / GEO-Rep
Basic	Basic	Small DB, SQL opp	2 GB	Reliability / Hr.	5	Past 7 Days	DB Copy + Manual Export
Standard	S1 / S2	Wrkgp/cloud app, multiple concurrent operations	250 GB	Reliability / Min.	15/ 50	Past 14 Days	DB Copy + Manual Export
Premium	P1 / P2 / P3	Mission Critical, High volume, Many concurrent Users	500 GB	Reliability / sec.	100/ 200/ 800	Past 35 Days	Active Geo-replication

Demo

Creating A SQL Database Server



# Create Database...

## Use Familiar Technologies

Transact-SQL

Languages

.NET Framework (C#, Visual Basic, F#) via ADO.NET

C / C++ via ODBC

Java via Microsoft JDBC provider

PHP via Microsoft PHP provider

Frameworks

OData, Entity Framework, WCF Data Services, NHibernate

Tools

SQL Server Management Studio (2008 R2 and later)

SQL Server command-line utilities (SQLCMD, BCP)

CA Erwin® Data Modeler

Embarcadero Technologies DBArtisan®

## SQL Server Comparison

Focus on logical vs. physical administration

Database and log files automatically placed

Three high-availability replicas maintained for every database

Tables require a clustered index

Maximum database size is 500 GB

## Unsupported SQL Server Features

Use command, distributed transactions, distributed views

Service Broker

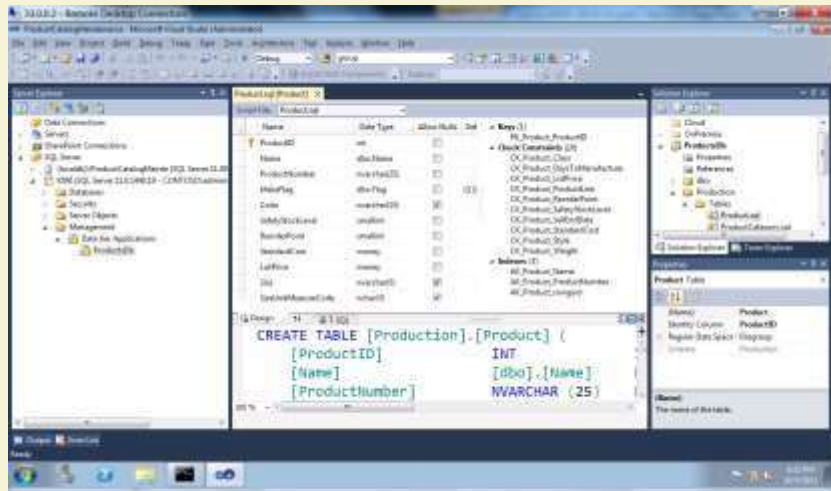
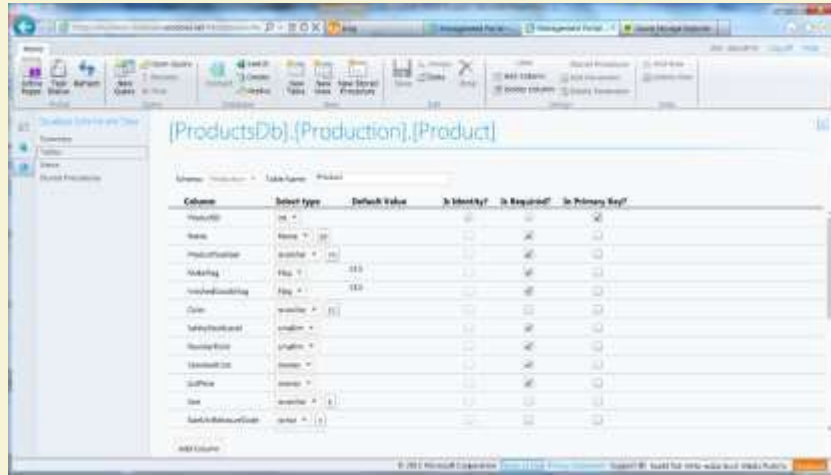
Common Language Runtime (CLR)

SQL Agent

SQL Profiler

Native Encryption

# Enhanced Tooling



## SQL Database Management Portal

Web designers for tables, views, stored procs

Interactive query editing and execution

## SQL Server Data Tools (SSDT)

Visual Studio IDE for database development

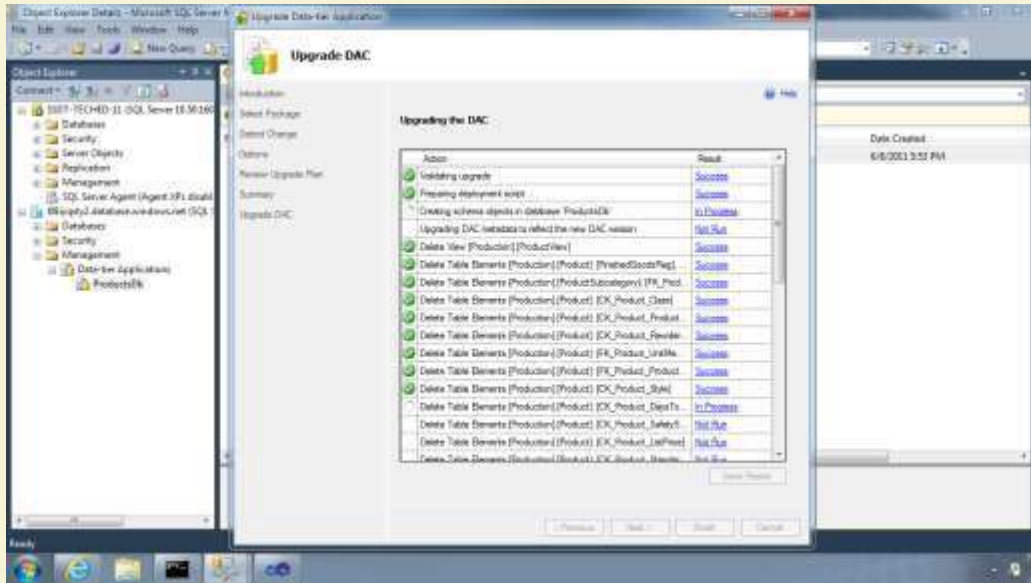
Includes modern designers and projects with declarative, model-driven development

Develop and test in both connected and disconnected states

Platform targeting for both SQL Server (2005 and above) and SQL Database

Get it free with Web PI, with SQL Server 2012 and with Visual Studio 11

# Database Deployment



Data-Tier Application Framework (DAC Fx)

Alternative to traditional script based approach

Dramatically simplifies deployment, migration and versioning of databases  
Provides a single unit of deployment for schema (dacpac) or for schema + data (bacpac)

Supports automatic versioning of database schemas

Supports platform targeting for both SQL Server (2005 and above) and SQL Database

Build from scratch or extract from

Demo

DAC Deployment

From SQL Server Management Studio



# Secure Your Database

SQL Database

There Are Two  
Ways To Secure  
A Database:



**On The Server**



**Within The  
Database**

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/096214033154010145>