



# Modern Migration Tour

Beating the end of support of SQL Server 2008/R2





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### Experiencia

MCSE Data management and Analytics

Azure architect technologies certified

Mas de 10 años de experiencia en bases de datos

### Comunidades

Guatemala SQL Server User Group

Azure Guatemala



# Beating the end of Support

**Evaluación a nivel empresarial de los beneficios  
de migrar hacia una plataforma de datos  
moderna**

# Deadline to act before end of support

SQL Server 2008 and 2008 R2



# Impact of end of support



No security updates



Compliance concerns



Missed innovation opportunities

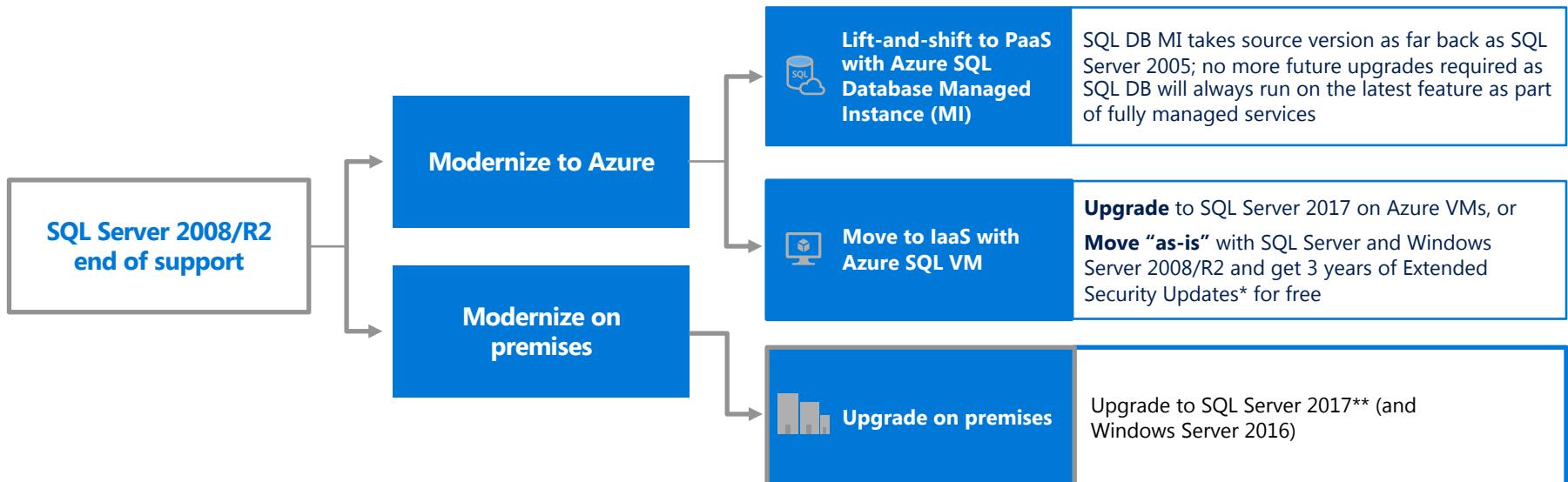
# Tecnologías de 2008



# Tecnologías de 2019



# Alternativas de migración



\* ESU worth 75% of license every year for the next three years after EOS

# Miedos en la migración

## Miedo

- Si funciona, ¿para qué tocarlo?
- No estoy seguro si mi aplicación lo va a soportar
- Nunca me ha pasado nada, no me va a pasar.
- Yo no uso nada de eso nuevo, no lo necesito

## Solución

- Estamos desperdiciando oportunidades
- Assessment y pruebas para comprobar.
- Los nuncas, eventualmente llegan y cuestan caro.
- ¿Cómo vivía sin ello?

# Migration Journey



## Assess

Involve stakeholders

Calculate your TCO

Discover and evaluate apps



## Migrate

Select a migration strategy

Apply the migration strategy

Find recommended tools



## Optimize

Analyze your costs

Save with offers

Reinvest to do more



## Secure and manage

Security

Data protection

Monitoring

On-premises



# WHAT'S NEW IN SQL SERVER 2017 SINCE 2008 R2

OLTP Performance	Security	Business Intelligence	Hybrid Cloud			
<p>Real-time operational analytics with in-memory OLTP or on disk</p> <p>In-memory for more applications</p> <p>Unparalleled scalability with Windows Server 2016, with 12TB memory and Windows Server 2016 max cores</p> <p>Enhanced AlwaysOn, with 8 secondaries and Replica Wizard</p> <p>Multiple node failover clustering (3 synchronous, up to 8 replicas)</p> <p>In memory OLTP</p> <p>Buffer Pool Extension to SSDs</p> <p>Enhanced query processing</p> <p>Resource Governor adds IO governance</p> <p>SysPrep as cluster level</p> <p>Predictable performance with tiering of compute, network and storage with Windows Server 2012 R2</p> <p>Delayed Durability</p> <p>Clustered Shared Volume support, VHDX support (Windows Server 2012 R2)</p> <p>Manage on-premises and cloud apps (System Center 2012 R2)</p> <p>Query optimization enhancements</p> <p>Recovery Advisor</p> <p>Windows Server Core</p> <p>Live Migration</p> <p>Online operations enhancements</p> <p>Query Store</p> <p>Temporal support</p>	<p>SQL Server Data Tools</p> <p>Local DB runtime (Express)</p> <p>Data-tier application component project template</p> <p>Data-Tier Application Framework (DAC Fx)</p> <p>Interoperability support (ADO.NET, ODBC, JDBC, PDO, ADO APIs and .NET C/C++, Java, Linux and PHP platforms)</p> <p>Enhanced support for ANSI SQL standards</p> <p>Transact-SQL Static Code Analysis tools</p> <p>Transact-SQL code snippets</p> <p>Intellisense</p> <p>FileTable build on FILESTREAM</p> <p>Remote Blob Storage with SharePoint 2010</p> <p>Statistical Semantic Search</p> <p>Spatial features, Full Globe and arcs</p> <p>Large user-defined data types</p> <p>Distributed Replay</p> <p>Contained Database Authentication</p> <p>System Center Management Pack for SQL Server 2012</p> <p>Windows PowerShell 2.0 support</p> <p>Multi-server Management with SQL Server Utility Control Point</p> <p>Data Tier Application Component</p> <p>Automatic Plan Correction</p>	<p>Transparent Data Encryption</p> <p>Always Encrypted</p> <p>Enhanced separation of duty</p> <p>Row-level security</p> <p>Dynamic data masking</p> <p>Enhanced separation of duties</p> <p>Default schema for groups</p> <p>SQL Server Audit</p> <p>SQL Server fine-grained auditing</p> <p>Adaptive Query Processing</p> <p>Operational analytics</p> <p>In-memory ColumnStore</p> <p>Deployment rights for APS</p> <p>Enhanced In-memory ColumnStore for DW</p> <p>PolyBase for simple T-SQL to query structured and unstructured data</p> <p>Enhanced database caching</p> <p>Up to 15,000 partitions</p> <p>Analytics Platform System</p>	<p>Enhanced connectors, new transformations, object-level security, ragged hierarchies**</p> <p>Graph data support</p> <p>Mobile BI</p> <p>Enhanced SSIS</p> <p>Enterprise-grade Analysis Services</p> <p>Advanced tabular models</p> <p>In-memory analytics</p> <p>Enhanced multidimensional models</p> <p>JSON support</p> <p>Enhanced DQS</p> <p>Enhanced MDS</p> <p>Modern Reporting Services</p> <p>Temporal tables</p> <p>Advanced data mining</p> <p>Create mobile reports using the SQL Server Mobile Report Publisher</p> <p>Consume with Power BI mobile apps</p> <p>Azure HDInsight Service</p> <p>Power BI</p> <p>Power Map for Excel</p> <p>Mash up data from different sources, such as Oracle &amp; Hadoop</p> <p>HA for StreamInsight, complex event processing</p> <p>SQL Server Data Tools support for BI</p> <p>Change Data Capture for Oracle</p> <p>Import PowerPivot models into Analysis Services</p> <p>Python integration**</p> <p>R built-in to your T-SQL</p> <p>RRE APIs with full parallelism and no memory limits for scale/performance</p> <p>Built-in In-memory Advanced Analytics</p> <p>Advanced tabular model</p> <p>Direct query</p> <p>Advanced data mining</p> <p>SSDT in Visual Studio</p>	<p>Enhanced productivity and performance</p> <p>Power View</p> <p>Configurable reporting alerts</p> <p>Reporting as SharePoint Shared Service</p> <p>Build organization knowledge base</p> <p>Connect to 3rd party data cleansing providers</p> <p>Master Data Hub</p> <p>Master Data Services Add-in for Excel</p> <p>Graphical tools in SSIS</p> <p>Extensible object model</p> <p>SSIS as a Server</p> <p>Broader data integration with more sources: DB vendors, cloud, Hadoop</p> <p>Pipeline improvements</p> <p>Stretch database</p> <p>Partitioning for efficient data loading</p> <p>Hybrid scenarios with SSIS</p> <p>Enhanced backup to Azure</p> <p>Easy migration to the cloud</p> <p>Simplified cloud DR with AlwaysOn replicas</p> <p>Simplified backup to Azure</p> <p>Support for backup of previous versions of SQL Server to Azure</p> <p>Cloud back-up encryption support</p> <p>Simplified cloud Disaster Recovery with AlwaysOn replicas in Azure VMs</p> <p>New Azure Deployment UI for SQL Server</p> <p>Larger SQL Server VMs and memory sizes available in Azure</p> <p>SQL Server Data Tools</p> <p>Snapshot backups to Azure via SQL Server Management Studio</p>	<p>Data Warehousing</p> <p>Advanced Analytics</p> <p>Platform</p>	<p>Linux support</p> <p>Container support</p>

\*\*Available for Windows Server only.





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