Build an intelligent and secure app with Azure managed service for PostgreSQL

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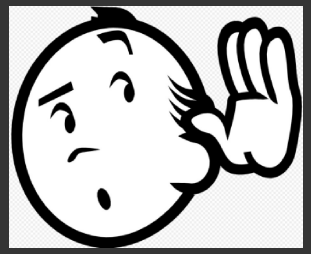
Microsoft



User Voice

How can we improve Azure SQL Database?

← SQL Database

724 votes

Vote

MySQL and PostgreSQL as DAAS from MS (like an Azure SQL database)

MySQL and/or PostgresSQL as a DAAS from Microsoft or atleast please buy ClearDB.

I work for a University and we really need mysql/postgresql to exist as an offering from MS and not from a provider as we cannot always use the non MS offerings for Mysql for your systems . Our databases are primarly mysql/postgresql and it's not a realistic scenario to convert/migrate to Azure SQL. I Think alot of universities need this as a native offering in azure. The ClearDB solution is something that we can use but not for everything, for this kind of solution we really need a native offering from MS or atleast as i stated buy ClearDB.

MichaelT shared this idea · Jun 9, 2015 · Flag idea as inappropriate...

COMPLETED · May 12, 2017

176 votes

Vote

Offer postgresql as a PaaS/DaaS service, not via a third party

First and foremost: I understand that anyone can spin up a VM and just put postgres (or anything else) on it. This suggestion is not satisfiable by that advice.

What I and countless others would like to see is postgres offered as a 1st class (by Microsoft) database as a service solution.

Right now the only DB could I confidently use on Azure is SQL Server. The third party integration of MySQL by ClearDB leaves a lot to be desired and indeed - it would be better if Microsoft in-housed an option for all the as-a-service DBs, just like RDS.

Alexander Trauzzi shared this idea · Jun 13, 2015 · Flag idea as inappropriate...

ADMIN

COMPLETED · SQL Database feature voting forum admins (Admin, Microsoft Azure) responded · May 15, 2017

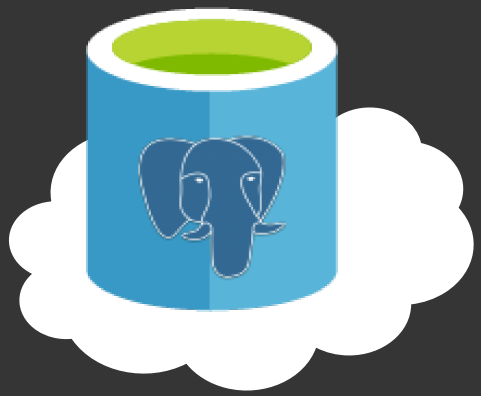
We announced the Public Preview for first-party managed services – Azure Database for PostgreSQL and Azure Database for MySQL at the Build conference last week.

Check out links below for details and try out the services today!
azure.microsoft.com/en-us/services/postgresql
azure.microsoft.com/en-us/services/mysql

Show previous admin responses (1)

Azure Database for PostgreSQL

Choices that enable you to focus on your app



Provision in minutes with **built-in high availability**

Simple scaling with virtually no application downtime

Security out-of-the-box to protect data at rest and in-motion

Automatic backups **with storage management** for recovery to any point up to 35 days

Continue to use same **tools, drivers and libraries**

Intelligent app demo using Azure Database for Postgres service

Building a Stock Prediction Application on Azure

Twitter Data

Tweetinvi API

C# Application

Npgsql

Google Finance

Microsoft Cognitive Services Text Analytics API

Cortana Intelligence Suite

PostgreSQL PowerBI connector

Visualizing the Data in PowerBI

Power BI

Training Experiment

Predictive Experiment

Azure Database for PostgreSQL

Azure Machine Learning Studio

Microsoft

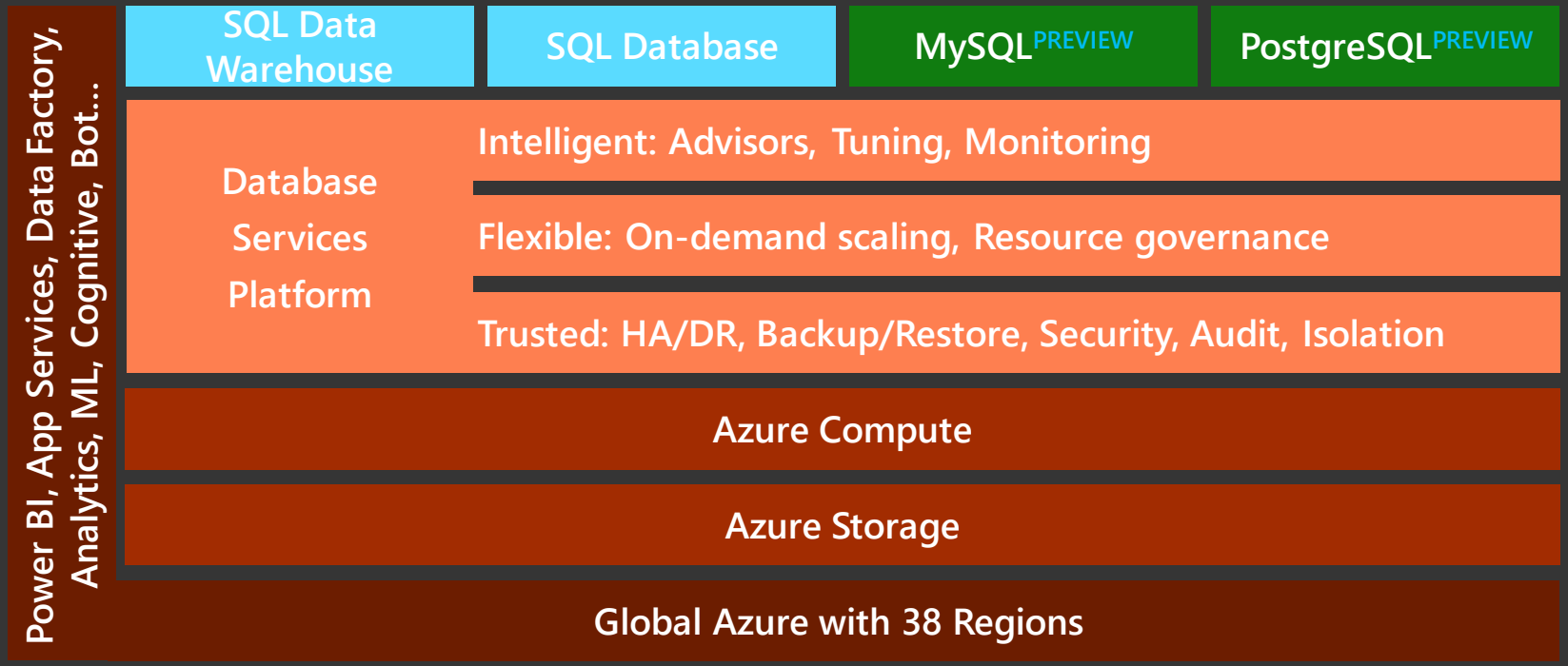
Build apps with your choice of tools and languages

Simplify and optimize with the support of all major tools, frameworks, and languages you already use.

Integrated across Azure for seamless developer productivity

Building the service

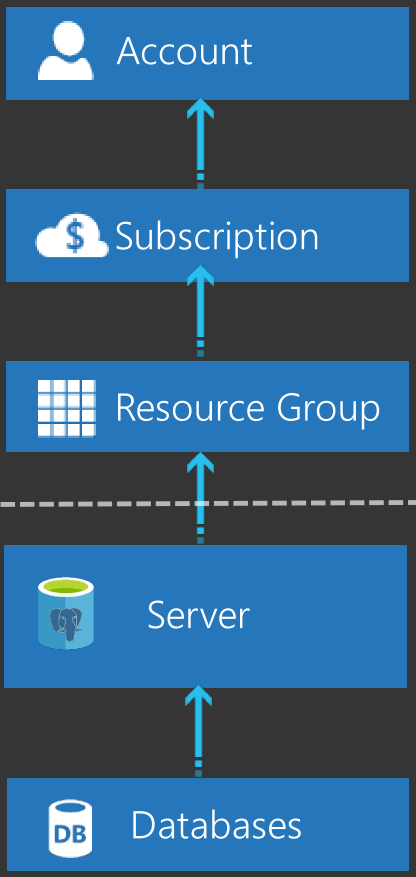
Azure Relational Database Platform



Intelligent // Trusted // Flexible

Conceptual Model

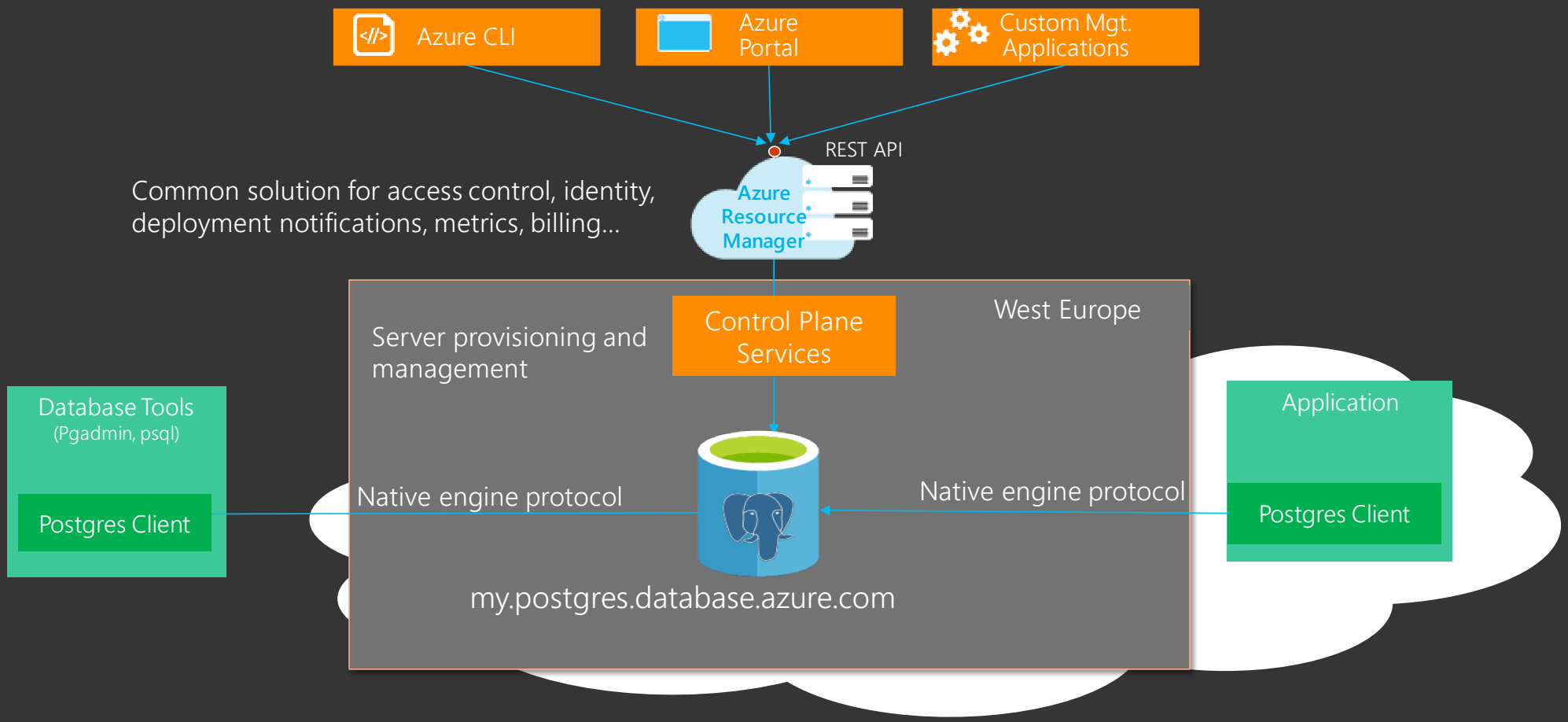
- **Logical** server instance
- **Connection endpoint** for PostgreSQL server.
- Can create one to many user databases.
- Pinned to a **region**
- **Policy scope**, e.g. firewall rules, recovery, monitoring and management.



Azure

Azure Database for PostgreSQL

Create, connect and manage PostgreSQL server

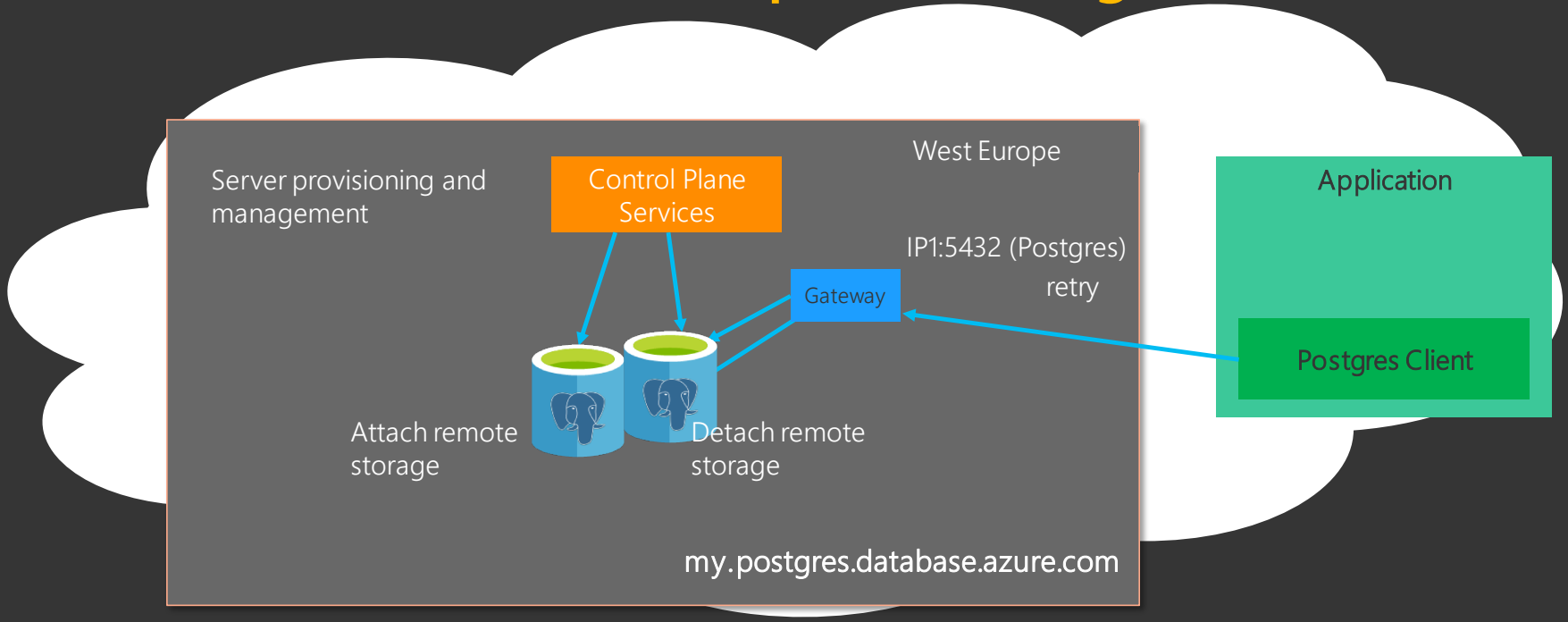


High availability and scaling built-in

Virtually no app down time

Configure and scale compute and storage independently

No need for replicas management

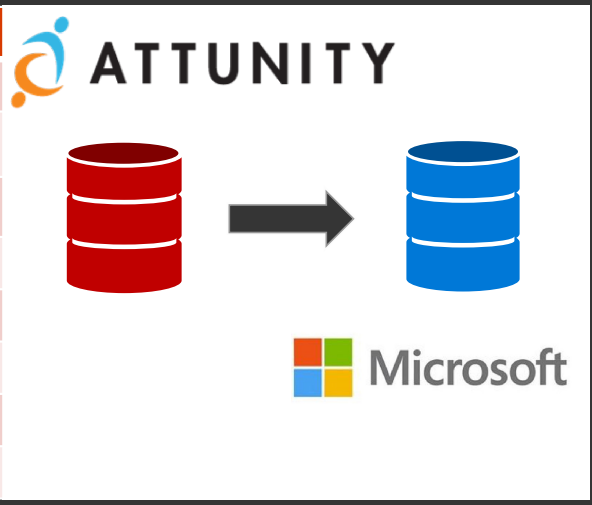


Accelerate migrations to the Microsoft Data Platform

Speed up database migrations now!

Attunity Replicate helps organizations migrate data quickly and easily with virtual no downtime.
No additional software on source or target.
No extra costs for Microsoft customers.

Migration source	Supported targets
Oracle Database	Microsoft SQL Server, Azure SQL Database, Azure Database for PostgreSQL
PostgreSQL	Azure Database for PostgreSQL
MySQL	Microsoft SQL Server, Azure SQL Database, Azure Database for MySQL
Data warehouse workloads from Oracle	Azure SQL Data Warehouse
Teradata	Azure SQL Data Warehouse
Sybase ASE	Microsoft SQL Server, Azure SQL Database
IBM Netezza	Azure SQL Data Warehouse
AWS Redshift	Azure SQL Data Warehouse



For more information visit https://aka.ms/attunity-replicate

Performance Options

Basic Tier – Personal blogs, small sites, dev and test

Service Tier	Basic
Intended Use Case	*Built for workloads with light compute needs and variable IO performance*
Compute Units	50, 100
Storage (included)	50GB Magnetic Media
IOPS (included)	Variable

Additional Options

Storage	Scale up to 1 TB
IOPS	NA

Standard – Apps that need low IO latency

Service Tier	Basic	Standard Balanced IO and Compute
Intended Use Case	*Built for workloads with light compute needs and variable IO performance*	*Ideal for most business workloads offering balanced and scalable compute and storage options*
Compute Units	50, 100	100, 200, … 2000
Storage (included)	50GB Magnetic Media	125GB Remote SSD
IOPS (included)	Variable	375 Scales 3:1 (IOPS:GB)

Additional Options

Storage	Scale up to 1 TB
IOPS	NA

Perf Optimized – Apps that require very low latency

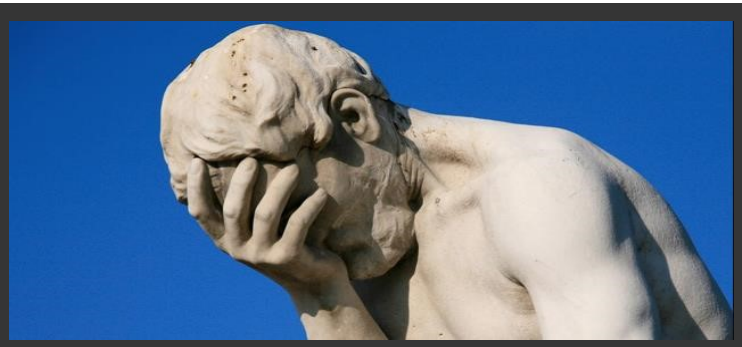
Service Tier	Basic	Standard Balanced IO and Compute	Performance Optimized IO and Memory Optimized
Intended Use Case	*Built for workloads with light compute needs and variable IO performance*	*Ideal for most business workloads offering balanced and scalable compute and storage options*	*Ideal for highly transactional and analytical workloads requiring low disk latency and higher memory*
Compute Units	50, 100	100, 200, … 2000	100, 200, … 2000
Storage (included)	50GB Magnetic Media	125GB Remote SSD	Local SSD
IOPS (included)	Variable	375	

Additional Options

Storage	Scale up to 1 TB	Scale up to 1 TB
IOPS	NA	Scales 3:1 (IOPS:GB)

99.99% SLA | fully managed | built-in HA | online performance scaling

Intelligent managed service for database and app developers



Database Developer/Devops

- Infrastructure patching and upgrades
- Database availability
- Manage backups for recovery
- Data security
- Optimize database performance
- Monitoring and Alerting
- Troubleshooting

Application Developer

- Provisioning and managing databases
- No compromise availability, security and performance
- Elastic scalability on demand
- Freedom to use tools and frameworks for the task in hand
- Flexible pay-as-you-go pricing

Intelligent, managed data services for database developers

Securing your database

All data at-rest including backups are encrypted on disk by default with AES 256 bit encryption.

Connections to database are secured by default with SSL

No additional switch or planning required to secure your database!.

Microsoft

Intelligent, managed data services for database developers

Securing your database

Manage backups

Built-in backup with retention of backups up to 35 days for PITR for RPO < 5 minutes

Backups are geo-redundantly stored in another region to recover from disasters.

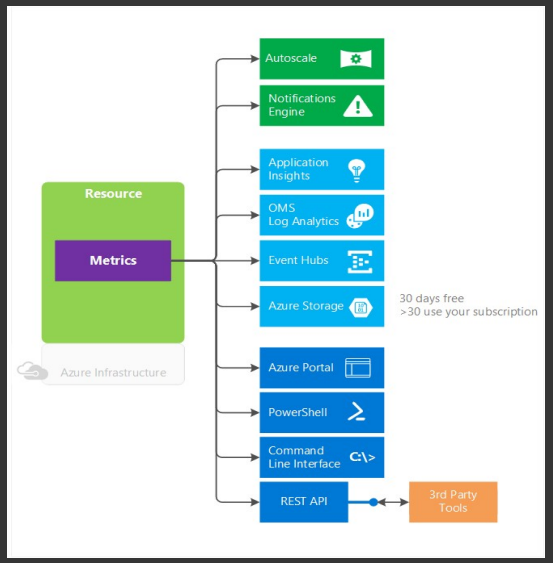
Microsoft

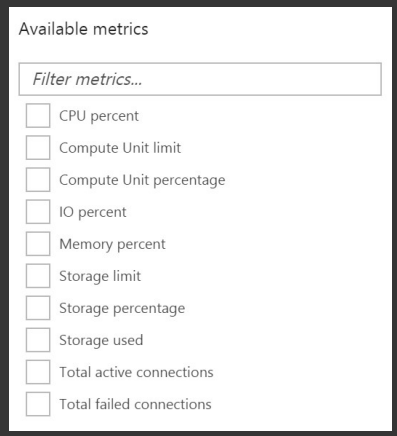
Intelligent, managed data services for database developers

- Securing your database
- Manage backups
- **Monitoring and Alerting**

The service provides monitoring on metrics and ability to define alerts via integration with Azure Monitor service for up to 30 days.

Integrated with community and 3rd party monitoring tools.





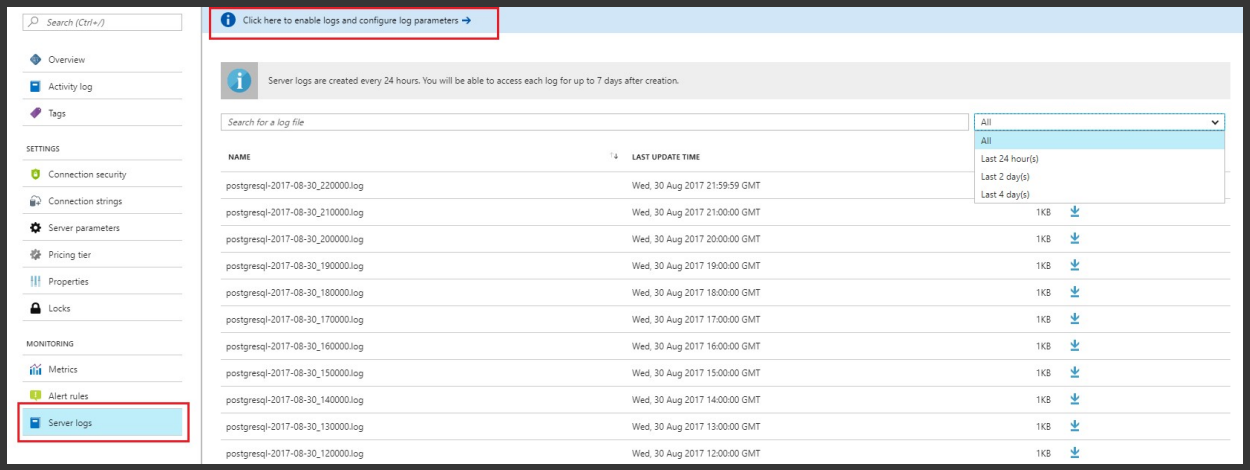
Microsoft

Intelligent, managed data services for database developers

- Securing your database
- Manage backups
- Monitoring and Alerting
- **Troubleshooting**

Configure server log retention period for up to 7 days (consumes configured server storage)

Default enablement of Postgres pg_stat_statements for access to Postgres metrics.

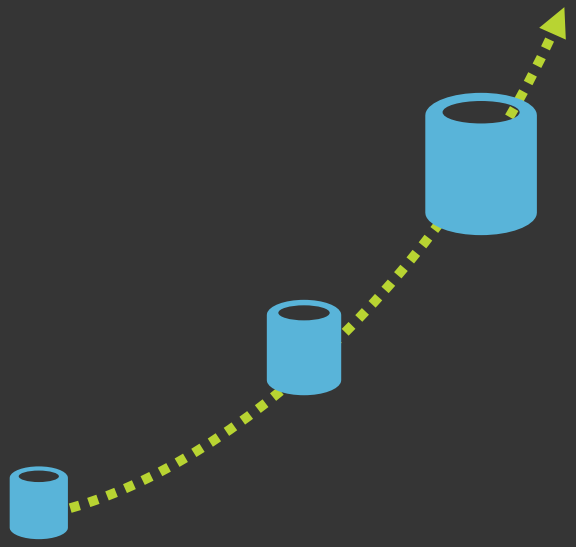


Microsoft

Intelligent, managed data services for database developers

- Securing your database
- Manage backups
- Monitoring and Alerting
- Troubleshooting
- **Automated Patching**

Automatic patching for Postgres minor versions which means developers do not have to worry about managing this.



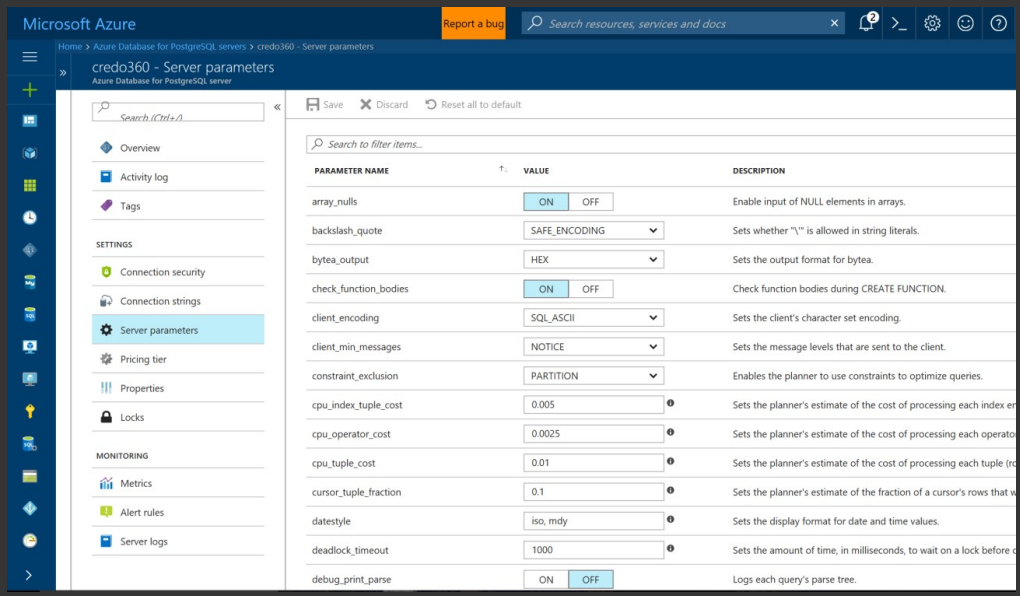
Microsoft

Intelligent, managed data services for database developers

- Securing your database
- Manage backups
- Monitoring and Alerting
- Troubleshooting
- Automated Patching
- **Customize server parameters**

Customize PostgreSQL server parameters based on your needs.

Ability to access server logs via portal, REST API or Azure CLI.



Microsoft

Intelligent, managed data services for database developers

- Securing your database
- Manage backups
- Monitoring and Alerting
- Troubleshooting
- Automated Patching
- Customize server parameters
- **Add Extensions**

32 PostgreSQL extensions supported today with more in plan!

- address_standardizer
- address_standardizer_data_us
- btree_gin
- btree_gist
- chkpass
- citext
- cube
- dict_int
- earthdistance
- fuzzystrmatch
- hstore
- Intarray
- isn
- ltree
- pgcrypto
- pgrouting
- pgrowlocks
- pgstattuple
- pg_buffercache
- pg_partman
- pg_prewarm
- pg_stat_statements
- pg_trgm
- plpgsql
- postgis
- postgis_sfcgal
- postgis_tiger_geocoder
- postgis_topology
- postgres_fdw
- tablefunc
- unaccent
- uuid-ossp

Microsoft


16
Azure regions available today
West US, North Central US, East US, East US2, South Central US, West Europe, North Europe, Japan West, Japan East, East Asia, SE Asia, West India, Central India, Canada East, Canada Central, Brazil South
AZURE DATABASE FOR POSTGRESQL REGION AVAILABILITY TODAY
More coming soon!

Some of our customers

School District 42
Maple Ridge & Pitt Meadows

GeekWire

Higher Ed Profiles

SOMERSET
County Council

Resources

- **Azure service page:**
  - Azure Database for PostgreSQL
- **Documentation**:
  - Azure Database for PostgreSQL
- **Discussion forum**:
  - MSDN, StackOverflow
- **Feedback forum:**
  - User Voice
- **GitHub repo**:
  - https://github.com/Azure/azure-postgresql
- **Twitter**:
  - @AzureDBPostgres

Microsoft

Please provide feedback: https://2017.pgconf.eu/f