Data Share Setup Guide

III planet

Table of Contents

- 1. Prerequisites To Receive Data Share
- 2. <u>Registering Data Share Services</u>
- 3. Configuring The Data Share
- 4. Configuring SQL Server
- 5. <u>Configuring Azure Database</u>
- 6. <u>Mapping Datasets In Data Share to the Database</u>
- 7. Triggering the Snapshot



Prerequisites to Receive Data Share

- 1. An Azure Subscription is required to accept the Data Share invitation
- 2. Azure Active Directory has to be set up with the email address which will receive the data share
- 3. Configure a Data Service for the target, like storage or a database account

Registering Data Share Service

Register the <u>Microsoft.DataShare resource provider</u> in the Azure subscription where you'll create a Data Share resource and the Azure subscription where your target Azure data stores are located.

Follow these steps to register the Microsoft.DataShare resource provider into your Azure Subscription. You need **Contributor** access to the Azure subscription to register resource provider.

1. In the Azure portal, navigate to Subscriptions.



2. Select the subscription you're using for Azure Data Share.





3. Select Resource Providers.

\equiv Microsoft Azure	و م	Search resources, services, and docs (G+/)
Home > Subscriptions >		
e d t	☆ …	
✓ Search	~	$\hat{\blacksquare}$ Cancel subscription $ \mathscr{D} $ Rename $ o $
Settings	•	∧ Essentials
Programmatic deployment		Subscription ID
() Resource groups		Directory
Resources		My role
Preview features		Offer
📰 Usage + quotas		Offer ID
Policies		Parent management group
Management certificates		Subscription name
		Current billing period
X My permissions		Currency
<mark>≋</mark> ≣ Resource providers		Status
Deployments		Secure Score

4. Search for Microsoft.Datashare.



5. Select Register.

Configuring the Data Share

1. An invite for a Data Share will be sent to the email provided



2. Clicking on View invitation will take you to the Data Share Invitations. Alternatively, you could also search for Data Share Invitations on the Azure Portal

≡ Microsoft Az	e Search resources, services, and docs (G+/)		Þ	F	Q	٢	0	ጽ	ssani PLAI
Home >	Home >								
Data Share I	vitations 🖈 🖤								
🕐 Refresh									
Pending invitations sent	Pending invitations sent to your Azure login email are listed. See accept and receive data tutorial for details.								
Invitation	Sender Company	Status				R	eceived	d On	
PG9999_Data_Share_F	Sanjay Sanigarapu Planet DDS	Pending				2	/23/202	23 9:56:	01 AM

- 3. Click on the Invitation, PG9999_Data_Share_Full.
- 4. Select Subscription, Resource Group

5. Click on Create New (for Data Share account)

		$\mathcal P$ Search resources, services, and docs (G+/)				
Home > Data Share Invitations > PG9999_Data_Share_Full						
Invitation						
From		Number of datasets				
		0				
Company		Expires on				
Planet DDS						
Description						
Terms of use						
TARGET DATA SHARE ACCOUNT						
Subscription *		\checkmark				
Resource group *	Create new	~				
Data share account *	Create New	~				
Received share name * 🛈	PG9999_Data_Share_Full					

- 6. Enter a name for the Data Share.
- 7. Select Subscription, Resource group and Location

≡ Microsoft Azure		${\cal P}$ Search resources, services, and docs (G+/)			
Home > Data Share Invitations > PG9999_Data_Share_Full >					
Create data share acco	ount				
Data share account name *	PDDSDataShare				
Subscription ①					
Resource group 🕕					
Location *	Central US	\checkmark			



8. You should see the following screen after the Data Share instance is setup

😑 Microsoft Azure 🔎 Sea	rch resources, services, and docs (G+/)	2	G		0	ন্দ	
Home > Data Share Invitations > PDDSDataShare							
PDDSDataShare Received Shares … Data Share							
	Received Shares > PG9999_Data_Share_Full						
Cverview	Details Datasets Snapshot Schedule Histor	У					
Activity log	Configure <u>Datasets</u> to receive data into your target data	ata store					
Access control (IAM)	🗋 Trigger snapshot \vee 💍 Refresh						
🗳 Tags	Source share		Provider				
Diagnose and solve problems	PG9999_Data_Share_Full						
Settings	Provider company		Shared or	1			
Properties	Planet DDS		10:02:21	AM, 2/2	23/2023	;	
🔒 Locks	Number of source datasets		Accepted	by			
Data Share	4						
Sent Shares	Last run status		Received	share s	tatus		
Received Shares	O Uninitiated		🗸 Active				
Feedback							

Configuring SQL Server

1. On Azure Portal, Search and click on SQL Servers

Microsoft Azure	₽ SQL Servers	×
Azı	All Services (28) Marketplace (31) C Azure Active Directory (0)	Documentation (99+) Resources (0) Resource Groups
	Services	🧧 SQL databases
	Azure Database for MySQL servers	😤 SQL Server - Azure Arc
Res	Sirtual machines	🧕 SQL Server databases - Azure Arc
Red	🛐 PostgreSQL servers – Azure Arc	🔒 SQL Server stretch databases



2. Click Create to create a new server

\equiv Microsoft Azure				
Home >				
SQL servers &				
🕂 Create 🐯 Manage view	$u \hspace{0.5mm} \sim \hspace{0.5mm} \bigodot$ Refresh $\hspace{0.5mm} \stackrel{1}{\underline{}} \hspace{0.5mm}$ Export to CSV $\hspace{0.5mm} \overset{\infty}{} \hspace{0.5mm}$ Open query $\hspace{0.5mm} \mid \hspace{0.5mm} \oslash \hspace{0.5mm}$ Assign tags			
Filter for any field	Subscription equals 25 of 29 selected Resource group equals all \times			

3. Enter the Subscription, Resource group, Server name and Location

Microsoft Azure	∞ Search resources, services, and docs (G+/)
Home > SQL servers >	
Create SQL Data	base Server
Basics Networking Ad	dditional settings Tags Review + create
SQL database server is a logica Review + Create to provision v	Il container for managing databases and elastic pools. Complete the Basic tab, then go to vith smart defaults, or visit each tab to customize. Learn more 🕫
Project details	
Select the subscription to man manage all your resources.	age deployed resources and costs. Use resource groups like folders to organize and
Subscription * ①	
Resource group * ①	Create new
Server details	
Enter required settings for this	server, including providing a name and location.
Server name *	denticon
1	.database.windows.net
Location "	
Authentication	
Select your preferred authentic access your server with SQL au AD user, group, or application	cation methods for accessing this server. Create a server admin login and password to ithentication, select only Azure AD authentication <u>Learn more</u> d using an existing Azure as Azure AD admin <u>Learn more</u> d, or select both SQL and Azure AD authentication.
Review + create	ext : Networking >



- 4. Select the Authentication method according to your organization's policies.
- 5. Select both Azure AD and SQL authentication.

😑 Microsoft Azure 👂	 Search resources, services, and docs (G+/) 	R & Q & R
Home > SQL servers > Create SQL Databa Microsoft	ase Server	Azure Active Directory Azure Active Directory
Server details		
Enter required settings for this se	erver, including providing a name and location.	
Server name *	Enter server name	
	.database.windows.net	
Location *	(US) East US 🗸	
Authentication Select your preferred authenticat access your server with SQL auth AD user, group, or application as Authentication method	tion methods for accessing this server. Create a server admin login and password to entication, select only Azure AD authentication (azm more & using an existing Azure Azure AD admin Learn more &, or select both SQL and Azure AD authentication. Use only Azure Active Directory (Azure AD) authentication Use both SQL and Azure AD authentication Use SQL authentication	Selected Item No item selected
Set Azure AD admin *	Net Selected Set admin	
Server admin login *	Enter server admin login	
Password *		
Confirm password *		
Review + create Nex	t : Networking >	Select Exactly 1 item must be selected.

- 6. Click Review + Create.
- 7. When the SQL server is provisioned, configure the access by clicking on Networking. *Note: Consult with your networking team to follow your organization's policies*

Microsoft Azure		∞ Search resources, services, and	docs (G+/)
Home > denticon			
e denticon Networkin	ng ☆ …		
	Readback		
Cverview	N. LEEDWARK		
 Activity log 	Public access Private access	Connectivity	
Access control (IAM)	Public network access		
Tags	Public Endpoints allow access to this n	esource through the internet using a public IP address.	An application or resource
Disperse and solve problems	Public network access	0.00	
2- Diagnose and some problems		() Disable	
Quick start		Selected networks	
Settings		① Connections from the IP addresses configured	in the Firewall rules section t
🝰 Azure Active Directory			
SQL databases	Virtual networks		
SQL elastic pools	Allow virtual networks to connect to y	our resource using service endpoints. Learn more[2]	
DTU quota	+ Add a virtual network rule		
Properties			
🔒 Locks	Rule Virtual network	Subnet Address range Endpoint :	status Resource grou
Data management	No virtual network rules found.		
A Parlame	Eirowall rulae		
	Allow certain public internet IP addres	ses to access your resource. Learn more	
Deleted databases			
Failover groups	+ Add your client IPv4 address (71.	163.30.202) + Add a firewall rule	
Import/Export history			
Security	Rule name	Start IPv4 address	End IPv4 address
Networking	ClientlPAddress_2023-3-30_15-37-	41 71.163.30.202	71.163.30.202
Microsoft Defender for Cloud			
Transparent data encryption			
4 Identity	Exceptions		
Auditing	Allow Azure services and resource	s to access this server ①	
Intelligent Performance			
✓ Automatic tuning	Save Discard		
Recommendations			

- 8. Click on Selected networks, Add your client IP address to access this server
- 9. Check Allow Azure services and resources to access this server
- 10. Click Save



Configuring Azure Database

- 1. Select the SQL Server
- 2. On the Overview tab, click Create database

Home >	
✓ Search «	+ Create database + New elastic pool + New dedicated
🙇 Overview 🏛	↑ Essentials
 Activity log 	Resource group (move)
Access control (IAM)	Status : Available
Tags	Location : East US

- 3. Select the Subscription, Resource group, Database name, Server
- 4. Select SQL elastic pool as No
- 5. Select Workload environment as Production
- 6. Select Backup storage redundancy, according to your organization's policies
- 7. Click on Configure database to select Compute + storage. Minimum required Gen5 Serverless, 4 vCores (see next screenshot to configure)
- 8. Click Review + Create after returning to this screen

≡ Microsoft Azure		,P Search resources
Home > Create SQL Database		
Project details		
Select the subscription to manage deplo manage all your resources.	yed resources and costs. Use resource groups like folders to	organize and
Subscription *		\sim
Resource group * ①	Create new	~
Database details		
Enter required settings for this database, resources	including picking a logical server and configuring the comp	ute and storage
Database name *	denticon	~
Server * ①	(new) denticon1 (Central US) Create new	~
Want to use SQL elastic pool? ①	🔿 Yes 🖲 No	
Workload environment	Development Production	
	Default settings provided for Production workloads. Cor be modified as needed.	figurations can
Compute + storage *	General Purpose - Serverless Standard-series (Gen ⁵), 4 vCores, 100 GB storage Configure database	
Backup storage redundancy		
Choose how your PITR and LTR backups available when geo-redundant storage is	are replicated. Geo restore or ability to recover from regiona s selected.	l outage is only
Backup storage redundancy 🕕	C Locally-redundant backup storage	
	 Zone-redundant backup storage Geo-redundant backup storage 	
Review + create Next : Netv	vorking >	



- 9. Select General Purpose, Serverless.
- 10. Set Max vCores to 8
- 11. Check Enable auto-pause. Select 1 Hour
- 12. Database max size 50 GB minimum, 100 GB recommended
- 13. Click Apply

Service and compute tier		
Select from the available tiers I and offers Hyperscale and Sen provides set price/performance	ased on the needs of your workload. The vCore model provides a wide range of co erless to automatically scale your database based on your workload needs. Alterna packages to choose from for easy configuration. Learn more C	onfiguration controls tely, the DTU model
Service tier	General Purpose (Most budget friendly, Serverless compute) Compare service tiers 🕫	SQL
Compute tier	Provisioned - Compute resources are pre-allocated. Billed per ho vCores configured. Serverless - Compute resources are auto-scaled. Billed per secon	d based on Cost summary
Compute Hardware	vCores used.	General Purpose (GP_5_Gen5_4) Cott per GB (in USD) 0. Max storage relected (in GB) X 1
Select the hardware configurat confidential computing hardwa	on based on your workload requirements. Availability of compute optimized, mem re depends on the region, service tier, and compute tier.	ory optimized, and ESTIMATED STORAGE COST / MONTH 17.94 U COMPUTE COST / VCORE SECOND 1 0.000174 U
Hardware Configuration	Standard-series (Gen5) up to 80 vCores, up to 240 GB memory Change configuration	NOTES 1 Serverless databases are billed in vCore reconds based on a combination of CPU and memory utilization. Learn more about serverless billing
Max vCores		4
Min vCores		
		0.5 vCores
	2.1 GB MIN MEMORY 12	GB MAX MEMORY
Auto-pause delay The database automatically pauses i auto-pausing can be disabled. Chable auto-pause Days Hours M	it is inactive for the time period specified here, and automatically resumes when database activity linutes	recurs, Alternatively;

14. After the database is provisioned, click Go to resource





15. Login with the appropriate authentication

\equiv Microsoft Azure	ρ Search resources, services, and docs (G+/)	2	P	¢3		0	ጽ	ssanigarap PLANET DDS			
Home > denticon (denticon1/denticon) > denticon1 SQL databases > denticon (denticon1/denticon) denticon (denticon1/denticon) Query editor (preview) ☆ …											
SQL database	«										
overview	-										
Activity log	tivity log										
 Tags Diagnose and solve problems 	s gnose and solve problems										
Getting started	Getting started										
🗯 Query editor (preview)	Welcome to SQ	Datab	ase Qu	ery Ed	itor						
Settings	SQL server authentication		Active	Directo	ry auth	enticati	on				
O Compute + storage	Login *		Log	iged in	as						
🖉 Connection strings	CloudSAda5fb090	OP	0	Continu	ie as						
Properties	Password *										
Locks											
Data management	ОК										

16. Execute the query, in the Query editor, to grant the Data Share service access to the database. Replace with the Data Share service name created earlier (Data Share configuration, step 7)

create user "PDDSDataShare" from external provider; exec sp_addrolemember db_datareader, "PDDSDataShare"; exec sp_addrolemember db_datawriter, "PDDSDataShare"; exec sp_addrolemember db_ddladmin, "PDDSDataShare";

≡ Microsoft Azure		,P Search resources, services, and docs (G+/)									
Home > Microsoft.SQLDatabase.new	DatabaseNewServer_8805a46fe38545c6845f3 Ov	erview > denticon (denticon)									
denticon (denticon1/denticon) Query editor (preview) ☆ …											
	R Login + New Query ↑ Open query	₹ Feedback									
Overview	denticon (ssanigarapu@planetdds	Query 1 ×									
Activity log		Run Cancel query Save query Fynort data as W Show only Editor									
🗳 Tags											
Diagnose and solve problems	Showing limited object explorer here. For full capability please click here to open to use Det Click here to open	 create user "PDDSDataShare" from external provider; exec sp_addrolemember db_datareader, "PDDSDataShare"; 									
🍊 Getting started	Azure Data Studio.	3 exec sp_addrolemember db_datawriter, "PDDSDataShare"; 4 exec sp_addrolemember db_ddladmin, "PDDSDataShare";									
🗯 Query editor (preview)	> 🗗 Tables	5									
Settings	> 🖆 Views										
 Compute + storage 	> 🖆 Stored Procedures										
${\mathscr S}$ Connection strings											
Properties											
🔒 Locks											
Data management											
🎈 Replicas											
Ø Sync to other databases		< Results Messages									
Integrations		Query succeeded: Affected rows: 0									



Mapping Datasets in Data Share to the Database

- 1. On the Azure portal, search for Data Share and go to the Data Share created earlier
- 2. Click on PG9999_Data_Share_Full
- 3. Click on Datasets
- 4. Check the first 2 Datasets and click Map to target

\equiv Microsoft Azure	\mathcal{P}^{-} Search resources, services, and c	docs (G+/)		E.							
Home > Data Share Invitations > dca-tier3-dshr-ana-st-cent											
Data Share											
	Received Shares > PG9999_Data_Share_F	Full									
Cverview ^	Details Datasets Snapshot Schedul	le History									
Activity log	O Configure <u>Snapshot Schedule</u> to receive automated updates.										
Access control (IAM)	Access control (IAM)										
Tags	🕐 Refresh 🛇 Unmap 🕂 Map to ta	<mark>arget</mark> 🗊 Delete 🗋 Trigger snapsh	not \vee								
Diagnose and solve problems											
Settings	Datasets	Source Type	Source Path	Status							
Properties		boares type	Source Fault	510105							
🔒 Locks	PGID9999_APPTD	SQL Database Table	PGID9999_APPTD	😣 Not Mapped							
Data Share	PGID9999_APPTDINSD	SQL Database Table	PGID9999_APPTDINSD	😣 Not Mapped							
Sent Shares	PGID9999_APPTH	SQL Database Table	PGID9999_APPTH	😣 Not Mapped							
Received Shares	PGID9999_CARRIERS	SQL Database Table	PGID9999 CARRIERS	😢 Not Mapped							
Feedback	•										

5. Select the database server and database, check Allow Data Share to run SQL script on my behalf

😑 Microsoft Azure 🔎 Sear	ch resources, services, and o	locs (G+/)				D.	G 🖓	© A	ssanigarapu@planetdds PLANET DDS (PLANETDDS.COM)	
Home > Data Share Invitations > dca-tier3-dshr-ana-st-cent										
Image: State of the state										
	Received Shares > PC	59999_Data_Share_Full								
Cverview	Details Datasets	Snapshot Schedule	History		Мар	datasets to target				
Activity log	Configure Snapshot	Schedule to receive aut	omated updates.		Target	data tura				
Access control (IAM)	 Select datasets to may 	o to target data stores. Yo	u can map datasets of the same type	to the same targ	Azur	re SQL Database			\sim	
🤣 Tags	🕐 Refresh 🛇 Unr	nap 🕂 Map to targe	t 前 Delete 🗈 Trigger snaps		Subscr	iptions				
Diagnose and solve problems	○ Filter by name								\sim	
Settings					Resour	rce groups				
Properties	Dataset	5	Source Type	Sou	[\sim	
A Locks	PGID99	99_APPTD	SQL Database Table	PGI	SQL Se	erver				
Data Share	PGID99	99_APPTDINSD	SQL Database Table	PGI	dent	ticon1			~	
🔋 Sent Shares		O ADDTH	SOL Database Table	DGI	SQL da	ticon			~	
Received Shares		~_~	SQL Database Table	FOIL	_					
 ■ Feedback	PGID99	99_CARRIERS	SQL Database Table	PGI	Û	To share data from SQL sources script below in your SQL databi Admin permission to the SQL s	s, you need to cor ase with AAD aut erver to run the s	nfigure firewall acce hentication. Note y cript. <u>Learn more</u>	ess on your SQL server and run the ou will need Azure Active Directory	
Monitoring						create user "dca-tier3-dshr-an	na-st-cent" from e	external provider; e	xec sp_addrolemember db_d	
💵 Alerts						Datasets	Sou	rce Type	Source Path	
Metrics					_	Datasets	500	ice ijpe	Source Fault	
Diagnostic settings					III	PGID9999_APPTD	SQL	. Database Table	PGID9999_APPTD	
🧬 Logs						PGID9999_APPTDINSD	SQL	. Database Table	PGID9999_APPTDI	
Automation					4				•	
🐴 Tasks (preview)										
😫 Export template					_			-		
Support + troubleshooting						llow Data Share to run SQL so	cript on my beha	alf		
℅ Resource health						and Net				
New Support Request					C	ancei				

6. Edit the Table name to remove PGID9999 from each entry

	Microsoft Azure	, P Search	h resources	s, servio	es, and docs (G+/)					F	۵	٢	0		ssanigarapu@planetdds PLANET DDS (PLANETDDS.COM	
Hom	Home > Data Share Invitations > dca-tier3-dshr-ana-st-cent Received Shares * ··· > Data Share > Data Share															
2	Search « Received Shares > PG9999_Data_Share_Full															
	Overview		Details	Da	tasets Snapshot Schedule	e History		M	ap datasets to target							
	Activity log		O Conf	figure §	<u>Snapshot Schedule</u> to receive	automated updates.		C-I-								
82	Access control (IAM)	0 Select datasets to map to target data stores. You can map datasets of the same type to the same ta							schema name "							
•	Tags	🕐 Refresh 🛇 Unmap 🕂 Map to target 🏢 Delete 🗈 Trigger snapshot 🖂														
0	Diagnose and solve probler	ms	Filter by name				Datasets				Source Type			Table name		
Setti	ings		_					B	B PGID9999_APPTD		SQL	Datab	ase Tab	le	PGID9999_APPTD	
111	Properties				Datasets	Source Type	Sou									
8	Locks		~		PGID9999_APPTD	SQL Database Table	PGI		PGID9999_APPTDINSD		SQL	Datab	ase Tab	le	PGID9999_APPTDI	
Data	a Share		~		PGID9999_APPTDINSD	SQL Database Table	PGI									
۵	Sent Shares			=	PGID9999_APPTH	SQL Database Table	PGI									
	Received Shares Feedback				PGID9999_CARRIERS	SQL Database Table	PGI									

- 7. Click Map to Target
- 8. When successfully mapped, map other datasets in the same way



Triggering the Snapshot

- 1. To start importing data to your database, click on full snapshot
- 2. Click History to see the status and previous runs

	Microsof	ft Azure		℅ Search resources, services	, and docs (G+/)								
Ho 12	Home > Data Share Invitations > dca-tier3-dshr-ana-st-cent dca-tier3-dshr-ana-st-cent Received Shares \bigstar ··· Data Share > Received Shares > PG9999_Data_Share_Full												
	Details D	atasets Snapshot Schedule	listory										
	Configure	Snapshot Schedule to receive automa	ted updates.										
	 Select data Trigger a <u>f</u> 	usets to map to target data stores. You car <u>all snapshot</u> or <u>incremental snapshot</u> to st	n map datasets of the same type to the san art transferring data	ne target									
	🕐 Refresh \otimes Unmap $+$ Map to target in Delete in Trigger snapshot \vee												
	○ Filter by r	name											
		Datasets	Source Type	Source Path	Status								
		PGID9999_APPTD	SQL Database Table	PGID9999_APPTD	✓ Mapped								
		PGID9999_APPTDINSD	SQL Database Table	PGID9999_APPTDINSD	🔮 Mapped								

- 3. To enable the auto schedule, Select Snapshot Schedule
- 4. Check Daily
- 5. Click on Enable



