#### Setting up Voltech AT Server Result's to use Azure Hosted SQL database

#### QUESTION

Can I use the AT SERVER to write directly to a cloud hosted AZURE database?

#### ANSWER

Yes, this can easily be done.

The only issue to be aware of is that Azure requires "Clustered Indexes" to work which don't automatically set when you import a MDB database into AZURE.

The following steps walk you through the set up and import of a traditional MDB database into AZURE and explains how to convert the indexes.

### Contents

A, SETUP DATABASE on AZURE (or import existing MDB)	2
B, CONVERT 4 x SQL indexes to be CLUSTERED.	8
C, CREATE an ODBC data source to point to the SQL database	11
D, CONNECT the AT SERVER to the SQL DATABASE using ODBC	15

## A, SETUP DATABASE on AZURE (or import existing MDB)

1, Create a blank MS Access database (Mdb) and connect to AT SERVER – this will initialise the 4 database tables ready for import to SQL.

Alternatively, you may already have a MDB database with results ready to import.

🖶 5-0-=		Table Tools	ATS	Serverblank : Databas
File Home Create E	cternal Data Database Tools	Fields Table	🗴 Tell me what you w	ant to do
View View	Pilter     2↓ Ascending     ▼ Sele       Adv     ↓ Descending     ▲ Adv       Adv     ↓ Remove Sort     ▼ Tog	anced - gle Filter	■ New ∑ Totals Save Spelling Collete ▼ ■ More ▼	Find P
Views Clipboard Fa	Sort & Filter		Records	Find
Tables       Image: Constraint of the second s	tblVoltechResults UnitType	oltechATUnitID	tblVoltechRunID (III tb FirmwareID -	IVoltechTestID



2, Create a blank database on your AZURE hosting site using the web portal

# 3, Next import your MDB into the AZURE SQL database using the SMSS import wizard or similar

SQL Server Import and Exp	port Wizard	↔ _	ΟX
SQL Server Import and Exp	Sort Wizard Welcome to SQL Server Imp Wizard This wizard helps you to create simple packages th between many popular data formats including datab files. The wizard can also create the destination dat the data is inserted. To move or copy databases and their objects from 4 cancel this wizard and use the Copy Database Wizz Wizard is available in SQL Server Management Stu	bort and E ases, spreadshe tabase and the tr one server instar ard instead. The dio.	Export data sets, and text ables into which nce to another, Copy Database
	Do not show this starting page again.		
Help	< Back Next >	Finish >>	Cancel
SQL Server Import and Exp	ort Wizard 😽	• _	п×
Choose a Data Source Select the source from whic	ch to copy data.		
Choose a Data Source Select the source from whic Data source:	ch to copy data.	ngine)	
Choose a Data Source Select the source from whice Data source: To connect, select a database File name:	th to copy data. Microsoft Access (Microsoft Access Database E and provide a user name and password. You may need	ngine) to specify advar	Inced options.
Choose a Data Source Select the source from whice Data source: To connect, select a database File name: C:\Users\Richard\Desktop\AT	th to copy data. Microsoft Access (Microsoft Access Database E and provide a user name and password. You may need ACCESS\ATServerblank.mdb	ngine) to specify advar	nced options.
Choose a Data Source Select the source from whic Data source: To connect, select a database File name: [C:\Users\Richard\Desktop\AT User name: Password:	ch to copy data.	ngine) to specify advar	The of the other sector of

	📓 SQL Server Import and Expo	rt Wizard		÷	- 0	×
	Choose a Destination Specify where to copy data t	D.				
5	Destination:	Microsoft OLE DB F	Provider fo	r SQL Server		-
	Server name:	j <b>interna</b> .database.win	dows.net			-
	C Use Windows Authentical C Use Windows Authentical Use SQL Server Authenti User name: Password:	ion cation 				
	Database:	ATServerTest2			Refres     New	,
	Help		< Back	Next >	Finish >>  Ca	incel
s	SQL Server Import and Expo Select Source Tables an Choose one or more tables a	rt Wizard I <b>d Views</b> Ind views to copy.		<b>↔</b>	- 0	×
	Tables and views: Source: C:\Users\Richard\L Tables ATUnitID Tables ATU	Desktop \AT ACCESS \AT	. Destina (db ) (db ) (db ) (db ) (db)	ation: ljnhafr2na.databa o].[tblVoltechATUnit]D o].[tblVoltechResults] o].[tblVoltechRunID] o].[tblVoltechTestID]	ise.windows.net	
	Help		< Back	Edit Mappings	Finish >>  C	ancel

Indicate whether to save the SSIS package.		
		4
Run immediately		
Save SSIS Package		
SQL Server		
C File system		
Package protection level:		
Encrypt sensitive data with user key		
Password:		
Retype password:		
	a Darah 📃 Marata	T restational Connect
	< DACK    IVEXL>	
SQL Server Import and Export Wizard		+
SQL Server Import and Export Wizard		* – –
SQL Server Import and Export Wizard	14 Total	•• · · · · · · · · · · · · · · · ·
SQL Server Import and Export Wizard he execution was successful Success	14 Total 14 Succe	↔ — □ •• — □ •• • • • • • • • • • • • • • • • • • •
Help SQL Server Import and Export Wizard he execution was successful Success etails:	14 Total 14 Succe	+ · · · · · · · · · · · · · · · ·
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task	14 Total 14 Succe Status	+ – – – – – – – – – – – – – – – – – – –
Help SQL Server Import and Export Wizard the execution was successful Success etails: Action Initializing Data Row Task Initializing Connections	14 Total 14 Succes Status Success Success	Cancel
Help SQL Server Import and Export Wizard the execution was successful Success etails: Action Initializing Data Row Task Initializing Connections Setting SQL Command	14 Total 14 Succes Success Success Success Success	↔ _ □ ↔ _ □ ↔ O Error ↔ 0 Warning Message
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Source Connection	14 Total 14 Succes Success Success Success Success Success Success	↔ _ □ •• _ □ •• 0 Error ••ss 0 Warning Message
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection	14 Total 14 Succes Success Success Success Success Success Success Success Success Success	Cancel
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating	14 Total 14 Succes Success Success Success Success Success Success Success Success Success Success Success Success Success	↔ _ □ •• _ □ •• 0 Error ••ss 0 Warning
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Row Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Validating         Prepare for Execute	14 Total 14 Succes Success Success Success Success Success Success Success Success Success Success Success Success Success Success Success	↔ _ □ •• _ □ ••ss 0 Error ••ss 0 Warning
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Prevexute	14 Total 14 Succes Success Success Success Success Success Success Success Success Success Success Success	↔ _ □ •• _ □ ••ss 0 Error ••ss 0 Warning
Help         SQL Server Import and Export Wizard         the execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Control to Mathematic Mathematics	14 Total 14 Succes Success Success Success Success Success Success Success Success Success Success Success Success Success Success	↔ _ □ •• _ □
Help         SQL Server Import and Export Wizard         the execution was successful         Success         etails:         Action         Initializing Data Row Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Copying to [dbo].tblVoltechATUnitID]         Copying to [dbo].tblVoltechATUnitID	14 Total 14 Succes Success Success Success Success Success Success Success Success Success Success Success Success Success Success Success Success	
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Row Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Prevecute         Executing         Copying to [dbo].tblVoltechATUnitID]         Copying to [dbo].tblVoltechResults]         Copying to [dbo].tblVoltechResults]	14 Total 14 Succes Success	
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Copying to [dbo].tbl/VoltechATUnit[D]         Dopying to [dbo].tbl/VoltechResults]         D Copying to [dbo].tbl/VoltechRunID]	14 Total 14 Succes Success	
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         1 Copying to [dbo].[tblVoltechATUnitID]         1 Copying to [dbo].[tblVoltechResults]         1 Copying to [dbo].[tblVoltechResults]	14 Total 14 Succes Success	
Help         SQL Server Import and Export Wizard         he execution was successful         Success         etails:         Action         Initializing Data Flow Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Copying to [dbo].tblVoltechATUnitID]         Copying to [dbo].tblVoltechResults]         Copying to [dbo].tblVoltechTestID]         Post-execute	14 Total 14 Succes Success	
Help         SQL Server Import and Export Wizard         the execution was successful         Success         etails:         Action         Initializing Data Row Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Copying to [dbo].tblVoltechATUnitID]         Copying to [dbo].tblVoltechResults]         Copying to [dbo].tblVoltechTestID]         Post-execute	14 Total 14 Succes Success Suc	
Help         SQL Server Import and Export Wizard         the execution was successful         Success         etails:         Action         Initializing Data Row Task         Initializing Connections         Setting SQL Command         Setting Destination Connection         Validating         Prepare for Execute         Pre-execute         Executing         Copying to [dbo].tblVoltechATUnitID]         Copying to [dbo].tblVoltechResults]         Copying to [dbo].tblVoltechTestID]         Post-execute	14 Total 14 Succes Success Suc	Cancel

😡 Microsoft SQL Server Management Studio	
File Edit View Debug Tools Window Help	
🛛 🖸 🗝 🖸 🗸 🎦 🖓 💾 🚰 🕌 New Query 🔎 🔝	
Object Explorer T X	
E inhafr2na.database.windows.net (SQL Server 12.0.2000.8	
🖃 🗰 Databases	
□ ■ AlServerTest2	
Database Diagrams	
System Tables	
dbo.tblvoltechATUnitib	
External Resources	
Programmability	
Ouerv Store	
Extended Events	
E Storage	
🕀 📕 Security	
🗉 📄 test-sql	
🗉 🧧 voltech-prod-new	
🕀 📕 Security	

The 4 tables from the MDB now are imported into the SQL database

## B, CONVERT 4 x SQL indexes to be CLUSTERED

Do this for the Primary KEY for all 4 tables.

Object Explorer - Microsoft	SQL	Server Manag	ement St	udio			
File Edit View Project	Deb	ug 👘 Table De	esigner	Tools	Wind	low	Help
🔅 발 🗝 법 업 📼 🔊 📼	28	_ 8 😋 🗸 🕤	1 18 -	*1 - 1	<b>2</b>	"е	😫 Ne
		• •				_	
	-						
Connect 🕶 📑 📑 👕 🗸 🖒	<u>_</u>						
😑 👔 atabase.wind	ows.i	net (SQL Server	r 12.0.200	0.8 - vol	tech_ad	min)	
🖃 🚞 Databases							
E is system Databases     ATC T is							
Al Server Lest							
🖃 🦲 Database Diag	rams						
🖃 🦲 External Ta	bles						
⊕ 🛄 dbo.tblVol	tech/	ATUnitID					
⊞ 🔲 dbo.tblVol	techF	Results					
🕀 🛅 dbo.tblVol	techF	RunID					
⊞ <mark>≣ dbo.tblVo</mark> l	tech	[estID				1	
		New lable					
External Resou		Design					
🕀 🦲 Programmabi		Select Top 10	00 Rows				
I in Query Store		Edit Top 200	Rows				
🕀 📝 Extended Even		Script Table a	as		•		
🕀 🧰 Storage		View Depend	lencies				
🕀 🚞 Security		Memory Opt	imizatior	n Adviso	r		
∃ test-sql		Encrypt Colu	mns				
G Voltech-prod-new     E      E      Security		Full Testind					
		Full-Text Inde	ex		•		
		Reports			•		
		Rename					
		Delete					
		Refresh					
		Properties					

ljnhafr2na.ATServerTest - d	bo.tblVoltechR	unID - Microsoft SQL Server Management Studio
File Edit View Project	Debug Tak and the second seco	Ile Designer Tools Window Help Set Primary Key Insert Column Delete Column Relationships Indexes/Keys Fulltext Index XML Indexes Check Constraints Spatial Indexes
FixtureID OperatorID BatchID TransformerSerialNo OverallResult	nvarchar nvarchar(25) nvarchar(25) nvarchar(10)	Generate Change Script

- - X	j ljnhafr2na.ATSer	rverTest - o	lbo.tblVolte	chATUnitID -	Microsoft SQL	Server Ma	anagement Studi	o						
File	Edit View	Project	Debug	Table Design	er Tools	Window	Help							
	5 ~ 5 個	au 🎝 🗉	i 🏧 🖕 🦉	G - O   *	3 • 눱 • 😩		일 New Query	D) 😰	b 📸 😨	¥	D, I	ĵ	5	- C'
ljnł	afr2na.ATServert	blVoltechA	TUnitID ≉	🛛 🗙 Object I	Explorer									
	Column Na	me	Dat	а Туре	Allow Nulls									
۲	ATUnitID		nvarchar(	25)	$\checkmark$									
	UnitType		nvarchar(	10)	$\checkmark$									
	UnitID		nvarchar(	10)	$\checkmark$									
	FirmwarelD		nvarchar(	10)	$\checkmark$									

Indexes/Keys				?	$\times$
Selected Primary/Unique Key or Ind	ex:				
IX_tblVoltechATUnitlD*	Ed	iting properties for new uniq	ue key or index.		
	~	(General)			^
		Columns	ATUnitID (ASC)		
		Is Unique	No		
		Туре	Index		
	~	Identity			
		(Name)	IX_tblVoltechATUnitID		
		Description			
	~	Table Designer	<u> </u>		
		Create As Clustered	Yes	~	*
	>	Data Space Specification	PRIMARY		
	>	Fill Specification			~
Add Delete				Close	

## C, CREATE an ODBC data source to point to the SQL database

On the AT SERVER PC, create a new ODBC link

	🖏 ODBC	Data Source Administrator (6	4-bit)	$\times$
ľ	User DSN	Create New Data Source	×	
e v	User Data Name A2016 ATServ Excel Fi MS Acc SQLMA SQLsro SQLTE WebLiv WebPrc		Select a driver for which you want to set up a data source.         Name       Version       Cc         ODBC Driver 11 for SQL Server       2014.120.2000.08       M         ODBC Driver 13 for SQL Server       2017.140.1000.169       M         SQL Server       10.00.16299.15       M         SQL Server Native Client 11.0       2011.110.6540.00       M           >	ler. A
			OK Cancel Apply	Help

Microsoft SQL Server DSN Configuration          File       This wizard will help you create an ODBC data source that you can use to connect to SQL Server.         SQL Server       What name do you want to use to refer to the data source?         Name:       ATServerTest         How do you want to describe the data source?       Description:         Description:       ATServerTest         Which SQL Server       Which SQL Server do you want to connect to?         Server:       Server:	User	DSN	System DSN	File DSN	Drivers	Tracing	Connection Pooling	About	
Microsoft SQL Server DSN Configuration          Microsoft SQL Server       This wizard will help you create an ODBC data source that you can use to connect to SQL Server.         What name do you want to use to refer to the data source?         Name:       ATServerTest         How do you want to describe the data source?         Description:       ATServerTest         Which SQL Server do you want to connect to?         Server:       Image: Im	Us	- D-I-	C						
A This wizard will help you create an ODBC data source that you can use to connect to SQL Server.         What name do you want to use to refer to the data source?         Name:       ATServerTest         How do you want to describe the data source?         Description:       ATServerTest         Which SQL Server do you want to connect to?         Server:       Server:         Server:       Server:	N	Micr	osoft SQL Ser	ver DSN Co	onfigurati	ion			×
SOL Server   What name do you want to use to refer to the data source?   Name:   ATServerTest   How do you want to describe the data source?   Description:   ATServerTest   Which SQL Server do you want to connect to?   Server:   Server:	A		800	Thi SQ	s wizard w L Server.	vill help yo	u create an ODBC dat	a source that you can	use to connect to
Name: ATServerTest How do you want to describe the data source? Description: ATServerTest Which SQL Server do you want to connect to? Server: Indefinition database.windows.net	E	ŠČ	DL Server	Wh	iat name d	lo you wa	nt to use to refer to the	edata source?	
How do you want to describe the data source? Description: ATServerTest Which SQL Server do you want to connect to? Server: Atabase.windows.net	S					Name: /	ATServerTest		
V       Description: ATServerTest         Which SQL Server do you want to connect to?         Server: Server: Server: Atabase.windows.net	9			Ho	w do you v	want to de	escribe the data source	e?	
Which SQL Server do you want to connect to? Server:	y				Desc	ription:	ATServerTest		
Server: Index and the server is a server in the server is a server in the server is a server is a server in the server is a se	Ľ			Wh	iich SQL S	Server do	you want to connect to	o?	
					5	Server:	alafaa database.wii	ndows.net	~
		20540							

3.0		100			100					
inini.	<b>3</b> 0 🕞	BC E	Data Source Ad	dministrate	or (32-bi	t)				×
s rol Iay	User [	OSN	System DSN	File DSN	Drivers	Tracing	Connection Po	ooling	About	
	Us-	Micro	e	er DSN Co	onfigurat	ion				×
	A A E			Hov	v should	SQL Serve	r verify the auth	enticity	y of the login ID?	
	N S	ŠÇ	L Server			SPN (O	ptional):	licalio	ит.	
	9 9 V			(	● With S user.	QL Server	authentication	using a	a login ID and password entered	l by the
	V					L	ogin ID: veitagi			
1						Pa	essword:	••••		
Ĺ										
latic		1993								ov
	Ц									
							< Back	Next :	> Cancel	Help

initial.	S ODBC I	Data Source Ad	dministrator (32-bit)				×
s rol lay	User DSN	System DSN	File DSN Drivers Trac	ing Connection P	ooling About		
1	Us Micr	osoft SQL Serv	ver DSN Configuration				×
	A		Change the def	ault database to:			
5	e N ŠČ	QL Server	Mirror server:				
	0 10		SPN for mirror s	erver (Optional):			
	v v		Attach databas	e filename:			
			Use ANSI quote	ed identifiers. paddings and warr	inas		
			Application intent:	passings and main			
atic			READWRITE				~ C
			Multi-subnet fail	over.			
			_				
				< Back	Next >	Cancel	Help

## D, CONNECT the AT SERVER to the SQL DATABASE using ODBC

Results Setup ×	
✓ Standard Results Saving (CSV)	
✓ Display Basic Statistics	
🚺 🔽 Database Results Saving 🛛 Advanced 🥼	
OK Cancel	
Database Results (Advanced)	×
Connection String :	
	^
	×
Connection Type Clear Connection	OK Cancel

	💼 Data I	Link Properti	es				×	
	Provider	Connection	Advanced	All				
	Select t	he data you w	vant to conne	ct to:				
	OLE	DB Provider	s)				^	
Database Res	Micr	rosoft OLE DE	Provider for	Analysis	Services 14	1.0		
Databaseries	Micr	osoft OLE DE	Provider for	Internet	Publishing			
Connection S	Micr	osoft OLE DE	Provider for	ODBC L Oracle	nvers			
	Micr	osoft OLE DE	Provider for	Search				^
	Micr	rosoft OLE DE	Provider for	SQL Se	ver			
	Micr	rosoft OLE DE	Simple Provi	ider				
1	MSI	DataShape						~
Connection	OLE	DB Provider	for Microsoft	Director	/ Services			Consol
Connection		DB Provider	for SQL Serv	er Integr	ation Servic	es		Lancel
	SOL	Server Nativ	For SQL Serv e Client 11 0	er integi	ation Servic	es		
	301	Jerver Matry	e cilent 11.0				~	
	<					>		
					1	Vext >>		
		[	ОК	(	Cancel	He	lp	
		L						

	🗊 Data Link Properties X
	Provider Connection Advanced All
	Specify the following to connect to ODBC data:
	1. Specify the source of data:
	Use data source name
Database Res	
Connection S	Connection string
	Build
	2. Enter information to log on to the server
	User name: Verification
Connection	Password:
Connection	Blank password Allow saving password
	3. Enter the initial catalog to use:
	ATServerTest
	Test Connection
	OK Cancel Help

	🗊 Data Link Properties X
Database Res Connection S Connection 1	Provider Connection Advanced All Specify the following to connect to ODBC data: 1. Specify the source of data:
	OK Cancel Help