[MS-TDS]: Tabular Data Stream Protocol

This topic lists the Errata found in [MS-TDS] since it was last published. Since this topic is updated frequently, we recommend that you subscribe to these RSS or Atom feeds to receive update notifications.



Errata are subject to the same terms as the Open Specifications documentation referenced.

Errata below are for Protocol Document Version <u>V24.0 – 2018/03/16</u>.

Errata Published*	Description	
2018/07/02		in the first table, one product behavior note was revised note was added to specify the value returned by SQL
	Changed from:	
	Parameter	Description
	OptionFlags2	• fODBC: Set if the client is the ODBC driver. This causes the server to set ANSI_DEFAULTS to ON, CURSOR_CLOSE_ON_COMMIT and IMPLICIT_TRANSACTIONS to OFF, TEXTSIZE to 0x7FFFFFFF (2GB) (TDS 7.2 and earlier), TEXTSIZE to infinite (introduced in TDS 7.3), and ROWCOUNT to infinite.<20>
	TypeFlags	• fOLEDB: Set if the client is the OLEDB driver. This causes the server to set ANSI_DEFAULTS to ON, CURSOR_CLOSE_ON_COMMIT and IMPLICIT_TRANSACTIONS to OFF, TEXTSIZE to 0x7FFFFFFF (2GB) (TDS 7.2 and earlier), TEXTSIZE to infinite (introduced in TDS 7.3), and ROWCOUNT to infinite.
	IMPLICIT_TRANSACTIONS, a	I_DEFAULTS, CURSOR_CLOSE_ON_COMMIT, and ROWCOUNT are supported by SQL Server 7.0, SQL D5, SQL Server 2008, SQL Server 2008 R2, SQL Server SQL Server 2016.

Errata Published*	Description		
	Parameter	Description	
	OptionFlags2	• fODBC: Set if the client is the ODBC driver. This causes the server to set ANSI_DEFAULTS to ON, CURSOR_CLOSE_ON_COMMIT and IMPLICIT_TRANSACTIONS to OFF, TEXTSIZE to 0x7FFFFFF (2GB) (TDS 7.2 and earlier), TEXTSIZE to infinite (introduced in TDS 7.3), and ROWCOUNT to infinite. <20>	
	TypeFlags	• fOLEDB: Set if the client is the OLEDB driver. This causes the server to set ANSI_DEFAULTS to ON, CURSOR_CLOSE_ON_COMMIT and IMPLICIT_TRANSACTIONS to OFF, TEXTSIZE to 0x7FFFFFFF (2GB) (TDS 7.2 and earlier), TEXTSIZE to infinite (introduced in TDS 7.3), and ROWCOUNT to infinite.<20a>	
2018/06/18	ROWCOUNT. <20a> Section 2.2.6.4: For fOLED ROWCOUNT. In Section 1.2.2, Informative Refere [MSDOCS-DBMirror] Microsoft Corp	SQL Server returns a value of zero for B, SQL Server returns a value of zero for ences, the following reference was added: oration, "Database Mirroring in SQL Server", lotnet/framework/data/adonet/sql/database-	
	mirroring-in-sql-server	istinely in amework, data, adones, sq., adabase	
2018/06/18	In Section 2.2.6.4, LOGIN7, in the second table, the last paragraph of the description of the COLUMNENCRYPTION FeatureExt was changed. Changed from:		
	FeatureId	FeatureData Description	
	%0x04 (COLUMNENCRYPTION) (introduced in TDS 7.4)	EnclaveType: This field MAY<25> be populated by the server and used by the client to identify the type of enclave that the server is configured to use. If EnclaveType is not returned and the column encryption version is returned as 2, the driver MUST raise an error.	

Errata Published*	Description		
	Changed to:		
	FeatureId	FeatureData Description	
	%0x04 (COLUMNENCRYPTION) (introduced in TDS 7.4)	EnclaveType: This field is a string that MAY<25> be populated by the server and used by the client to identify the type of enclave that the server is configured to use. During login for the initial connection, the client can request COLUMNENCRYPTION with the Length as 1, and either 1 or 2 as the value of COLUMNENCRYPTION_VERSION, and no EnclaveType. When the client sends COLUMNENCRYPTION_VERSION as 2 and no EnclaveType, the server MUST return COLUMNENCRYPTION_VERSION as 2 together with the value of EnclaveType, if the server supports this column encryption version. If EnclaveType is not returned and the column encryption version is returned as 2, the client driver MUST raise an error.	
2018/06/18	In Section 2.2.6.4, LOGIN7, in the second table, the description of the AZURESQLSUPPORT FeatureExt was changed. Changed from:		
	FeatureId	FeatureData Description	
	%0x08 (AZURESQLSUPPORT) (introduced in TDS 7.4)	The presence of the AZURESQLSUPPORT FeatureExt indicates that the client MAY<27> support failover partner login with read-only intent in Azure SQL Database. The feature data is described as follows: Length DWORD FeatureData	
		FeatureData = BYTE	

Errata Published*	Description		
	BYTE: The Bit 0 flag specifies that failover partner login with read-only intent is supported.		
	Changed to:		
	FeatureId FeatureData Description		
	### Wox08 (AZURESQLSUPPORT) (introduced in TDS 7.4) The presence of the AZURESQLSUPPORT FeatureExt indicates whether the client MAY<27> support failover partner login with read-only intent in Azure SQL Database. For information about failover partner, see [MSDOCS-DBMirror]. The feature data is described as follows: Length DWORD FeatureData BYTE BYTE: The Bit 0 flag specifies that failover partner login with read-only intent is supported. The values of this BYTE are as follows: O = The server does not support the AZURESQLSUPPORT feature extension.		
	• 1 = The server supports the AZURESQLSUPPORT feature extension.		
2018/06/18	In Section 2.2.6.6, RPC Request, the definition for EnclavePackage was added to the stream-specific rules, and the description of EnclavePackage in the table was clarified. Changed from:		
	ParameterData = ParamMetaData ParamLenData [ParamCipherInfo]		
	BatchFlag = %x80 / %xFF ; (Changed to %xFF in TDS 7.2) NoExecFlag = %xFE ; (introduced in TDS 7.2)		
	RPCReqBatch = NameLenProcID OptionFlags *EnclavePackage *ParameterData		

Errata Published*	Description		
	Parameter		Description
	EnclavePackage		An encrypted byte package that MAY<31> be generated by the client. This package contains information that is required by the server-side enclave to perform computations on encrypted columns. Introduced in TDS 7.4.
	Changed to:		
	ParameterData	ParamLer	
	EnclavePackage 7.4)	= L_VARBYT	TE ; (introduced in TDS
	BatchFlag TDS 7.2)	= %x80 / %	xFF ; (changed to %xFF in
	NoExecFlag 7.2)	= %xFE	; (introduced in TDS
	RPCReqBatch	= NameLenE OptionFl *Enclave *Paramet	ags Package
	Parameter		Description
	EnclavePackage		An encrypted byte package that MAY<31> be generated by the client. This package contains information that is required by the server-side enclave to perform computations on encrypted columns. The package has an internal structure that is irrelevant to the TDS protocol between client and server. The server forwards the byte array to the enclave without interpreting it, and the enclave decodes the byte array. Introduced in TDS 7.4.

Errata Published*	Description		
2018/06/18	In Section 2.2.7.10, FEATUREEXTACK, in the second table, the last paragraph of the description of the COLUMNENCRYPTION FeatureExt was changed.		
	Changed from:		
	FeatureId	FeatureData Description	
	%0x04 (COLUMNENCRYPTION) (introduced in TDS 7.4)	EnclaveType: This field MAY<47> be populated by the server and used by the client to identify the type of enclave that the server is configured to use. If EnclaveType is not returned and the column encryption version is returned as 2, the driver MUST raise an error.	
	Changed to:		
	FeatureId	FeatureData Description	
	%0x04 (COLUMNENCRYPTION) (introduced in TDS 7.4)	EnclaveType: This field is a string that MAY<47> be populated by the server and used by the client to identify the type of enclave that the server is configured to use. During login for the initial connection, the client can request COLUMNENCRYPTION with the Length as 1, and either 1 or 2 as the value of COLUMNENCRYPTION_VERSION, and no EnclaveType. When the client sends COLUMNENCRYPTION_VERSION as 2 and no EnclaveType, the server MUST return COLUMNENCRYPTION_VERSION as 2 together with the value of EnclaveType, if the server supports this column encryption version. If EnclaveType is not returned and the column encryption version is returned as 2, the client driver MUST raise an error.	
2018/06/18	In Section 2.2.7.10, FEATUREEXTAC AZURESQLSUPPORT FeatureExt was	K, in the second table, the description of the changed.	
	Changed from:		

FeatureId	FeatureData Description
%0x08 (AZURESQLSUPPORT) (introduced in TDS 7.4)	The presence of the AZURESQLSUPPORT FeatureExt indicates that failover partner login with read-only intent to Azure SQL Database MAY<49> be supported. Whenever a login response stream is sent for a TDS connection whose login request includes an AZURESQLSUPPORT FeatureExt token, the server login response message stream can optionally include a FEATUREEXTACK token by setting the corresponding feature switch in Azure SQL Database. If it is included, the FEATUREEXTACK token stream MUST include the AZURESQLSUPPORT FeatureId. FeatureAckData = BYTE BYTE: The Bit 0 flag specifies that failover partner login with read-only intent is supported.

Changed to:

FeatureId	FeatureData Description
%0x08 (AZURESQLSUPPORT) (introduced in TDS 7.4)	The presence of the AZURESQLSUPPORT FeatureExt indicates whether failover partner login with read-only intent to Azure SQL Database MAY<49> be supported. For information about failover partner, see [MSDOCS- DBMirror]. Whenever a login response stream is sent for a TDS connection whose login request includes an AZURESQLSUPPORT FeatureExt token, the server login response message stream can optionally include a FEATUREEXTACK token by setting the corresponding feature switch in Azure SQL Database. If it is included, the FEATUREEXTACK token stream MUST include the AZURESQLSUPPORT FeatureId. FeatureAckData = BYTE
	BYTE: The Bit 0 flag specifies that failover partner login with read-only

Errata Published*	Description	
		intent is supported. The values of this BYTE are as follows:
		• 0 = The server does not support the AZURESQLSUPPORT feature extension.
		• 1 = The server supports the AZURESQLSUPPORT feature extension.

^{*}Date format: YYYY/MM/DD