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Genesys Security Deployment Guide

TLS Feature Support Matrix

TLS Feature Support Matrix

Genesys is continually updating TLS implementations to keep up with latest revisions and best practice recommendations while enabling configurability to maintain a high degree of backward compatibility and allow customers to tune the protocol to their own security preferences. The below table outlines for specific interconnections between Genesys products, compatibility with some key considerations around the TLS protocol.

How to read this table:

- Product (acting as client): This indicates for a given connection the product which is connecting to another Genesys product (the client).
- Product connections (acting as server): This indicates to which product is being connected (the server).

Thus, each line defines a unique connection between two Genesys products.

The remaining columns indicate current support levels for attributes of this connection as indicated below:

- TLS 1.2 Support Release #: This column indicates the minimum version of the server-side component necessary to support version 1.2 of the TLS protocol.
- sec-protocol option support: TLS relies on a handshake (mutual agreement) between client and server to select protocol version to use. This column indicates whether this product can be configured, for this connection, using option sec-protocol to control which protocol versions may be offered in handshaking process. See [Advanced TLS](#) for more details.
- Mutual TLS Support: This column indicates whether in addition to server offering certificate to the client in the connection, the client may also offer certificate to the server (mutual certificate exchange). See [Securing Connections using TLS](#) for an example of configuring a connection for mutual certificate exchange.
- Host configuration to Message Server: Typically, TLS settings can be configured explicitly for each connection, or for convenience at application or host level. However, in earlier implementations connections to Message Server would not leverage TLS settings unless configured at the explicit connection. This column indicates whether when product connects to Message Server whether Host level configuration can be used.
- FIPS 140-2: This column indicates whether there is optional configuration that leverages a FIPS 140-2 validated cryptographic module for this product's side of connection. See [Federal Information Processing Standards](#) for more details.
- Compatible with SHA-2 certificates: This column indicates if server certificate can be SHA-2 signed. SHA-2 is preferred over earlier signing algorithms such as MD5 or SHA1.
- Refer to [Security Pack 8.5.100.25](#) for information on OpenSSL version 1.1.1g, TLS 1.3, and SAN certificate.

Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
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TLS Feature Support Matrix

T-Server for Skype for Business 9.0.000.06	Configuration Server	8.5.101.18	Yes				Yes	
	Message Server	8.5.100.25	Yes				Yes	
	Stat Server	8.5.112.05	Yes				Yes	
	SIP Server	8.1.102.73	Yes				Yes	
	Orchestration Server	8.1.400.86	Yes				Yes	
	Universal Routing Server	8.1.400.52	Yes				Yes	
	SkFB_Connecto	9.0.000.06	Yes				Yes	
	SkFB_TServer_	9.0.000.06	Yes				Yes	
Connector for Skype for Business	Configuration Server	8.5.101.18	Yes				Yes	
	Message Server	8.5.100.25	Yes				Yes	
	Microsoft Skype for Business 2015		Yes				Yes	Connection to Microsoft Skype for Business 2015 is entirely controlled by Microsoft libraries and has not been tested in house.
Intelligent Automation 9.0	Universal Contact Server	8.5.100.19			NA			
	Chat Server	8.5.107.11			NA			
	Interaction Server	8.5.109.01			NA			
	Configuration Server	8.5.100.22			NA			
Intelligent Automation 3.3.0	Universal Contact Server	8.5.300.05			NA			
Product (acting as)	Product Connections (acting as)	TLS 1.2 Support Release	sec-protocol option	Mutual TLS Support	Host configuration to	FIPS 140-2	Compatible with SHA-2	Comments

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client)	as server)	#	support		Message Server		certificates	
Management Framework 8.5+ - all components	Configuration Server	8.5.100.22	NA	NA	NA	NA	NA	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	Solution Control Server	8.5.100.17	NA	NA	NA	NA	NA	
	Local Control Agent	8.5.100.20	NA	NA	NA	NA	NA	
	Configuration Server Proxy	8.5.100.22	NA	NA	NA	NA	NA	
	DB Server	8.1.300.06	NA	NA	NA	NA	NA	
Universal Contact Server 8.5.100.19+	Configuration Server	8.5.100.22	Yes	Yes	NA		Yes	TLSv1.2 support comes from Java. Use -Djdk.tls.client.protocol and jdk.tls.disabledAlgorithms options to enable. Starting with 8.5.3, PEM private key format is supported.
	Message Server	8.5.100.13	Yes	Yes	Yes		Yes	
	Chat Server	8.5.107.11	Yes	Yes	NA		Yes	
	Interaction Server	8.5.109.01	Yes	Yes	NA		Yes	
	Email Server	8.5.104.06	Yes	Yes	NA		Yes	
	Local Control Agent	8.5.100.20	Yes	Yes	NA		Yes	
Email Server 8.5.104.08+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes		
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes		
	Interaction Server	8.5.109.01	Yes	Yes	NA	Yes		
	Universal Contact Server	8.5.100.19	Yes	Yes	NA	Yes		
Social Media Server 8.5.400.03+	Configuration Server	8.5.100.22	Yes	Yes	NA		Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes		Yes	

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	Universal Contact Server	8.5.100.19	Yes	Yes	NA		Yes	
	Interaction Server	8.5.109.01	Yes	Yes	NA		Yes	
Universal Contact Server Proxy 8.5.100.04+	Universal Contact Server	8.5.100.19	Yes	Yes	NA	Yes	Yes	
	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
TServer for Avaya Communications Manager 8.1.010.30+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	ISCC	8.1.010.30	Yes	Yes	NA	Yes	Yes	
Outbound Contact Server 8.1.508.06+	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	SIP	8.1.102.58	Yes	Yes	NA	Yes	Yes	
	TServer for Avaya	8.1.010.30	Yes	Yes	NA	Yes	Yes	
	Interaction Server	8.5.109.01	Yes	Yes	NA	Yes	Yes	
	DB Server	8.1.300.06	Yes	Yes	NA	Yes	Yes	
	Real Time Metrics Engine (Stats Server)	8.5.102.00	Yes	Yes	NA	Yes	Yes	
Orchestration Server 8.1.400.82+	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Universal Routing Server	8.1.400.22	Yes	Yes	NA	Yes	Yes	
	Real Time	8.5.107.00	Yes	Yes	NA	Yes	Yes	

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	Metrics Engine (stats Server)							
	SIP	8.1.102.58	Yes	Yes	NA	Yes	Yes	
	Interaction Server	8.5.109.01	Yes	Yes	NA	Yes	Yes	
Interaction Concentrator 8.1.514.09+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	DB Server	8.1.301.03	Yes	Yes	NA	Yes	Yes	
	SIP	8.1.102.58	Yes	Yes	NA	Yes	Yes	
	Outbound Contact Server	8.1.508.00	Yes	Yes	NA	Yes	Yes	
	Interaction Server	8.5.109.01	Yes	Yes	NA	Yes	Yes	
Classification Server 8.5.300.01+	Configuration Server	8.5.100.22	Yes	Yes	NA		Yes	
	Configuration Server Proxy	8.5.100.22	Yes	Yes	NA			
	Message Server	8.5.100.13	Yes	Yes	Yes		Yes	
	Universal Contact Server	8.5.100.19	Yes	Yes	NA		Yes	
Interaction Server 8.5.110.01+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Configuration Server Proxy	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	Universal Contact Server	8.5.100.19	Yes	Yes	NA	Yes	Yes	
	DB Server	8.1.301.03	Yes	Yes	NA	Yes	Yes	
	Chat Server	8.5.107.11	Yes	Yes	NA	Yes	Yes	
	Social Media Server	8.5.400.03	Yes	Yes	NA	Yes	Yes	
	Classification	8.5.300.01	Yes	Yes	NA	Yes	Yes	

TLS Feature Support Matrix

	Server								
	Email Server	8.5.104.06	Yes	Yes	NA	Yes	Yes		
	(Server Port)	From supporting clients	Yes	Yes	NA	Yes	Yes		
Chat Server 8.5.109.05+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes		
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes		
	Interaction Server	8.5.110.01	Yes	Yes	NA	Yes	Yes		
	Universal Contact Server	8.5.200.19	Yes	Yes	NA	Yes	Yes		
	Cassandra Database	2.28	Yes	Yes	NA		Yes		
Digital Messaging Server (with WeChat Driver) 9.000.03+	Configuration Server	8.5.100.22	Yes	NA	Yes	Yes	Yes		
	Solution Control Serer	8.5.100.17	Yes	NA	Yes	Yes	Yes		
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes		
	Universal Contact Server	8.5.200.19	Yes	NA	Yes	Yes	Yes		
	Interaction Server	8.5.110.01	Yes	NA	Yes	Yes	Yes		
	Chat Server	8.5.109.05	Yes	NA	Yes	Yes	Yes		
	(Server Port)	From supporting clients	Yes	NA	Yes	Yes	Yes	Yes	Digital Messaging Server supports only one port "default" with Listening Mode = secured.
Interaction Server Proxy 8.5.110.01+	Configuration Server	8.5.100.22	Yes	NA	Yes	Yes	Yes		
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes		
	Interaction Server	8.5.110.01	Yes	NA	Yes	Yes	Yes		

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GWS (Web Services and Applications) 8.5.201.85+	Configuration Server	8.5.101.08			NA	Yes	Yes	<ul style="list-style-type: none"> • Cannot connect to a Configuration Server 'auto-detect' port. Must connect to a 'secured' port. • TLS not supported for connection to Message Server. • GWS CA Trusted certificate must be configured in application.yaml file only: GWS does not read configuration from Configuration Management Environment. • For TLSv1.2 use command line option -Djdk.tls.client.protocols=TLSv1.2 or into JAVA_OPTIONS of
	Interaction Server	8.5.107.11			NA	Yes	Yes	
	Universal Contact Server	8.5.200.10			NA	Yes	Yes	
	Chat Server	8.5.109.06			NA	Yes	Yes	
	SIP	8.1.102.58			NA	Yes	Yes	

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Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
								/etc/default/gws for CentOS6 or /usr/lib/systemd/system/gws.service for CentOS7. Example configuration: serverSettings: caCertificate:/usr/local/genesys/cacert/ca_cert.pem onPremiseSettings: cmeHost: fmk cmePort: 2021 tlsEnabled: true
Mobile Engagement 8.5.107.19+	Configuration Server	8.5.100.22			NA			
	Message Server	8.5.100.13			Yes			
	Real Time Metrics Engine (Stats Server)	8.5.102.22			NA			
	Cassandra Database				NA			TLS is supported between Cassandra nodes and on

								JMX port of Cassandra. TLS is not supported from GMS to Cassandra DB.
	Chat Server	8.5.105.05			NA			TLS between GSG/GMS and Chat Server in trust server mode (encryption only, no certificate checks). For Chat version 1, add the following option in chat section: chat_ssl_trust_all=true
	Universal Contact Server	8.5.200.10			NA			TLS between GSG/GMS and Chat Server in trust server mode (encryption only, no certificate checks).
	Email Server	8.5.104.06			NA			You can set up an HTTPS connection (even in the GMS Connection tab). Note: GMS uses HTTPClientFactory, and a TLS

								option can be set (section gms , option http.ssl_trust_all , value=false, true).
	Orchestration Server	8.1.400.53			NA			You can set up an HTTPS connection (even in the GMS Connection tab). Note: GMS uses HTTPClientFactory, and a TLS option can be set (section gms , option http.ssl_trust_all , value=false, true).
	Solution Control Server	8.5.100.17			NA			
	Universal Routing Server	8.1.400.22			NA			You can set up an HTTPS connection (even in the GMS Connection tab). Note: GMS uses HTTPClientFactory, and a TLS option can be set (section gms , option http.ssl_trust_all , value=false, true).
Co-Browse 8.5.101+	Configuration Server	8.5.100.22	Yes		NA		Yes	
	Message Server	8.5.100.13	Yes		Yes		Yes	
	Cassandra		Yes		NA		Yes	

TLS Feature Support Matrix

	Database							
Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
Workforce Management Server 8.5.207.09+		To other supporting servers				Yes	Yes	
Workforce Management Builder 8.5.207.05+		To other supporting servers					Yes	
Workforce Management Daemon 8.5.207.01+	Configuration Server	8.5.101.16	Yes		NA		Yes	
	Message Server	8.5.100.13	Yes		Yes			
Workforce Management Web 8.1.301.02+	Configuration Server	8.5.101.16	Yes		NA		Yes	
	Message Server	8.5.100.13	Yes		Yes			
Workforce Management Aggregator 8.5.203.00+		To other supporting servers					Yes	
Workforce Management DB Server 8.1.301.02+		To other supporting servers					Yes	
Genesys Administrator Extensions 8.5.290.09+	(Server Port)	From supporting clients	Yes		NA		Yes	Add <code>setIncludeProtocols=</code> in <code>gax.properties</code> .
	Configuration Server	8.5.101.16	Yes	Yes	NA		Yes	For TLSv1.2 with Java 7, set <code>-Djdk.tls.client.protocols=TLSv1.2</code> (not required for Java 8).
	Solution Control Server	8.5.100.26	Yes	Yes	NA		Yes	For TLSv1.2 with Java 7, set <code>-Djdk.tls.client.protocols=TLSv1.2</code> (not required for Java 8).

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Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
	MSSQL DB	MSSQL:SQLServer2014, SQLServer2008, SQLServer2012	Yes	Yes	NA		Yes	Java 8). For TLSv1.2 with Java 7, set <code>-Djdk.tls.client.protocols=TLSv1.2</code> (not required for Java 8).
Workspace Desktop Edition 8.5.105.12+	Universal Contact Server	8.5.300.09	Yes	Yes 8.5.148.04+	NA		Yes	Through PSDK.NET 9:ESP Protocol TLS 1.2: 8.5.115.17+
	Configuration Server	8.5.100.22	Yes	Yes 8.5.148.04+	NA		Yes	Through PSDK.NET Config 9 TLS 1.2: 8.5.115.17+
	Interaction Server	8.5.110.10	Yes	Yes 8.5.148.04+	NA		Yes	Through PSDK.NET OpenMedia 9 TLS 1.2: 8.5.115.17+
	SIP Server	8.1.102.58	Yes	Yes 8.5.148.04+	NA		Yes	Through PSDK.NET Voice 9 TLS 1.2: 8.5.115.17+
	Chat Server	8.5.107.11	Yes	Yes 8.5.148.04+	NA		Yes	Through PSDK.NET 9: Basic Chat Protocol TLS 1.2: 8.5.115.17+
	Real Time Metrics	8.5.102.22	Yes	Yes	NA		Yes	Through PSDK.NET 9

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	Engine (Stats Server)			8.5.148.04+				TLS 1.2: 8.5.115.17+
Voice Platform Resource Manager 8.5.175.95+	SIP Server	8.1.102.58	Yes	Yes	NA		Yes	
	Media Control Platform	8.5.176.05	Yes	Yes	NA		Yes	
	CTI Connector	9.0.010.07	Yes	Yes	NA	Yes	Yes	
	Reporting Server	8.5.181.77			NA			
	RM Internode				NA			
	Configuration Server	8.5.100.22			NA		Yes	
	Message Server	8.5.100.13						
Voice Platform Media Control Platform 8.5.176.05+	Resource Manager	8.5.175.95	Yes	Yes	NA		Yes	
	Reporting Server	8.5.181.77			NA			
	Configuration Server	8.5.100.22	Yes	Yes	NA		Yes	
	Message Server	8.5.100.13						
	HTTPs (client)	8.5.176.05	Yes	Yes	NA		Yes	
	ASR/TTS (MRCP v2 Nuance)	8.5.176.05	Yes	Yes	NA		Yes	
	ASR/TTS (MRCP v1)				NA			
Nuance/MRCP				NA				
Voice Platform MRCP Proxy 8.5.184.42+	Reporting Server	8.5.181.77		Yes	NA			
	Configuration Server	8.5.100.22	Yes	Yes	NA		Yes	
	Message Server	8.5.100.13						
	MRCP ASR/TTS				NA			Media Control Platform can be connected directly

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								to MRCP resource.
	MRCP Client				NA			
Voice Platform UCMConnector (T-Server	Resource Manager	8.5.175.95	Yes					
Cisco UCM to Media Server Connector) 8.5.184.06+	Configuration Server	8.5.100.22	Yes				Yes	
	Message Server	8.5.100.13						
Voice Platform Policy Server 8.5.010.10+	Configuration Server						Yes	
	HTTPs						Yes	
	Genesys Administrator						Yes	
	Message Server						Yes	
Voice Platform CTIConnector 9.0.010.07+	IVR Server	8.5.000.09	Yes	Yes		Yes	Yes	
	Cisco ICM							
	Configuration Server	8.1.100.06	Yes	Yes		Yes	Yes	
	Resource Manager	8.5.181.38	Yes	Yes		Yes	Yes	
	Message Server	8.5.100.16	Yes	Yes	Yes	Yes	Yes	
Voice Platform Reporting Server 9.0.010.62+	Configuration Server		NA					TLSv1.2 configured on Java.
	Database			Yes	NA			Mutual TLS with Oracle RAC 12
	HTTPS			Yes	NA			TLSv1.2 configured on Java.
	RC (Active MQ)			Yes	NA			
	Message Server			Yes	Yes			TLSv1.2 configured on Java.
SIP Feature	SIP Server				NA			

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Server 8.1.201.91+	Genesys Administrator Extensions				NA			
	Media Control Platform	Supporting version			NA			
	Cassandra DB	Supporting version		Yes	NA			
	Configuration Server				NA			
	Phone				NA			
SIP Server 8.1.102.25+	Configuration Server	8.5.100.22	Yes	Yes	Yes	Yes	Yes	
SIP Proxy 8.1.100.57+	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
iWD Manager 9.0.004.07+	Configuration Server	8.1.300.24	Yes	Yes	NA		Yes	
	Message Server	8.5.100.03	Yes	Yes	Yes		Yes	
	iWD History Node	9.0.004.07	Yes	Yes	NA		Yes	
	Interaction Server	8.5.105.04	Yes	Yes	NA		Yes	
	Universal Contact Server	8.5.300.09	Yes	Yes	NA		Yes	
iWD History Node 9.0.004.07+	Configuration Server	8.1.300.24	Yes	Yes	NA		Yes	
	JMSQ		Yes	Yes	NA		Yes	
iWD Runtime Node 9.0.004.07+	Configuration Server	8.1.300.24	Yes	Yes	NA		Yes	
	iWD History Node	9.0.004.07	Yes	Yes	NA		Yes	
iWD Web 9.0.004.01+	Configuration Server	8.1.300.24	Yes	Yes	NA		Yes	
	Message Server	8.5.100.03	Yes	Yes	Yes		Yes	
	Interaction Server	8.5.105.04	Yes	Yes	NA		Yes	
	iWD Web Capture Point	9.0.003.07	Yes	Yes	NA		Yes	
Browser	iWD Web	9.0.004.01	Yes	Yes	NA		Yes	

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	iWD Manager	9.0.004.07	Yes		Yes	NA		Yes	
iWD GAX Plugin 9.0.012.07+	iWD Runtime Node	9.0.004.07	Yes		Yes	NA		Yes	
Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support		Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
Load Distribution Server 8.1.005.02+	Configuration Server	8.5.100.25	Yes		Yes	NA	Yes	Yes	
	Message Server	8.5.100.11	Yes		Yes	Yes	Yes	Yes	
	SIP	8.1.101.79	Yes		Yes	NA	Yes	Yes	
	Load Distribution Server	8.1.005.02	Yes		Yes	NA	Yes	Yes	
Universal Routing Server 8.1.400.28+	Load Distribution Server	8.1.005.02	Yes		Yes	Yes	Yes	Yes	
	Interaction Server	8.5.110.01	Yes			NA		Yes	
Platform SDK for Java 8.5.102.02+	Any supporting server	Any supporting server	Yes		Yes		Yes	Yes	FIPS 140-2 requires OpenJDK 8u212 b04+
Platform SDK for .NET 8.5.102.03+	Any supporting Server	Any supporting Server	Yes		Yes		Yes	Yes	
TServer for Avaya TSAPI v.8.1.010.12+	Configuration Server	8.5.100.18			Yes	NA			
	Message Server	8.5.100.20	Yes		Yes	Yes		Yes	
	Real Time Metrics Engine (Stats Server)	8.5.100.22	Yes		Yes	NA		Yes	
	Universal Routing Server	8.1.400.52	Yes		Yes	NA		Yes	
	TServer for Avaya TSAPI	8.1.010.12	Yes		Yes	NA		Yes	

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TServer for Cisco UCM 8.1.202.34+	TServer for Cisco UCM	8.1.202.34	Yes	Yes	NA		Yes	
	Configuration Server	8.5.100.25	Yes	Yes	NA		Yes	
	Message Server	8.5.100.11	Yes	Yes	Yes		Yes	
	Real Time Metrics Engine (Stats Server)	8.5.104.22	Yes	Yes	NA		Yes	
	Universal Routing Server	8.1.400.28	Yes	Yes	NA		Yes	
Genesys InfoMart 8.5.011.11+	Configuration Server	8.5.100.22	Yes	Yes	NA	Yes	Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
Genesys Web Engagement 8.5.000.42+	Configuration Server	8.5.100.02	Yes	Yes	NA		Yes	
	Message Server	8.5.000.17	Yes	Yes			Yes	
	Interaction Server	8.5.105.00	Yes	Yes	NA		Yes	
	Interaction Server Proxy	8.5.109.13	Yes	Yes	NA		Yes	
	Real Time Metrics Engine (Stats Server)	8.5.101.05	Yes	Yes	NA		Yes	
	External Cassandra	2.2.3	Yes	Yes	NA		Yes	
Product (acting as client)	Product Connections (acting as server)	TLS 1.2 Support Release #	sec-protocol option support	Mutual TLS Support	Host configuration to Message Server	FIPS 140-2	Compatible with SHA-2 certificates	Comments
Pulse 9.0.001.00+	Configuration Server	8.5.101.20	Yes	Yes	NA		Yes	
	Message Server	8.5.100.11	Yes	Yes	Yes		Yes	
	MSSQL DB	SQL Server 2012 on		Yes	NA		Yes	

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		Windows 2012 R2 and SQL Server 2017 on Linux						
	PostgreSQL DB	PostgreSQL Server 10 on Windows 2012 R2 and PostgreSQL Server 10 on Linux		Yes		NA		Yes
	Oracle DB	Oracle 12c RAC on Linux				NA		Yes
Pulse Collector 9.0.001.01+	Configuration Server	8.5.101.20	Yes	Yes		NA		Yes
	Message Server	8.5.100.11	Yes	Yes				Yes
	Real Time Metrics Engine (Stats Server)	8.5.104.22	Yes	Yes		NA		Yes
	DB Server	8.1.302.02	Yes	Yes		NA		Yes
	MSSQL DB	SQL Server 2012 on Windows 2012 R2 and SQL Server 2017 on Linux			Yes		NA	Yes
	PostgreSQL DB	PostgreSQL Server 10 on Windows 2012 R2 and PostgreSQL Server 10 on Linux			Yes		NA	Yes
	Oracle DB	Oracle 12c RAC on Linux					NA	Yes

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Real Time Metrics Engine (Stats Server) 8.5.110.14+	Configuration Server	8.5.100.22	Yes		NA		Yes	
	Message Server	8.5.100.13	Yes	Yes	Yes		Yes	
	SIP-Server	8.1.102.58	Yes	Yes	NA		Yes	
	Interaction Server	8.5.201.05	Yes	Yes	NA		Yes	
	DB Server	8.1.301.03	Yes	Yes	NA		Yes	
Universal Routing Server 8.1.400.56+	Configuration Server	8.5.100.22			NA			
	Message Server	8.5.100.13	Yes	Yes	Yes	Yes	Yes	
	SIP Server	8.1.102.50	Yes	Yes	NA	Yes	Yes	
	Orchestration Server	8.1.400.82	Yes	Yes	NA	Yes	Yes	
	Real Time Metrics Engine (Stats Server)	8.5.102.00	Yes	Yes	NA	Yes	Yes	
	IIS Web Server	IIS7			NA	Yes		