



Introduction

The information in this document is intended as a general guide to help you set up the babyTEL SIPCryptAgent software, which secures all calling traffic to and from the babyTEL network.

The SIPCryptAgent is a small Java application that you run locally on your Fax or IP-PBX server to encrypt and secure SIP and media communications between your SIP server and the babyTEL secure Session Border Controller (SBC) servers.

The SIPCryptAgent can be installed on any system behind the corporate firewall. Once configured to connect through the SIPCryptAgent, SIP clients on the LAN will be able to communicate securely with the babyTEL service over encrypted connections.

This document contains detailed instructions on SIPCryptAgent installation and provides the SIP parameters needed to configure your SIP server to work with it. The document also provides information on how to obtain other generic SIP parameters and your SIP credentials from the babyTEL online account portal.

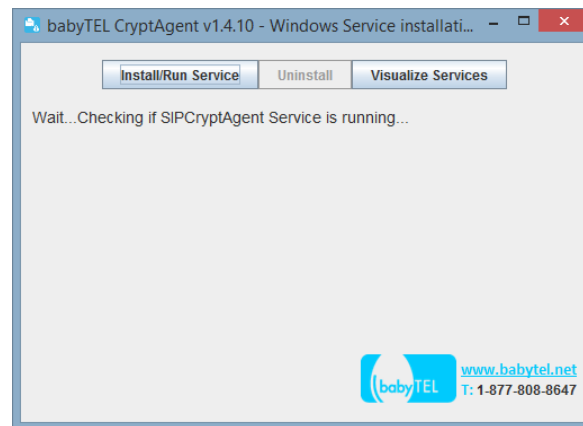
For full and proper functioning of the babyTEL service and all related features, your SIP client should be set up according to the detailed instructions provided by the manufacturer in their configuration guide.

NOTE: If you encounter errors during the setup process review the troubleshooting section at the end of this document or contact babyTEL. You will find our contact information listed at the end of the document.

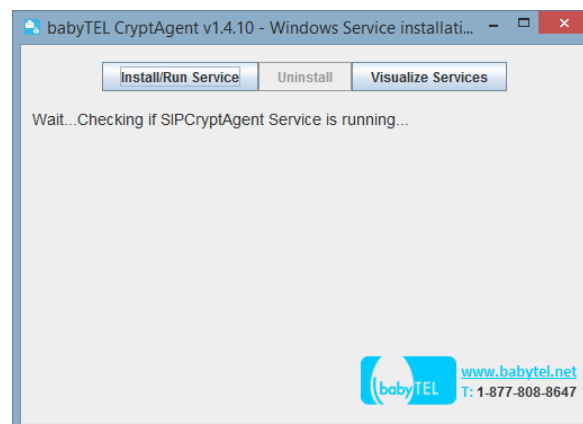
Step 1 – Install the SIPCryptAgent as a Windows Service

Perform the following steps to install SIPCryptAgent on a Windows system

1. Login to your machine as Administrator.
2. Ensure latest version of Java is installed.
 - o We recommend installing the latest Java version.
 - o You can download Java at <http://www.java.com/en/download>).
 - o Reboot after the install to ensure you have a clean Java environment.
3. Extract the SIPCryptAgent Java Archive file.
 - o Get the SIPCryptAgentService.zip file from babyTEL. Your sales representative will make it available to you.
 - o Extract the contents of SIPCryptAgentService.zip to a folder on your disk.
 - o You will find the SIPCryptAgentService.jar file in that folder.
4. Install the SIPCryptAgent Service.
 - o Double click on SIPCryptAgentService.jar to run the application.



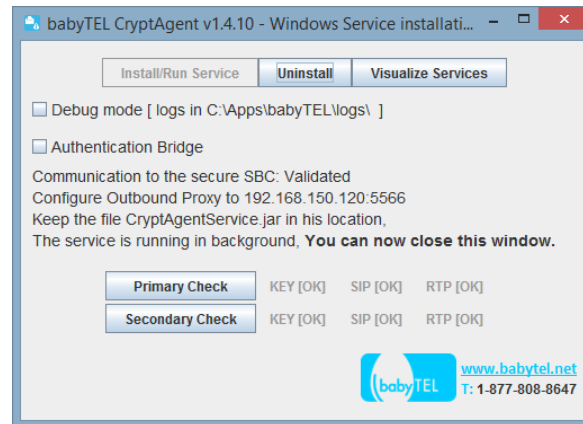
- o Wait until the application is ready to Install/Run.



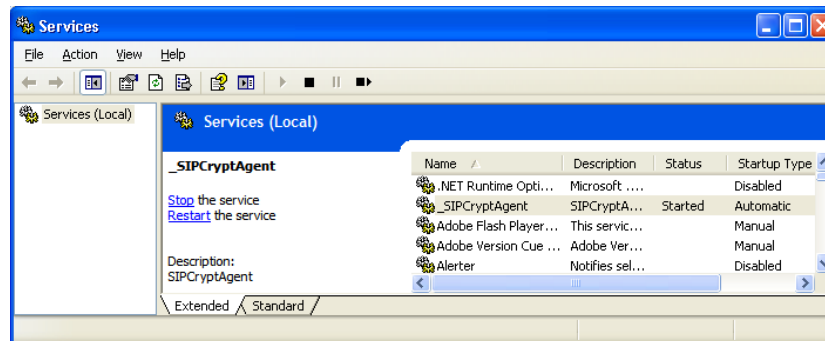


babyTEL SIPCryptAgent User Guide

- o Click on “Install/Run Service” - the client will run through a series of tests.
- o Verify that the KEY, SIP & RTP tests succeeded.



- o You may verify that the service did start by clicking on “Visualize Services” and looking for the service named _SIPCryptAgent:

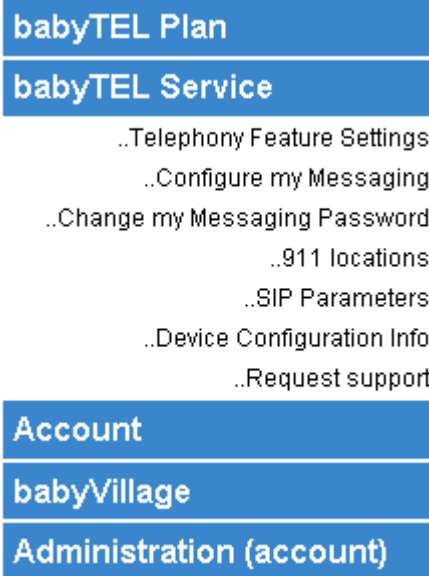




Step 2 – Configure your SIP server

Once SIPCryptAgent is installed and started as a service, you will need to configure your SIP server.

1. To complete the SIP configuration of your SIP server you will need:
 - o The IP address of the server where SIPCryptAgent is running.
 - o The babyTEL SIP parameters and account credentials – you can view this information by clicking on “...SIP Parameters” under the ‘babyTEL Service’ menu available via your online babyTEL account portal.



- o Configuration guides - click on “...Device Configuration Info” to see if babyTEL published a guide for your device. Check with your manufacturer for other guides.

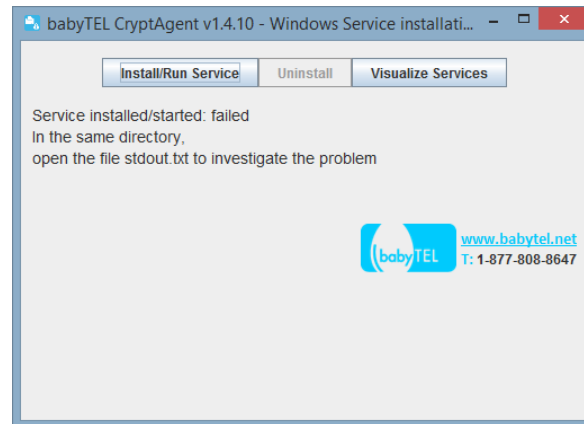
Note: The IP address of the server on which SIPCryptAgent is running must be used as the ‘Outbound Proxy’ instead of the value indicated under “...SIP Parameters”.

2. Configure your SIP server
 - o Follow the instructions in the device configuration guides.
 - o When asked to specify the address of the ‘Outbound Proxy’ use the SIPCryptAgent server address and the UDP port 5566. For example: if the IP address is 10.0.1.2 then the Outbound Proxy address to use would be 10.0.1.2:5566.
3. Start your SIP server
 - o Once started you are ready to make and receive secure calls through babyTEL.

Troubleshooting

Service Installation/Startup Failed

Under certain circumstances you may encounter the following error when installing the service:



The application will perform background checks and may resolve the problem on its own.

Wait a few seconds then click on “Install/Run Service” again to see if the issue got resolved. Contact us if the problem is still not resolved.

Strict Firewalls Blocking Communication

Certain firewalls are strict in the sense that they do not allow communication from internal to external IP address. If this is the case, you will need to relax these constraints to allow the SIPCryptAgent to communicate with babyTEL.

On your strict firewall, you will need to:

1. Allow TCP from your server where SIPCryptAgent is running to the primary babyTEL secure Session Border Controller (SBC) – IP address 198.38.7.35 / TCP port 5443.
2. Allow TCP to the secondary babyTEL SBC – IP address 198.38.7.34 / TCP port 5443.
3. Allow UDP to both the primary and secondary SBCs – any UDP port.

Firewall not using Consistent NAT

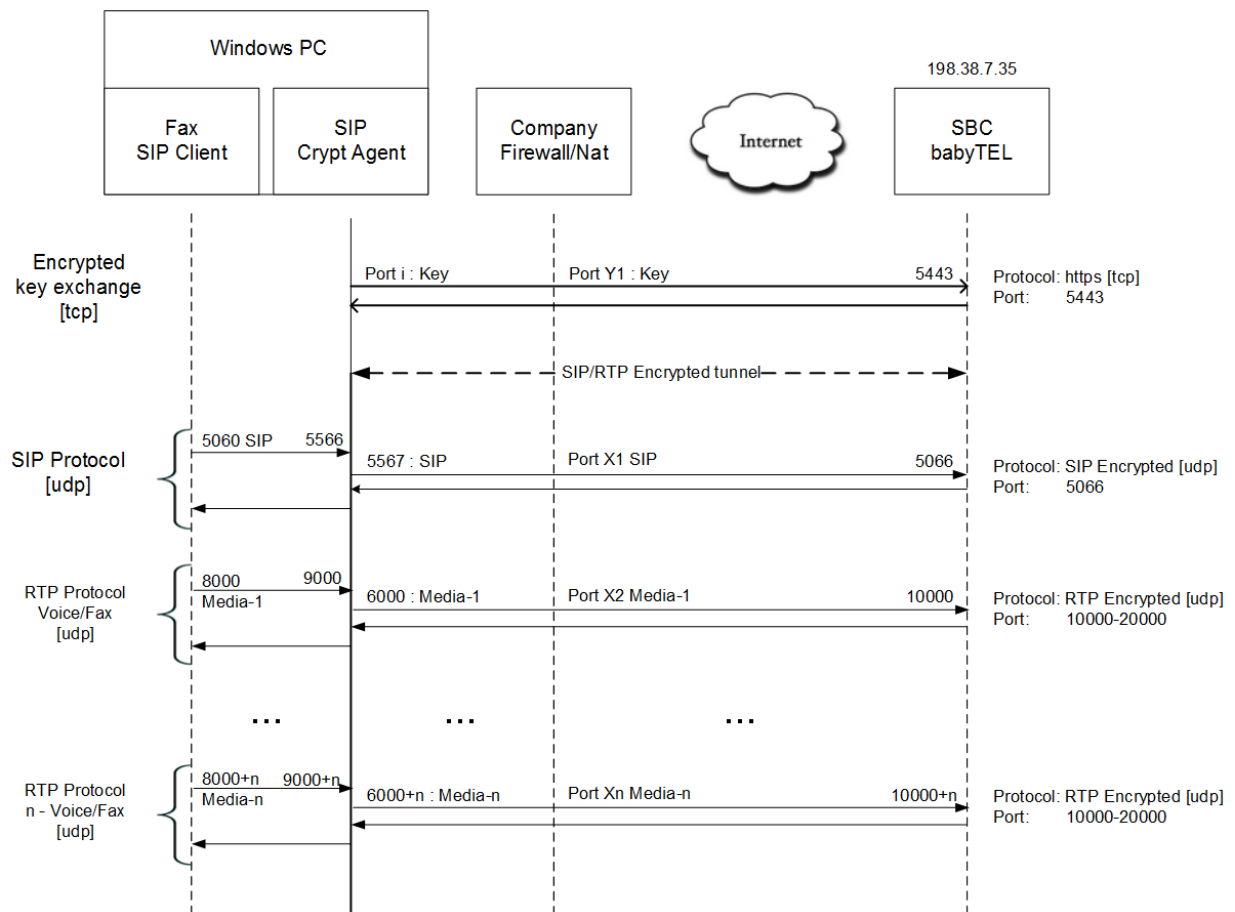
Firewalls that do not use Consistent NAT can also block incoming calls. In this situation, the firewall keeps changing the public IP port used to communicate with babyTEL. If a call arrives at that moment, before the SIP device re-registers to notify babyTEL of the new IP port, then that call will not reach the SIP device. To avoid this, change your firewall setting to enable Consistent NAT.

SIPCryptAgent Process Workflow

While the SIPCryptAgent is used just like as a standard Outbound SIP proxy there are key differences in how it works. This section provides a brief overview of how the SIPCryptAgent works.

Your SIP system will send all SIP/RTP/T.38 UDP packets to the local SIPCryptAgent, which will encrypt the packets and transmit them to a babyTEL SBC. Connections are established from your internal system to a babyTEL SBC. Your SIP system is the one initiating and maintaining the communication by registering every 45-60 seconds, we use the same communication channel established to send encrypted packets back from the babyTEL secure SBC to your SIP system.

Note that the SIPCryptAgent application does not initiate or generate additional traffic. In terms of overhead, it creates very minimal overhead that is negligible with respect to bandwidth and latency. The following diagram depicts the SIPCryptAgent SIP traffic flow.





Contact

If you require assistance you can contact us 24 hours a day, 7 days a week, by email at service@babytel.net.

You can also reach us by phone 7 days a week from 9 AM to midnight, Eastern Time at:

Canada	USA
Montréal: 514 201-6550 Toronto: 416 848-0990 Toll free: 1-877-258-VoIP (8647)	Toll free: 1-877-808-VoIP (8647)

Address: 1425 René-Lévesque, Suite 700, Montréal, Québec, Canada H3G 1T7

Website: www.babytel.net

Thank you for choosing babyTEL as your Internet Telephony Service Provider. We at babyTEL will continually strive to provide you a reliable service. As well, we will be regularly adding additional capabilities that you may find useful. Please keep up-to-date by visiting us at the babyTEL website. Pleasant surprises may await you.
