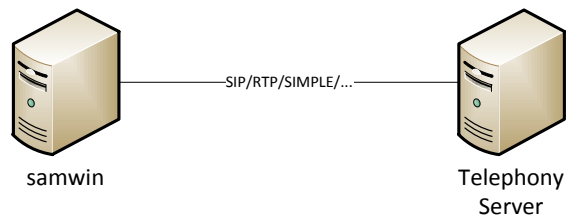# samwin

3rd Party Telephony System Connectivity

Version 1.0

Last Modified March 2, 2011

1. Introduction

Connecting a system as 1st party setup should only be done with telephony systems certified for use with samwin. See the compatibility matrix in our sales material for details about supported systems.

samwin — SIP/RTP/SIMPLE/... — Telephony Server

1st party setup

Any other telephony system can be added to a samwin installation by indirect connectivity as a 3rd party in the existing setup. This allows the provisioning of the complete contact center feature set without the necessity of direct compatibility between the samwin interfaces and the target telephony system.

samwin — SIP/RTP/SIMPLE/... — Telephony Server — QSIG/H.323/MGCP/... — 3rd-party Telephony Server
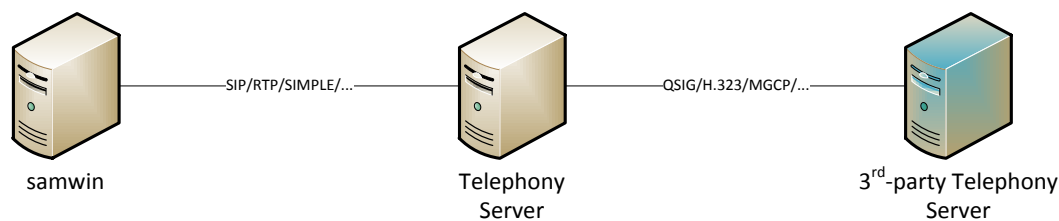
3rd party setup

In such a setup, consoles operated on the 1st party telephone server can service extensions on the 3rd party telephone server, as well as trunk lines on the 3rd party telephone server.

2. Considerations

The only thing to consider in such a setup is that the trunk connectivity between the 1st party telephone system and the 3rd party telephone system might be subject to feature loss.

Trunk technologies like QSIG, H.323, MGCP, or other protocols in use are subject to general and implementation-specific restrictions in regards to signaling, voice, and information hand-over.

The following test protocol should provide a guideline for the evaluation of the feature set possible in such a setup.

Please note that the test protocol produces a realistic representation of the final system setup within a real-world samwin deployment, but due to differences in the signaling paths between the test procedures and a samwin system cannot guarantee solution fidelity in the final system.

A test bed installation should be produced to ensure compatibility between the trunk technologies in use and the samwin modules planned.

3. Test Setup

Please consider that depending on your solution design, not all of these tests might be necessary to be executed or passed. In the proposed 3rd party design, a working solution can be provisioned even with partial feature compatibility.

For the tests, the following equipment and configuration will be necessary:

- Telephone on 1st party telephone system (hereafter called Phone 1)
- Telephone on 1st party telephone system (hereafter called Phone 2)
- Telephone on 3rd party telephone system (hereafter called Phone 3)
- Telephone on 3rd party telephone system (hereafter called Phone 4)
- Trunk line on 1st party telephone system (hereafter called Trunk Line 1)
- Trunk line on 3rd party telephone system (hereafter called Trunk Line 2)
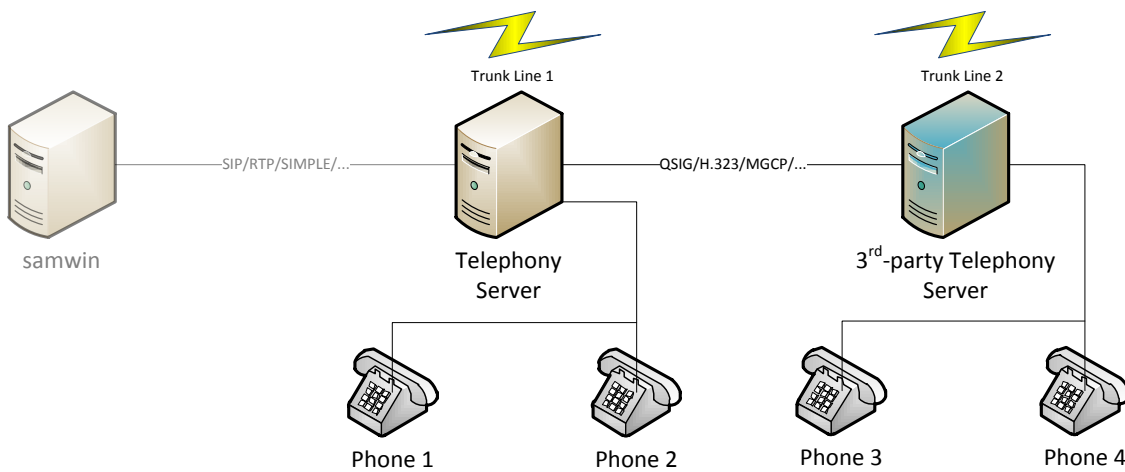
The test procedures will consider different factors of the solution fidelity:

- Information transport
- Voice and signaling path replacement after transfer (aka anti-tromboning or media hair-pinning)

4. Test Setup Information

Please provide the following information:

Phone 1 line number: _____

Phone 2 line number: _____

Phone 3 line number: _____

Phone 4 line number: _____

Trunk line 1 number: _____

Trunk line 2 number: _____

3rd party to 1st party telephone server route prefix (if applicable): _____

1st party to 3rd party telephone server route prefix (if applicable): _____

4.1. Outbound call handling

4.1.1. Direct call

1. Call Phone 1 from Phone 3
2. Observe number and forward information displayed on Phone 1
3. Release call

Number displayed looks like: _____

4.1.2. Forward on no-answer to agent for external calls

1. Setup call forward from Phone 3 to Phone 1 on no-answer
2. Call Phone 3 via Trunk Line 2
3. Let Phone 3 ring for no-answer forward timer duration
4. After call forward to Phone 1, observe number and forward information displayed on Phone 1
5. Release call

Number displayed looks like: _____

4.1.3. Forward on no-answer to agent for internal calls

1. Setup call forward from Phone 3 to Phone 1 on no-answer
2. Call Phone 3 from Phone 4
3. Let Phone 3 ring for no-answer forward timer duration
4. After call forward to Phone 1, observe number and forward information displayed on Phone 1
5. Release call

Number displayed looks like: _____

4.1.4. Forward on busy to agent for external calls

1. Setup call forward from Phone 3 to Phone 1 on busy
2. Ensure that Phone 3 is busy (e.g. create a call on each line of the phone)
3. Call Phone 3 via Trunk Line 2
4. After call forward to Phone 1, observe number and forward information displayed on Phone 1
5. Release call

Number displayed looks like: _____

4.1.5. Forward on busy to agent for internal calls

1. Setup call forward from Phone 3 to Phone 1 on busy
2. Ensure that Phone 3 is busy (e.g. create a call on each line of the phone)
3. Call Phone 3 from Phone 4
4. After call forward to Phone 1, observe number and forward information displayed on Phone 1
5. Release call

Number displayed looks like: _____

4.1.6. Unconditional forward to agent for external calls

1. Setup call forward from Phone 3 to Phone 1 unconditionally
2. Call Phone 3 via Trunk Line 2
3. After call forward to Phone 1, observe number and forward information displayed on Phone 1
4. Release call

Number displayed looks like: _____

4.1.7. Unconditional forward to agent for internal calls

1. Setup call forward from Phone 3 to Phone 1 unconditionally
2. Call Phone 3 from Phone 4
3. After call forward to Phone 1, observe number and forward information displayed on Phone 1
4. Release call

Number displayed looks like: _____

4.2. Inbound call handling

4.2.1. Transfer call from 3rd party trunk line to 3rd party via console on 1st party

1. Call Phone 1 via Trunk Line 2
2. Answer call
3. Create consultative transfer call to Phone 3
4. Observe number displayed on Phone 3
5. Answer call on Phone 3
6. Complete consultative transfer
7. Observe if number displayed on Phone 3 changed
8. Observe media and signaling path of call between Trunk Line 2 and Phone 3
9. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____

Media and signaling local in 3rd party telephone system after transfer: _____

4.2.2. Transfer call from 3rd party internal to 3rd party via console on 1st party

1. Call Phone 1 from Phone 4
2. Answer call
3. Create consultative transfer call to Phone 3
4. Observe number displayed on Phone 3
5. Answer call on Phone 3
6. Complete consultative transfer
7. Observe if number displayed on Phone 3 changed
8. Observe media and signaling path of call between Phone 4 and Phone 3
9. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____

Media and signaling local in 3rd party telephone system after transfer: _____

4.2.3. Transfer call from 3rd party trunk line fallback to 3rd party via console on 1st party

1. Setup call forward from Phone 4 to Phone 1 on no-answer
2. Call Phone 4 via Trunk Line 2
3. Let Phone 4 ring for no-answer forward timer duration
4. Answer call on Phone 1 after call has been forwarded
5. Create consultative transfer call to Phone 3
6. Observe number displayed on Phone 3
7. Answer call on Phone 3
8. Complete consultative transfer
9. Observe if number displayed on Phone 3 changed

10. Observe media and signaling path of call between Trunk Line 2 and Phone 3
11. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____

Media and signaling local in 3rd party telephone system after transfer: _____

4.2.4. Transfer call from 1st party trunk line to 3rd party via console on 1st party

1. Call Phone 1 via Trunk Line 1
2. Answer call
3. Create consultative transfer call to Phone 3
4. Observe number displayed on Phone 3
5. Answer call on Phone 3
6. Complete consultative transfer
7. Observe if number displayed on Phone 3 changed
8. Observe media and signaling path of call between Trunk Line 1 and Phone 3
9. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____

4.2.5. Transfer call from 1st party internal to 3rd party via console on 1st party

1. Call Phone 1 from Phone 2
2. Answer call
3. Create consultative transfer call to Phone 3
4. Observe number displayed on Phone 3
5. Answer call on Phone 3
6. Complete consultative transfer
7. Observe if number displayed on Phone 3 changed
8. Observe media and signaling path of call between Phone 2 and Phone 3
9. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____

4.2.6. Transfer call from 1st party trunk line fallback to 3rd party via console on 1st party

1. Setup call forward from Phone 2 to Phone 1 on no-answer
2. Call Phone 2 via Trunk Line 1
3. Let Phone 2 ring for no-answer forward timer duration
4. Answer call on Phone 1 after call has been forwarded
5. Create consultative transfer call to Phone 3
6. Observe number displayed on Phone 3
7. Answer call on Phone 3
8. Complete consultative transfer
9. Observe if number displayed on Phone 3 changed
10. Observe media and signaling path of call between Trunk Line 1 and Phone 3
11. Release call

Number displayed before transfer complete looks like: _____

Number displayed after transfer complete looks like: _____