

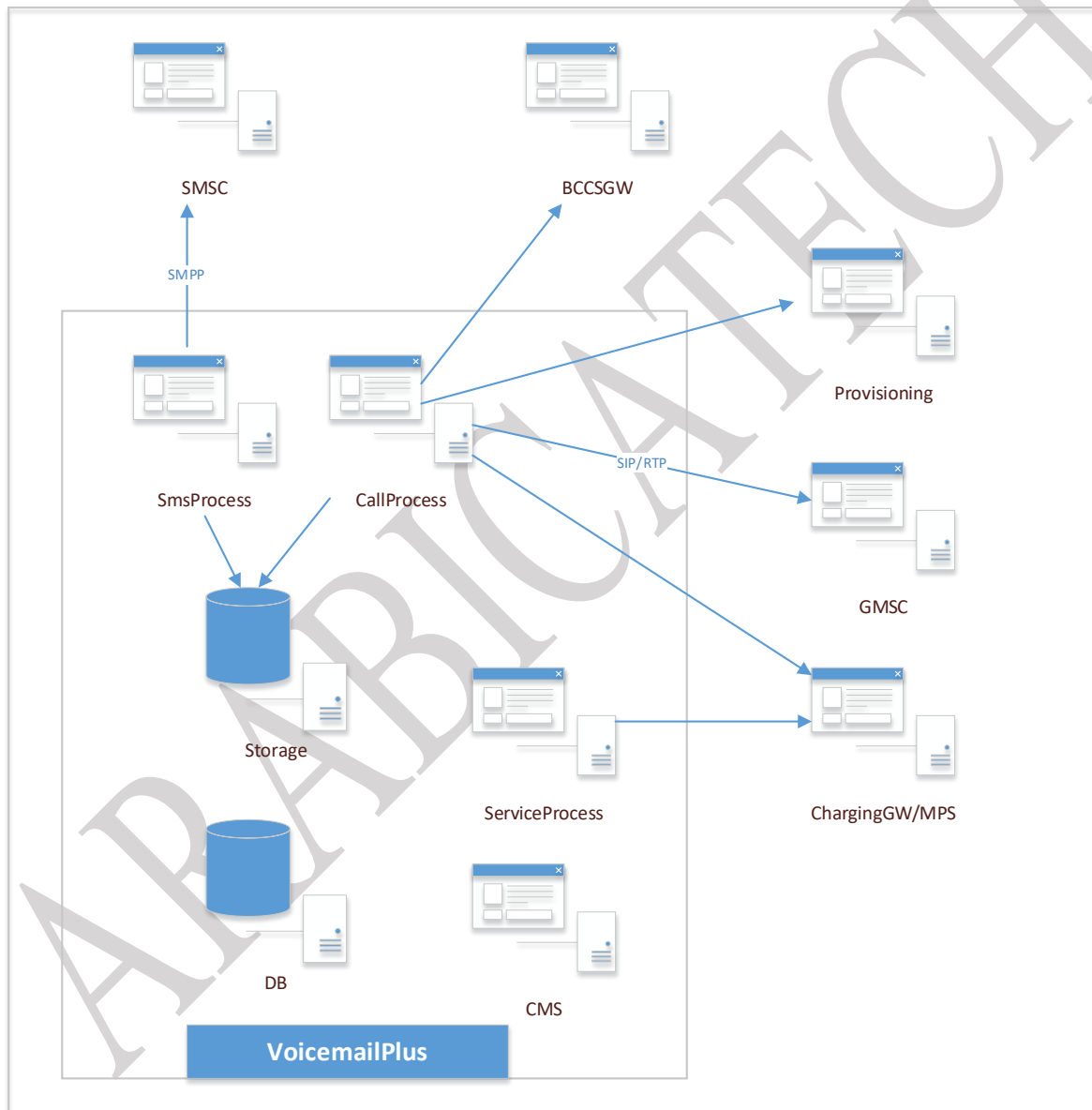
VoiceMailPlus Technical Proposal

1 Overview

VoicemailPlus is a Core service that allow a subscriber (calling) leaves a voice message for the absent subscriber (called) and inform to calling when called is online back.

The service has convinent features and helps subscribers don't miss any important message.

2 Logical model

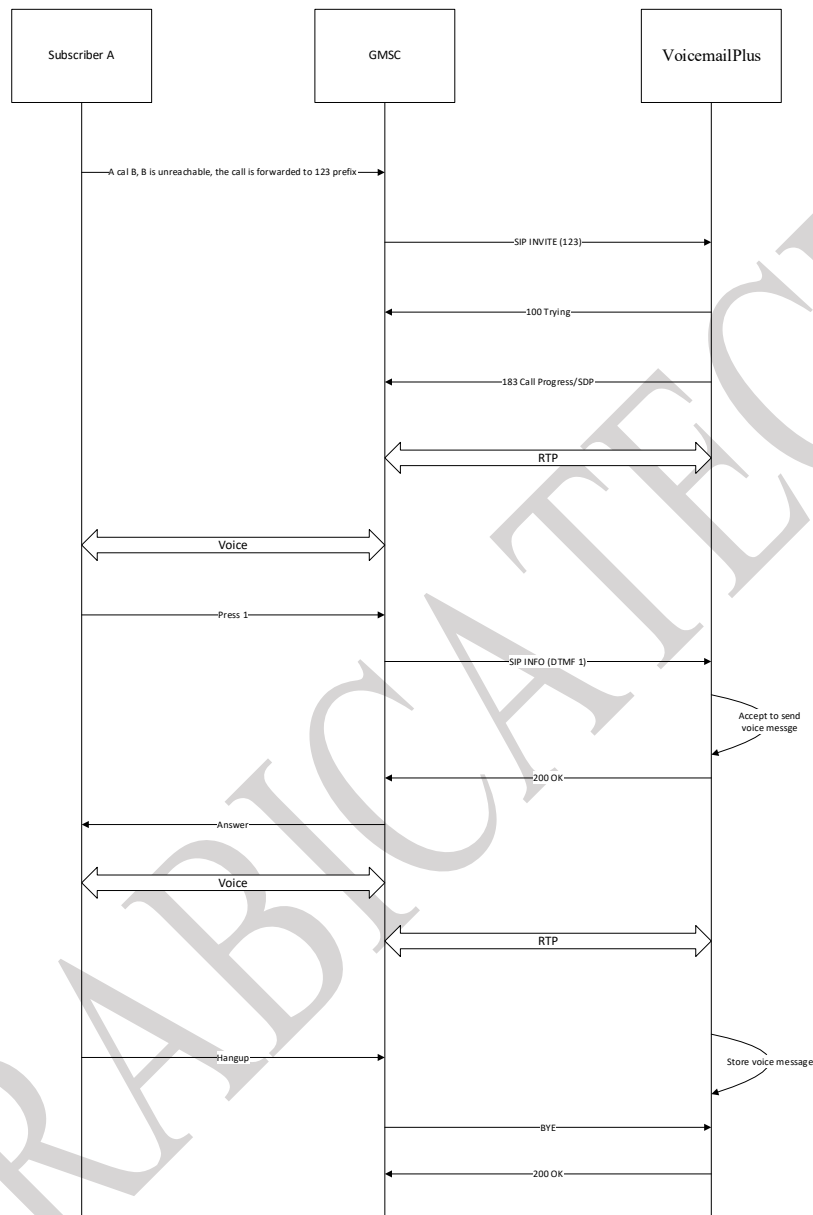


System has 04 main modules:

- CallProcess: handle call from subscriber A, save this call history, detect subscriber B's status and call/send SMS to subscriber B when he is online back
- SmsProcess: send SMS notify/detect to subscriber
- ServiceProcess: handle register/unregister, renew service
- CMS: provide interface to admin lookup transaction and service statistic

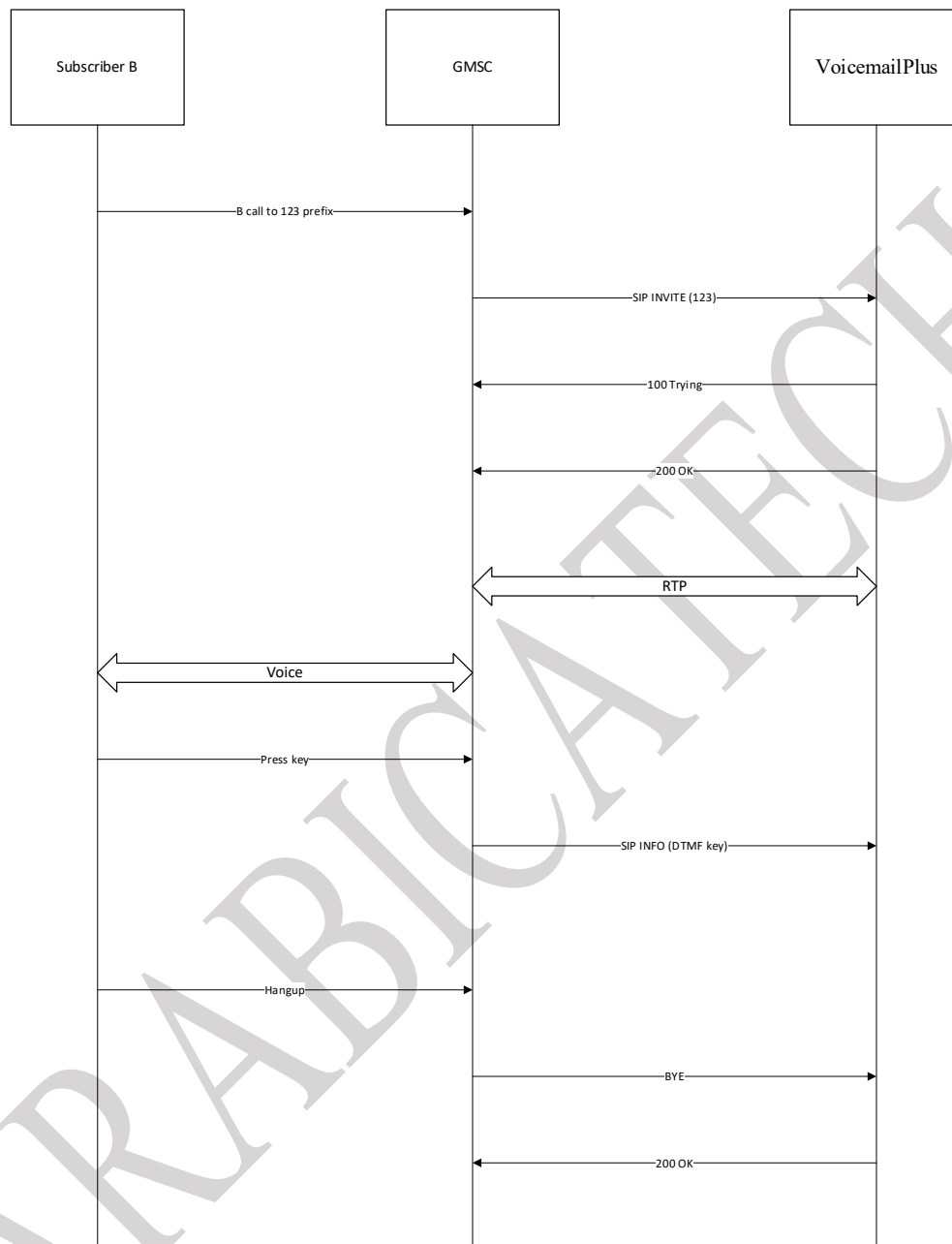
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3.1 CallFlow



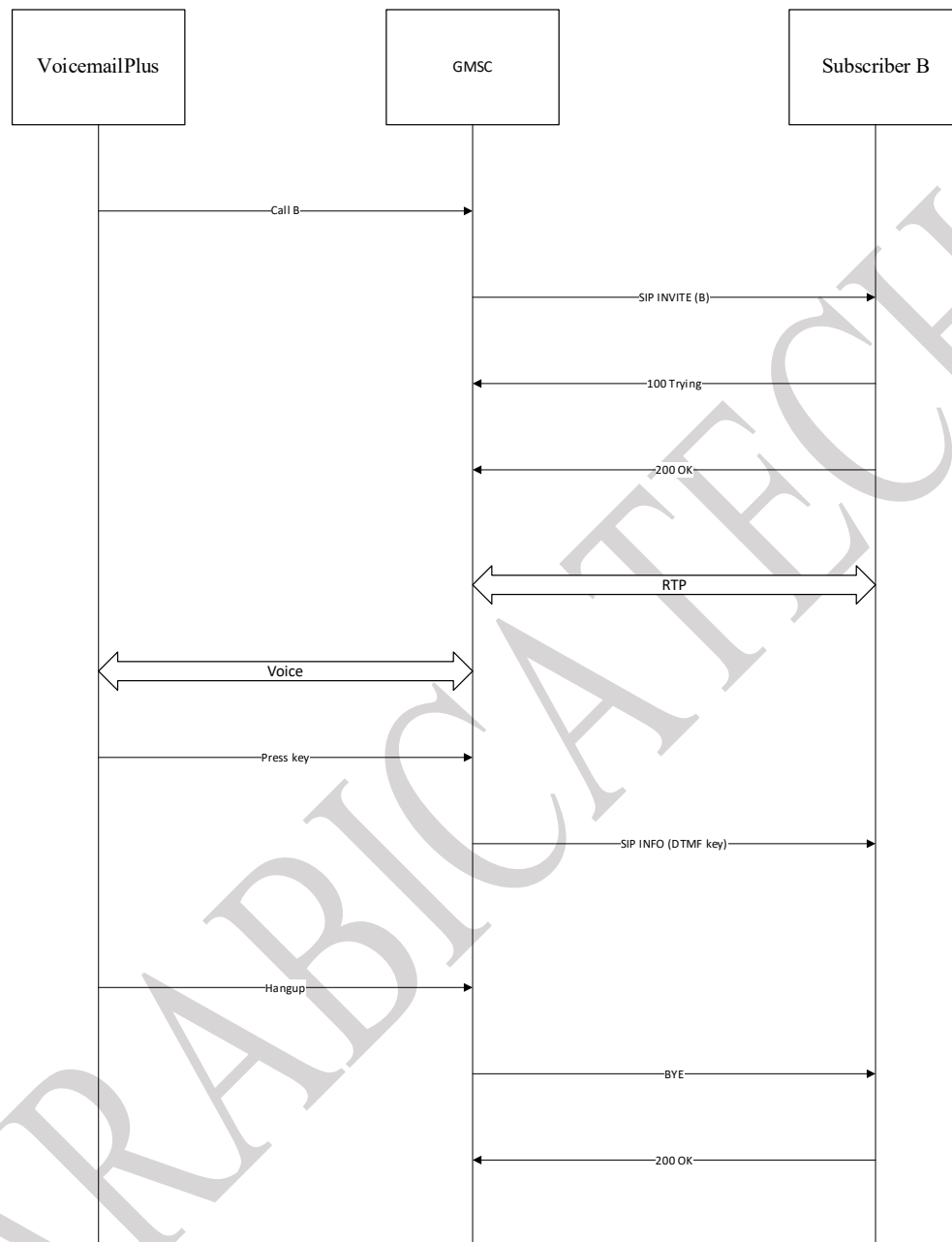
- Step 1: Subscriber A call to subscriber B (B is offline or out of coverage), the call is forwarded to VoicemailPlus System.
- Step 2: VoicemailPlus system establish call to B and play voice announcement to confirm with subscriber A send a voice message to absent subscriber B.
- Step 3: Subscriber A accept to send a voice message
- Step 4: Subscriber leave a voice message, the system store it on storage
- Step 5: VoicemailPlus system save this call history and send SMS to subscriber to B to detect when B is online back.

3.2 Subscriber call to VoicemailPlus to listen message



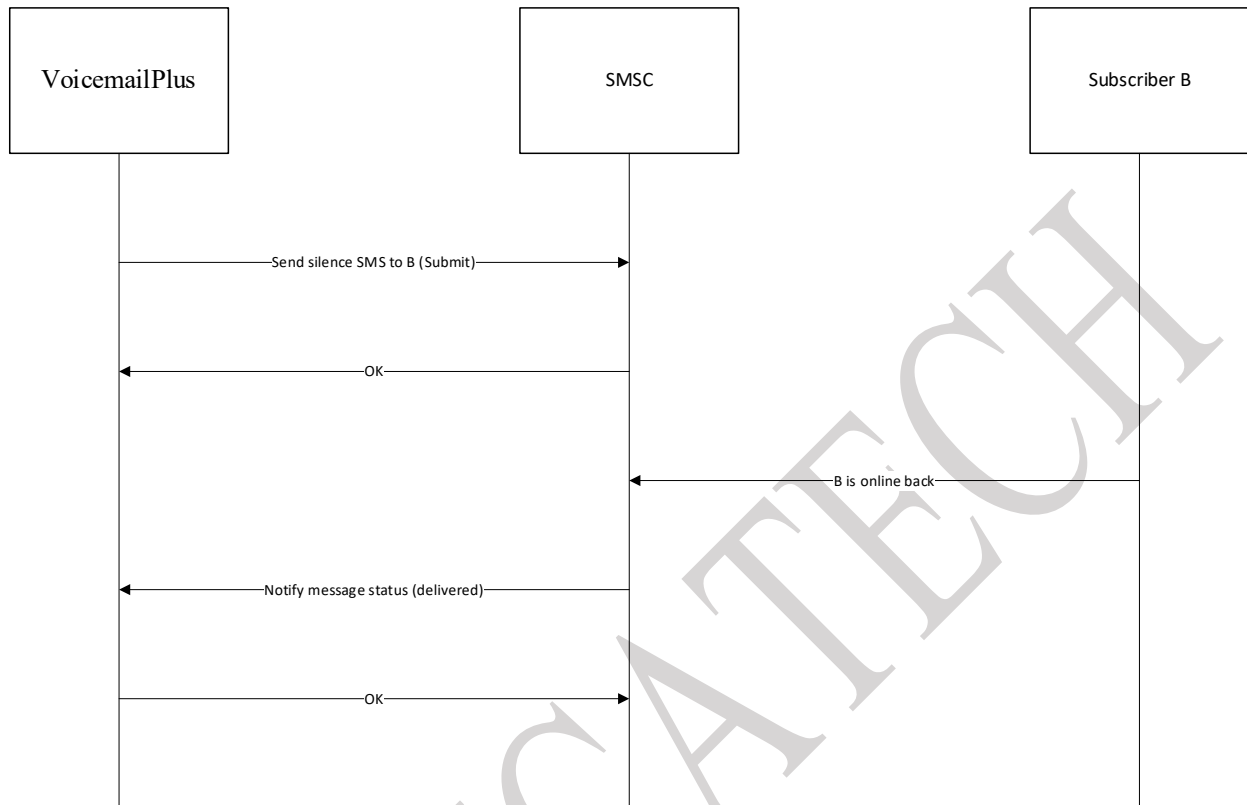
- Step 1: Subscriber call to VoicemailPlus system over service prefix (example 123)
- Step 2: VoicemailPlus system establish call to B and play voice to guide subscriber.
- Step 3: Subscriber do follow the guide to listen the voice message.
- Step 4: Subscriber hangup this call, VoicemailPlus save this call history.

3.3 Call to subscriber play the voice message



- Step 1: When subscriber (he has a voice message) is online back, VoicemailPlus create a call to the subscriber
- Step 3: Subscriber accept the call, VoicemailPlus play the voice message to the subscriber.
- Step 4: Subscriber hangup this call, VoicemailPlus save this call history.

3.4 Delete subscriber B's status



- Step 1: VoicemailPlus send a silence SMS to subscriber B to detect B's status
- Step 2: Subscriber B is online back, SMSC send notify to VoicemailPlus
- Step 3: VoicemailPlus receive SMSC's notification and know B is online back.
- Step 4: VoicemailPlus system send a notification SMS to subscriber A about subscriber B's status

4 Requirement

- Connection

- Connect to GMSC (SIP protocol)
- Connect to SMPPGW (SMPP protocol)
- Connect to ChargingGW/MPS
- Connect to BCCSGW
- Connect to Provisioning

- Hardware

- 02 server application
- 02 server database: Oracle RAC