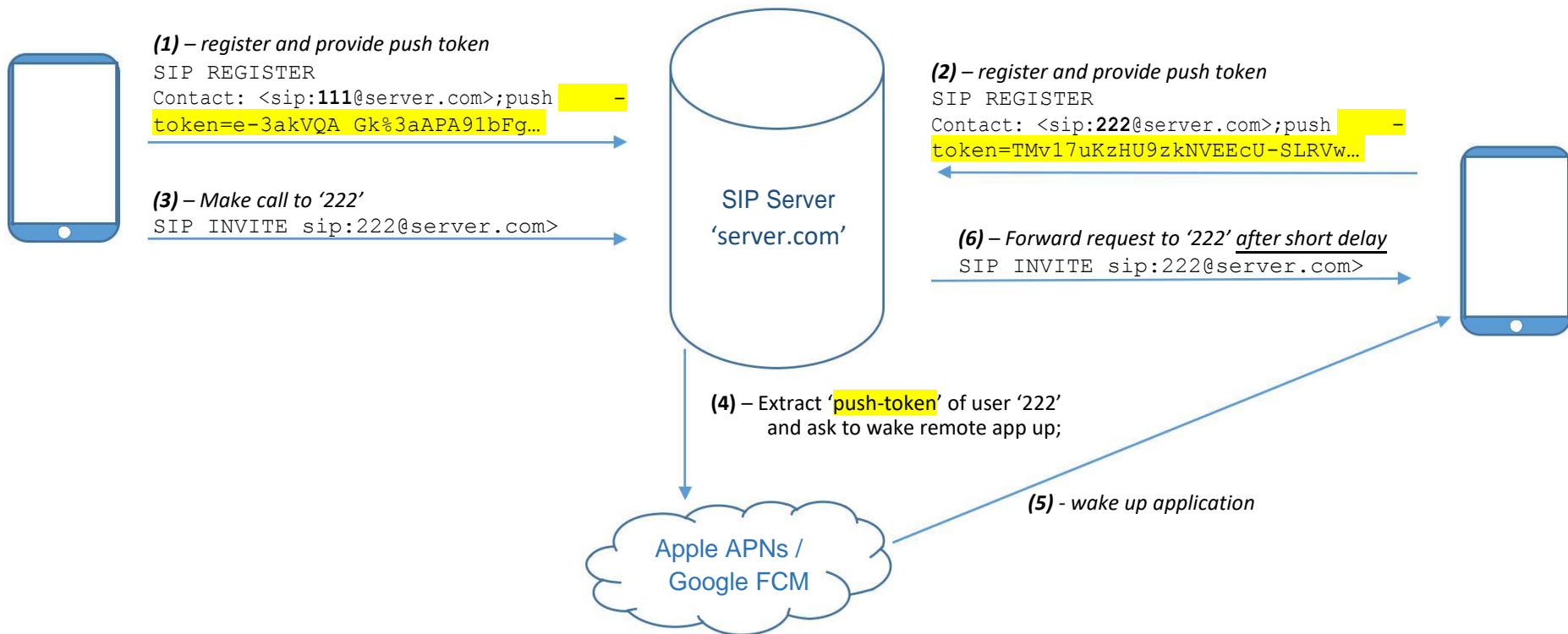


Receiving VoIP incoming calls via Push Notifications

Default implementation of incoming calls in VoIP app is the following: all time it's running in background, sends SIP REGISTER/keep-alive packets and has to be ready receive SIP INVITE request from remote server in any time. Such mode could drain the phone battery and also consumes the processing power.

Push Notifications allow to reduce this by shifting the continuous listening function from app to the server side. App starts, registers on server and can be stopped on phone. When a call arrives, the server on the VoIP side sends a notification to the user's device. The user can then activate the app to accept the call or message.

On image below shown the sequence of requests between clients and servers:



Implementation requires changes on client and server sides

1. Client app has provide device token for Push Notification

ABTOs SIP SDK allows to send this data in SIP REGISTER request as parameter of 'Contact' header.

Example:

```
REGISTER sip:172.30.30.150;transport=udp;lr SIP/2.0
Via: SIP/2.0/UDP 172.30.20.68:5061;rport;branch=z9hG4bKPjPn5DvPDkaRsB8gmlqdlrz14gFjsg9rPG
Max-Forwards: 70
From: <sip:404@172.30.30.150>;tag=tHvcxImisJ91EafXPouUX5Irroz4Lamj
To: <sip:404@172.30.30.150>
Call-ID: XAOhSWhAJmE5Sq8o7PTM64KgDyIpMuQ5
CSeq: 36698 REGISTER
User-Agent: ABTOLLC
Contact: <sip:404@172.30.20.68:5061>;push-token-type=firebase;push-token-app=hero_voip;push-token-id=e-3akVQA_Gk%3aAPA91bFgqY-ryZagFwxvoEa5rbaLSr-r985CLPVtNeYXpHYLcIoYesoPC7s56jZrRp4rlcdPg4WS3EZ4DiimlXFmAegx6EGlnC2Rf-xYv8_hGJnoJma4yUUXZhdKfw5wFY3kn-kTEMv17uKzHU9zkNVEEcU-SLRVw"
Expires: 100
Allow: PRACK, INVITE, ACK, BYE, CANCEL, UPDATE, SUBSCRIBE, NOTIFY, REFER, MESSAGE, OPTIONS
Content-Length: 0
```

To add this data in source code use:

iOS:

```
phone.config.contactDetails = @"";push-token-type=firebase;push-token-app=hero_voip;push-token-id=e-3akVQA_Gk%3aAPA91bFgqY-ryZagFwxvoEa5rbaLSr-r985CLPVtNeYXpHYLcIoYesoPC7s56jZrRp4rlcdPg4WS3EZ4DiimlXFmAegx6EGlnC2Rf-xYv8_hGJnoJma4yUUXZhdKfw5wFY3kn-kTEMv17uKzHU9zkNVEEcU-SLRVw";
```

Android:

```
abtoPhone.getConfig().setContactDetailsUri(@"";push-token-type=firebase;push-token-app=hero_voip;push-token-id=e-3akVQA_Gk%3aAPA91bFgqY-ryZagFwxvoEa5rbaLSr-r985CLPVtNeYXpHYLcIoYesoPC7s56jZrRp4rlcdPg4WS3EZ4DiimlXFmAegx6EGlnC2Rf-xYv8_hGJnoJma4yUUXZhdKfw5wFY3kn-kTEMv17uKzHU9zkNVEEcU-SLRVw")
```

2. SIP server extracted the received token and used it for sending Push Notifications, before forward SIP INVITE request.