cBRAIN

F2

PushService
Installation Guide

F2 Version 8

Updated: august 31, 2021

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Introduction

Various functions in F2 can trigger a notification, e.g. an entry in the user's inbox like an e-mail, a chat, a note, or other relevant information. These notifications can provide the user with important information about e.g. a new meeting or an approval waiting to be processed.

The notification is published on F2 modules like the F2 Touch module or the F2 Manager module and is called PushNotification.

The notification is a PushService and is a TopShelf service which needs to be installed. It runs at a location which can communicate with the environment (often the Mobil Server) and ensures the sending of push notifications to mobile devices.

Infrastructure

Push notifications for Android and iOS are sent via Firebase using the function:

Firebase Cloud Messaging (FCM).

F2 has been using the FCM service for Android telephones for some time and the FCM now also provides a service to push the notification to iOS. This allows cBrain to have only one service setup for push notifications for both iOS and Android.

More information on FCM and elements of security can be found here:

https://firebase.google.com/docs/cloud-messaging/fcm-architecture

https://firebase.google.com/support/privacy

https://firebase.google.com/docs/cloud-messaging/concept-options

Authentication is done against Firebase using a private key file included with the PushService.

DBAppSetting FirebasePrivateKeyFile points to this file by default.

MDM customers for iOS

Regarding MDM customers: To send notifications to MDM apps, we will need:

- Bundle-ID for the apps
- An APNs Authentication Key.

Alternatively, customers can choose to set up a Firebase project themselves and add their apps.

In that case, we will need a private key-file for the Firebase project, which can be downloaded from the "Service accounts" tab in the Firebase console. DBAppSetting FirebasePrivateKeyFile should point to this file (read by the PushService).

The FirebasePrivateKeyFile must be placed in the PushService\Resources directory. Please add the filename to "PushService.FirebasePrivateKeyFile" under F2 Settings.

Initiating the service

Please note, if the F2 Mobile Server is running the F2 PushService does not have access to the Internet.

The following configurations must be performed:

Ports

Before you start, you must agree and verify on openings in firewall on the following ports.

The customer must allow the following outbound traffic in their firewall: allow port **443, 5228**, **5229** and **5230** to IP blocks listed in Google's ASN of 15169.

Datatransfer

The data transfer on the service is provided in two modes and for both the data transfer can be limited.

For both modes, data is transferred in the following concept:

NotificationType, UserId, RessourceId, VisiblePayload

Mode 1: Full data transfer

E.g. a chat notification can look like the following:

NotificationTypeChat, UserId, RecordId, "RecordTitle ChatSender ChatText"

Mode 2: Limited datatransfer

E.g. for a chat notification the data is transferred in the following concept:

NotificationTypeChat, UserId, RecordId,"Chat received"

Further information to the technical information that is part of the transfer and part of the Firebase infrastructure is provided at this link:

https://firebase.google.com/docs/cloud-messaging/concept-options

Part of the JSON element related to the notification is described above.

Installation

When the F2 installation is on the Octopus installation concept, the below steps are normally part of the automatic installation.

Using an **administrator** commando prompt, execute the following from PushService\:

- `PushService.Service.exe install`

Afterwards, the PushService can be configured from Services on the device. Alternatively, the exe-file can be called via

- `Help`

Configuration

If the customer wishes other or definite texts for push notifications, templates can be configured. Those templates can be found in F2 Settings:

- `type "Push" in column "Name"`

Templates can be found for:

- Dossier title
- Dossier text
- Chat title
- Chat text
- Meeting title
- Meeting text
- System message title
- System message text

Figure 1: F2 Settings

It is possible to review the different push relevant setting in the push appconfig. There are options to configure the notification to send specific F2 information or just as a notification without specific information

Information on Security

Please see links below for more information on security and certifications:

Regarding the C5 certification:

https://cloud.google.com/security/compliance/bsi-c5

https://cloud.google.com/security/compliance/bsi-c5/?hl=de) (in German)

Other certifications:

https://firebase.google.com/support/privacy

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