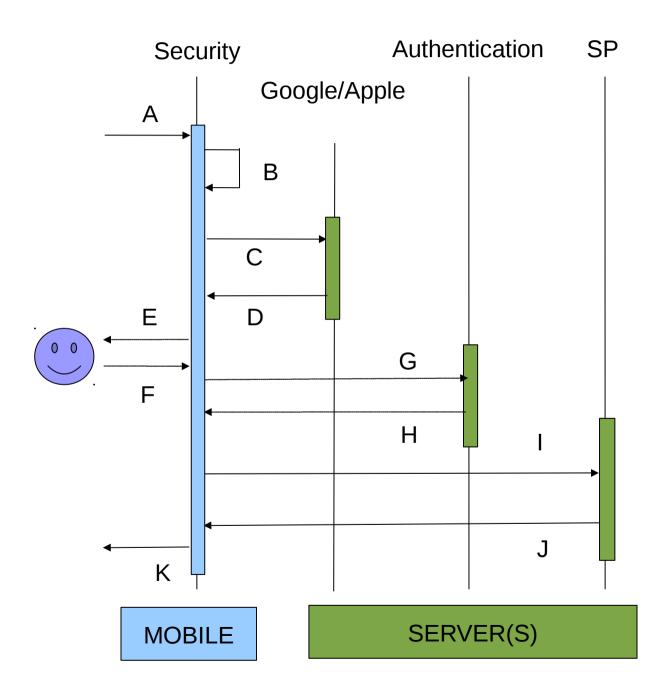
## BTH app

• SP = Student portalen.

## Registration

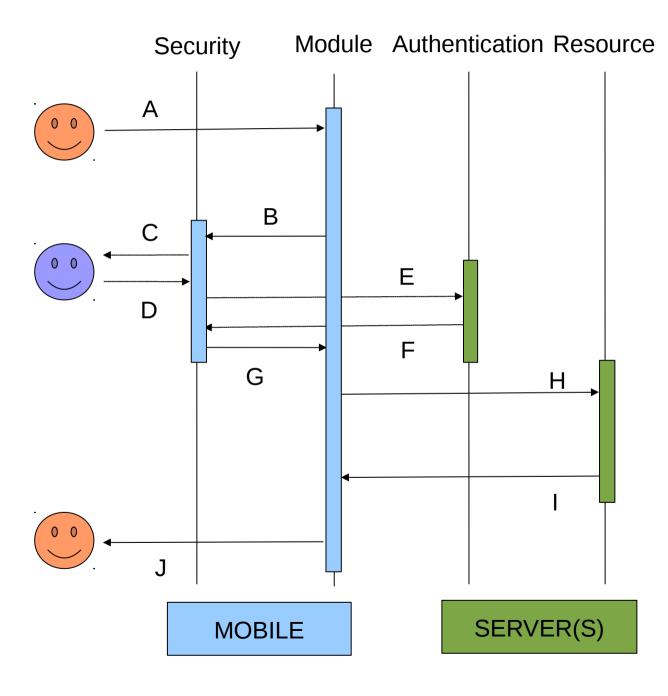
- Registration of mobile device on Authorization Server.
- Must be a valid SP user before doing this.
- User grants this device to receive push notifications and registers relation between user & device on server.



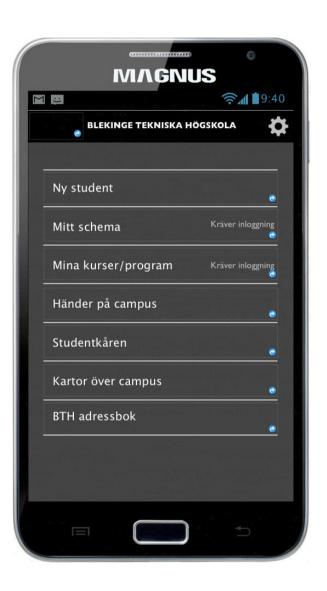
- A Registration is initiated
- B Produce device specific id for BTH app.
- C Connect to Google/Apple
- D Push Token is returned.
- E If needed: The user is asked for credentials.
- F User inputs credentials.
- G If needed: Credentials and device specific ID is sent to authentication server.
- H Oauth Token is returned to security.
- I Registration of Push Token.
- J –Response with status.
- K Module presents status to user.

## Security

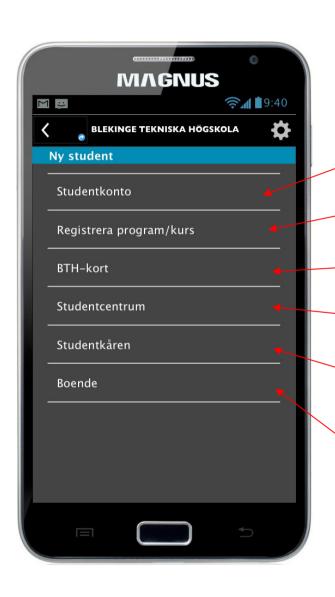
- Get Access Token from Authorization Server.
- Caches Access Token as long as needed (until explicit logout or token is timed out).
- Handles token state.
- Gets credentials from resource owner.



- A User initiates sequence
- B Module asks security for a valid token.
- C If needed: The user is asked for credentials.
- D User inputs credentials.
- E If needed: Credentials and device specific ID is sent to authentication server.
- F Token is returned to security.
- G Token is returned to Module.
- H Request is sent to resource server with Token.
- I Response returned to module.
- J Module presents Response to user.



 Text in Swedish and English.



- Info for new students.
- Text from SP
- Ladoc (through SP)
- Text from SP
- Text from SP
- Reference to xxx.
- Text from SP



- Schema
  - Course title
  - Course code
  - Time
  - Location (room number)
  - Geographical location.
- Information from
  - Ladoc
  - TimeEdit



- Show location of room
  - lat/long
  - Room #
  - Description
  - House
- Information from
  - GIS



- Register on a new course.
- Get my courses
  - Name
  - Code
- Information from
  - Ladoc



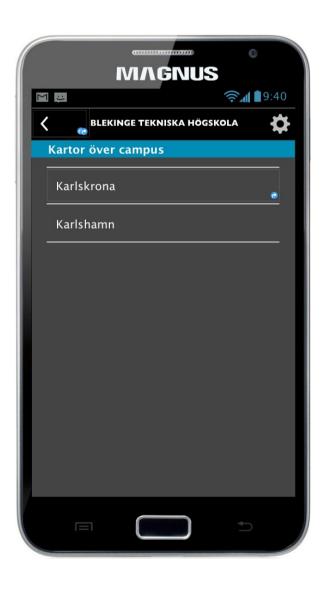
- Events on campus
  - Web page
  - PDF
  - RSS

- Information from
  - Smart sign



#### 3 alternatives

- Replace with link to web
- Replace with intent to app
- Merge from existing app.



- Campus
  - Name
  - Location (rectangle)
  - Icon
- Information from
  - GIS



- Campus overview
  - Building
  - Description
  - Lat/long
- Information from
  - GIS



- Campus details
  - List of major departments.
- Information from GIS



- Address book
  - Name
  - Title
  - Type
  - Organisational unit
- Information from
  - BTH address book

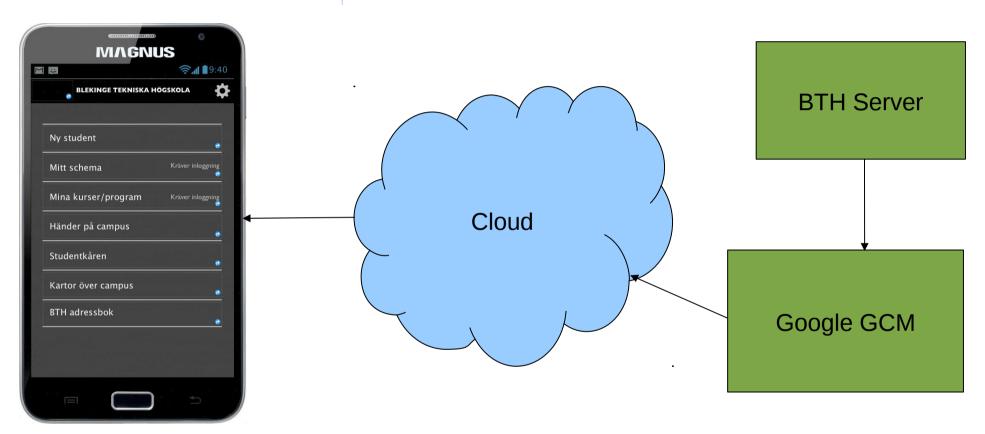


#### Contact details

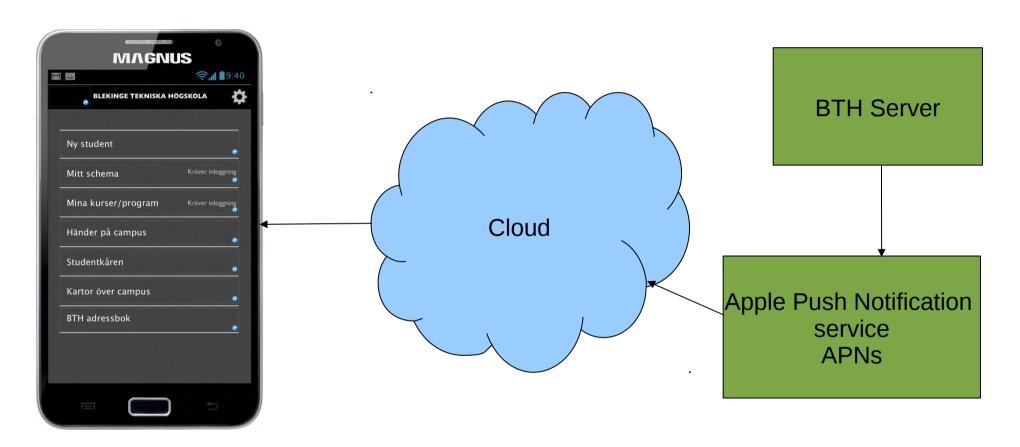
- Name
- Akronym
- Mail
- Phone
  - Mobile
  - Fixed
- Homepage
- Section/unit
- Title
- Location

# Push notifications – Google Cloud Messaging

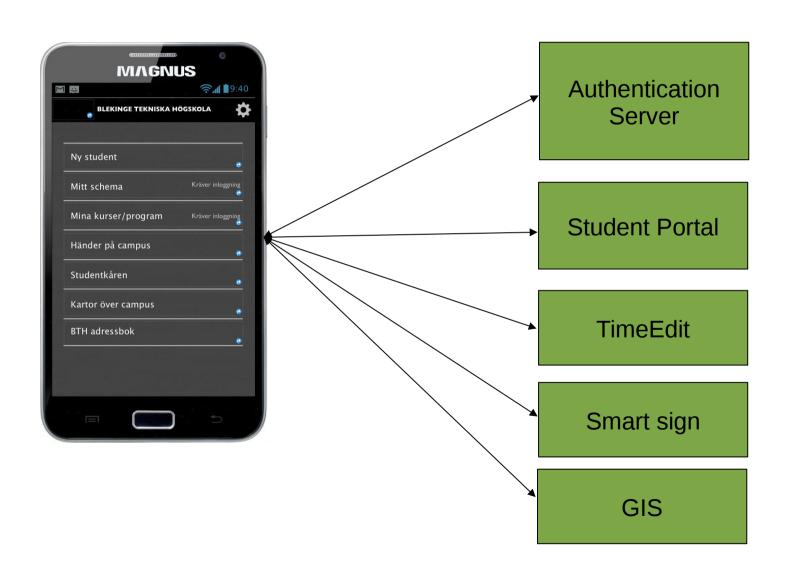
http://developer.android.com/google/gcm/gcm.htm



# Push notifications -Apple Push Notification Service



## Mobile and external systems



## **Android**

Security Мар IPC interface GIS Registration adapter SP Notification adapter Intent interface Notification xxx gui handler

0 0