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# NOTIFICHE PUSH CON DELPHI





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**Sviluppo software & App  
Digital Marketing  
Consulenza e formazione**

**[www.wau73.com](http://www.wau73.com)**

# AGENDA

- Configurazione account Apple / Google
- Creazione / configurazione progetto Firebase
- Configurazione client mobile
- Integrazione notifiche push nell'applicazione mobile
- Test server / firebase / personale
- Domande e saluti

# PREMESSA

Le notifiche PUSH con Delphi non funzionano ...

... forse con Android

... forse con iOS

... no, aspettiamo la prossima versione di Delphi

# Configurazione account Apple / Google

**Account Apple developer attivo**

**Un'applicazione pronta**

**Tanta pazienza!**

# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE

Apple Developer

## Certificates, Identifiers & Profiles

Certificates Certificates +

Identifiers

Devices

Profiles

Keys

More

NAME	TYPE	PLATFORM
	Development	All
	Apple Push Services	iOS
	Apple Push Services	iOS
	iOS Distribution	iOS

Apple Developer

## Certificates, Identifiers & Profiles

Certificates

Identifiers Identifiers +

App IDs

NAME IDENTIFIER

Devices

Profiles

Keys

More

		76
Metaxu		metaxu

Apple Developer

## Certificates, Identifiers & Profiles

Certificates

Identifiers

Devices Devices +

Profiles

Keys

More

All Types Edit

NAME	IDENTIFIER	TYPE
iPhone7		iPhone



# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE

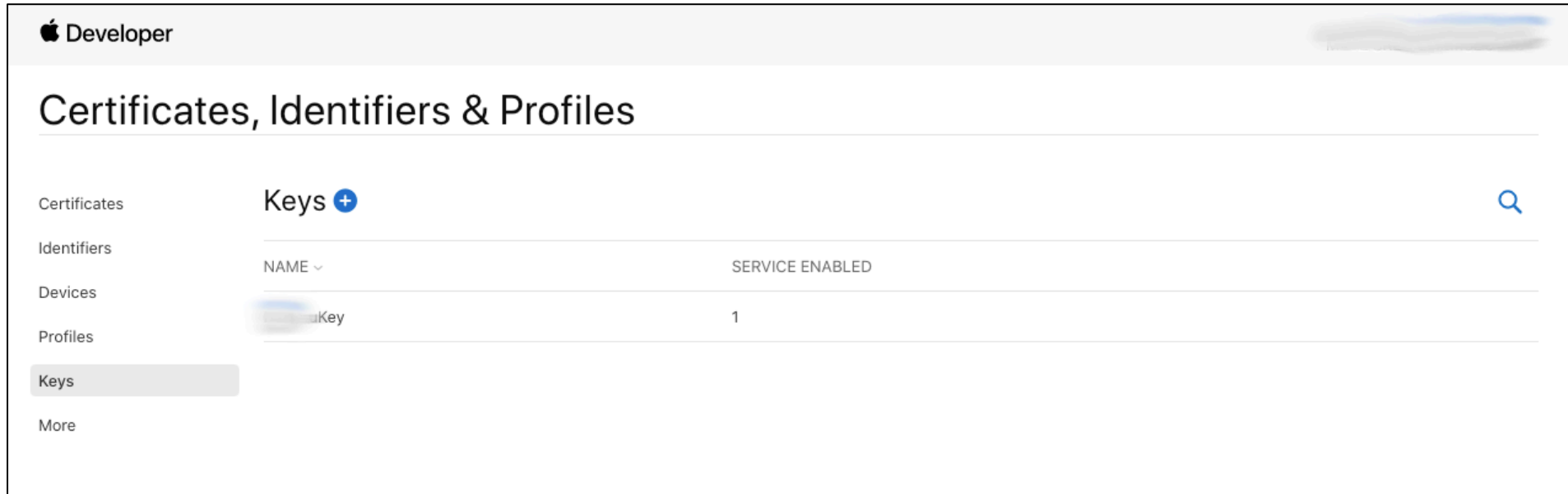
Apple Developer

## Certificates, Identifiers & Profiles

Certificates   Profiles +   🔍 All Types ▾ All Platforms ▾   Edit

NAME ▾	PLATFORM	TYPE	EXPIRATION
[REDACTED]	iOS	App Store	2020/06/03
[REDACTED] Store	iOS	App Store	2020/08/05
[REDACTED] DEV	iOS	Development	2021/04/07
[REDACTED]	iOS	App Store	2021/03/19

# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE



The screenshot shows the Apple Developer portal interface. At the top left, it says "Developer" with the Apple logo. The main heading is "Certificates, Identifiers & Profiles". On the left side, there is a navigation menu with the following items: "Certificates", "Identifiers", "Devices", "Profiles", "Keys" (which is highlighted with a grey bar), and "More". The main content area is titled "Keys" with a plus sign icon. Below this title, there is a search icon. A table is displayed with two columns: "NAME" and "SERVICE ENABLED". The table contains one row with the name "Key" and the value "1".

NAME	SERVICE ENABLED
Key	1

# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE

The screenshot shows the Apple Developer portal interface for managing certificates and profiles. The main heading is 'Certificates, Identifiers & Profiles'. Below it, there is a navigation link for '< All Keys' and a primary action button labeled 'Continue'. The central section is titled 'Register a New Key' and contains a form for entering a 'Key Name'. A text box is provided for this input, with a note below it stating: 'You cannot use special characters such as @, &, \*, ', \"'. Below the form is a table of services that can be associated with the key. Each row includes an 'ENABLE' checkbox, a 'NAME' column, a 'SERVICE' description, and a 'Configure' button. The services listed are Apple Push Notifications service (APNs), DeviceCheck, MapKit JS, MusicKit, and Sign in with Apple. The MapKit JS, MusicKit, and Sign in with Apple rows include a red warning icon and the message: 'There are no identifiers available that can be associated with the key'.

Apple Developer

## Certificates, Identifiers & Profiles

[< All Keys](#)

### Register a New Key Continue

Key Name

You cannot use special characters such as @, &, \*, ', \"

ENABLE	NAME	SERVICE	
<input type="checkbox"/>	Apple Push Notifications service (APNs)	Establish connectivity between your notification server and the Apple Push Notification service. One key is used for all of your apps. <a href="#">Learn more</a>	
<input type="checkbox"/>	DeviceCheck	Access per-device, per-developer data that your associated server can use in its business logic. One key is used for all of your apps. <a href="#">Learn more</a>	
<input type="checkbox"/>	MapKit JS	Use Apple Maps on your websites. Show a map, display search results, provide directions, and more. <a href="#">Learn more</a>	<span>Configure</span>
<input type="checkbox"/>	MusicKit	Access the Apple Music catalog and make personalized requests for authorized users. <a href="#">Learn more</a>	<span>Configure</span>
<input type="checkbox"/>	Sign in with Apple	Enable your apps to allow users to authenticate in your application with their Apple ID. Configuration is required to enable this feature.	<span>Configure</span>

# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE

Apple Developer

## Certificates, Identifiers & Profiles

[< All Identifiers](#)

### Edit your App ID Configuration

[Remove](#) [Save](#)

**Platform**  
iOS, macOS, tvOS, watchOS


**Description**

You cannot use special characters such as @, &, \*, ', "











**App ID Prefix**  
 (Team ID)

**Bundle ID**  
 (explicit)

### Capabilities

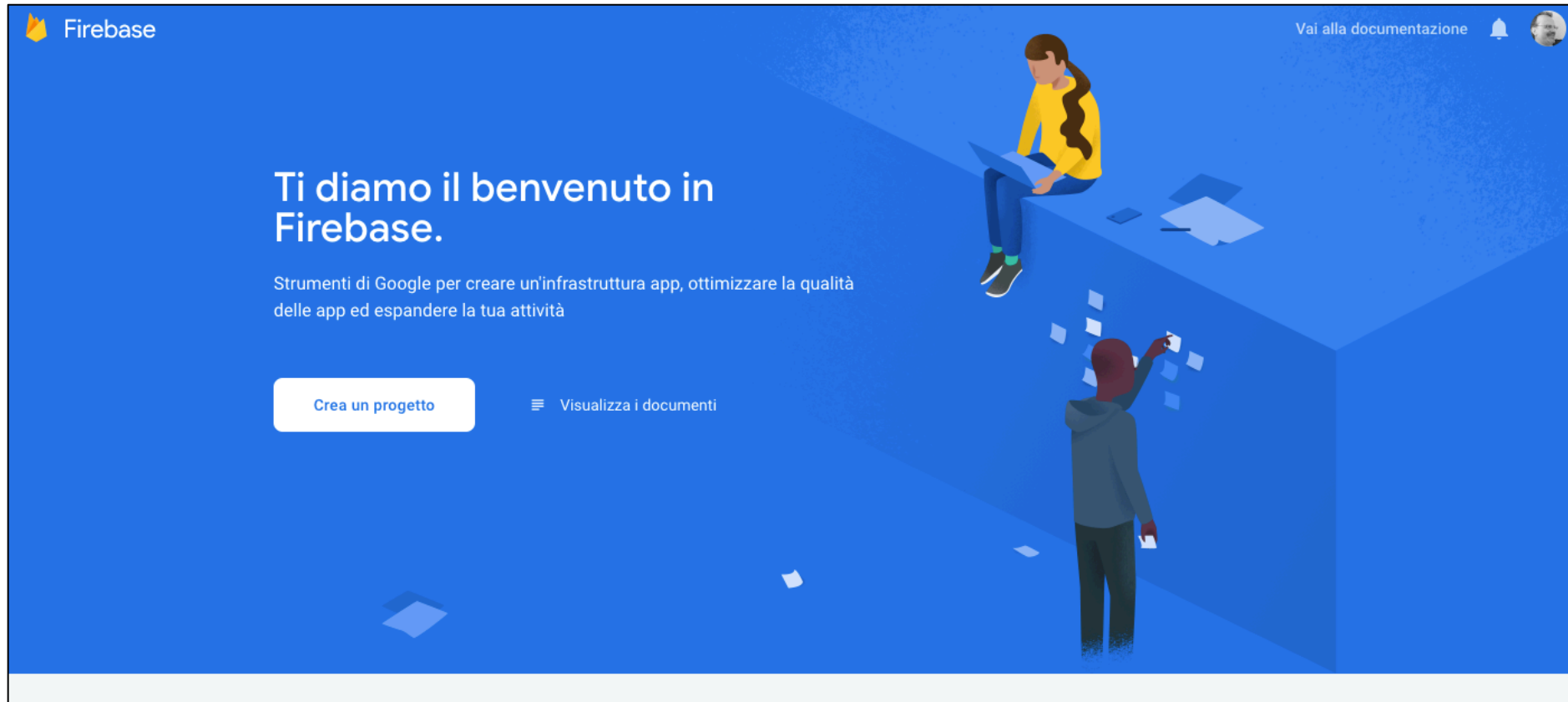
ENABLED	NAME
<input type="checkbox"/>	 Access WiFi Information ⓘ

# CONFIGURAZIONE ACCOUNT APPLE / GOOGLE

<input type="checkbox"/>	 NFC Tag Reading ⓘ		
<input type="checkbox"/>	 Personal VPN ⓘ		
<input checked="" type="checkbox"/>	 Push Notifications ⓘ	<a href="#">Configure</a>	Certificates (0)
<input type="checkbox"/>	 Sign In with Apple ⓘ	<a href="#">Configure</a>	
<input type="checkbox"/>	 SiriKit ⓘ		
<input type="checkbox"/>	 System Extension ⓘ		
<input type="checkbox"/>	 User Management ⓘ		
<input type="checkbox"/>	 Wallet ⓘ		
<input type="checkbox"/>	 Wireless Accessory Configuration ⓘ		
<input type="checkbox"/>	 Mac Catalyst (Existing Apps Only) ⓘ	<a href="#">Configure</a>	

# Creazione / configurazione progetto Firebase

# CREAZIONE / CONFIGURAZIONE PROGETTO FIREBASE



# CREAZIONE / CONFIGURAZIONE PROGETTO FIREBASE

× Crea un progetto(Passaggio 1 di 3)

Inizia dando un nome al progetto®

Nome progetto

**DelphiPush**

delhipush-bc78e

Continua

× Crea un progetto(Passaggio 2 di 3)

## Google Analytics per il tuo progetto Firebase

Google Analytics è una soluzione di analisi gratuita e illimitata che abilita il targeting, il reporting e molto altro su Firebase Crashlytics, Cloud Messaging, messaggistica in-app, Remote Config, Test A/B, Predictions e Cloud Functions.

Google Analytics abilita:

- Test A/B ⓘ
- Segmentazione e targeting degli utenti sui prodotti Firebase ⓘ
- Previsione del comportamento degli utenti ⓘ
- Utenti che non hanno sperimentato arresti anomali ⓘ
- Trigger di Cloud Functions basati su eventi ⓘ
- Reporting illimitato gratuito ⓘ

Abilita Google Analytics per questo progetto  
Consigliata

Indietro

Continua

Google Analytics include rapporti di analisi gratuiti e illimitati riguardanti fino a 500 tipi di eventi diversi, oltre a una solida dashboard e strumenti di generazione dei rapporti disponibili direttamente nella Console Firebase.




# CREAZIONE / CONFIGURAZIONE PROGETTO FIREBASE

× Crea un progetto(Passaggio 3 di 3)

## Configura Google Analytics

Scegli o crea un account Google Analytics ?

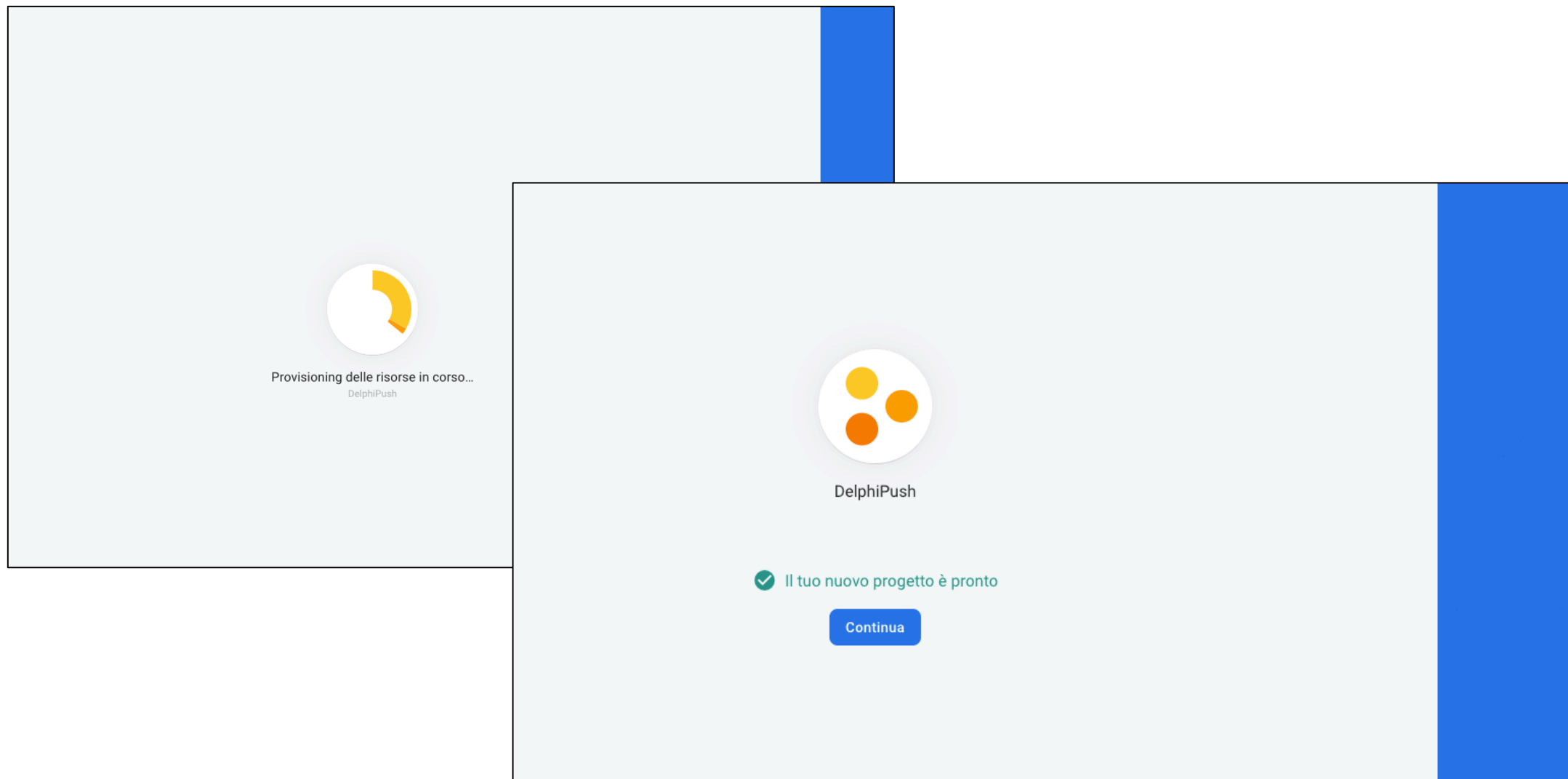
 Antonello Carlomagno ▼

Crea automaticamente una nuova proprietà in questo account ✎

Al momento della creazione del progetto, verrà creata una nuova proprietà di Google Analytics nell'account Google Analytics di tua scelta e sarà collegata al tuo progetto Firebase. Questo link abiliterà il flusso di dati tra i prodotti. I dati esportati dalla proprietà Google Analytics in Firebase sono soggetti ai Termini di servizio di Firebase, mentre i dati Firebase importati in Google Analytics sono soggetti ai Termini di servizio di Google Analytics. [Ulteriori informazioni.](#)

[Indietro](#) [Crea progetto](#)

## CREAZIONE / CONFIGURAZIONE PROGETTO FIREBASE



# CREAZIONE / CONFIGURAZIONE PROGETTO FIREBASE

The screenshot shows the Firebase console interface. On the left is a dark sidebar with the 'Firebase' logo and a navigation menu containing: 'Panoramica del progetto', 'Sviluppo' (with sub-items: Authentication, Database, Storage, ...), 'Qualità' (with sub-items: Crashlytics, Performance, Test Lab, ...), 'Analisi' (with sub-items: Dashboard, Events, Conversions, Au...), and 'Crescita' (with sub-items: Predictions, A/B Testing, Cloud Mes...). The main content area has a blue header with the project name 'DelphiPush' and a 'Vai alla documentazione' link. Below the header is a white banner with an email subscription prompt: 'Ricevi via email aggiornamenti relativi alla ricerca, agli eventi e alle funzionalità di Firebase' and a 'Registrati' button. The main body features a large blue illustration of two people interacting with a digital interface. Text in the center reads 'Inizia aggiungendo Firebase alla tua app' with a 'Piano Spark' badge. Below this are icons for 'iOS', Android, code, and a Firebase logo, followed by the text 'Aggiungi un'app per iniziare'. At the bottom, a white banner with a close button contains the text 'Archivia e sincronizza i dati delle app in millisecondi' and two illustrative images: one showing ID badges and another showing server racks with a magnifying glass over code.

# FIREBASE CONSOLE

## Configurazione client mobile

Integrazione notifiche push nell'applicazione mobile

# CONFIGURAZIONE CLIENT MOBILE

The screenshot shows the GitHub repository page for 'DelphiWorlds / Kastrifree'. The repository has 44 Unwatched items, 129 Stars, and 78 Forks. The 'Code' tab is selected, showing the file browser view for the 'master' branch. The repository structure includes folders like 'API', 'Bin', 'Build', 'ComponentHelp', 'Configuration', and 'Controls'. A list of demo folders is shown, with a red arrow pointing to 'EMBTFCMv2'.

Folder Name	Description	Last Commit
DelphiWorlds	Updated demo to demo issue with RecreateMenu	Latest commit f00af08 7 hours ago
..		
AndroidAPI26	NLR	10 months ago
AndroidBackground	Added Android Background demo	12 months ago
AndroidDangerousPermissions	Updated search path	2 years ago
AndroidLocation	Refactored Location demo	8 months ago
AndroidStartAtBoot	Updated AndroidStartAtBoot demo for Delphi 10.3 Rio	12 months ago
Connectivity	IDE generated changes	2 years ago
CrossPlatformLocation	Added updating locations to database	3 months ago
EMBTFCM	Fixed demo to ensure notification events are fired	7 months ago
EMBTFCMv2	Removed files NLR	4 months ago
ElasticLayout	Updated help text to align with changes in ElasticLayout interposer	2 years ago
FCMRevisited	Fixed issue with .dproj	10 months ago
FCMStarter	Removed units that are not included	2 years ago

# CLIENT DELPHI

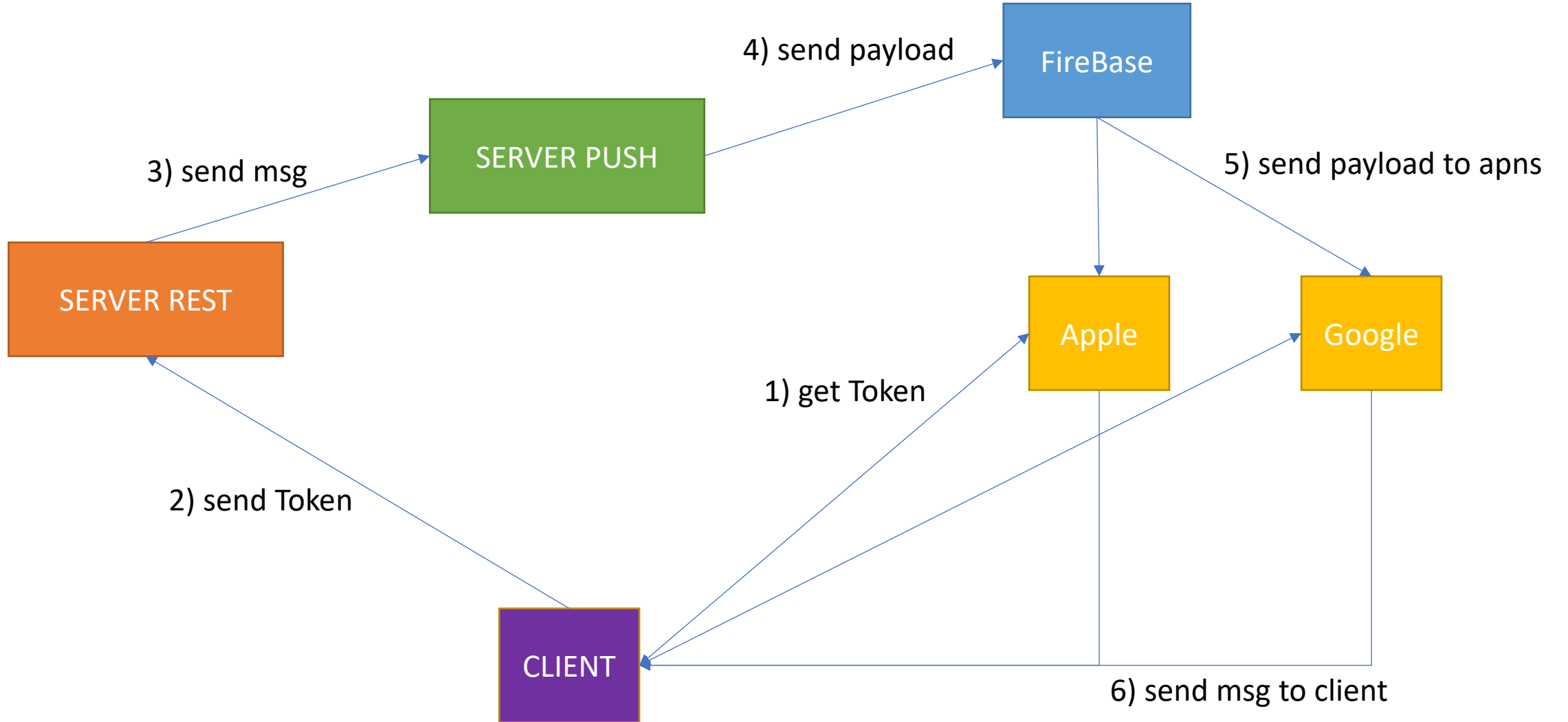
**Test server / Firebase**



# FIREBASE CONSOLE

**Test server / personale**

# GIRO DEL FUMO



# CONFIGURAZIONE CLIENT MOBILE

Invio PUSH a un singolo DEVICE

```
{
  "to": "Token del device _fAgQjpLGyk223NJBWydMQyiON2UbtzC_S4L7NcPiPoqWQ72UJ6KMfHSc0",
  "notification": {
    "body": "Messaggio del body ",
    "title": "Titolo messaggio",
    "sound": "default"
  },
  "apns": {
    "headers": {
      "apns-priority": "10"
    }
  },
  "data": {
    "tipoPush": "frase",
    "frase": "stay foolish stay hungry.",
    "autore": "Steve Jobs"
  }
}
```

# CONFIGURAZIONE CLIENT MOBILE

x aggiungere un DEVICE a un TOPIC ... chiamata rest POST

<https://iid.googleapis.com/iid/v1/TOKEN/rel/topics/ILTUOTOPIC>

x eliminare un DEVICE da un TOPIC ... chiamata rest DELETE

<https://iid.googleapis.com/iid/v1/TOKEN/rel/topics/ILTUOTOPIC>

Invio PUSH a un TOPIC

```
{
  "to":"/topics/IL TUO TOPIC",
  "notification":{
    "body":"Messaggio body",
    "title":"Titolo messaggio",
    "sound":"default"
  },
  "apns":{
    "headers":{
      "apns-priority":"10"
    }
  },
  "data":{
    "tipoPush":"frase",
    "frase":"stay foolish stay hungry.",
    "autore":"Steve Jobs"
  }
}
```

# SERVER DELPHI

**THE END**



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