Dev Days

#XamarinDevDays

Connected & Disconnected Apps with Azure Mobile Apps

Presenter Name
Presenter Twitter
Presenter Title

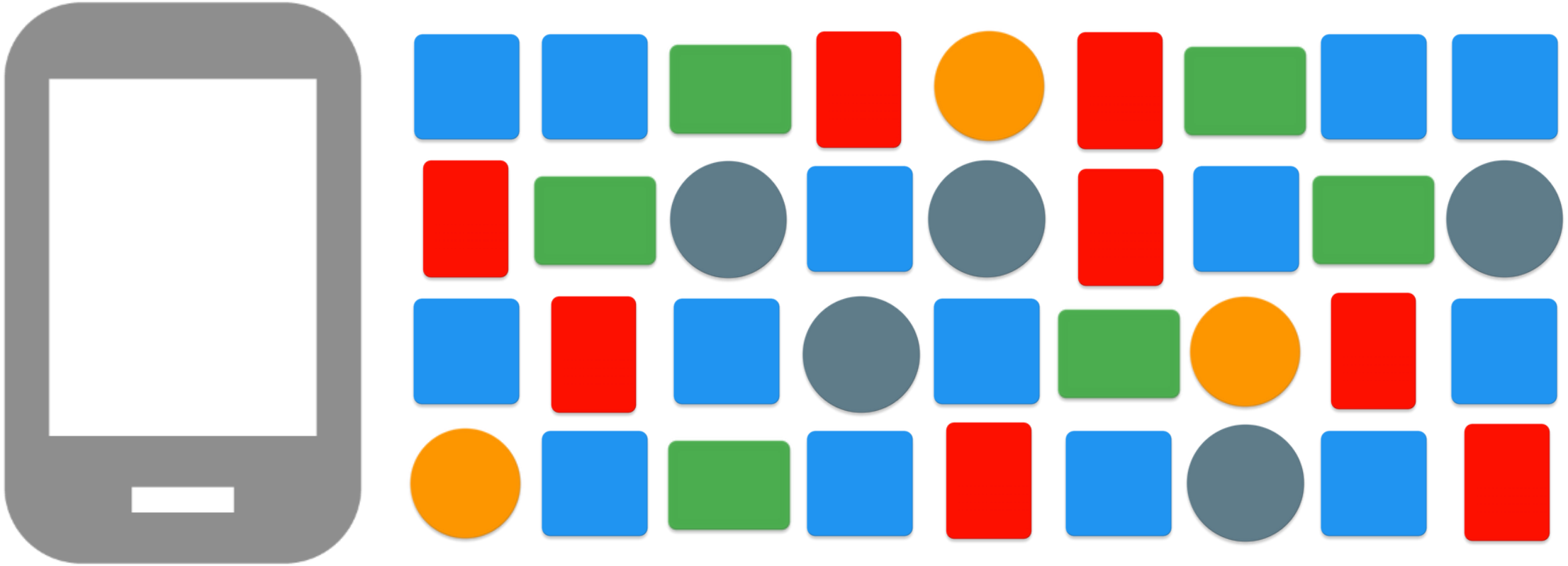
We ❤ Apps!

189M
downloads
a day

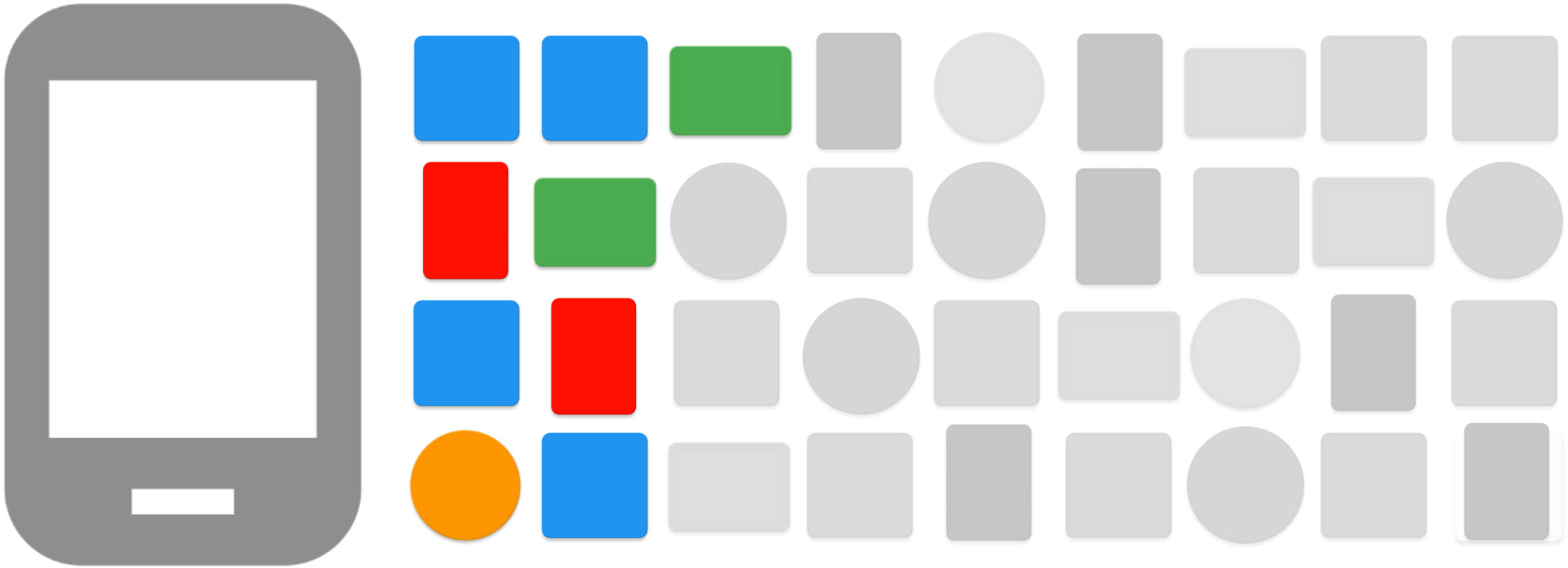
200
mins on
phone

127
mins in
apps

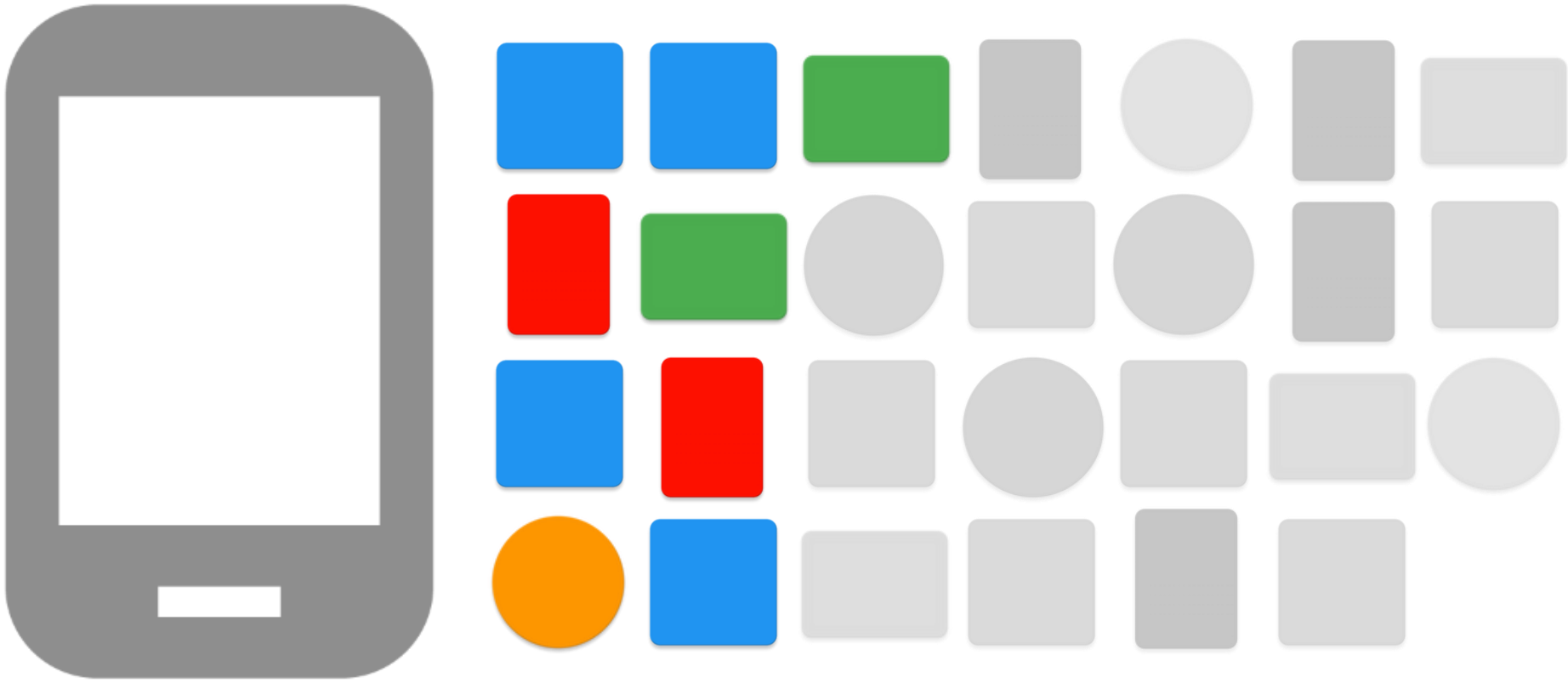
The average app user has **36** apps installed on his or her phone.



Only 1/4 are **used daily**:



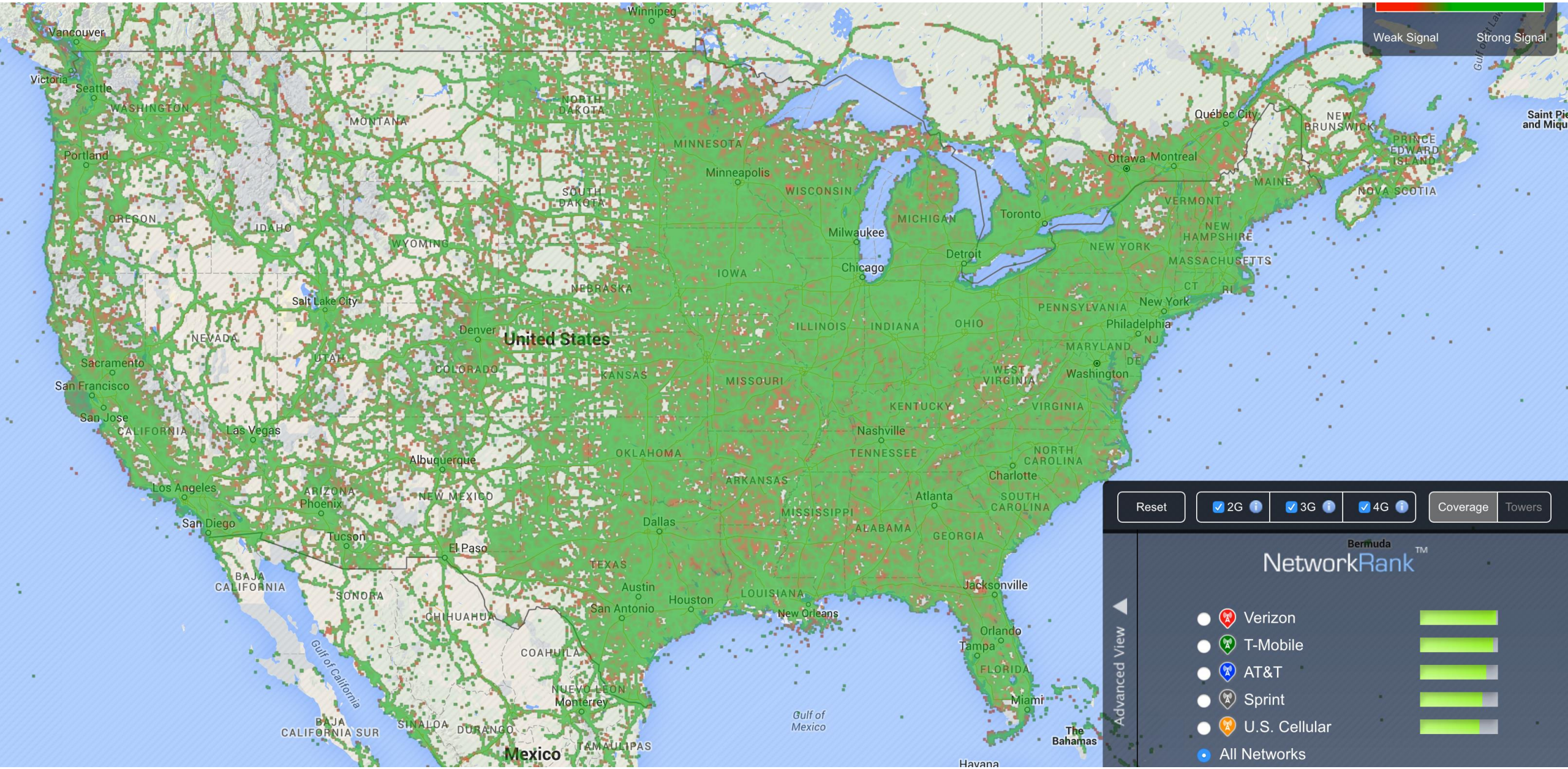
1/4 of apps are **never used**!



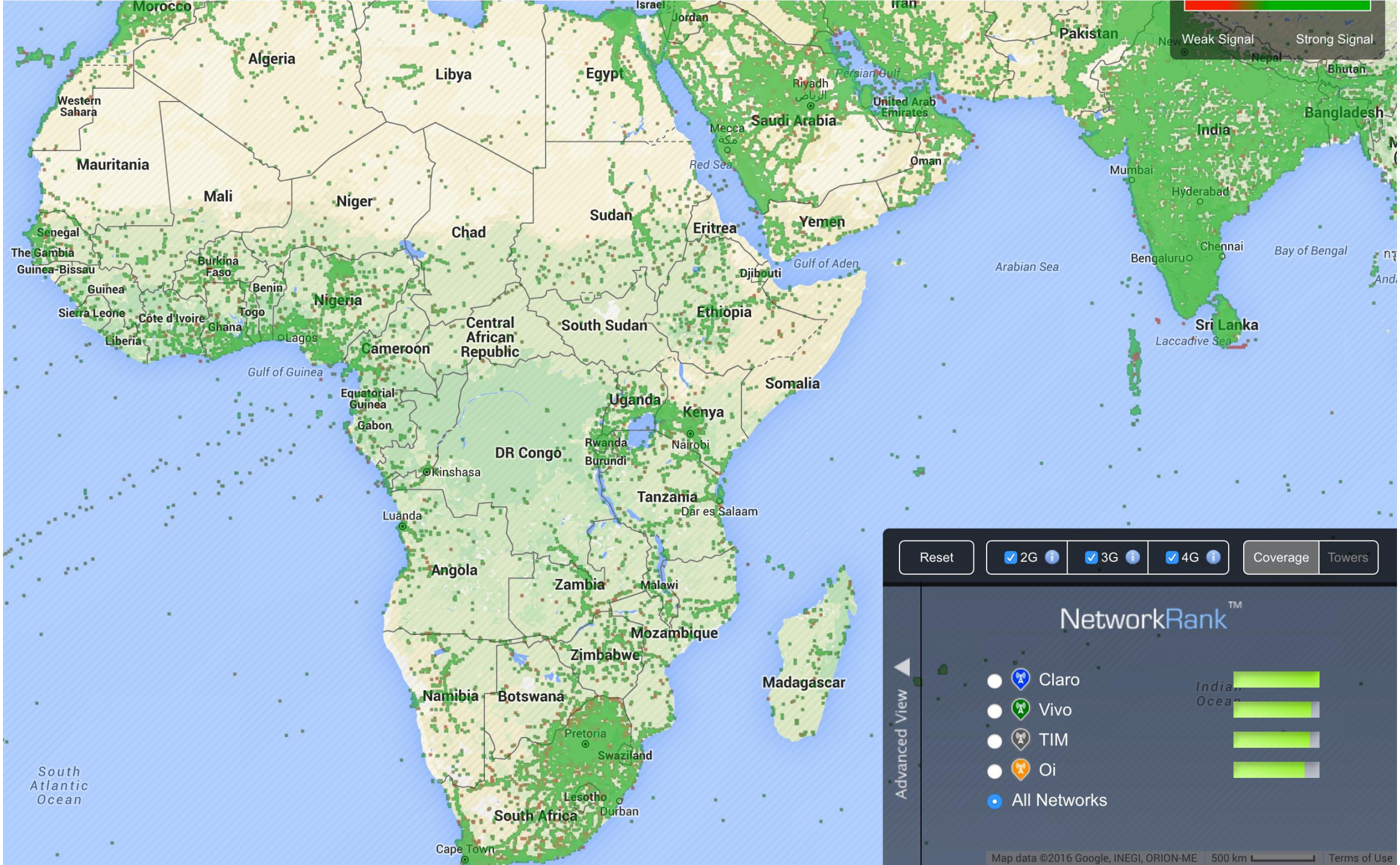
Bad App Experiences

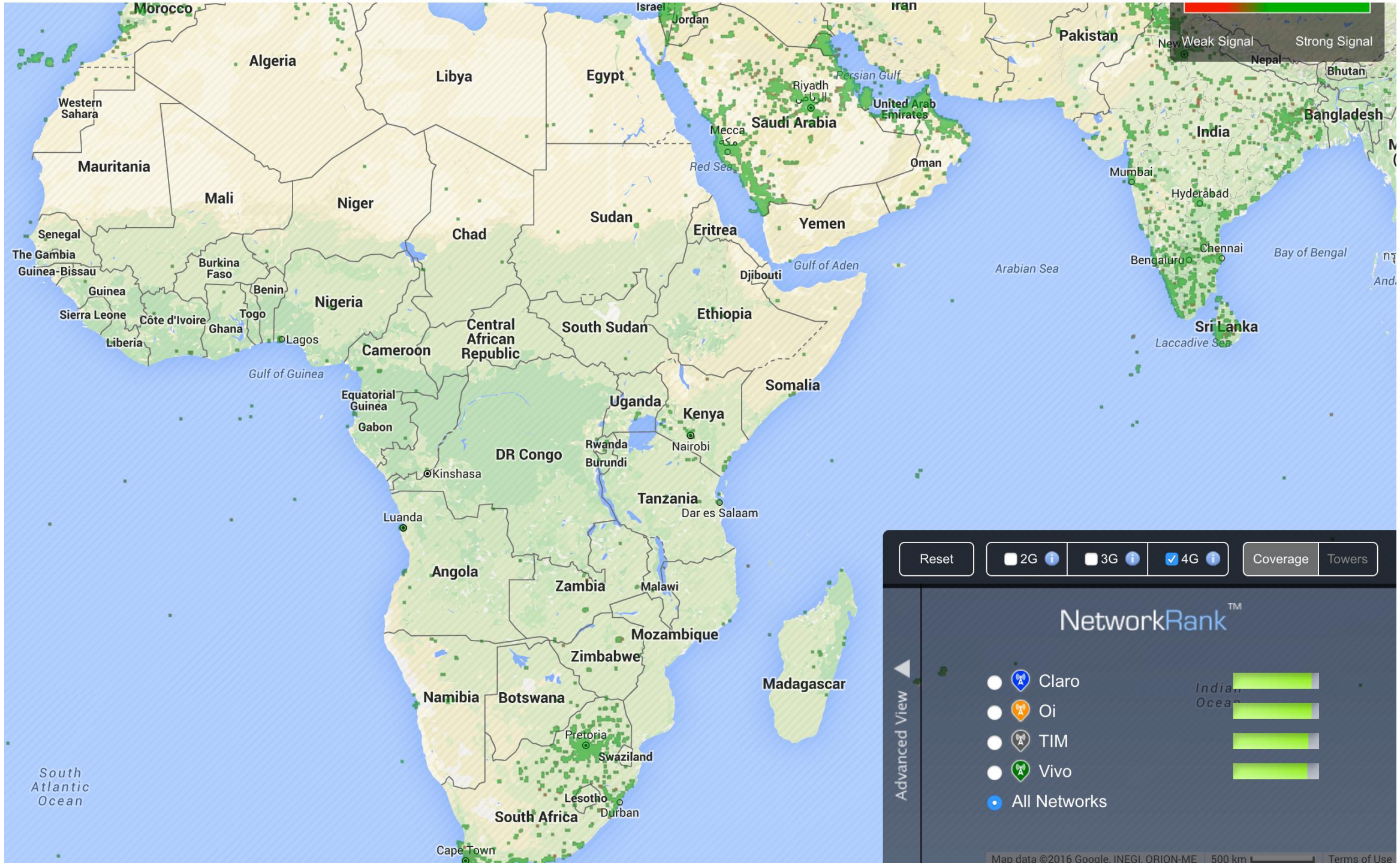
- Slow or laggy experience
- Crashes
- Not intuitive & bad user experience
- Features not as advertised
- Data not available when you need it

Always connected?



http://opensignal.com/coverage-maps


Weak Signal
Strong Signal
Reset
2G
3G
4G
Coverage
Towers
NetworkRank™
Advanced View
Claro
Vivo
TIM
Oi
All Networks
Map data ©2016 Google, INEGI, ORION-ME
500 km
Terms of Use
Morocco
Algeria
Libya
Egypt
Western Sahara
Mauritania
Mali
Niger
Chad
Sudan
Eritrea
Yemen
Saudi Arabia
Riyadh
Mecca
Red Sea
Persian Gulf
United Arab Emirates
Oman
Iran
Pakistan
India
Bangladesh
Nepal
Bhutan
Mumbai
Hyderabad
Chennai
Bengaluru
Bay of Bengal
Arabian Sea
Gulf of Aden
Djibouti
Ethiopia
Somalia
Kenya
Nairobi
Uganda
Rwanda
Burundi
South Sudan
Central African Republic
Cameroon
Nigeria
Lagos
Gulf of Guinea
Equatorial Guinea
Gabon
DR Congo
Kinshasa
Tanzania
Dar es Salaam
Luanda
Angola
Zambia
Malawi
Mozambique
Zimbabwe
Namibia
Botswana
Pretoria
Swaziland
Lesotho
Durban
South Africa
Cape Town
Madagascar
Sri Lanka
Laccadive Sea
Senegal
The Gambia
Guinea-Bissau
Guinea
Sierra Leone
Liberia
Côte d'Ivoire
Ghana
Togo
Benin
Burkina Faso
South Atlantic Ocean
Indian Ocean


Weak Signal
Strong Signal
Morocco
Algeria
Libya
Egypt
Israel
Jordan
Iran
Pakistan
Western Sahara
Mauritania
Mali
Niger
Chad
Sudan
Eritrea
Yemen
Saudi Arabia
Riyadh
Mecca
Persian Gulf
Red Sea
United Arab Emirates
Oman
India
Bangladesh
Nepal
Bhutan
Mumbai
Hyderabad
Chennai
Bengaluru
Bay of Bengal
Arabian Sea
Gulf of Aden
Djibouti
Ethiopia
Somalia
Sri Lanka
Laccadive Sea
Senegal
The Gambia
Guinea-Bissau
Guinea
Sierra Leone
Liberia
Burkina Faso
Benin
Togo
Ghana
Côte d'Ivoire
Nigeria
Lagos
Cameroon
Central African Republic
South Sudan
Gulf of Guinea
Equatorial Guinea
Gabon
Uganda
Kenya
Nairobi
Rwanda
Burundi
DR Congo
Kinshasa
Tanzania
Dar es Salaam
Luanda
Angola
Zambia
Malawi
Mozambique
Zimbabwe
Namibia
Botswana
Madagascar
Pretoria
Swaziland
Lesotho
Durban
South Africa
Cape Town
South Atlantic Ocean
Indian Ocean
Reset
2G
3G
4G
Coverage
Towers
Advanced View
NetworkRank™
Claro
Oi
TIM
Vivo
All Networks
Map data ©2016 Google, INEGI, ORION-ME
500 km
Terms of Use

What about a backend?

Plenty of Options

Azure Mobile Apps

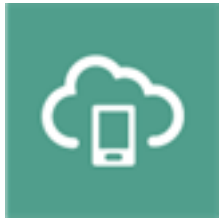
IBM MobileFirst

Amazon Web Services

SQLCIipher

Couchbase

Realm



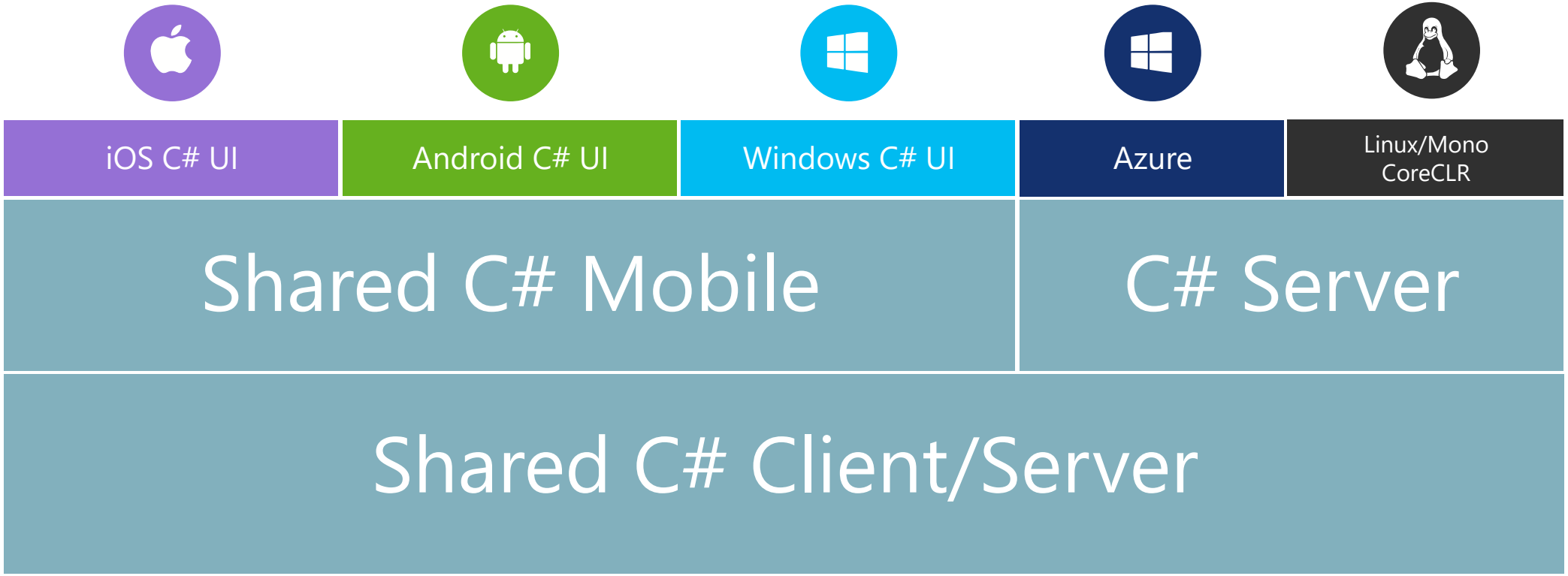
Oracle Mobile Cloud

SQLite-net

Why Azure?

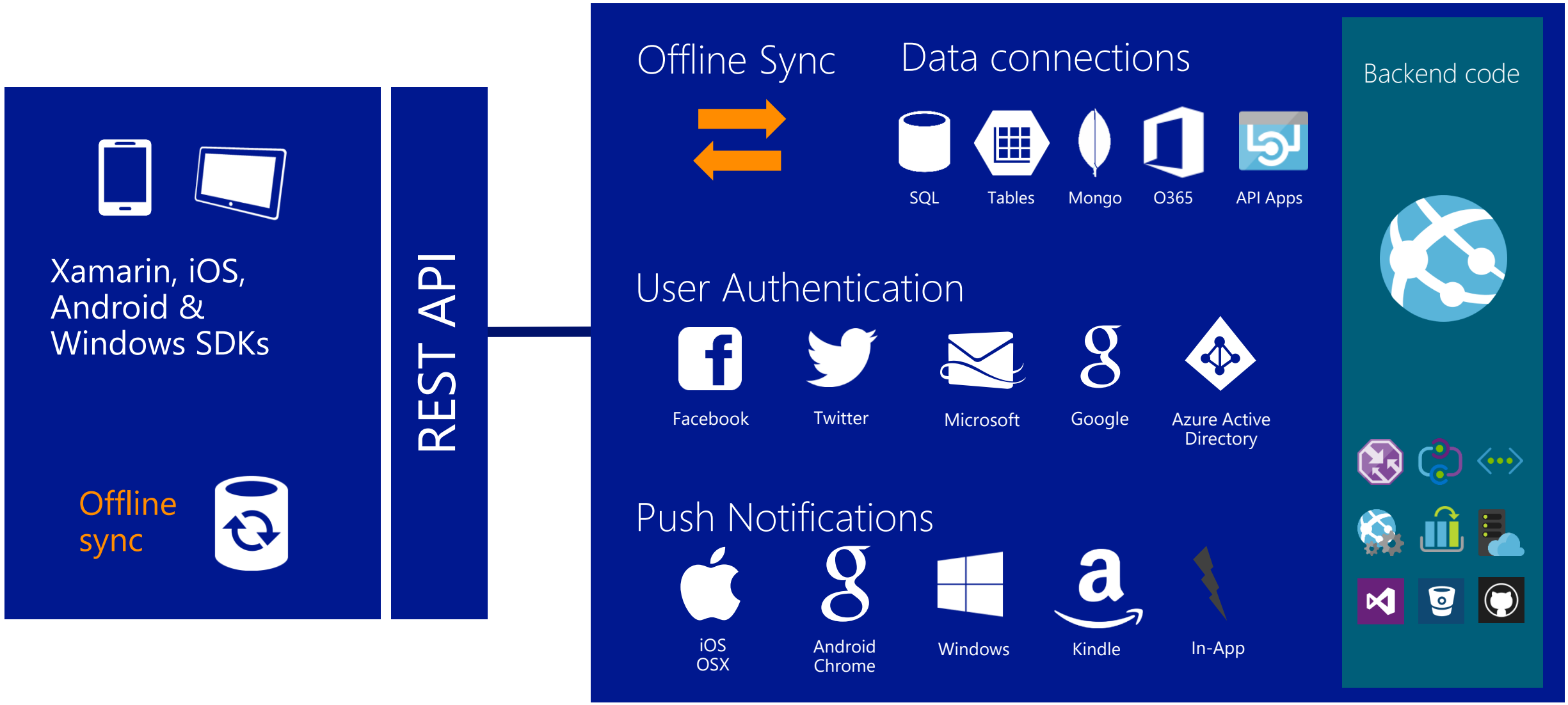
- *Extremely* powerful
- Flexible
  - Easy Tables
  - App Service
- C# SDKs available everywhere:
  - C#- iOS, Android, & Windows with Xamarin
  - C# clients, written by C# developers (open source)
  - C# backend with ASP.NET

Xamarin Apps + Backend Services



Shared C# codebase • 100% native API access • High performance

Azure Mobile Apps



Create a Mobile Service

```
MobileService =  new MobileServiceClient(
    "https://myapp.azurewebsites.net");
```

Create Tables

```
IMobileServiceSyncTable<Store> table;
public async Task Init()
{
    const string path = "syncstore.db";
    var db = new MobileServiceSQLiteStore(path);
    db.DefineTable<Store>();

    var handler = new MobileServiceSyncHandler();
    await MobileService.SyncContext.InitializeAsync(db, h);
    table = MobileService.GetSyncTable<Store>();

}
```

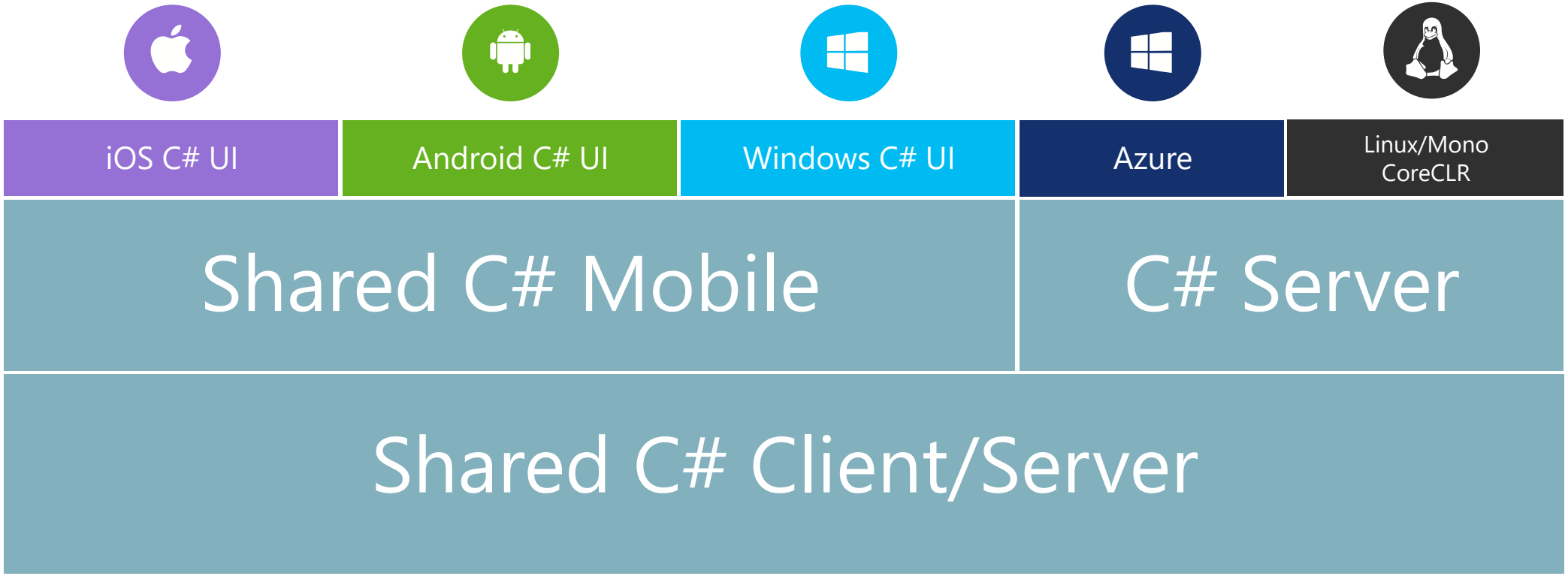
Get and Modify Data

```
public async Task<IEnumerable<Store>> GetStoresAsync()
{
    await table.PullAsync("allStores", table.CreateQuery());
    return await table.ToEnumerableAsync();
}

public async Task<Store> AddStoreAsync (Store store)
{
    await table.InsertAsync (store);
    await table.PullAsync("allStores", table.CreateQuery());
    await MobileService.SyncContext.PushAsync();
    return store;
}
```

Let’s add a backend

Mobile + Server



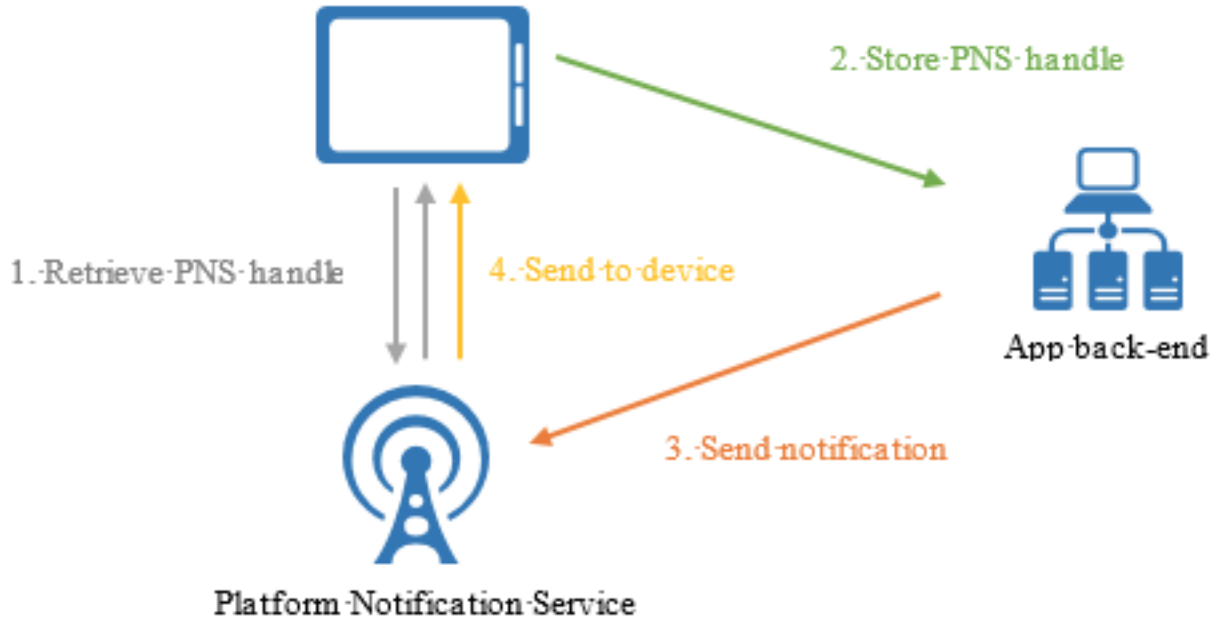
Shared C# codebase • 100% native API access • High performance

Authentication

- Rolling your own account infrastructure is difficult and time-consuming
- Secure your app with prebuilt authentication providers
  - Facebook
  - Twitter
  - Google
  - Microsoft
  - Azure AD
  - Anything OAuth 2

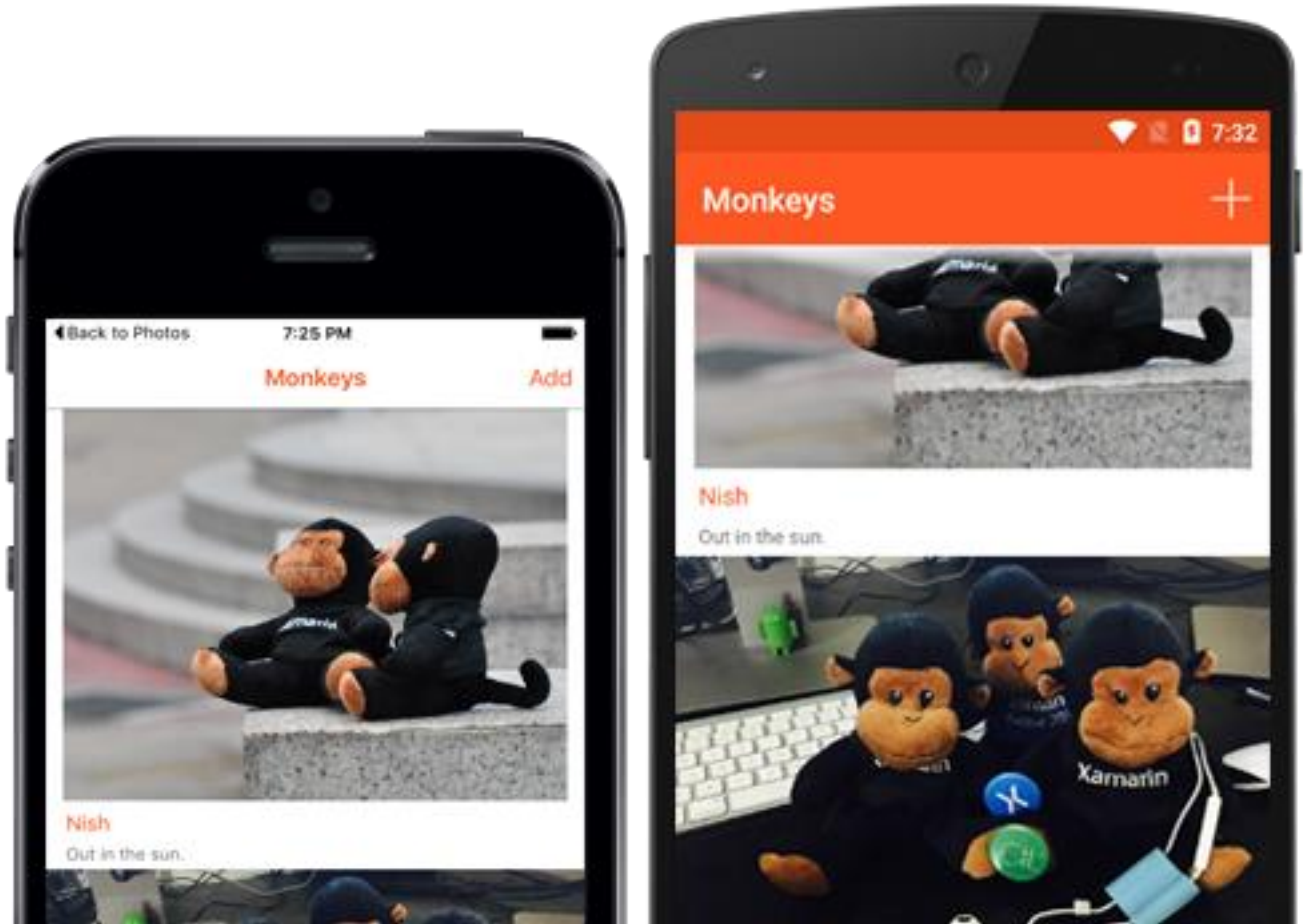
Push Notifications

- Easy-to-use, multiplatform scaled push infrastructure that allows you to send push notifications almost anywhere.



File Sync

- Sync files to Azure Storage, just like you did for structured data.



Lunch!

Presenter First Name
Presenter Last Name
Presenter Title

Presenter e-mail

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