CRAFTNOTE

An Overview of our Product and Tech-Stack

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HISTORY OF CRAFTNOTE

- Created as project-based group chat (think Teams channels with additional construction-specific data)
- Investors: Fischer, GC Gruppe (later)
- More features, more people
- Aceve

FEATURES

- Projects
  - Chat
  - Files
  - Tasks
- Time & Attendance
- Planning Board
- Dashboard
- Vehicle
- Public API

DEMO TIME

INITIAL TECH STACK

- Firebase/Google Cloud:
  - Cloud Functions (Node.js/TypeScript)
  - Firestore NoSQL database
  - Cloud Storage
  - Pub/Sub
- Frontends:
  - Angular Web App
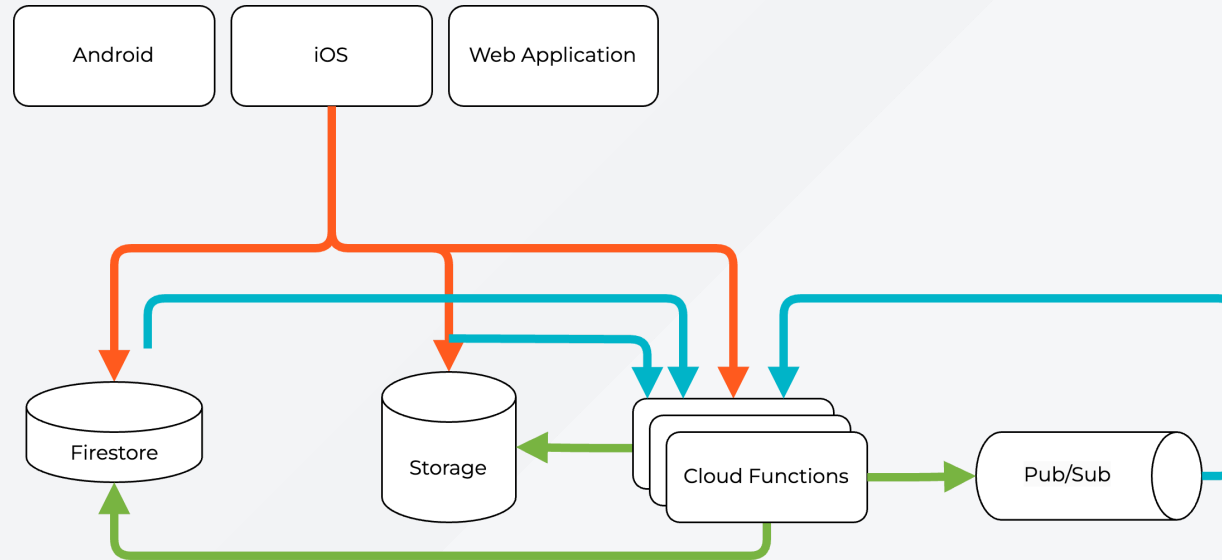 - Native iOS & Android Apps

FIRESTORE

- Offline Support
- Live Updates
- Direct Access from Frontends possible

FIRESTORE EXAMPLE

```javascript
import { collection, getDocs } from "firebase/firestore";

const querySnapshot = await getDocs(collection(db, "users"));
querySnapshot.forEach((doc) => {
  console.log(`${doc.id} => ${doc.data()}`);
});
```
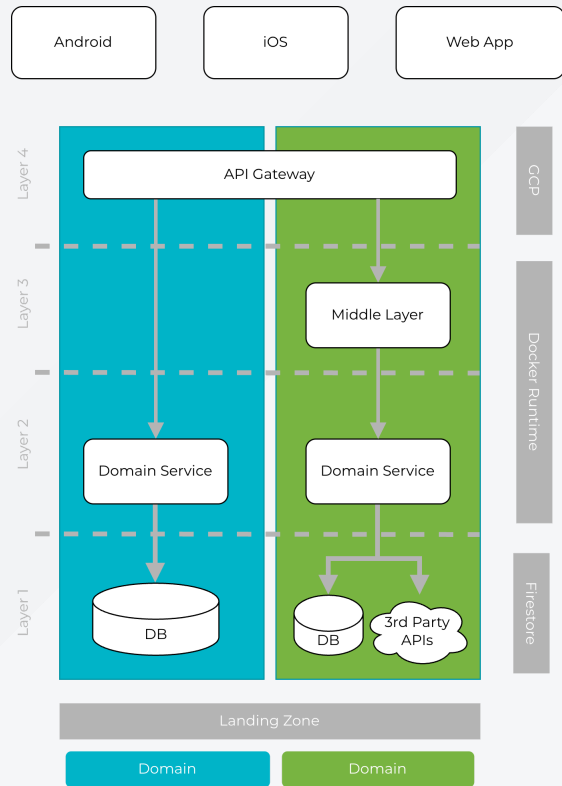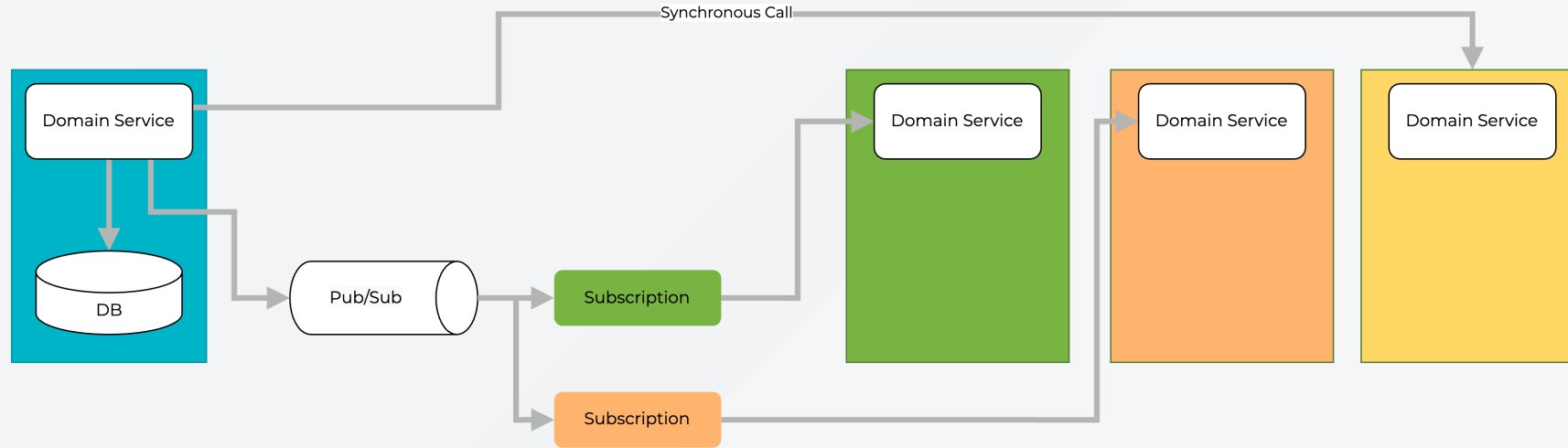
OLD ARCHITECTURE OVERVIEW

PROBLEMS

- Firestore
  - No control over data
  - Migrations painful
  - Caching hard
  - Expensive
- Heavy-weight clients
- Coupling
  - Difficult to scale team

CURRENT TECH STACK OVERVIEW

EVENT-DRIVEN ARCHITECTURE

FURTHERMORE

- API Gateway
- Redis: cache, etc
- Websockets for realtime updates
- Offline support in mobile clients

THANK YOU!