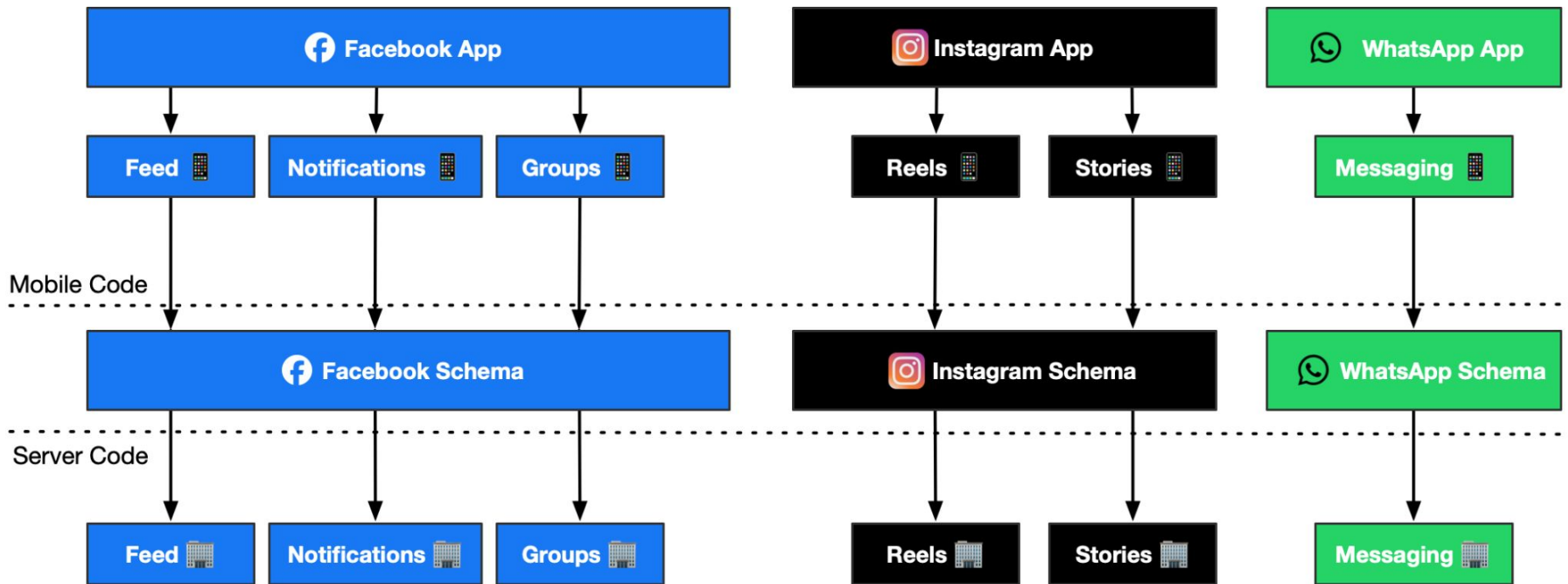


Schema Composition Without Federation

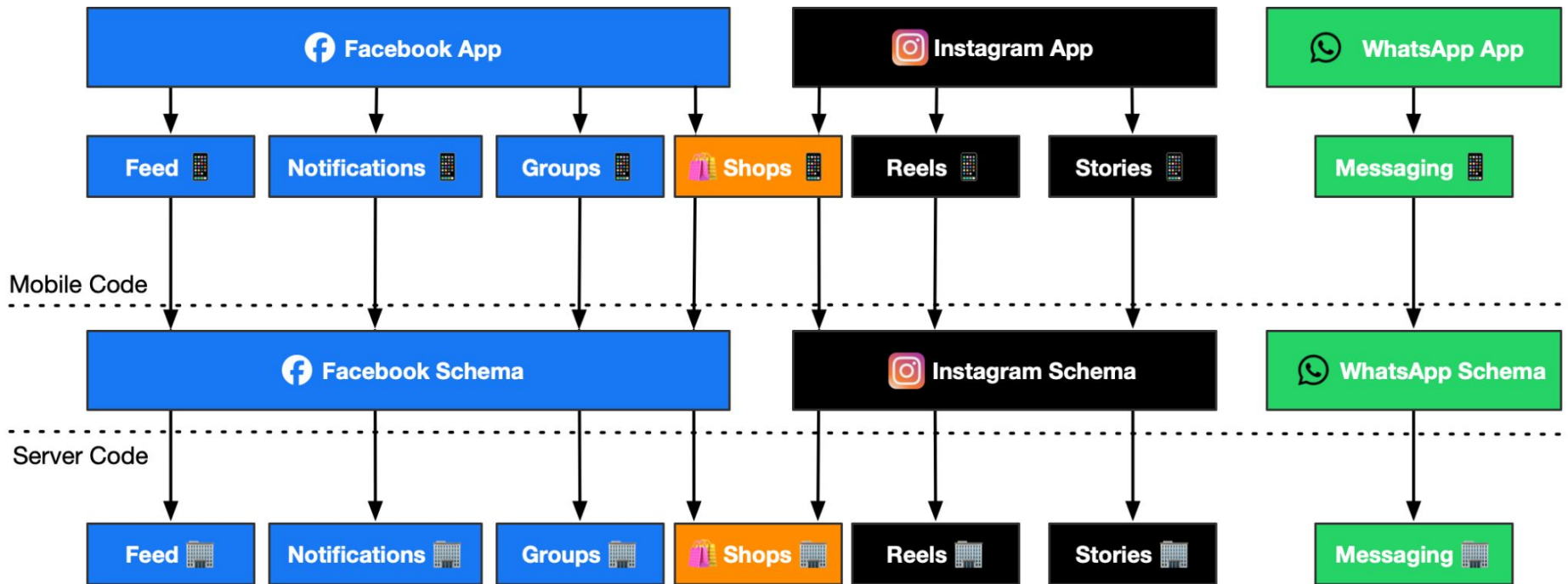
Matt Mahoney

Software Engineer, Mobile GraphQL @ Meta

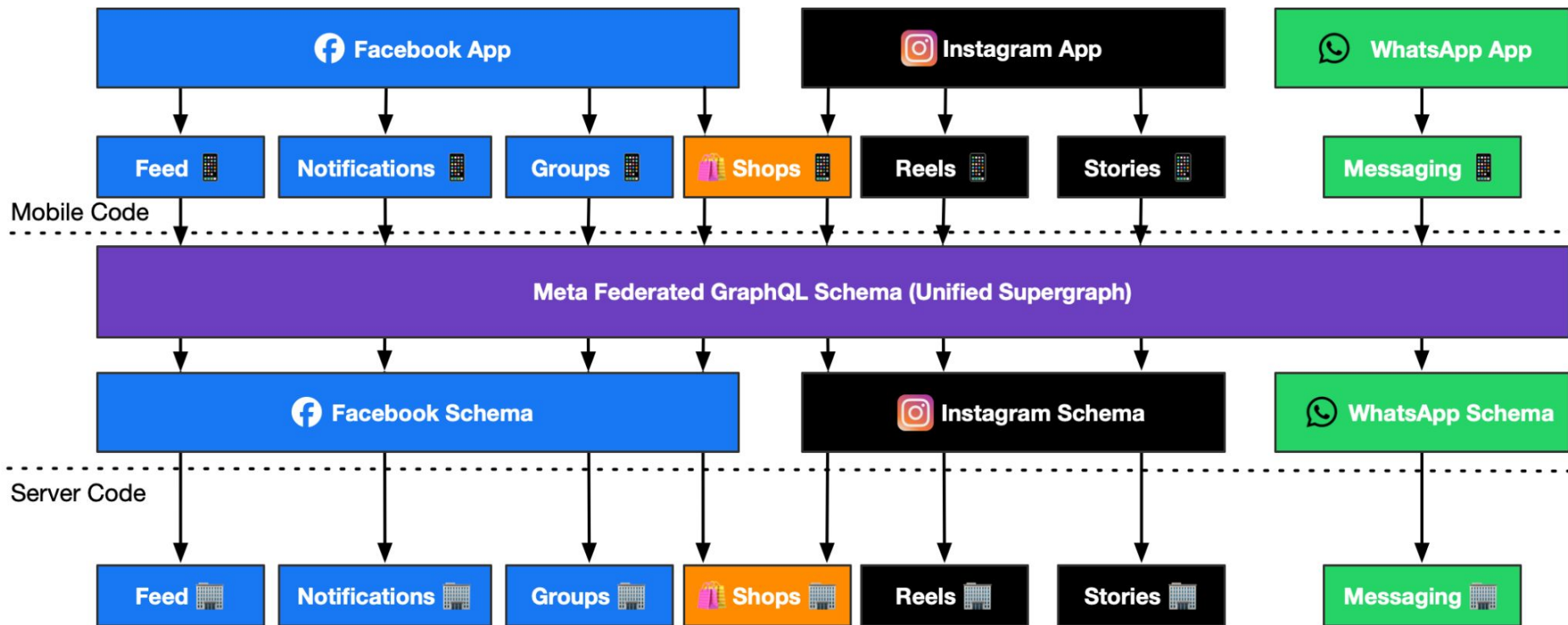
Meta's Many Schemas



Meta's Many Schemas



Supergraph?

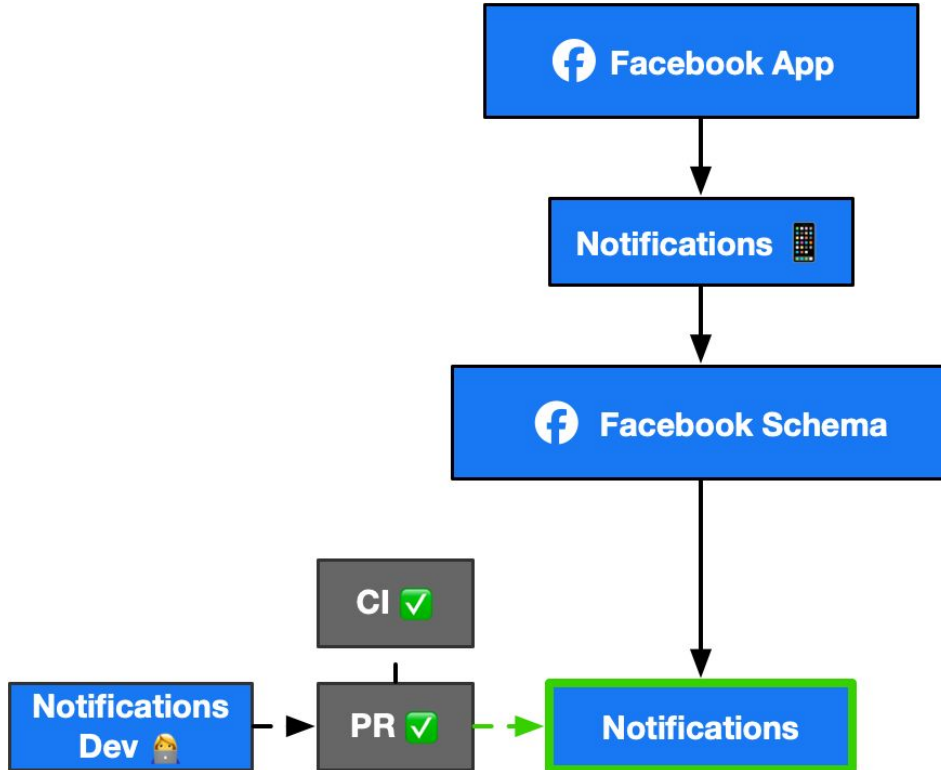


Changing the Schema

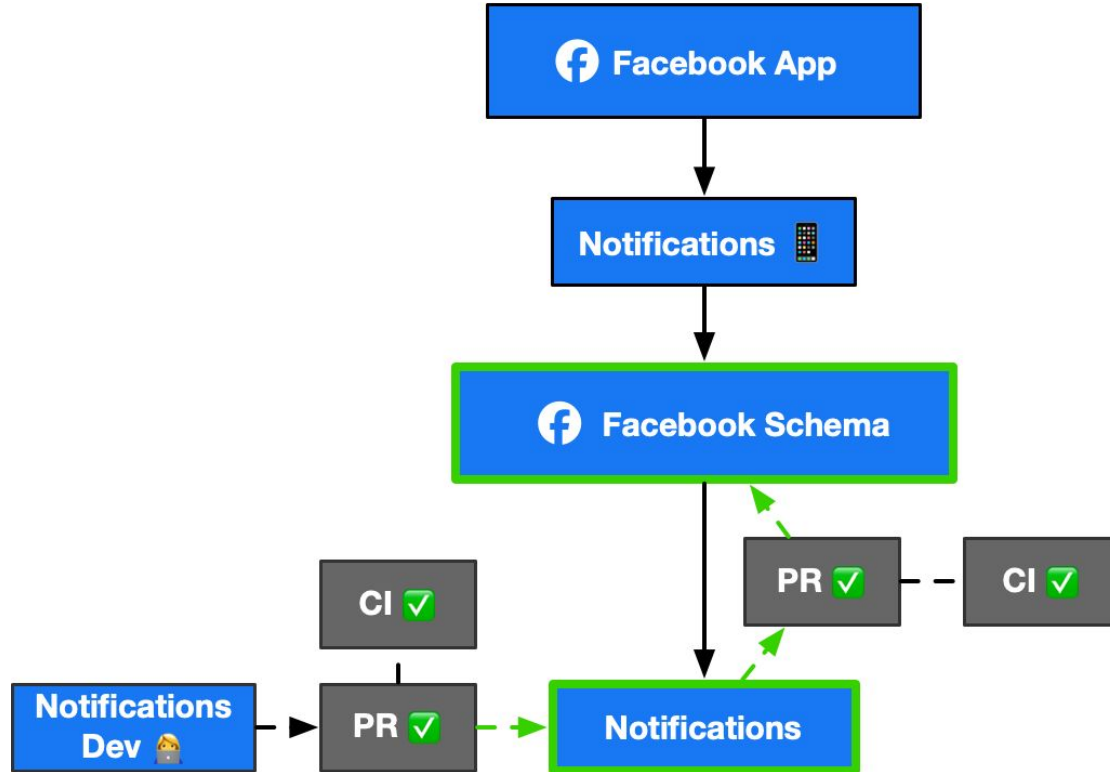
```
enum NotificationSortOrder {  
    FRIENDS  
    RECENT  
}
```

```
enum NotificationSortOrder {  
    FRIENDS  
    RECENT  
+   URGENT  
}
```

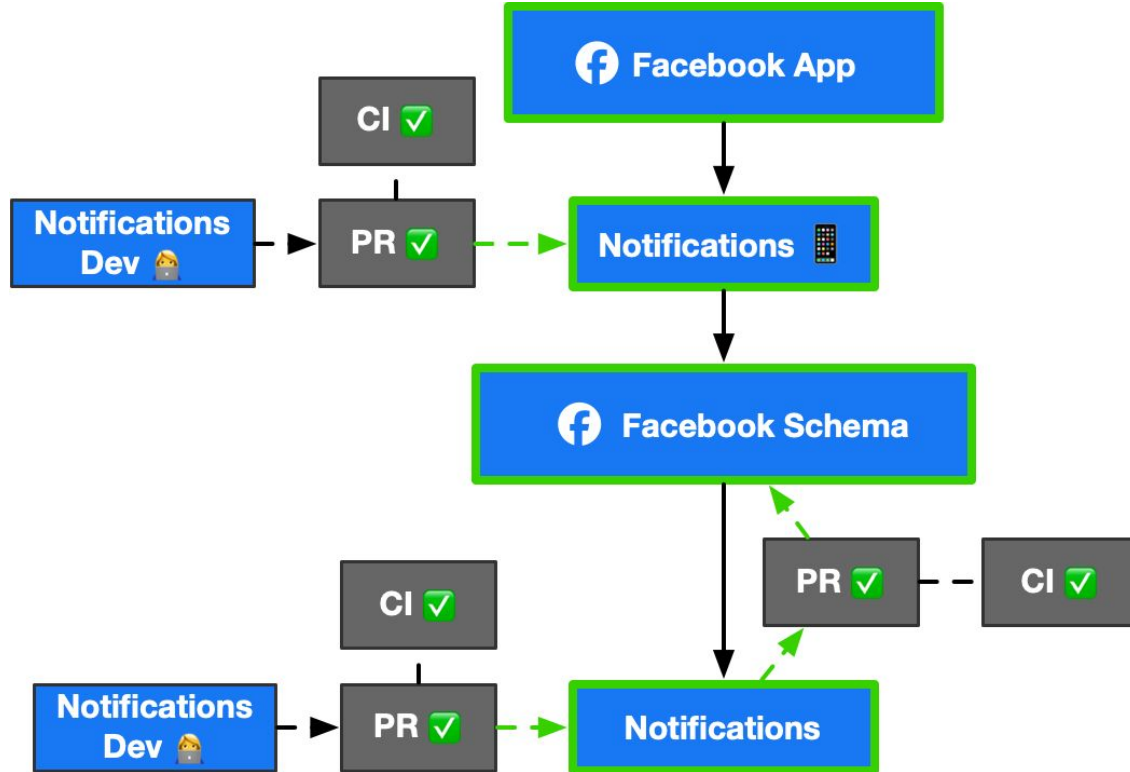
Changing the Schema



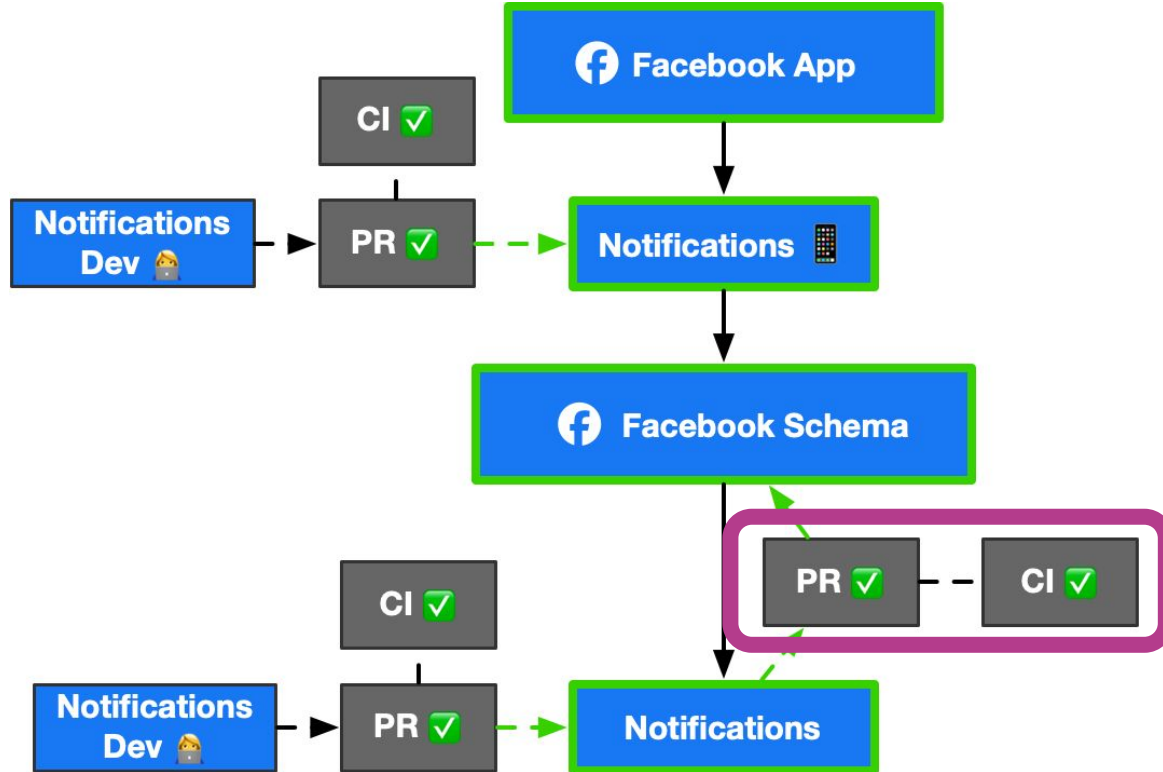
Changing the Schema



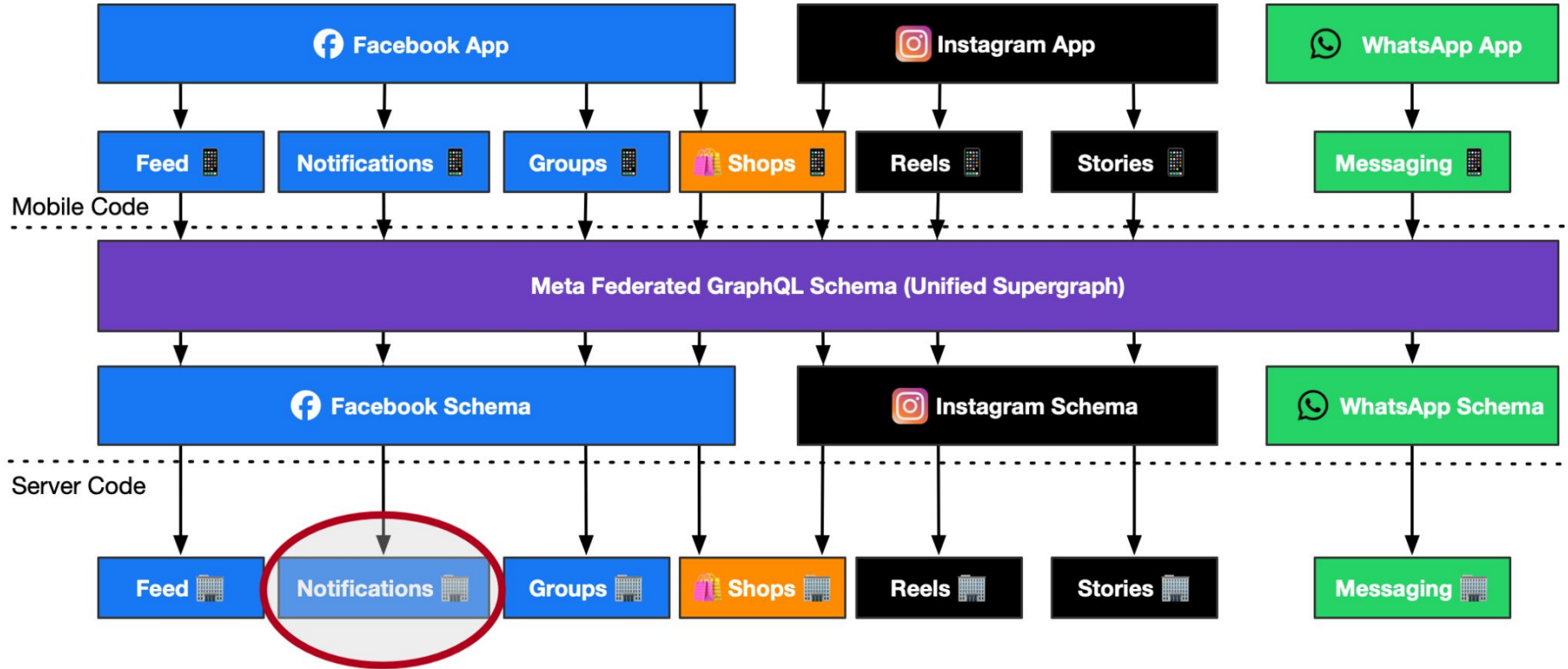
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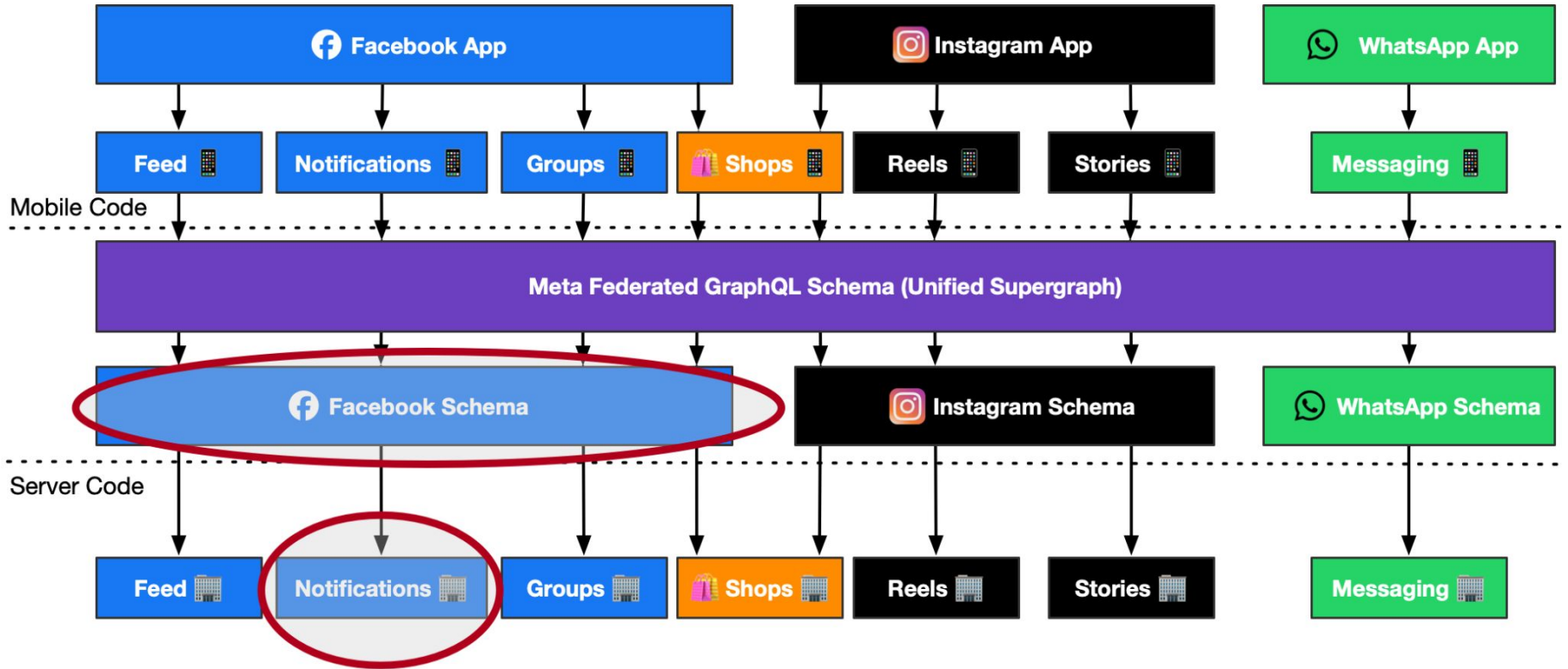
Changing the Schema



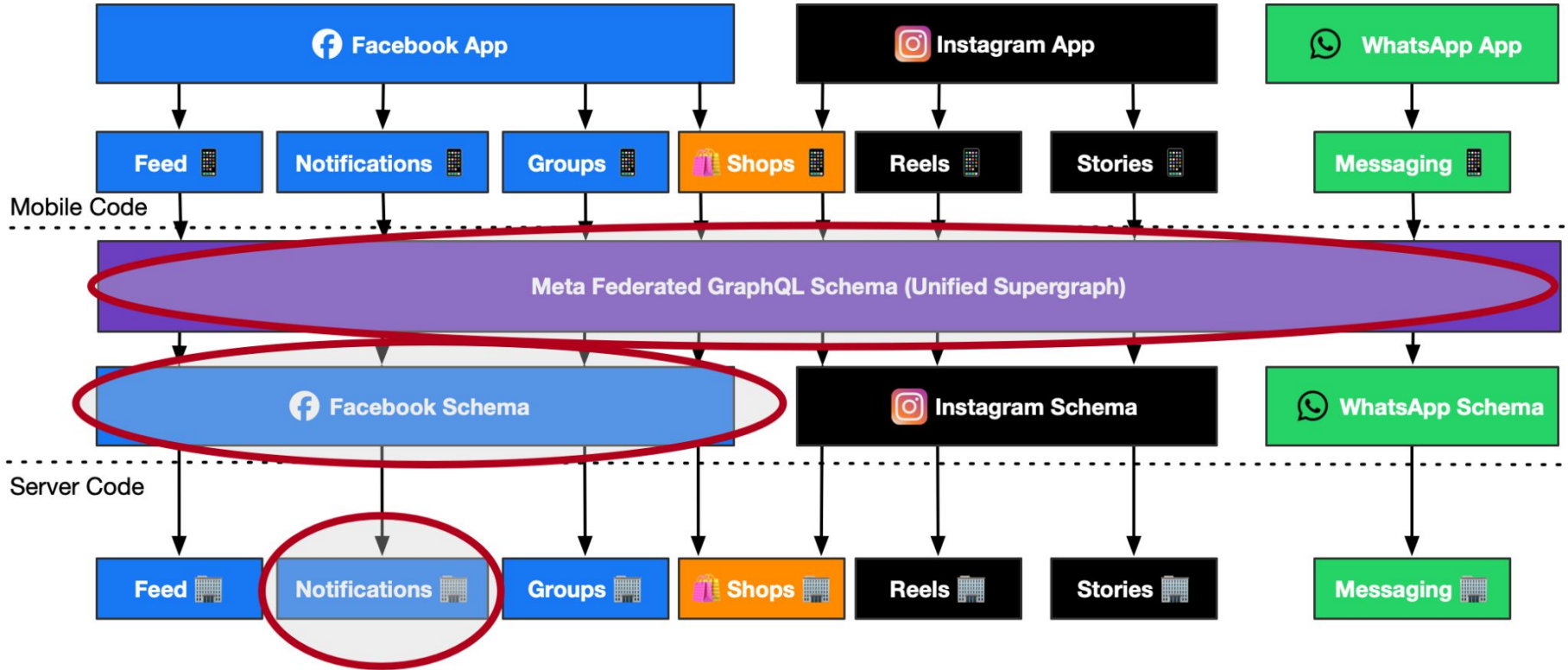
Breaking the Schema



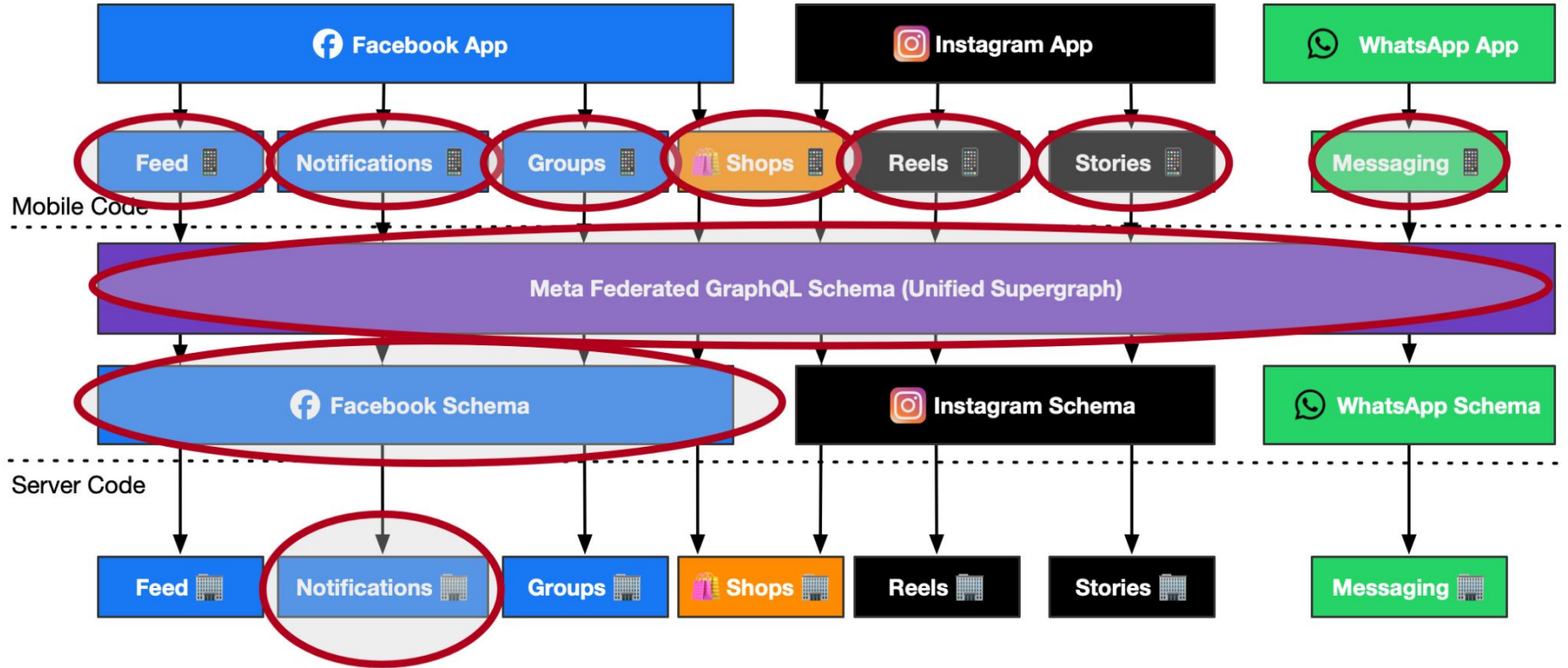
Breaking the Schema



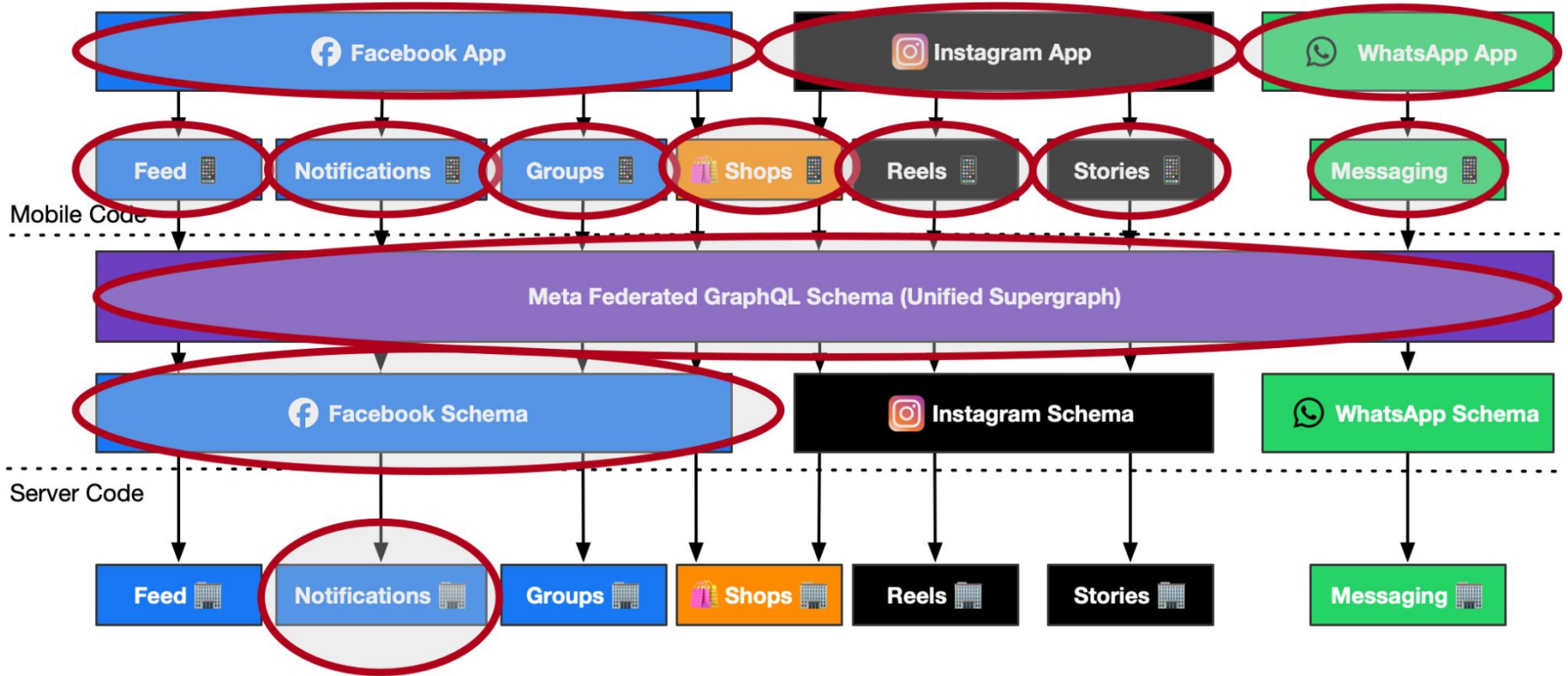
Breaking the Schema



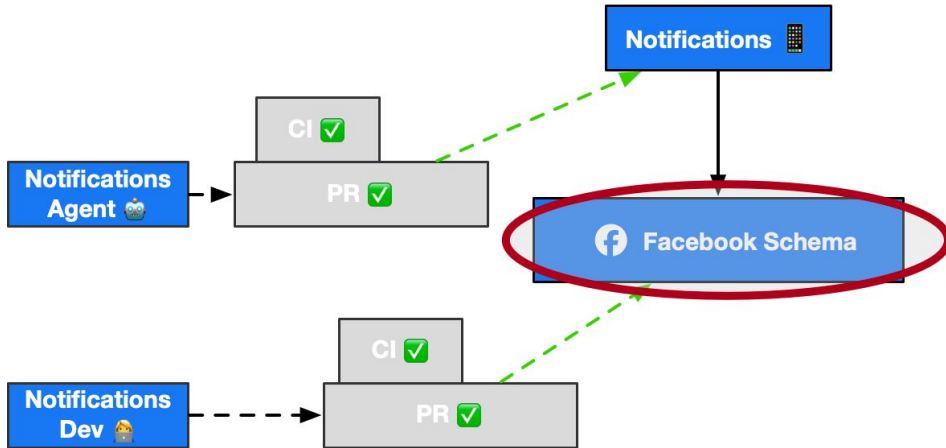
Breaking the Schema



Breaking the Schema

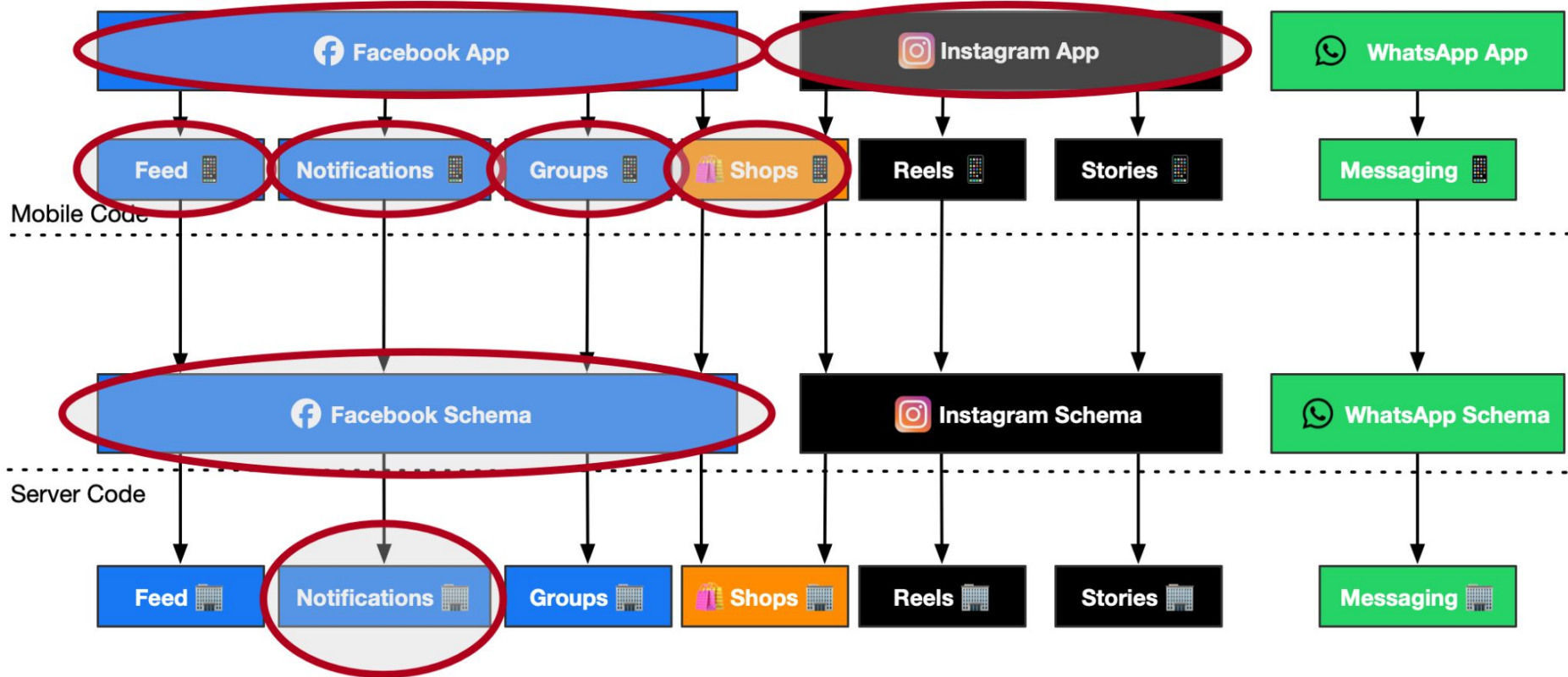


CI Alone Can't Solve!

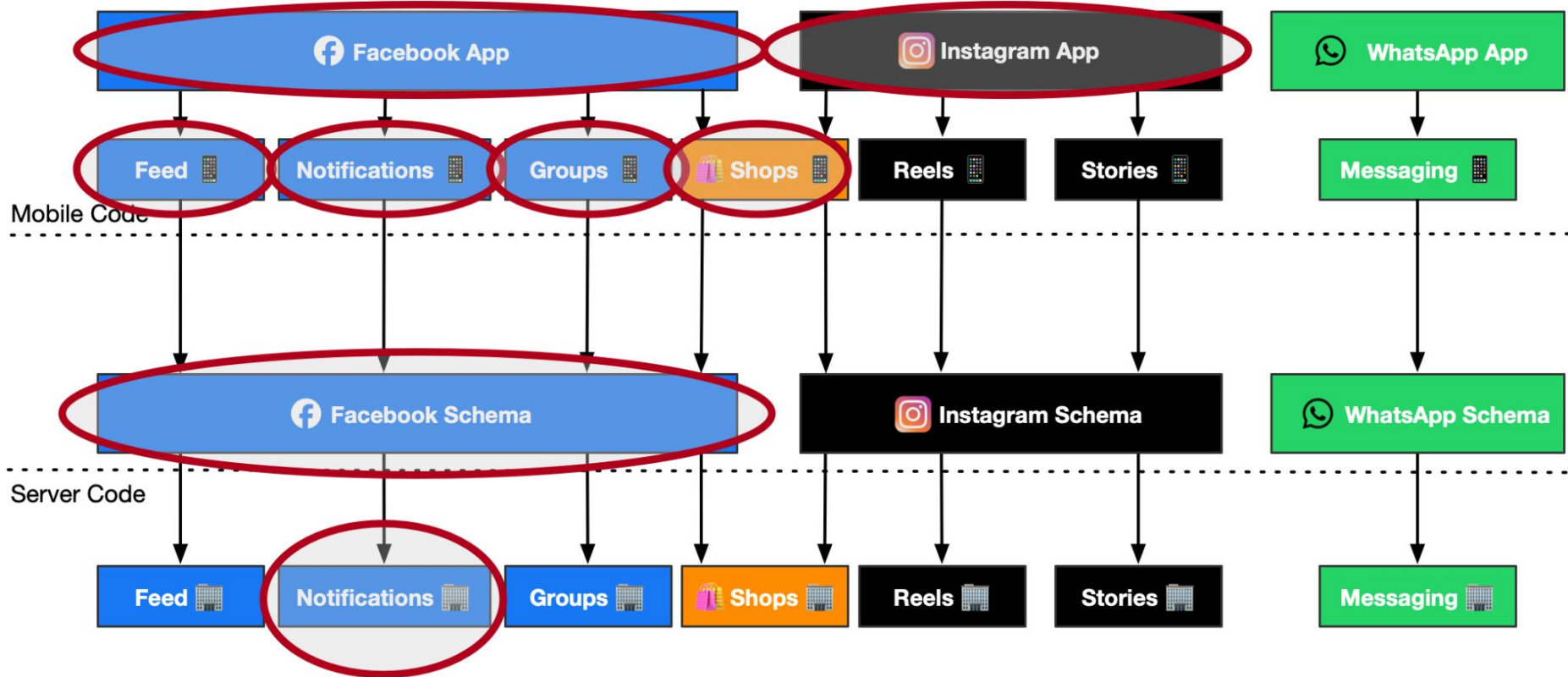


```
query GetNotifications {  
  + notifications(order: URGENT) {  
    ...  
  }  
}  
  
enum NotificationSortOrder {  
  FRIENDS  
  RECENT  
  - URGENT  
}
```

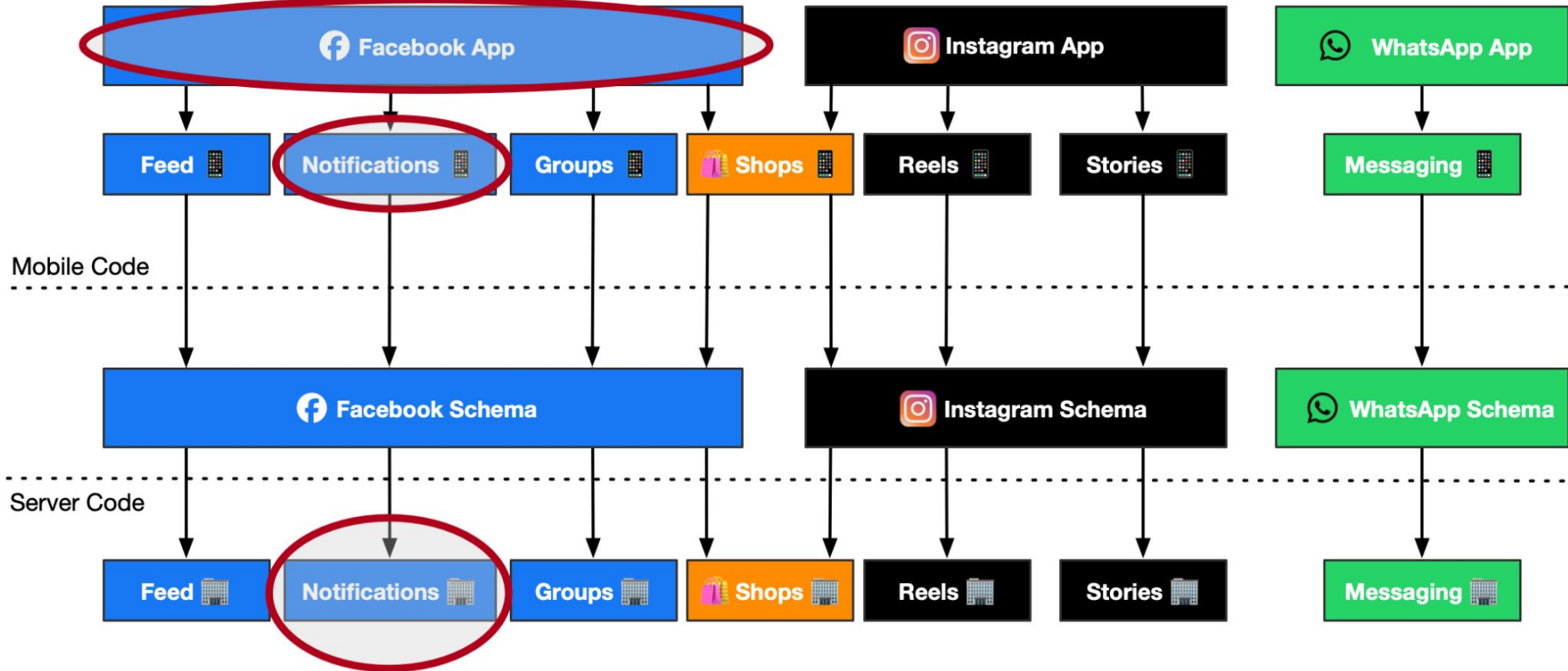
Breaking Down the Supergraph



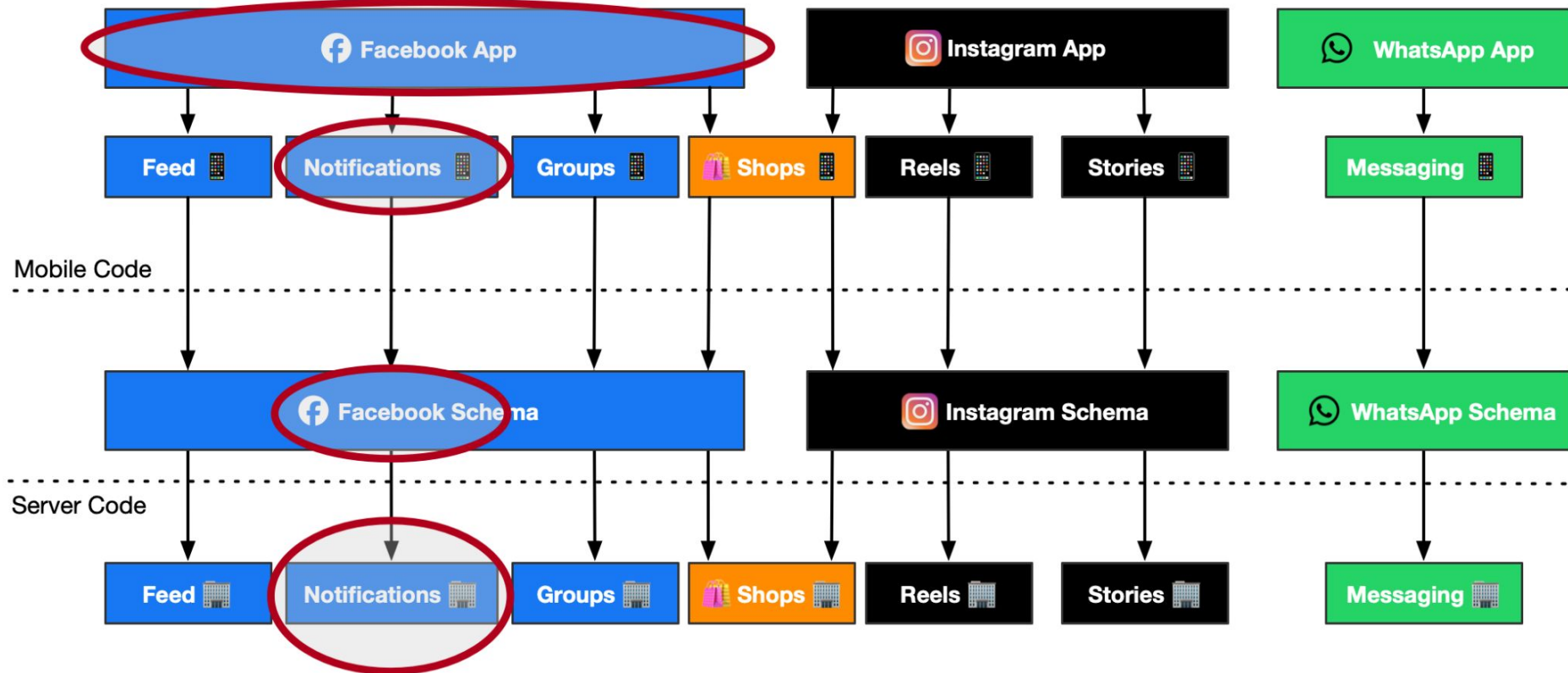
Breaking Down the Supergraph



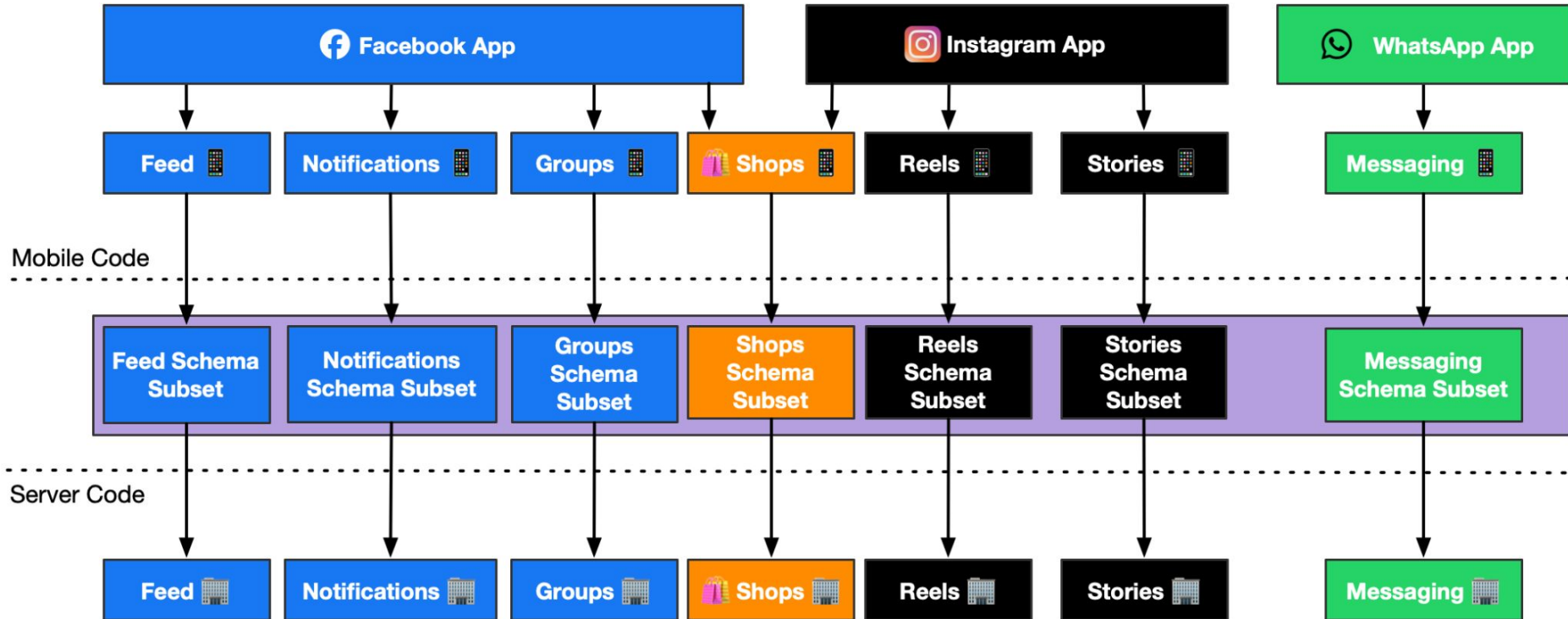
Breaking Down the Supergraph



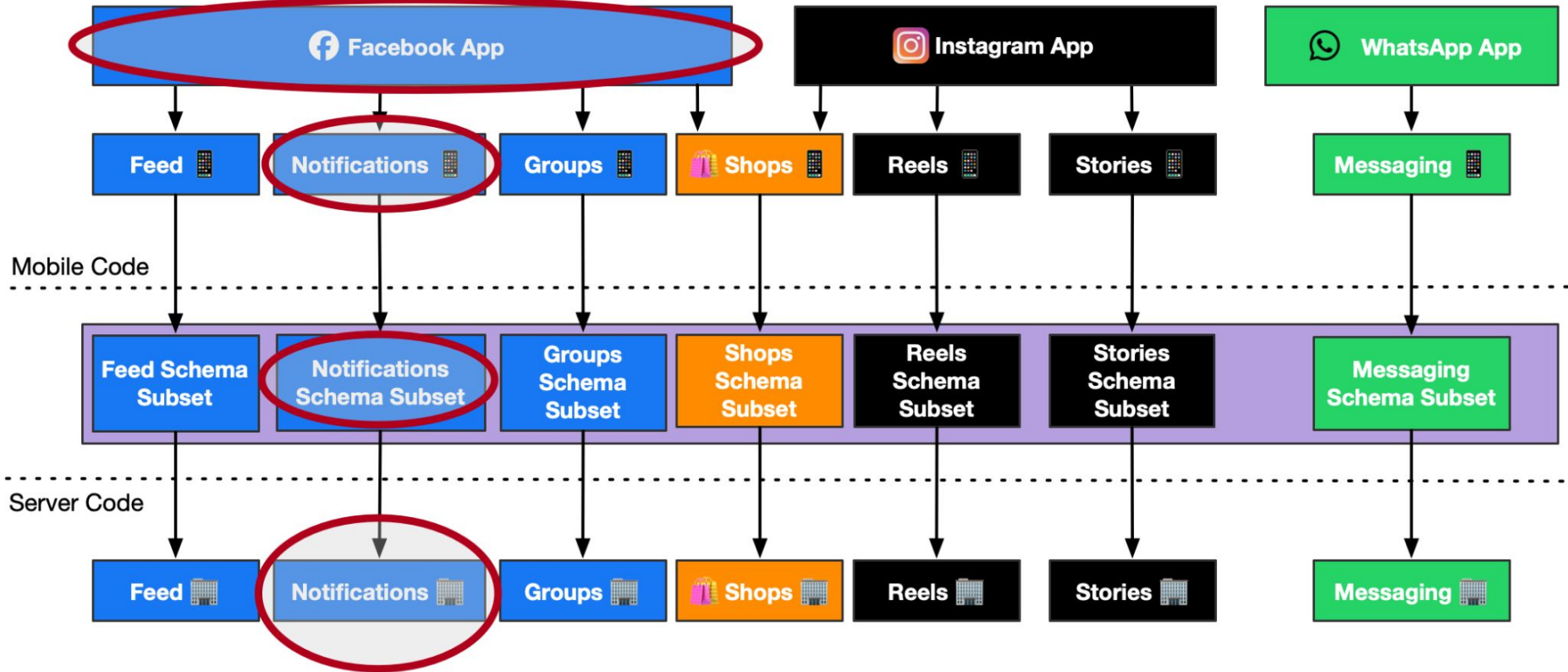
Breaking Down the Supergraph



Product-Specific Schema Subsets



Product-Specific Schema Subsets



Why Subset Schemas?

Reduced Blast Radius

Don't block unrelated products!

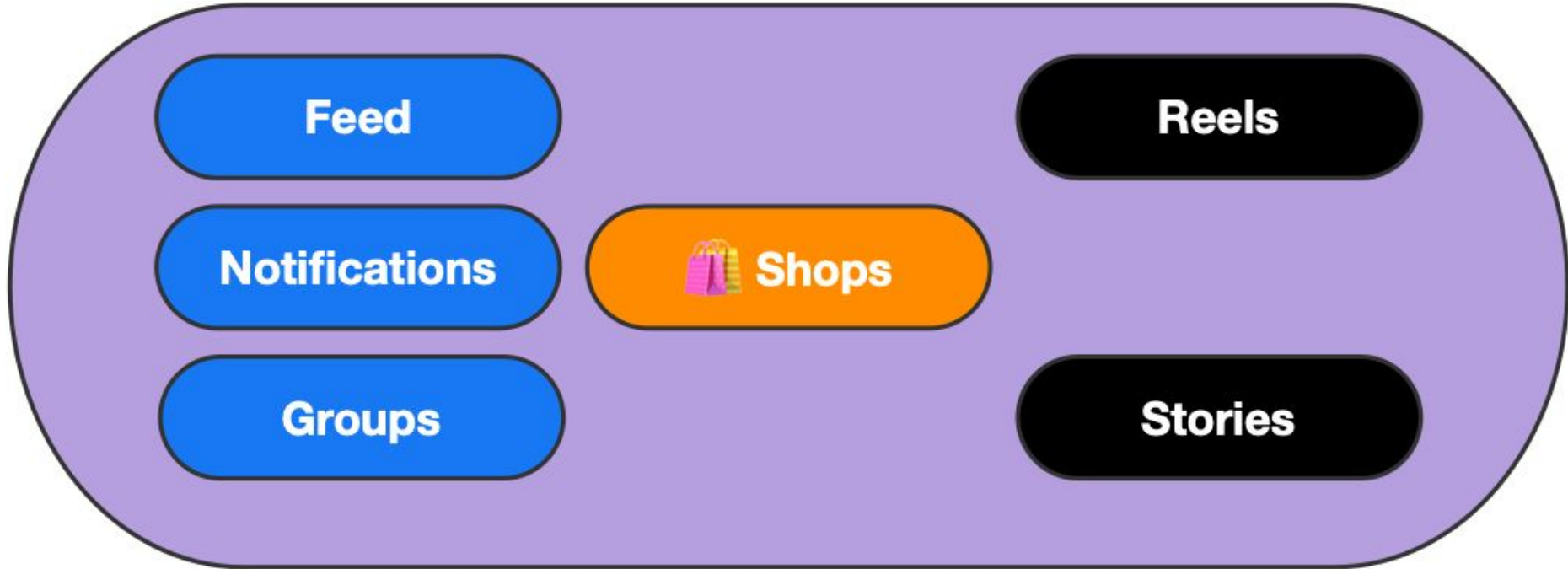
Faster Builds and CI

Only rebuild libraries that use updated schema, not every library that happens to use GraphQL

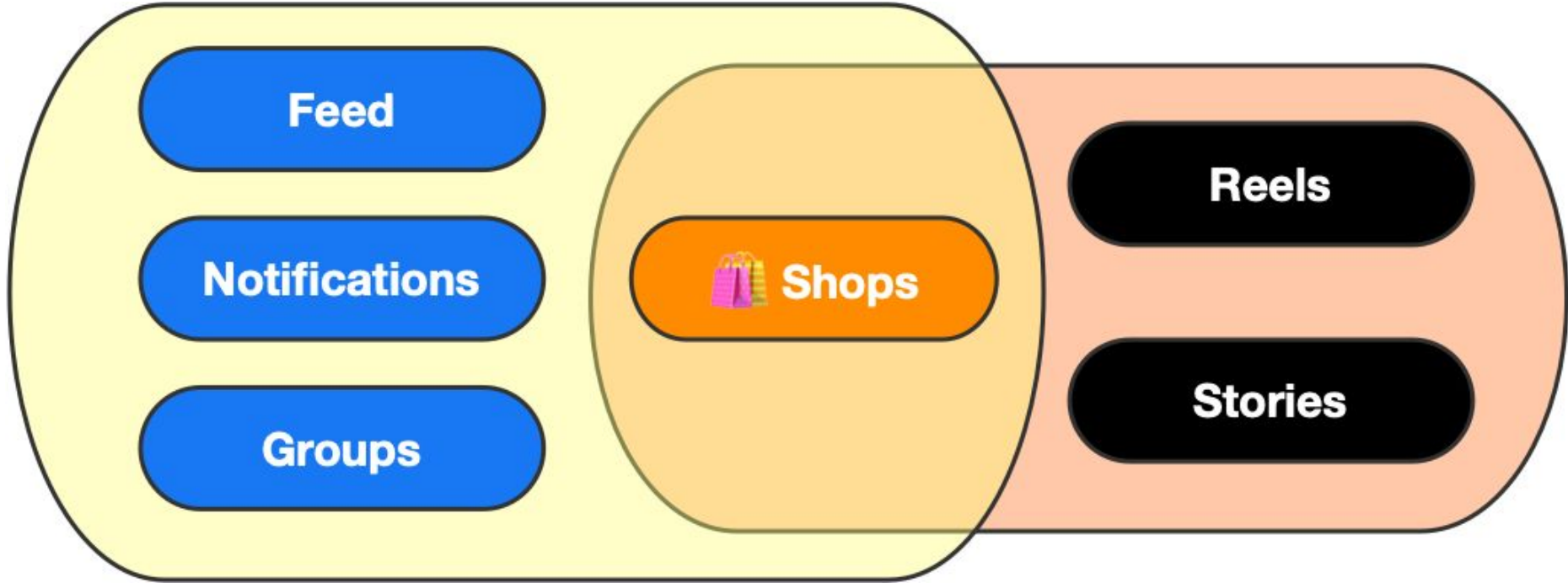
Better Agents

Agents can drive full-stack changes across one product

Schemas as Sets: Union



Schemas as Sets: Intersect



Schemas as Sets: Exclude



Schemas as Sets: GAP-33

```
enum NotificationSortOrder {  
  FRIENDS  
  RECENT  
  URGENT @deprecated  
}
```

-

```
extend enum NotificationSortOrder {  
  FRIENDS  
  RECENT  
  URGENT  
}
```

<https://github.com/graphql/gaps/pull/33>

Schemas as Sets: GAP-33

```
enum NotificationSortOrder {  
  extend URGENT @deprecated  
}
```

<https://github.com/graphql/gaps/pull/33>