

App Extensions

Vaibhav Parmar
iOS Dev @Nickelfox



Today's Topics

- About App Extensions
- Types of App Extensions
- How do an extension works
- Sharing data
- Notification Service Extension (*Live Demo*)




About Extensions

- With launch of iOS 8, 🍏 introduced App Extensions.




About Extensions

- With launch of iOS 8,  introduced App Extensions.
- App extensions provides a new way of interacting with your app, even without opening it.



About Extensions

- With launch of iOS 8,  introduced App Extensions.
- App extensions provides a new way of interacting with your app, even without opening it.
- An app extension extends functionality and content beyond the app and make it available to users when they're interacting with other apps or system.



About Extensions

- With launch of iOS 8, 🍏 introduced App Extensions.
- App extensions provides a new way of interacting with your app, even without opening it.
- An app extension extends functionality and content beyond the app and make it available to users when they're interacting with other apps or system.
- An app extension is focused towards a single task.



About Extensions

- With launch of iOS 8, 🍏 introduced App Extensions.
- App extensions provides a new way of interacting with your app, even without opening it.
- An app extension extends functionality and content beyond the app and make it available to users when they're interacting with other apps or system.
- An app extension is focused towards a single task.
- An app extension has its own binary, bundle-id, code signature, but deployed as a part of containing app's binary.



Types of App Extensions



Types of App Extensions

- iOS and macOS have several types of app extensions. Each extension is attached to single and well defined area of the system, e.g. such as sharing, Notification Center, iOS Keyboard.



Types of App Extensions

- iOS and macOS have several types of app extensions. Each extension is attached to single and well defined area of the system, e.g. such as sharing, Notification Center, iOS Keyboard.
- System area, which enables extension, is termed as *Extension Point*. Extension Points defines usage policies and provides APIs



Types of App Extensions

- iOS and macOS have several types of app extensions. Each extension is attached to single and well defined area of the system, e.g. such as sharing, Notification Center, iOS Keyboard.
- System area, which enables extension, is termed as *Extension Point*. Extension Points defines usage policies and provides APIs
- List of extension points in iOS and macOS

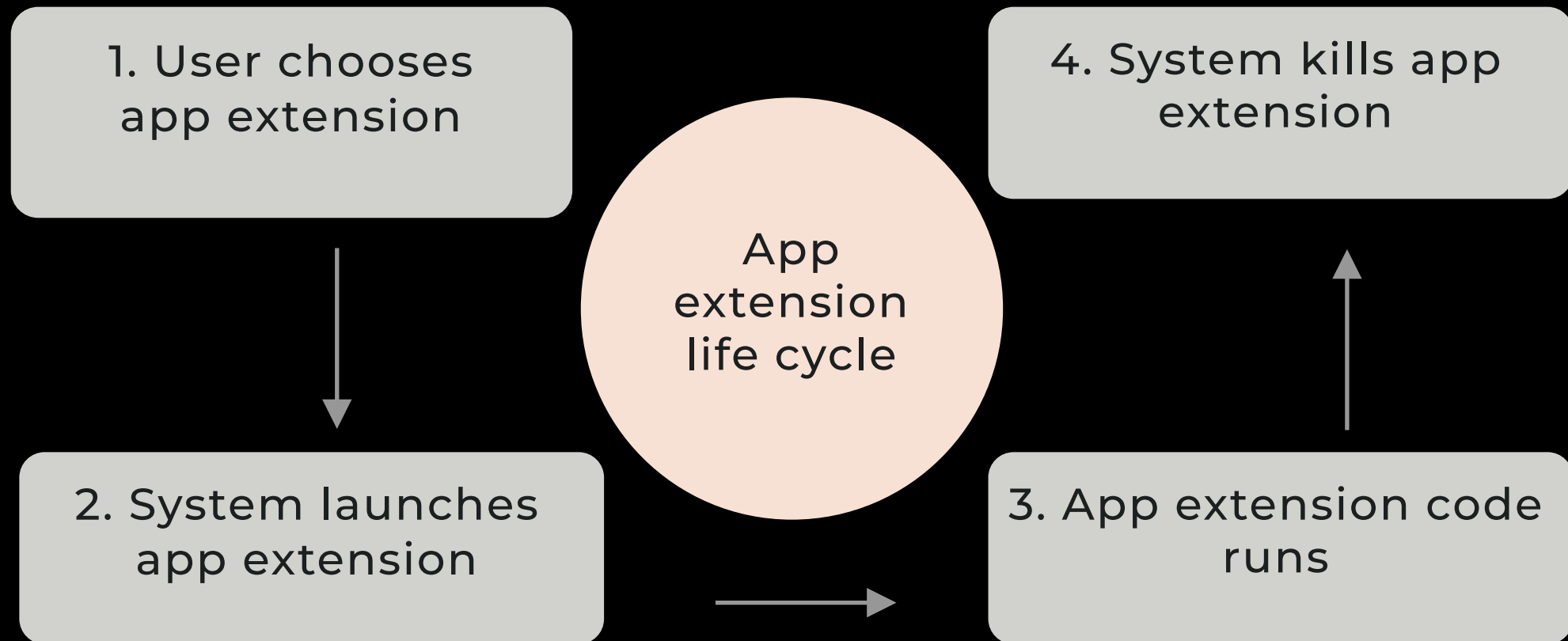


Types of App Extensions

- iOS and macOS have several types of app extensions. Each extension is attached to single and well defined area of the system, e.g. such as sharing, Notification Center, iOS Keyboard.
- System area, which enables extension, is termed as *Extension Point*. Extension Points defines usage policies and provides APIs
- List of extension points in iOS and macOS
- Generic extension isn't possible



How do they work?



How do they work?

- Each instance of extension runs in different process.



How do they work?

- Each instance of extension runs in different process.
- It's possible to have one extension run in multiple processes.

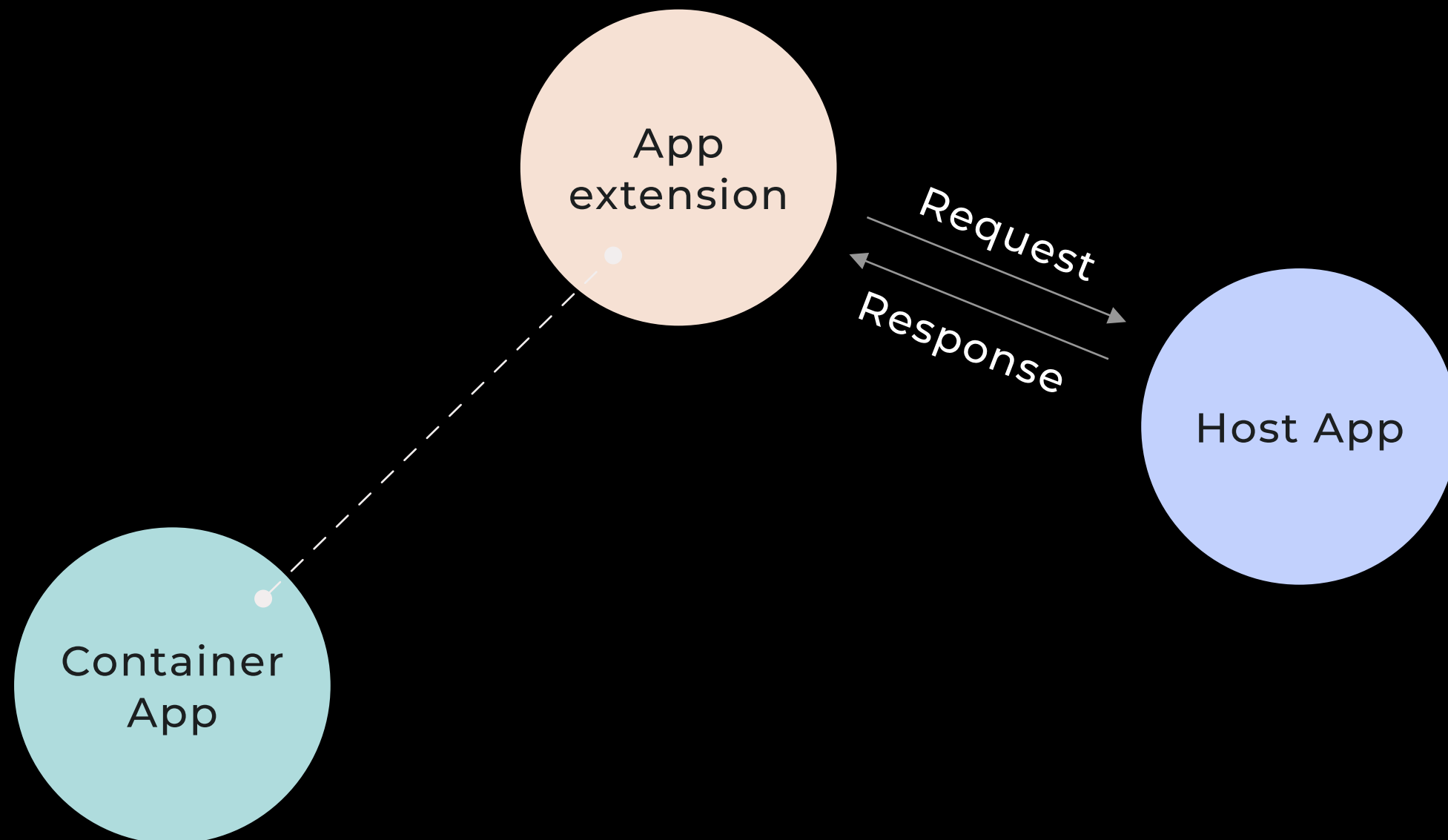


How do they communicate?

- An app extension communicates primarily with its host app.
- There is a request from host and response from extension.



How do they communicates?

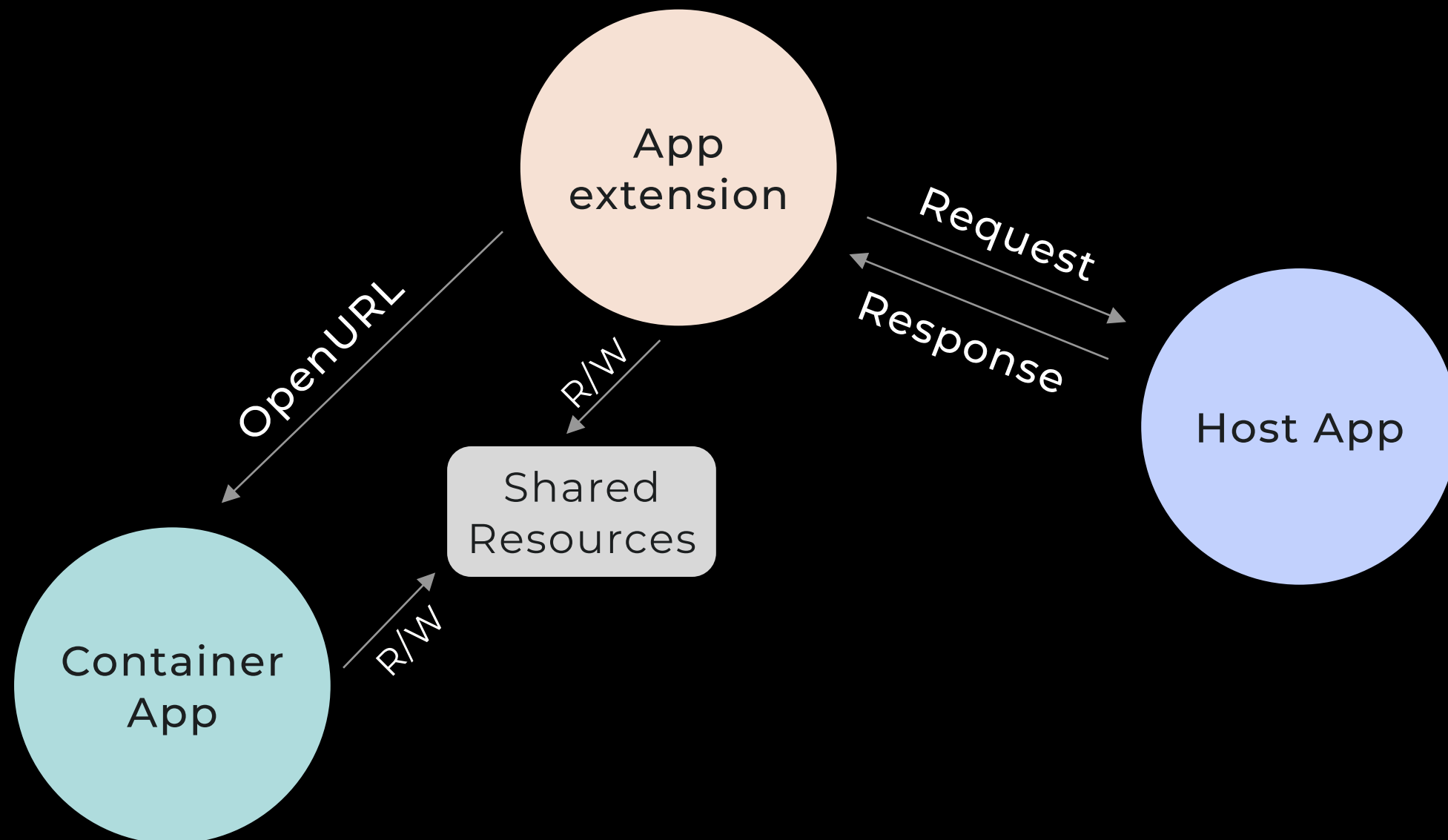


How do they communicates?

- An extension can't communicate directly with its container app.
- Host app and container app never communicates.



How do they communicate?



Note

Behind the scenes, the system uses interprocess communication to ensure that the host app and an app extension can work together to enable a cohesive experience.

In our code, we never have to think about this underlying communication mechanism, because we use the higher-level APIs provided by the extension point and the system.

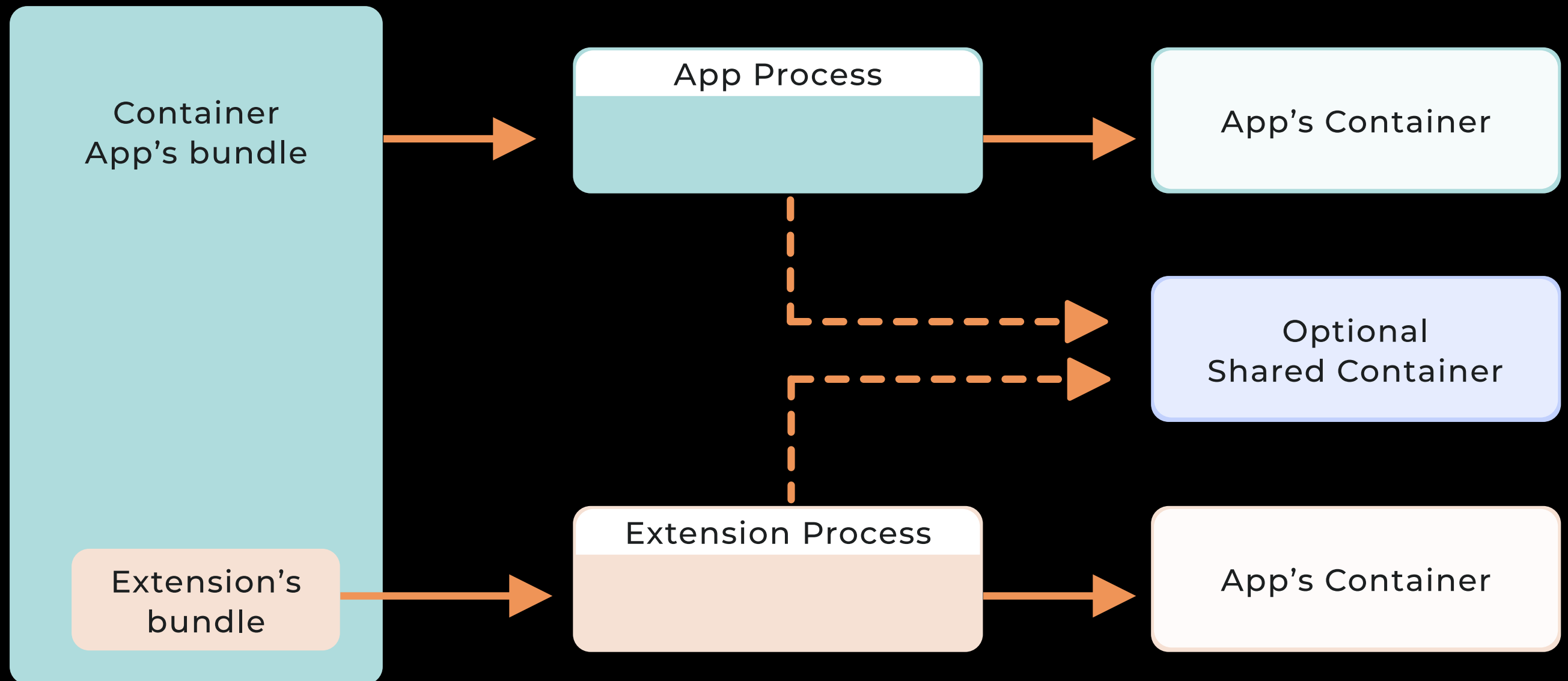


Sharing data

- An extension bundle is nested within its container app's bundle, but they don't have direct access to each other's container.



Sharing data



Sharing data

- An extension bundle is nested within its container app's bundle, but they don't have direct access to each other's container.
- However, data sharing is possible via ***AppGroups***.



Notification Service Extension



Let's Connect

 @parmarvhv

 @parmarvhv

 @mevaibhav.com

gracious

