

Interfaces, Libraries and APIs

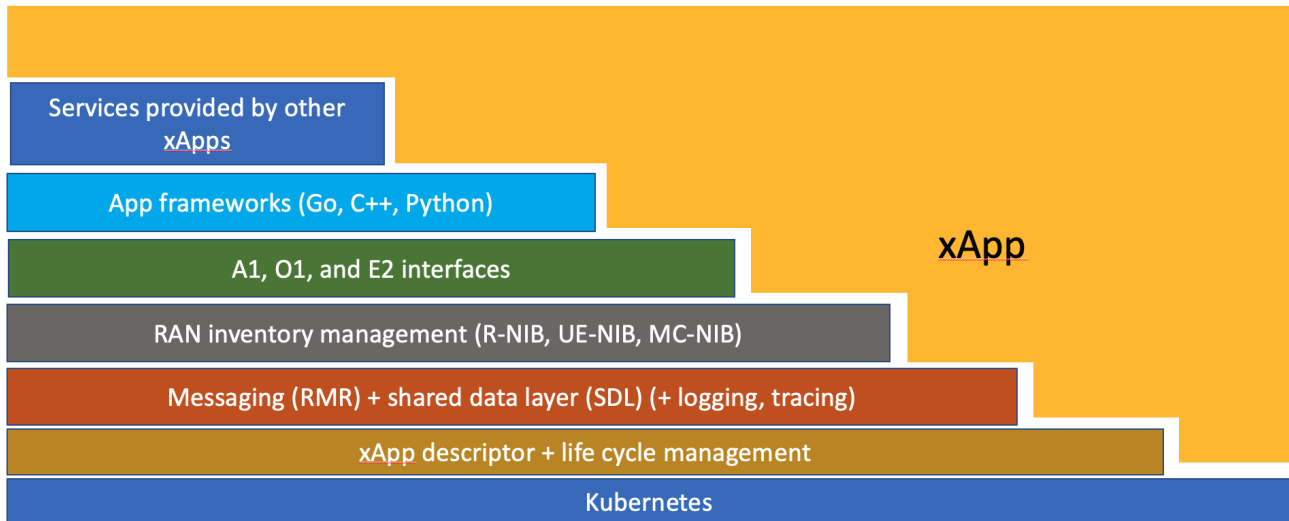


Reference Implementation Based on near-RT RIC

This section documents the details of the O-RAN App SDK which is primarily covering the implementation for near-RT RIC xApps. information about how the O-RAN App SDK will evolve to cover other O-RAN apps can be found [here](#).

This section describes how xApp interacts with the near-RT RIC platform through the O-RAN interfaces (i.e., O1, A1, E2)

The App SDK provides libraries for multiple programming languages that create layers of services and interfaces to enable interactions among xApps and between the near-RT RIC platform.



- **Service provided by other xApps:** The messaging library allows us to chain or compose xApp services. For more details, please refer to [Service-based Architecture](#).
- **App frameworks:** App frameworks defines interfaces, provide skeleton codes, helper classes, and library wrappers to simplify the creation of xApps
- **A1, O1, and E2 interfaces:** O-RAN defined interfaces
- **RAN inventory management:** Library and interfaces that create the abstractions of R-NIB, UE-NIB and MC-NIB
- **Messaging, shared data layer, logging and tracing:** Low level platform functions and libraries that xApps can utilize to send message, report status and access storages.
- **xApp descriptor and life cycle management:** Interfaces, model and services that defines the basic behavior of xApp
- **Kubernetes service:** cloud resources consumed by xApps