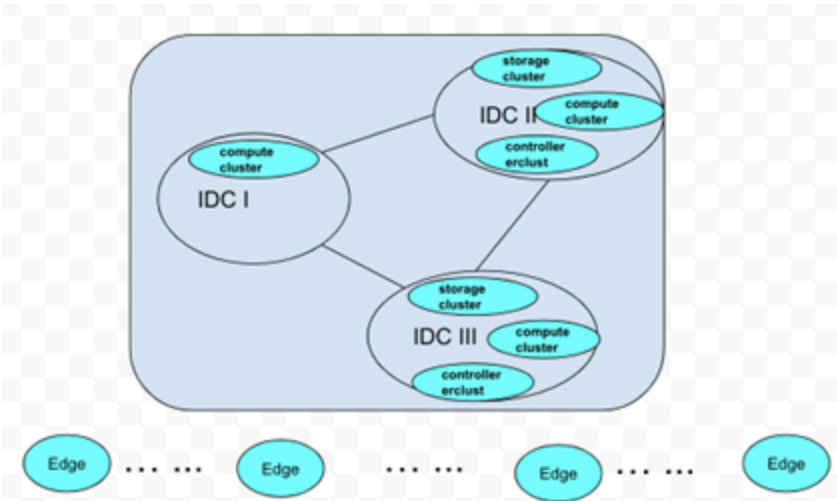# Release 6 Datasheet of IEC Type 3: Android cloud native applications on Arm servers in edge

Introduction

IEC Type3 mainly focuses on Android applications running on the edge ARM cloud architecture. This release of version R6 focuses on the basic construction, instance

deployment, and node performance analysis of cloud games.

Android Cloud Game

Cloud game service platforms launched by many manufacturers allow players to play games freely through the platform's cloud game technology and server resources,

as well as cloud mobile phones and cloud computers for free experience. The general structure is as follows:
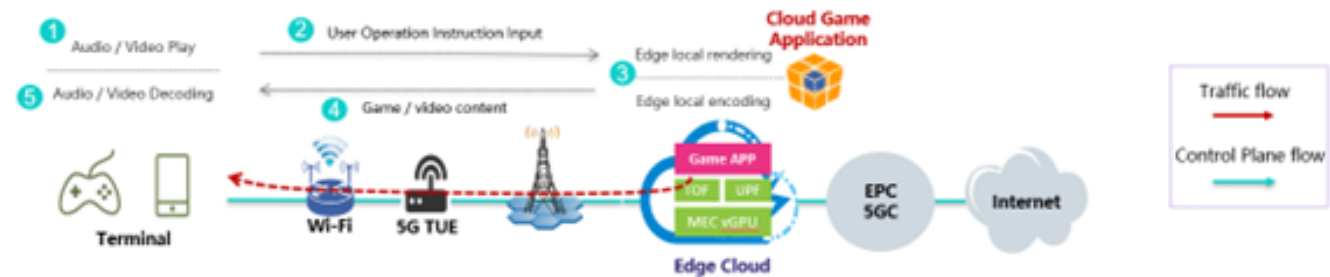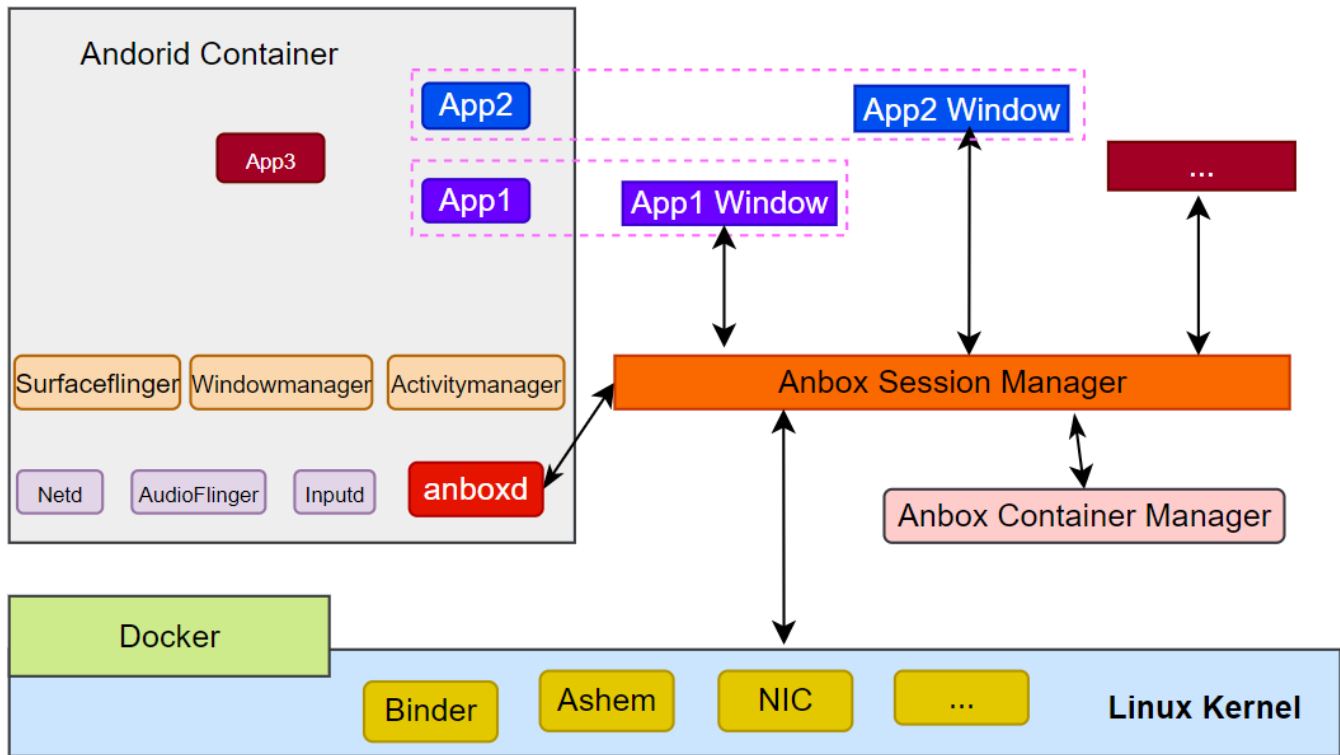

use case

Overview
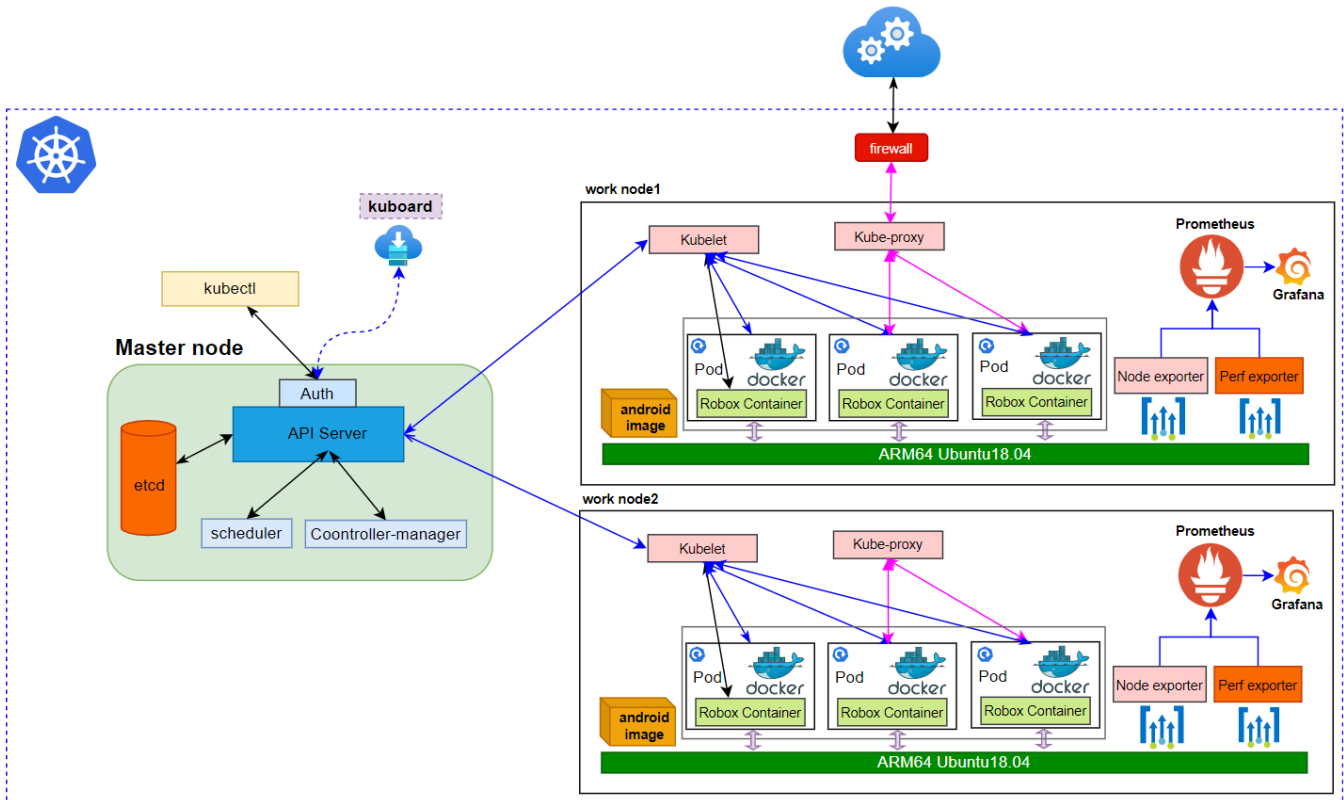
Robox Deployment Framework

The core of this version is to start the robox instance through K8S, and then monitor the performance status of each node through prometheus, at the same time collect the

events of each node through perf, and present the system status by the flame graph.

Robox Framework

Andorid Container

App2

App3

App1

App2 Window

App1 Window

...

Surfaceflinger Windowmanager Activitymanager

Netd AudioFlinger Inputd

anboxd

Anbox Session Manager

Anbox Container Manager

Docker

Binder Ashem NIC ... Linux Kernel

Main Work In Akraino IEC Type3 Release 6

Image Automatic Compilation: Android image, you only need to execute the script, and the script will be automatically downloaded, compiled and packaged into an image containing anbox.

Environment Automatic Deployment: The startup of robox depends on many environments, and all these dependent packages and environment variables are automatically completed through scripts

Robox Launch: The environment operates according to the above requirements, import the compiled image through docker, and then execute the relevant script to run robox

K8S Starts Robox Through K8S, you can deploy and start multiple robox instances on any node in the cluster

Node Event Collection: When running multiple instances on a node, where is the bottleneck of system performance? You can collect system events through perf, and then you can get the workload

status more intuitively through the flame graph

Cluster Status Analysis Through the mature Prometheus framework, the performance of each work node can be analyzed on a large scale, and various excellent visualization components can be

used to present the active status of the cluster.