

# IEC Type3 R6 Release Review

Y-semi Computing



# Agenda

- ◆ Overview
- ◆ Platform Tests
- ◆ Extension Tests Case
- ◆ Documentations And APIs
- ◆ Code Committed
- ◆ Release Status

# Overview

## ◆ Basic Structure

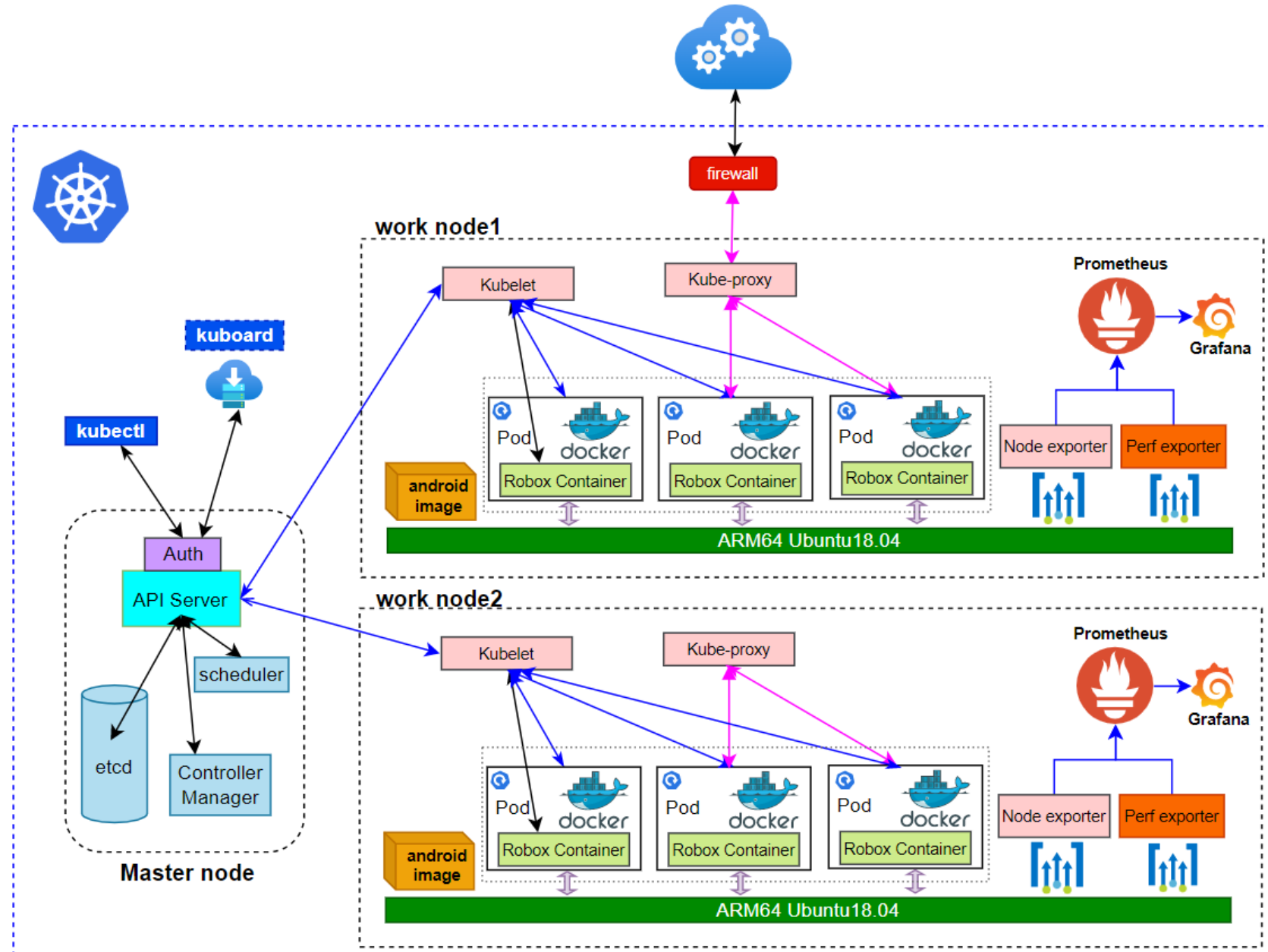
- ❑ Android Source Stack
- ❑ Preparations For Robox
- ❑ Start & Debug Robox
- ❑ Install Different App
- ❑ Access Through VNC

## ◆ Pod Instance Deployment

- ❑ Setup K8S Cluster
- ❑ Deploy Robox Inside
- ❑ Visualization By Kuboard

## ◆ Node Performance Analysis

- ❑ Run Games On Each Pod
- ❑ Perf & FlameGraph
- ❑ Monitoring Via Prometheus
- ❑ Visualization By Grafana



# Platform Tests

Layers	Item	Briefly
Application	Prometheus	Monitoring solution with metrics and alerting
	iPerf	Measurements of the maximum achievable bandwidth on IP networks
K8S	conformance	kubernetes e2e suite, Sonobuoy
	kube-hunter	hunts for security weaknesses in Kubernetes clusters
OS	Perf	CPU performance counters, tracepoints, kprobes, and uprobes
	Ltp	Performance, Stress, RAS
	Lynis	Battle-tested security, Extensive health scan
	Vuls	Vulnerability scanner

# Extension Tests Case

Test	Briefly
Robox Startup	Start Robox By Script
App Installation	Install and run app on a robox
Edge Cluster Deployment	Deploy Edge K8S Clusters
Deploy Robox	Run Robox By K8S
Deploy Prometheus	Run Prometheus on Work node
Deploy Grafana	Run Grafana on Work node
Flame graph	Generate Flame Graph With Perf Events

# Documentations And APIs

<https://wiki.akraino.org/display/AK/Release+6+Documentation+for+IEC+Type+3%3A+Android+cloud+native+applications+on+Arm+servers+in+edge>

No API for it's own, Just a demo application. 3rd Part APIs was linked

## Akraino Blueprint Project API Information

APIs Offered by Your Project (Mandatory)								
Project Name	API Group Name	API Category Level 1	API Sub-category Level 2	API Sub-category Level 3	API Sub-category Level 4	API Document Link	Protocols	Open
IEC Type 3 Android cloud native applications on Arm servers in edge for Integrated Edge Cloud (IEC) Blueprint Family : R6	Edge_Infrastructure	Container						
Comments: There is no external api exposed in R6 of IEC Type 3								
3rd Party APIs Consumed in Your Project (Mandatory)								
No.	API Group Name	API Category Level 1	API Sub-category Level 2	API Sub-category Level 3	API Sub-category Level 4			
1	Kubernetes	Edge_Infrastructure	Container	android/robox	promethues+Grafana			



# Code Committed

<https://gerrit.akraino.org/r/c/iec/+/4811>

Gerrit CHANGES YOUR DOCUMENTATION BROWSE

Merged as [5e8e332](#) ★ 4811 ROBOX: Upload robox scripts for IEC release 6

Updated Apr 29  
Owner ysemi ysemi  
Assignee Set assignee...  
Reviewers Tina Tsou  
Akraino Jobbuilder  
Jingzhao Ni  
AND 3 MORE  
ADD REVIEWER  
CC ADD CC  
Repo | Branch [iec](#) | [master](#)  
Parent [e2a6b32](#)  
Topic ADD TOPIC  
Hashtags ADD HASHTAG

REPLY

ROBOX: Upload robox scripts for IEC release 6  
RT  
Signed-off-by: rd-sw <[rd-sw@ysemi.cn](mailto:rd-sw@ysemi.cn)>  
Change-Id: [I1695c71cb291273b926370bc9a84528107663ef0](#)

✓ Verified +1 Akraino Jobbuilder  
✓ Code-Review +1 ysemi ysemi  
+1 Tina Tsou  
+2 Trevor Tao

Files Findings

Base Patchset 18 [5e8e332](#) ADD PATCHSET DESCRIPTION

File
Commit message
A src/use_cases/robox/deploy_robox.sh
A src/use_cases/robox/load_components.sh
A src/use_cases/robox/loadimages.sh
A src/use_cases/robox/setupenv/arm64_env_setup.sh
A src/use_cases/robox/setupenv/build_android.sh
A src/use_cases/robox/setupenv/xorg.conf
A src/use_cases/robox/sm_ctrl.sh
A src/use_cases/robox/test_config/ys_perf_exporter.yml
A src/use_cases/robox/test_config/ys_prometheus.yml

<https://github.com/ysemi-computing/RoboxWidget.git>

ysemi-computing / RoboxWidget Public

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags Go to file Add file Code

tcutee [script] add basic script cd3afae 2 days ago 10 commits

components	add perf_exporter, prometheus, grafana-server	4 days ago
config	[conf] add perf_exporter, prometheus configuration	4 days ago
scripts	[script] add basic script	2 days ago
.gitattributes	[attr] add more large file support	4 days ago
README.md	Initial commit	4 days ago
android.img	[img] add android.img	4 days ago



# Release Status

AKRAINO Spaces Questions Search  Log in

No.	Project Name	TSC Subgroup Release Status	Is this your first release	Blue Print Stage <ul style="list-style-type: none"> <li>Self-Certify</li> <li>Incubation</li> <li>Mature</li> <li>Core</li> </ul>	CD Logs URL to be used for review (Column filled in by PTLs) <p>How to: Push Logs to Nexus</p> <p>Jenkins Master for Private Lab</p> <p>Jenkins Peering Guide</p> <p>Example:</p> <p>KubeEdge BP Test Documents</p>	Link to executive one pager (editable doc format) (Column filled in by PTLs)	API Info Reporting Review (Column filled in by API Subcommittee) <p>(note for PTLs – go here for steps to fill in project API info form)</p>	BluVal <p>BlueVal Logs or Manual Logs</p> <p>Bluval User Guide</p>	Security Certification (TO be filled by Security Subcommittee) <p>Pass/Fail Criteria: Steps To Implement Security Scan Requirements</p> <p>Exception requests should be filed at:</p> <p>Release 6: Akraino CVE and KHV Vulnerability Exception Request</p>	Upstream Review (Column filled by Upstream Subcommittee and PTLs) <p>(note PTL can go to Release 6 Upstream Review Status to find details)</p>	Date ready for TSC review (Column filled in by PTLs)	TSC Review Date (Column filled in by TSC)
15	IEC Type 3: Android cloud native applications on Arm servers in edge for Integrated Edge Cloud (IEC) Blueprint Family @ hanyu ding @ Rajeev Gadgil @ Davy Zhang		No	Incubation	<a href="https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/upload/iec-tox-verify-master_334/">https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/upload/iec-tox-verify-master_334/</a>	<a href="https://wiki.akraino.org/download/attachments/24084647/IEC%20Release3-IEC%20Type3-datasheet.docx?version=5&amp;modificationDate=1591272863000&amp;api=v2">https://wiki.akraino.org/download/attachments/24084647/IEC%20Release3-IEC%20Type3-datasheet.docx?version=5&amp;modificationDate=1591272863000&amp;api=v2</a>	API form uploaded by Davy Zhang 28 Apr 2022, scheduled for review at API subcommittee meeting 29 Apr 2022 Approved by API subcommittee at weekly meeting 29 Apr 2022	<a href="https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v4/">https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v4/</a> 12 May 2022 <a href="https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v5/">https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v5/</a> 13 May 2022 <a href="https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v6/">https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v6/</a> 17 May 2022	18 May 2022 lynis results: Accepted vuls results: Accepted kube-hunter results: Accepted	Approved		
16	IEC Type 5: SmartNIC for Integrated Edge Cloud (IEC) Blueprint Family		No	Incubation	<a href="https://dev.socnoc.cn/#/home">https://dev.socnoc.cn/#/home</a>	SOCNOC Release 6 One pag - Akraino - Akraino Confluence	No API changes expected from R5, per Leo Li in TSC meeting 07 Apr 2022. Waiting for e-mail	socnoc - Akraino - Akraino Confluence				



Thank you

