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 Promethues
  ☐ Visualization By Grafana

Robox Deployment Framework
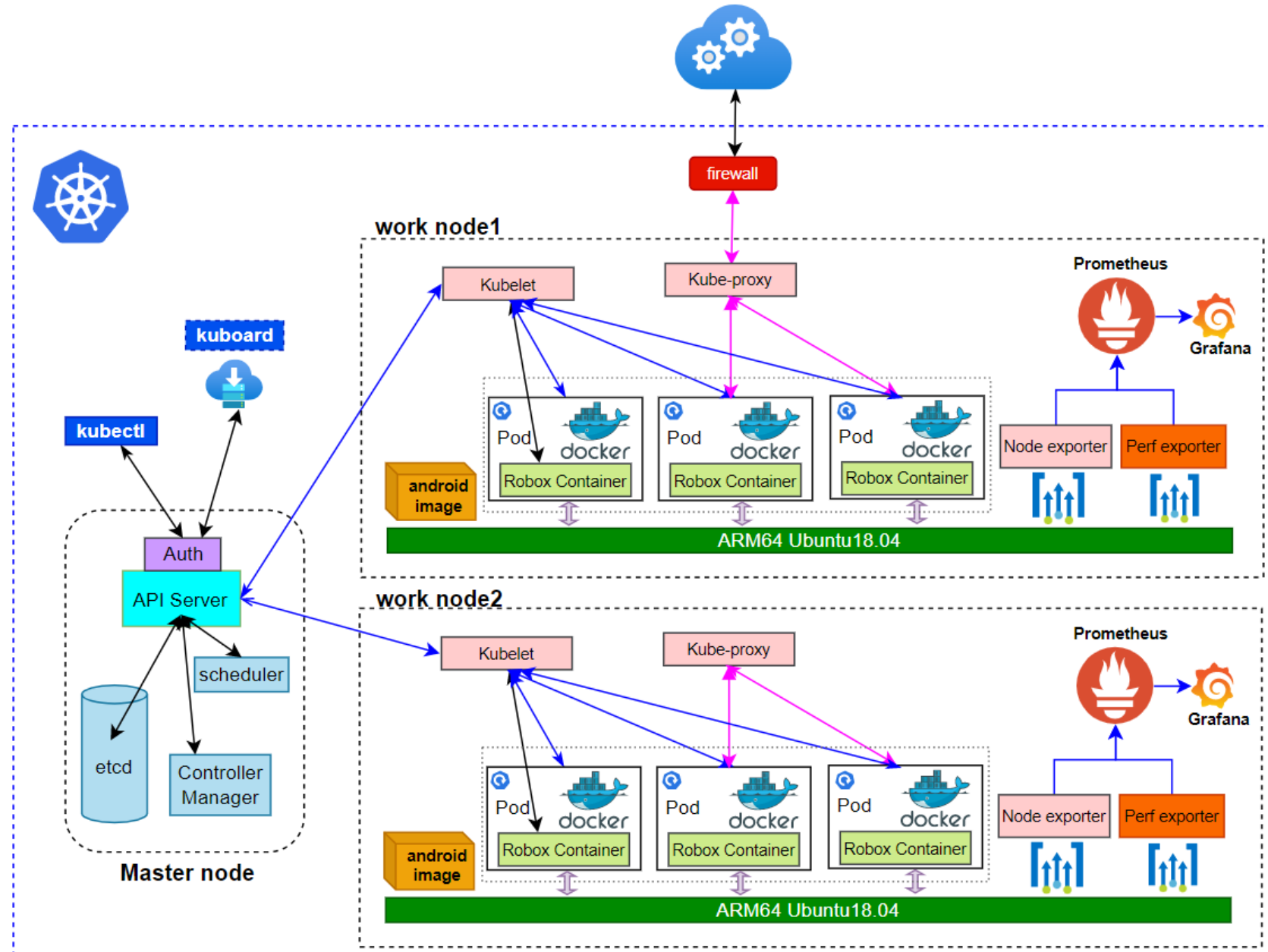
Platform Tests

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

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EDGE STACK

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

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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	dge_Infrastructure	Container	android/robox	promethues+Grafana	

Code Committed

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

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

Release Status

No.	Project Name	TSC Subgroup Release Status	Is this your first release	Blue Print Stage	CD Logs URL to be used for review	Link to executive one pager	API Info Reporting Review	BluVal	Security Certification	Upstream Review	Date ready for TSC review	TSC Review Date
				• Self-Certify • Incubation • Mature • Core	(Column filled in by PTLs) How to: Push Logs to Nexus Jenkins Master for Private Lab Jenkins Peering Guide Example: KubeEdge BP Test Documents	(editable doc format) (Column filled in by PTLs)	(Column filled in by API Subcommittee) (note for PTLs – go here for steps to fill in project API info form)	BlueVal Logs or Manual Logs Bluval User Guide	(TO be filled by Security Subcommittee) Pass/Fail Criteria: Steps To Implement Security Scan Requirements Exception requests should be filed at: Release 6: Akraino CVE and KHV Vulnerability Exception Request	(Column filled by Upstream Subcommittee and PTLs) (note PTL can go to Release 6 Upstream Review Status to find details)	(Column filled in by PTLs)	(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	https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/upload/iec-tox-verify-master_334/	https://wiki.akraino.org/download/attachments/24084647/IEC%20Release3-IEC%20Type3-datasheet.docx?version=5&modificationDate=1591272863000&api=v2	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	https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v4/ 📅 12 May 2022 https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v5/ 📅 13 May 2022 https://nexus.akraino.org/content/sites/logs/ysemi/job/v1/validation_results_v6/ 📅 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	https://dev.socnoc.cn/#/home	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