Akraino China Community - Powered with OpenGCC

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Akraino China Community
Cooperation mode

> **1) Cooperation at the organizational level:** Akraino, as a project under the Linux Foundation, can directly cooperate and sign contracts with external industry organizations. Akraino will start cooperation after TSC's decision is approved. GCC (http://en.opengcc.org/) and ECC will provide introduction materials in advance.

> **2) Cooperative positioning:** Akraino is operated mainly in North America. With community growing, it is recommended that Akraino set up an operation branch in China. GCC/ECC, as an open-source community in China, is willing to cooperate and offer the Akraino branch in China. After finalizing the cooperation details, a joint statement will be released.

> **3) Business implementation:** Shenzhen GCC laboratory, exhibition hall and office environment (over 1,000 m²) will be put into use at the end of November 2021. The Akraino open-source projects can be deployed within the GCC laboratory and displayed in the exhibition hall. Any projects which planned to be promoted from Akraino, such as IEC Type5, Baidu AI Edge, Tencent 5G MEC, and China Mobile IEC Type3 can be **presented** in the lab. BPs' from Akraino can also be used by this laboratory and its community as **downstream** projects as well.

> **4) Industry promotion:** BPs can be displayed and promoted within GCC/ECC and its sponsored conferences.

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Blueprint Landing Plans

> Member company of Akraino China office will adopt and/or deploy these blueprints.

> Integrated Edge Cloud (IEC) Blueprint Family

> **IEC Type 3: Android cloud native applications on Arm servers in edge for Integrated Edge Cloud (IEC) Blueprint Family**

> **Products implementing the blueprint:**

> Ampere Mt. Jade server

> Nvidia GPU Tesla T4

> Taishan 2280 server

> AMD GPU WX 5100

> **Industrial Conference:**

> Workshop: Arm virtualized cloud gaming workshop

> Time: March 27, 2021

> Location: Shanghai, China

> Attendees: Nvidia, Tencent, Baidu, Arm, Ampere, Phytium, et al

> Topic: Cloud gaming solutions from different companies

> Product: Nvidia vGaming, Arm server, Tencent XianYou, Baidu Red Finger, Ampere Altra, Phytium S2500

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Blueprint Landing Plans

›   Goal: build up ecosystem connection, promote the collaboration

› **Exhibition:**

› Exhibitions of Cloud Mobile, Cloud Desktop, on Arm servers etc. in Apsara Conference, ODCC

› **Target Industries:**

› gaming, public cloud,

Blueprint Landing Plans

> IEC Type 5: SmartNIC for Integrated Edge Cloud (IEC) Blueprint Family

> zhang zhenhuan Leo Li

> **Products implementing the blueprint:**

> Model: PCIe Backplane named X136 in X100 series by Socnoc.

> **Industrial Conference:**

> Workshop: DATA CONNECTING THE WORD, EDGE COMPUTING THE FUTURE

> Time: November 26, 2021

> Location: Hefei China,

> Attendee: To be confirmed,

> Topic: Demo show & New Product Announcement,

> Product: 8 channels PCIe Backplane,

> Goal: Edge computing group to shape a new rack & cloud service.

> **Exhibition:**

> To be confirmed

> **Target Industries:**

> Smart cities, AI Transportation, Energy manufacturing, Industries communication.

Blueprint Landing Plans

> The AI Edge Blueprint Family
>> **The AI Edge: School/Education Video Security Monitoring**
>> **The AI Edge: Federated ML application at edge**
>>> **Potential ideas implementing the blueprint:**
>>>> Federated ML Scheduling platform
>>>> Factory warehouse manage middleware
>>> **Target Industries:**
>>>> • Financial Criminal
>>>> • Diseases Diagnose
>> **The AI Edge: Intelligent Vehicle-Infrastructure Cooperation System(I-VICS)**
>>> **Products implementing the blueprint:**
>>>> Yishi vBus vehicle middleware
>>>> TI
>>> **Target Industries:**
>>>> AutoSAR (AUTomotive Open System ARchitecture)

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Blueprint Landing Plans

› Public Cloud Edge Interface (PCEI) Blueprint Family

  › **PCEI Documentation**

  › **Products implementing the blueprint:**

    › PCEI can be installed/enabled with Edge Multi-Cluster Orchestrator and accessible on common hardware and network environment.

    › PCEI enabler relieves users form troubles of API interoperability including API definition, API gateway functions (AAA, policy, security) and providing a secure, controllable, tracable, scalable and measureabler way to access the APIs from diverse public edge cloud service providers. So far, PCEI has already finished these follwing onboarding and deployment of cloud natvie Public Cloud Edge (PCE) Apps: Deploying Azure IoT Edge with PCEI and Deploying AWS GreenGrassCore with PCEI, and a 3rd-Party Edge (3PE) App: ETSI MEC Location API App. We hope to collaberate with Teclos and hyperscalers in China to test the end-to-end operation of the Apps on their edge infrastructure: operator`s edge infrastructure or public Clouds (Alibaba cloud or Tencent cloud).

  › **Target Industries:**

    › Edge computing; Public Cloud;

  › **Federated Multi-Access Edge Cloud Platform**

Blueprint Landing Plans

- › 5G MEC System Blueprint Family
  - › 5G MEC/Slice System to Support Cloud Gaming, HD Video and Live Broadcasting Blueprint
  - › Enterprise Applications on Lightweight 5G Telco Edge

- › ELIOT: Edge Lightweight and IoT Blueprint Family

- ›

BluVal

› The Blueprint Validation Framework offers a set of tools that can be used to test Akraino deployments on different layers (hardware, os, k8s, openstack, etc).

› The framework provides tests at different layers of the stack, like hardware, operating system, cloud infrastructure, security, etc. Since the project is constantly evolving, the full list of available tests can be found in the projects repo, where the tests are located under their respective layer. Each layer has its own container image built by the validation project. The full list of images provided can be found in the project's DockerHub repo.

› Bluval User Guide

Security

> If you are working on driver code, Vuls and Lynis are needed.

> If you are developing container based application code, Vuls, Lynis and Kuber-Hunter are needed.

> If you are developing VM based application code, Vuls (testing setup inside each VM) and Lynis (testing setup inside each VM) are needed.

> Vuls scan usually takes around 10 to 20 mins.

> Kuber-Hunter usually takes about 10 mins.

> Lynis scan usually takes about 2 mins.

> Steps To Implement Security Scan Requirements

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Industry Promotion

- White Paper

- Exhibition
  - Shenzhen GCC laboratory, exhibition hall and office environment (over 1,000 m²) will be put into use at the end of November. The Akraino open source project can be deployed to the GCC laboratory and displayed in the exhibition hall.
    - Exhibition 1: IEC Type 5: SmartNIC for Integrated Edge Cloud (IEC) Blueprint Family
    - Exhibition 2: The AI Edge: Intelligent Vehicle-Infrastructure Cooperation System(I-VICS)

- Blog
  - Technical blogs can be published at Arm Software Developers WeChat Official Account, Aijishu Arm Software Developers column, Communication World, OpenGCC WeChat Official Account, etc.

- Presentation at industry events
  - Presentation from Akraino China Office to industry events like OpenGCC Summit, Global Edge Computing Conference, ODCC etc.
  - Akraino to actively participate in the Open Green Computing Consortium ecosystem building activities, such as the Summit. We can sign up to participate, or can be the main participant in the main forum to make a speech or report. For example, we can participate in white papers, conference and other industrial voice, we have done Arm. Kirin special. We would love to have Akraino participation and any suggestions.

- Video
  - Some videos are available in LF Edge YouTube channel, can be republished to the following video website.

- WeChat Video Channel

- Bilibili up

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