Minutes of the 3rd "Meeting of the Open RAN Promotion Subcommittee"

1. Date and time

Friday, October 7, 2022, 10:00 - 10:45

2. Location

Web Conference (Cisco Webex)

3. Attendees (honorific titles omitted, in random order)

Chair people: Hiroyuki Morikawa [The University of Tokyo]

Akihiro Nakao [The University of Tokyo]

Vice chair

Four Telecom Operators

people:

Koji Yamamoto, Hewlett-Packard Japan, G.K. (hereafter referred to as

Presenters:

Secretariat: Ministry of Internal Affairs and Communications

Others: Member companies

4. Handouts and Projected Materials

1-0: Agenda items

1-1: HPE "HPE Approach to O-RAN - Infrastructure Management Solution for

5G O-RAN Roll Out -"

5. Meeting Minutes Summary

1 Opening Remarks

Chairperson Morikawa provided remarks.

Everyone is involved in O-RAN from various perspectives. I would like you to think hard to figure out how to "take advantage of" the country, such as the Ministry of Internal Affairs and Communications and the Ministry of Economy, Trade and Industry, and to input into the country from various perspectives.

2 Meeting Minutes

After looking at handouts, we proceeded with the agenda as follows:

(1) In order to provide information on Open RAN, HPE gave a presentation on "HPE's Approach to Support O-RAN Promotion - Approaches to Solve Problem of Infrastructure Management in 5G RAN Rollout -" (Projected Materials 1-1).

[Chairperson Morikawa, The University of Tokyo]

What are the most costly and labor-intensive areas in Open RAN solution development?

[Yamamoto, HPE]

There are various combinations of OS and virtualization configurations to meet the application requirements of DU/CU provided by RAN manufacturers. There are areas to cooperate with RAN manufacturers and areas to cooperate with carriers. The most labor-

intensive points are preparing in advance despite many variations (of configuration), and preparing for modifications while actually using it.

[Chairperson Morikawa, The University of Tokyo]

For each carrier and vendor, there will be an extremely large number of combinations. What connects them is wonderful.

[Yamamoto, HPE]

We believe that SMO itself is in the process of standardization. SMO solutions need to be developed as standardization matures, and we are preparing to offer them in the form of SaaS.

[Fujioka, Ericsson Japan]

Regarding SMO, RIC was not mentioned. Are they also working on rAPP development?

[Yamamoto, HPE]

HPE does not have plan for developing RT RIC, assuming partners and carriers procure it. HPE plans to offer non-RT RIC.

Regarding rAPP, we have plans for working on in-house development and provide it as products, as well as for providing a framework for making third-party to develop it.

[Kitagawa, Rakuten Mobile]

I agree that SMO standardization is in the process of maturation. Do you have any opinions about the aspects that should be clarified in terms of O-RAN to make it easy to provide services?

[HPE]

HPE believes once the O2 interface between SMO and O-Cloud matures, it will become easier to manage multi-vendor infrastructure from SMO by commonly manner. Even if it have not yet been clarified, we think that it will be easier to provide services if industry-standard interfaces are widely adopted and standardized.

[Kuchitsu, Rakuten Mobile]

We are struggling to manage inventory and install software regarding virtualization and Open RAN. As we become more agile and release more software, we are faced with the problem of how to reduce an impact on services during updates. What are HPE's approaches?

[Yamamoto, HPE]

Our approaches is corroborating with careers. We set up a test bed environment for commercial SMO, prepare a new version of profile for the test bed server, and conduct a test to verify it in advance. At that time, we would like to build an environment that interwork with carrier's CI/CD process.

[Kuchitsu, Rakuten Mobile]

What approaches are you using to complete updates as quickly as possible during the actual update, along with the CI/CD process?

[Yamamoto, HPE]

For example, in the infrastructure, it is necessary to investigate procedure for evacuating DU/CU application on other resources before updating the infrastructure. Regarding the evacuating procedure of DU/CU application are vary depending on the operator. Investigate the updating scenario and procedure, verify it in advance depend on deploying countries and RAN manufacturers.

[Watanabe, KDDI]

During E2E orchestration in the case study of the North American operator, is it covered by the O-RAN standard specifications, or are their unique specifications used?

[Yamamoto, HPE]

The customer case is we have been working on since before O-RAN specifications were formulated. The customer started from ETSI's approaches to NFV. Since NFVO and VNFM are prepared and deployed as orchestrators, they are partially not in line with O-RAN specifications. I have heard that they will proceed in line with O-RAN going forward.

[Watanabe, KDDI]

In terms of Open RAN, we feel it is important to proceed with as open specifications as possible, so we would love to work together.

- (2) The secretariat took applications from speakers on the following topics for future meeting.
 - (a) Schedule of next meeting
 - (i) Around early November
 - (ii) Discussions will begin ahead of creating a report from around the end of the year and then aiming to complete the report by the end of the fiscal year.
 - (b) Presentation topics
 - (i) Latest Open RAN status
 - (ii) Advantages of Open RAN
 - (iii) Problems of Open RAN
 - (iv) Test bed for interconnection tests
 - (v) New technologies of Open RAN
 - (c) Contact information for presentations: <u>b5g_consortium@soumu.go.jp</u>

3 Closing Remarks

The meeting was closed with an acknowledgement to the speakers, comments on expectations for the future, and closing remarks from chairperson Morikawa.

Comments on future expectations are as follows:

Since about a year ago, he has been advocating "Tetris Management." When it comes to value creation, there have been changes in all industry segments in the era when great value is created in the combination of parts, just like the combination of Tetris blocks. I felt that importance was high through today's presentations. In the semiconductor area, similar changes are expected to occur due to chiplet trends and modularization. It is necessary to understand various stakeholders and work together to create value. In that sense, I hope the subcommittee will be useful. I would like you to think about taking advantage of the country while having discussions from various perspectives.