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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | Document No: |
| **The 35th APT Standardization Program Forum****(ASTAP-35)** | **ASTAP-35/OUT-19** |
| 17-20 April 2023, Bangkok, Thailand | 20 April 2023 |

Working Group on Service and Application (WG SA)

**QUESSSIONAIRE TO SURVEY THE PROBLEMS AND REQUIREMENTS ON CDN SERVICES IN ASIA-PACIFIC REGION IN COVID-19**

**Section 1: Elementary Part**

1. **Introduction:**

Content delivery network (CDN) is an interconnected system of computers on the Internet that provides web content rapidly to numerous users by duplicating or caching the content on multiple servers and directing the content to users on distance. CDN is used to serve content to end-users with high availability and high performance. CDNs are used by a large portion of the internet content today, including web objects (text, graphics, and scripts), downloadable objects (media files, software, documents), applications (eCommerce, portals), real-time streaming data, on-demand streaming media, and social networks.

Due to the COVID-19 pandemic, most people worked at home and spend longer time to watch contents at home in the world. It caused the increase of the Internet traffic and may make the problems in potential problems of the network between their terminals at home and servers over the Internet. It means that CDN technologies to keep or increase QOE of contents services is getting more and more important in New Normal.

1. **Objective of the Questionnaire:**

The objective of this questionnaire is to gather the current problems and requirements about CDN services and technologies. The information will be contained into the new APT/ASTAP report on CDN use cases in the future, which aims to be one of the guidelines for implementing CDN in APT countries.

1. **Responsible Group:**

Expert Group on Multimedia and Applications (EG MA)

1. **Rapporteur of the Questionnaire:**

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| Hideki YAMAMOTO | Oki Electric Industry Co., Ltd. (OKI), Japan | yamamoto436[at]oki.com  |

1. **Meeting at which the Questionnaire was approved:**

ASTAP - 35.

1. **Target Responder:**

The APT member states’ agencies that is responsible for developing/enforcing/implementing content delivery network (CDN).

1. **Deadline for Responses: *31 December 2023***

**Section 2: Questionnaire Part**

The following questionnaire intends to gather information about metaverse use cases of APT Members. The kind input from your administration will facilitate to find the best way to address the needs of your administration through the platform of APT.

**Question 0: Contact information of respondent**

|  |  |
| --- | --- |
| Name |  |
| Country |  |
| Organization |  |
| Department/Division |  |
| Telephone |  |
| E-mail |  |

**Question 1: Does your countries have any CDN service providers?**

[ ]  Yes

[ ]  No

**Question 2: Were there any Internet troubles or problems related with content delivery services during and/or after COVID-19 pandemic days?**

[ ]  Yes

[ ]  No

If yes, please move to Question 3

If no, please skip Question 2 and move to Question 4

**Question 3: What were problems happened during and/or after COVID-19 dates?**

 **Please describe the following tables, if more than one.**

1. **Problem case 1**

|  |  |
| --- | --- |
| Name of problem |  |
| Victims |  |
| Description of problems during COVID-19 |  |
| Starting date | DD/MM/YYYY |
| Ending date  | DD/MM/YYYY |
| Measures against the above problems |  |
| Results of measures |  |
| Description of problems after COVID-19 |  |

1. **Problem case 2**

|  |  |
| --- | --- |
| Name of problem |  |
| Victims |  |
| Description of problems during COVID-19 |  |
| Starting date | DD/MM/YYYY |
| Ending date  | DD/MM/YYYY |
| Measures against the above problems |  |
| Results of measures |  |
| Description of problems after COVID-19 |  |

1. **Problem case 3**

|  |  |
| --- | --- |
| Name of problem |  |
| Victims |  |
| Description of problems during COVID-19 |  |
| Starting date | DD/MM/YYYY |
| Ending date  | DD/MM/YYYY |
| Measures against the above problems |  |
| Results of measures |  |
| Description of problems after COVID-19 |  |

(If you have more than 3 use cases, please copy and paste above tables)

**Question 4: What do you expect to CDN service to escape the problems or to measure the problems?**

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please skip Question 5 and move to Question 6

**Question 5: What were the reasons why no Internet troubles related with content delivery services happened in your country?**

|  |  |
| --- | --- |
| Title |  |
| Description |  |

**Question 6: What do you expect issues for standardization?**

Please feel free to explain what are the issues if you use CDN services in your country, and/or what do you expect issues to be solved by standardization. If you expect the regulators will mesure the issues, please go to Question 6 and describe it.

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**Question 7: What do you expect for the regulator in your country to measure issues?**

Please feel free to explain what are the issues if you use CDN services in your country, and/or what do you expect issues to be solved by the regulator in your country.

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**On behalf of ASTAP chair, thank you for your collaboration on ASTAP work.**