

June 14, 2023 INTERNET MULTIFEED CO.

IX connection using APN equipments provided by Interop Tokyo 2023 ShowNet contributors

TOKYO, JAPAN- 14th June 2023- INTERNET MULTIFEED CO. (Multifeed), the provider of JPNAP, one of Asia's largest internet exchanges (IX¹) has provided IX connectivity for ShowNet², built at the "Interop Tokyo 2023 (Venue: Makuhari Messe, Dates: June 14-16, 2023)", using the all-photonics network (APN³) which is known as one of the key technical areas of the IOWN Initiative⁴.

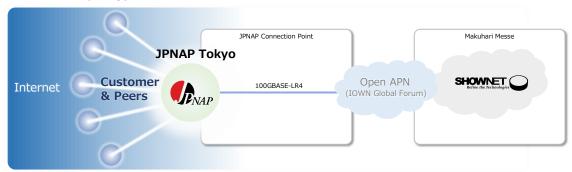
This IX connection links a special and ephemeral set of APN equipments⁵ provided by contributors of ShowNet to JPNAP Tokyo from the HotStage, a period for testing interoperability of advanced network technologies before the event, until the final day of the exhibition. ShowNet operates them as part of the carrier backbone connecting to the Internet for exhibitors and visitors.

Progress in digitization is driving the use of diverse applications and content on networks. As a result, the Internet traffic in Japan continues to increase⁶.

Given these situation, there is a demand to increase transmission capacity, reduce end-to-end delay and improve power efficiency for the IX connections of ISPs and content-service providers.

We demonstrate an example of the next-generation IX connectivity by using a set of high-capacity, low-latency, power-saving APN equipments and operating it under a constant flow of real traffic as part of a backbone network that provides demonstration communication and Internet access for exhibitors at Interop Tokyo 2023.

Network topology between ShowNet and JPNAP is as below.



Multifeed will continue to support the progress of digitization and the strengthening of the network infrastructure by accumulating operational expertise in advanced technologies and services, and will provide high-value-added services.

https://www.interop.jp/2023/en/shownet/

https://www.rd.ntt/e/iown/index.html

 $\frac{\text{https://iowngf.org/wp-content/uploads/formidable/21/IOWN-GF-RD-Open-APN-Functional-Architecture-1.0-1.pdf}$

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¹ IX: Internet exchanges where ISPs and other Internet carriers connect and exchange traffic.

² ShowNet: One of the largest demonstration network for testing interoperability and presenting future architecture of the network. Internet connectivity of the exhibitors and visitors of Interop Tokyo is provided by ShowNet.

³ APN: The All-Photonics Network utilizes photonic based technology to reach the following three performance targets: low power consumption, high quality and capacity, and less delay. https://www.rd.ntt/e/iown/0002.html

⁴ IOWN Initiative: The IOWN (Innovative Optical and Wireless Network) is an initiative for networks and information processing infrastructure including terminals that can provide high-speed, high-capacity communication utilizing innovative technology focused on optics, as well as tremendous computational resources.

⁵ APN eqipments: APN-I, APN-G and APN-T equivalent equipments as described in the Open APN Reference Document published by IOWN Global Forum.

⁶ Ministry of Internal Affairs and Communications' estimates of Internet traffic in Japan https://www.soumu.go.jp/menu_news/s-news/01kiban04_02000210.html (only in Japanease language)