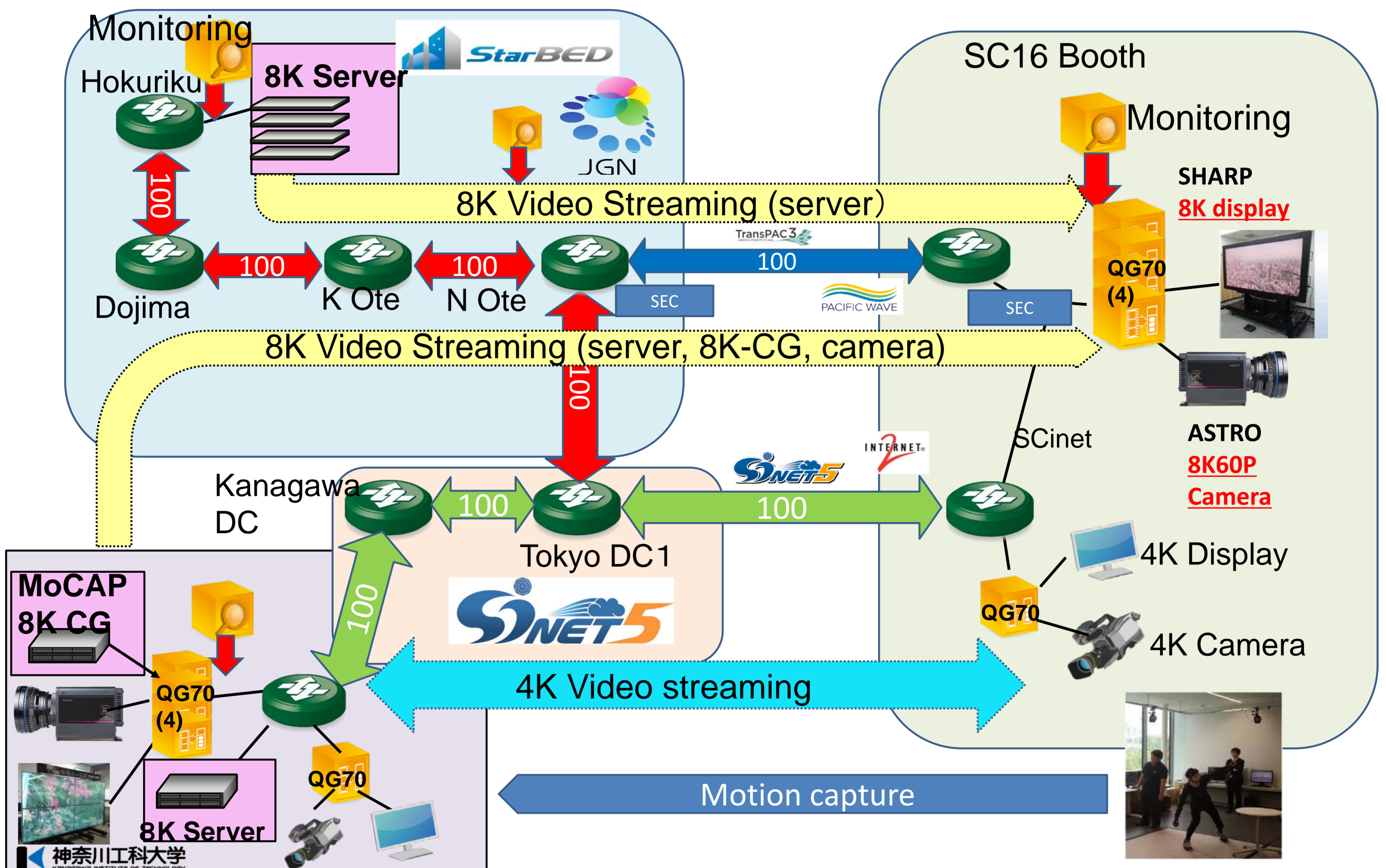


8K UHD Video Transmission

World's first uncompressed 8K Ultra-HD (UHD) video transmission from Japan (8,850km apart from Salt Lake City) is now demonstrated. The 25-Gbps 8K ultra-high resolution video comes through multiple high-speed IPsec secure channels on R&E network in order to secure such high-quality video contents against wire-tapping. We can select one UHD video from multiple sources and play it back on-demand.



Real-time Remote 8K-CG Creation

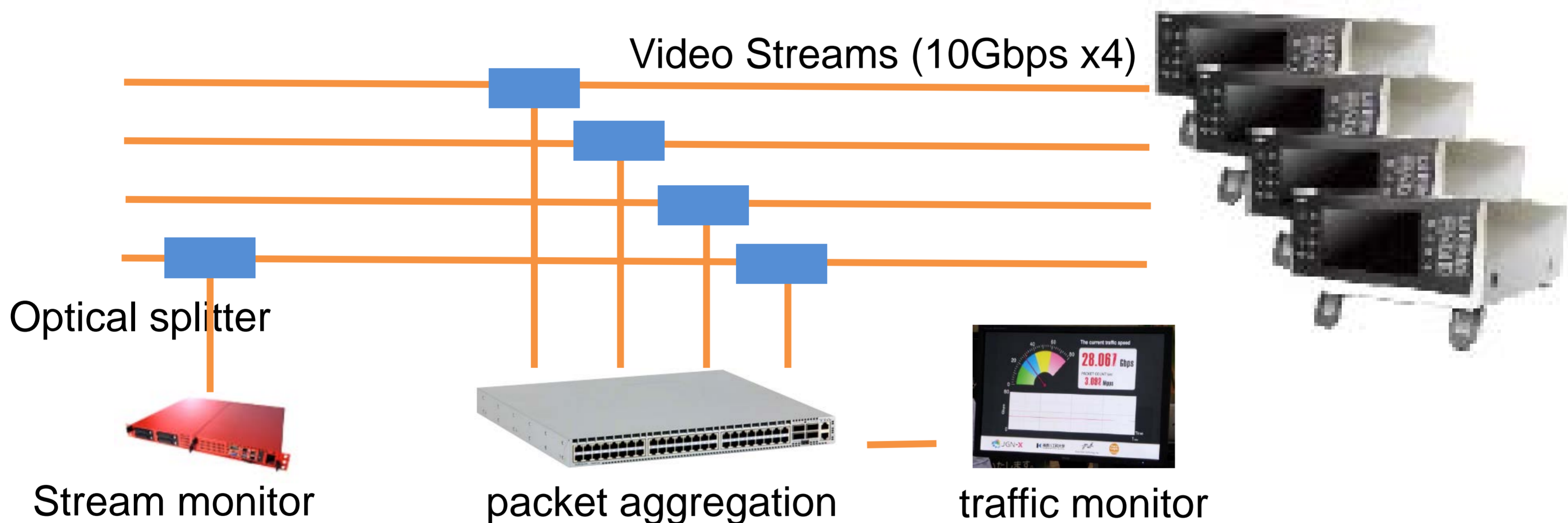
We also demonstrate real-time remote CG creation system. Captured motion data here is sent to Japan and the 8K-CG rendered in Japan is sent through above IPsec secure channel.

Future Plan

We will introduce these technologies, which enable to produce ultra-high-quality video programs through network, to broadcastings and video productions. We will also try to handle higher quality video, such as over 100-Gbps full specification 8K, on the network.

Real-time video stream monitors

We demonstrate two high-speed network monitoring systems: one is video stream quality monitoring system (**Quality monitor**) and another is **real-time** total throughput monitoring system (**Throughput monitor**) *with low-latency* for 100-Gbps network. The “Quality monitor” can evaluate and display quality of video streams, throughput, loss rate, jitter, and so on. The “Throughput monitor” can measure and display current total throughput of 8K Ultra-HD video traffic with very short processing time. Both monitoring systems are too important and valuable for network operators to maintain QoS of the network.



Future Plan

We start research about new traffic monitor system architecture for over 100-Gbps network, such as 400G-Ethernet (Standard of the 400 GbE will be released in near future). We will adopt a distributed parallel mechanism to the new monitor system and also traffic analyzing system since speed of the 400G network exceeds internal bus-speed of general PC.

