

Arctic Fiber Network for the Era of Internet of Everything

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In the beginning, Do you know –Hokkaido–

- Northern Territory of Japan
 - Lat. 43° Lon. 140°



What Hokkaido mean?

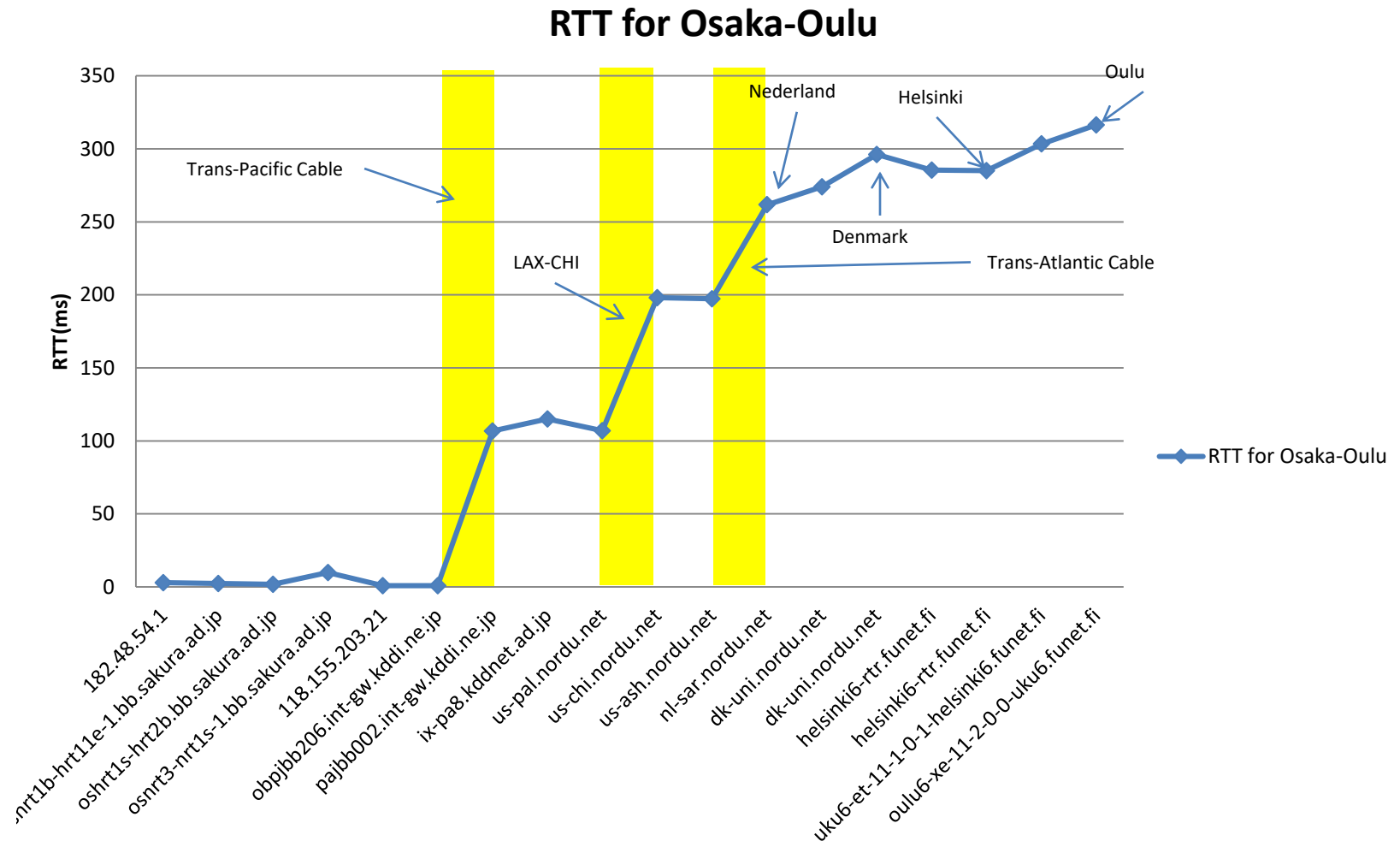
- Hokkaido – 北海道
 - 北 : Northern
 - 海 : Sea
 - 道 : Way
- Hokkaido is the global gateway from North East Asia to Europe and Americas

Performance measure of network performance

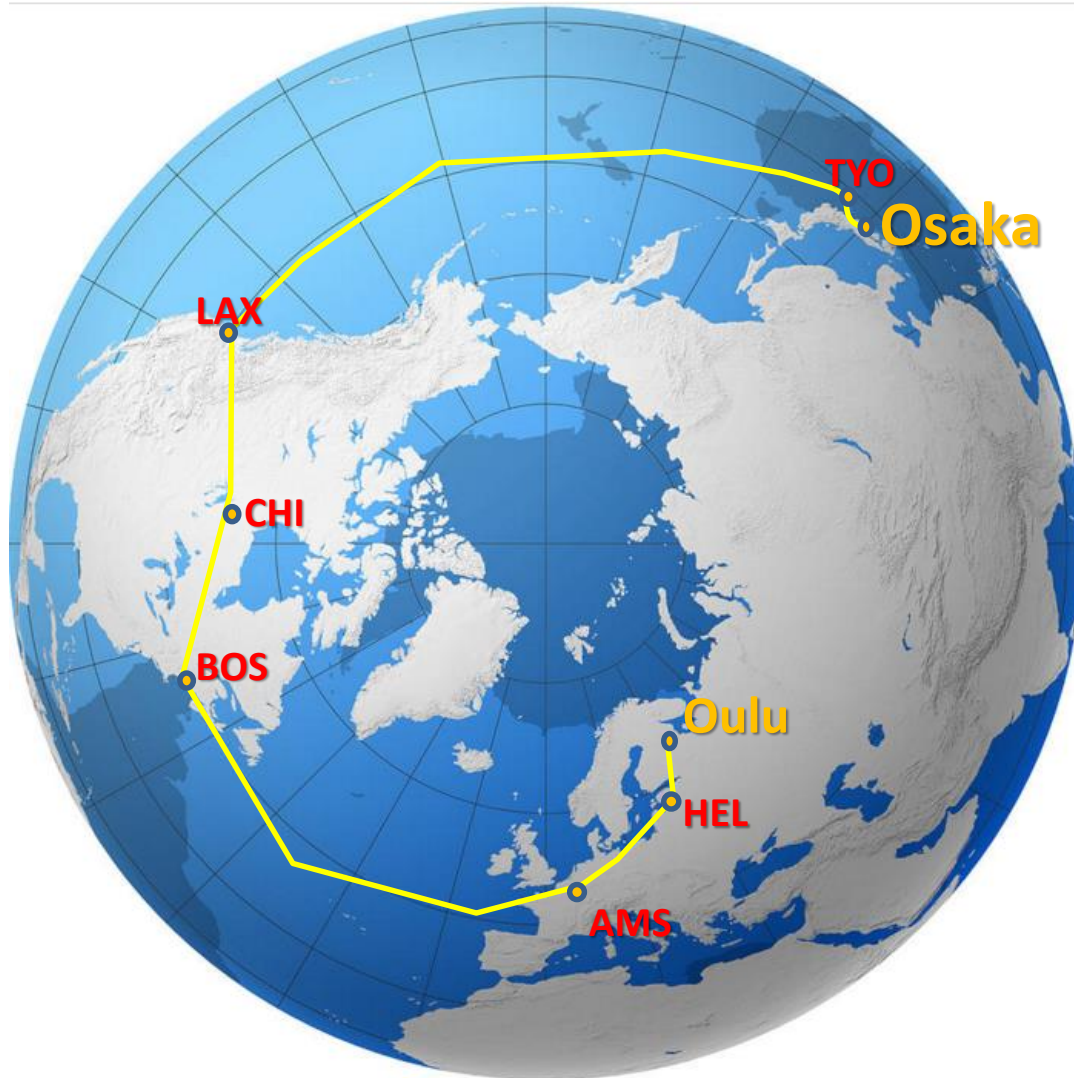
Bandwidth and Latency

- Bandwidth(Mbps) oriented applications
 - Video Streaming
 - File Transfer
 - Messaging Services
- Latency (ms) oriented applications
 - Financial Services
 - IoT Applications
 - Short Packet Application (Mobile Services)

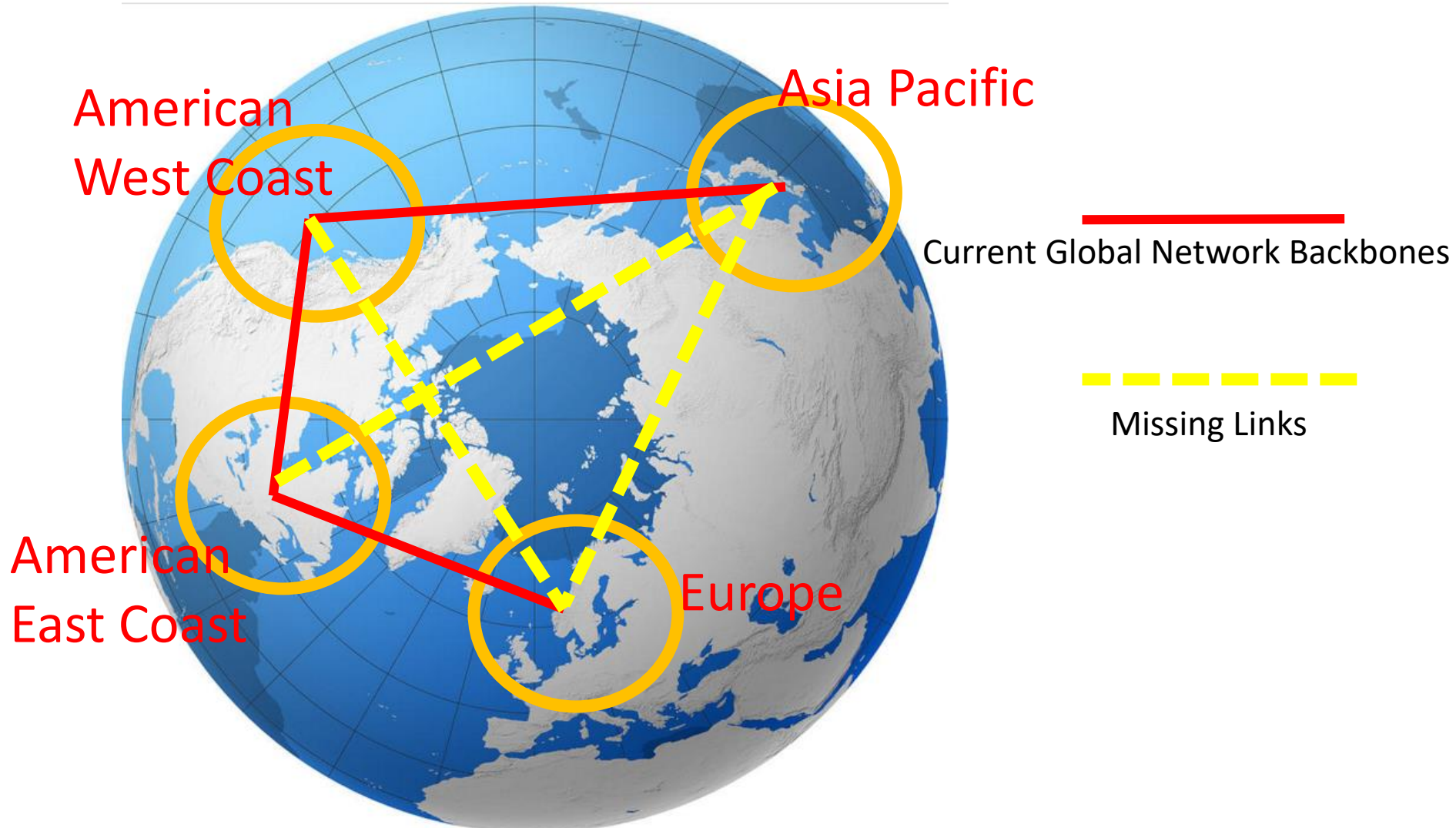
Round-Trip Time Measured for Osaka-Oulu/Finland



How my packet traveled to Oulu



The network for global economy



The world is looking for datacenter location

- Datacenter priorities

1. Market

- Number of users

2. Internet exchange point

- More bandwidth, less latency

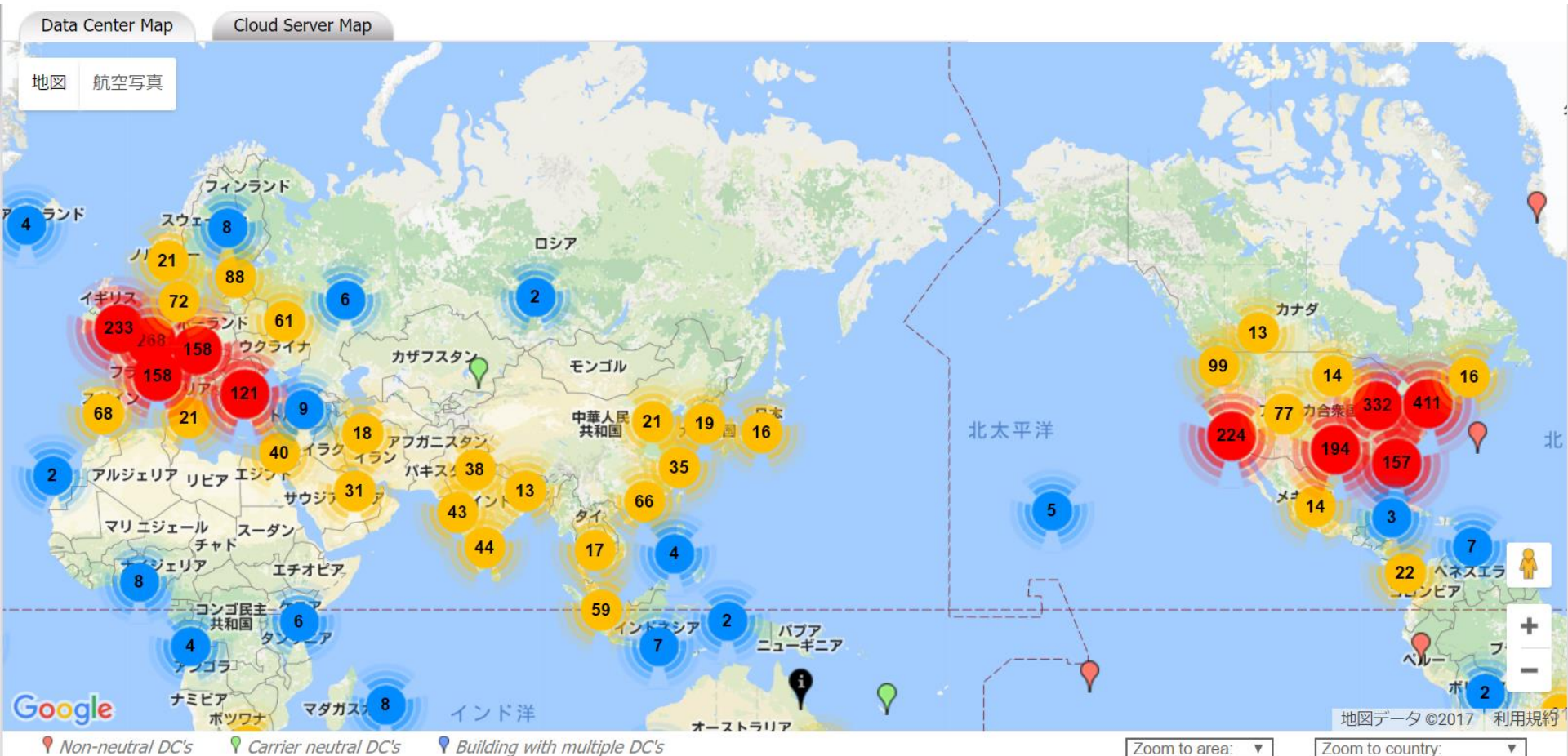
3. Human resources

- Supporting Industries(IT companies)
- Education institutes (Universities)

4. Green and Sustainability

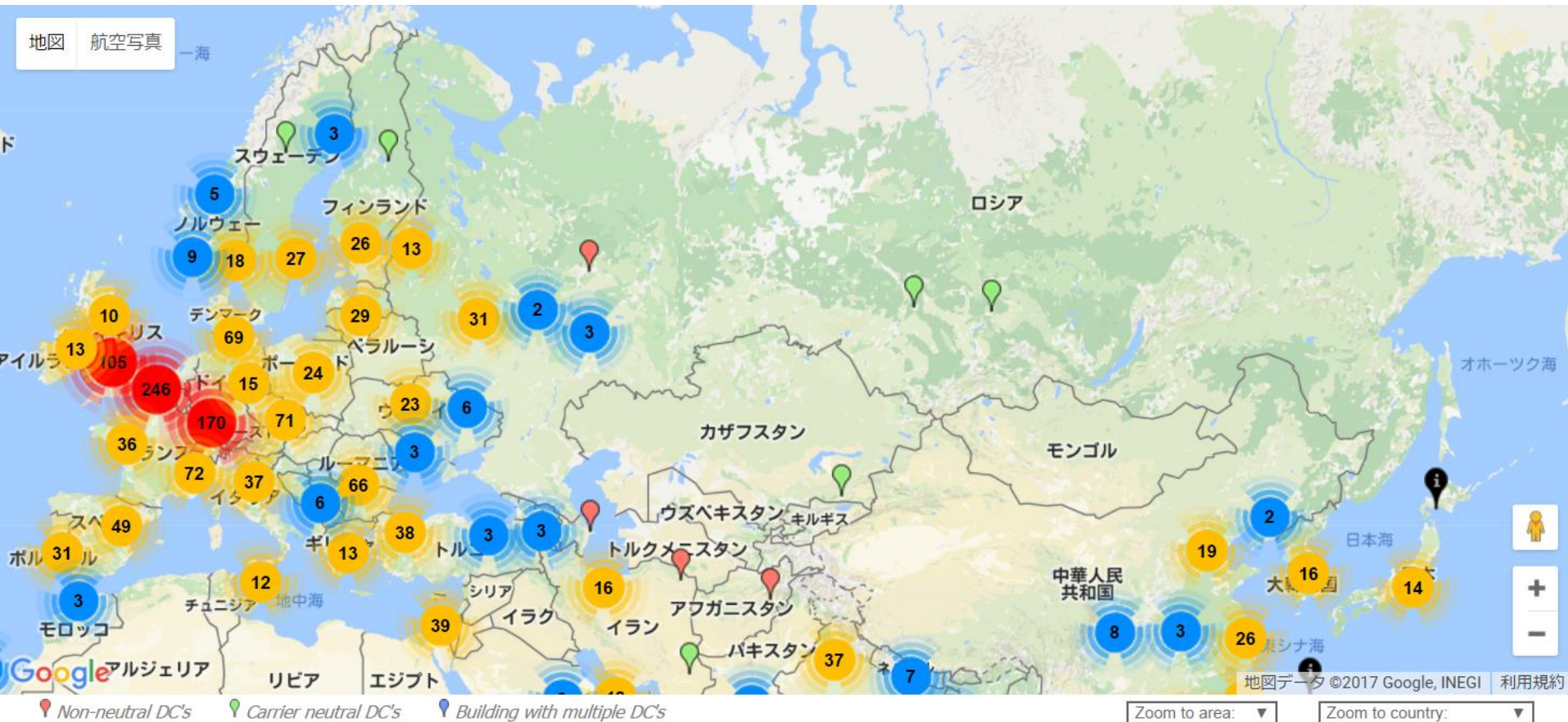
- Reusable energy and environmental friendliness

Where the data center is located?



<http://www.datacentermap.com/>

Close up of Europe and Asia



Datacenter goes to north looking for greener housing

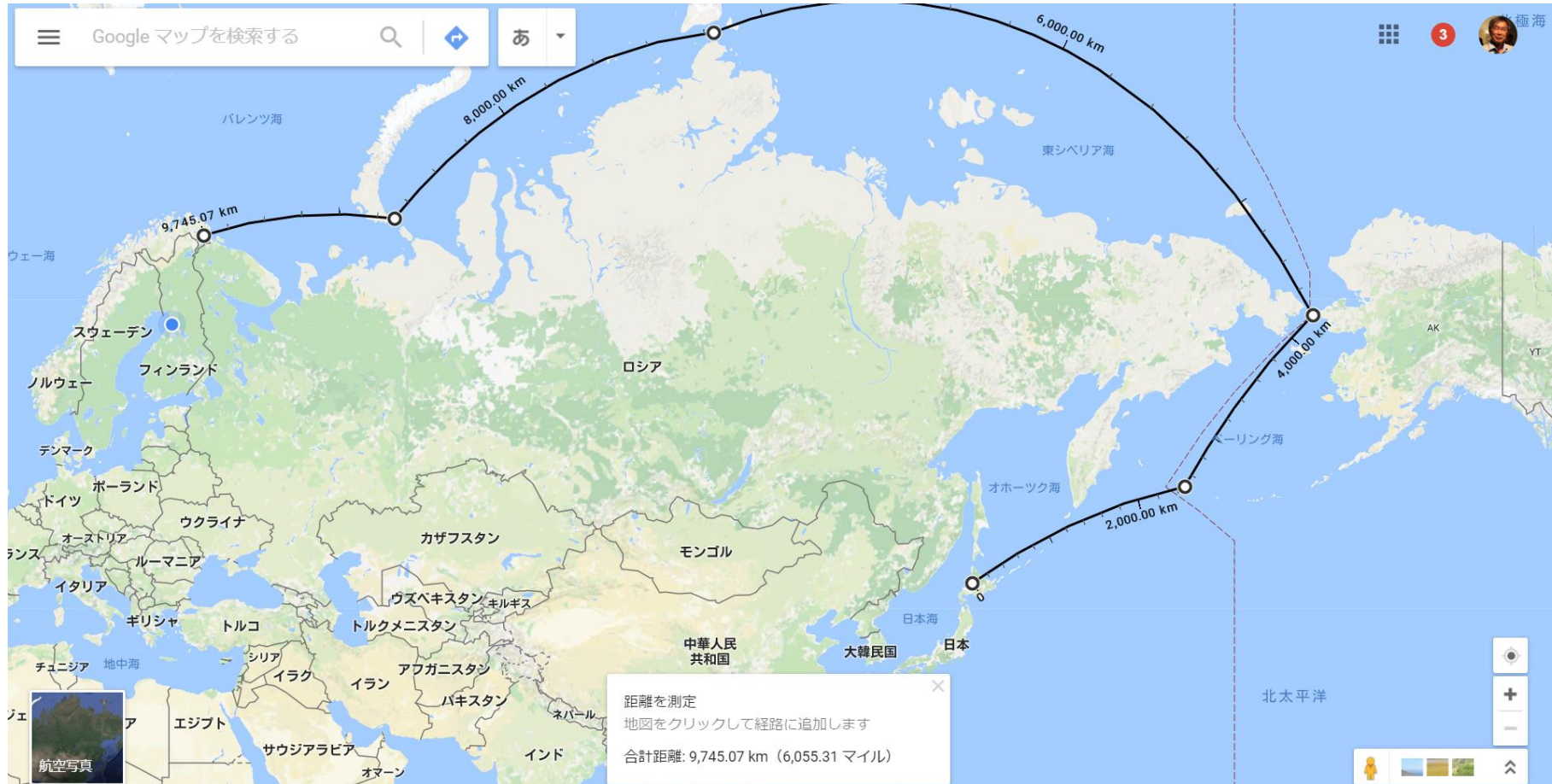


Advantage of Arctic Region

- Low latency network
 - Polar route provides short cut to major economic capitals
- Less energy consumption
 - Low temperature climate reduces energy for cooling
- Political Stability
 - No specific country governs the area

Arctic Short Cut from Hokkaido to Lapland

Less than 10,000km



Reasons to landing the cable at Hokkaido

- Sapporo Metropolitan Area
 - Approx. 2,000,000 population
 - One of the major development center for IT industry
 - Easy to access Tokyo, Osaka and major Asian cities
- Human resources
 - Over 10 universities with computer science departments in Hokkaido
 - Historical relationship with university and industry
- Green Island Hokkaido
 - Low temperature and low humidity
 - Heavy snow falling in winter season

Hokkaido

the gateway to North East Asia

