Japannext JNX

Japannext PTS Connectivity

Registration as a Financial Instrument Business Operator under the Financial Instruments and Exchange Act (FIEA) (including authorization to operate a Proprietary Trading System (PTS)), Director of Kanto Local Finance Bureau (Kinsho) No.45 .

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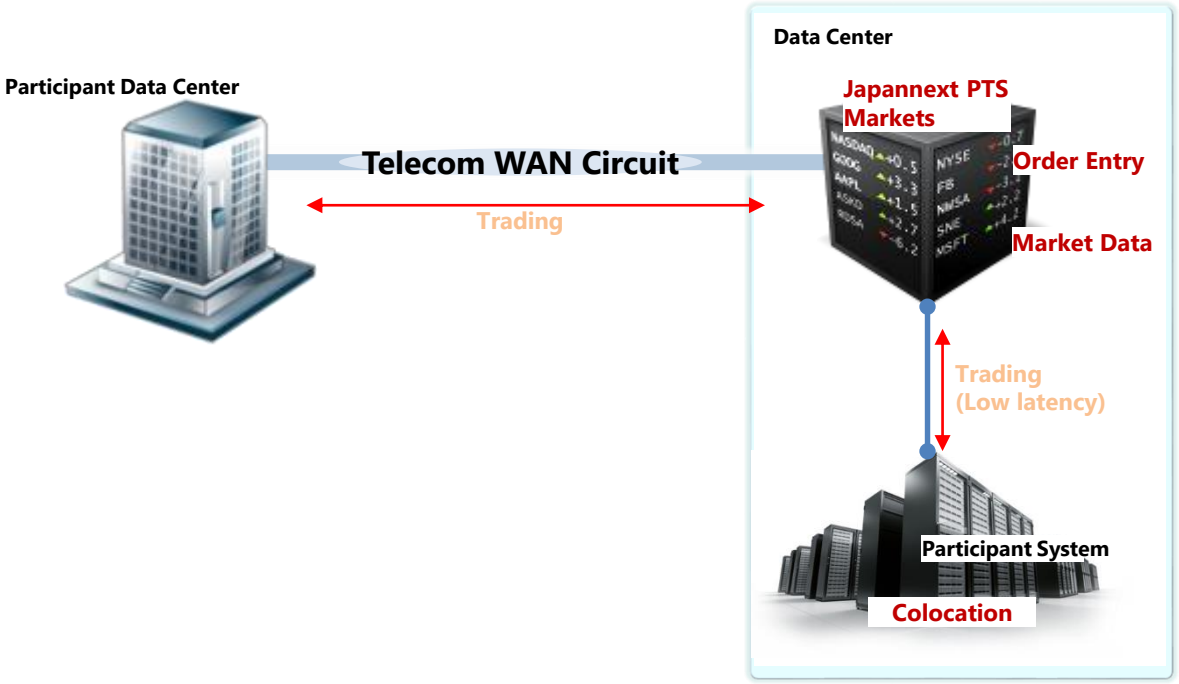
Overview

- Japannext provide network connectivity for participants to access Japannext PTS markets.

- Telecom WAN circuits and colocation spaces are supported for the connectivity.
  - Telecom WAN Circuit
    - ✓ Enable participants in different data centers to access Japannet PTS.
  - Colocation Rack
    - ✓ Clients can install servers and access Japannext PTS with lower latency.



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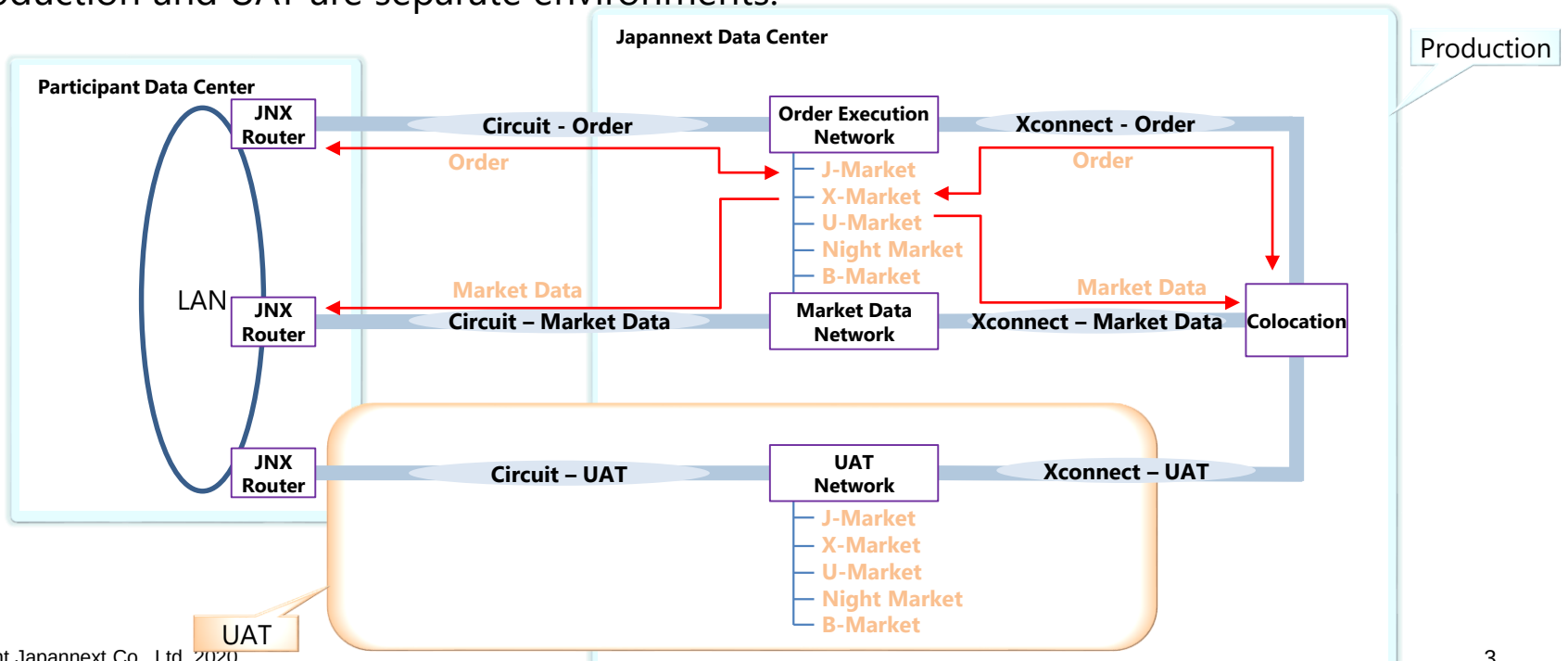
PTS Markets

- Participants may use the connectivity to access all Japannext markets.
  - Equity PTS (J-Market / X-Market / U-Market / Night Market)
  - JGB PTS (B-Market)
- Order entry network and market data networks are separate. Participants should have at least one line to send orders to the PTS. In addition to that, participants should have at least one line for market data, if receiving the data directly from Japannext *.
  - Order Entry (OUCH / FIX / Dropcopy)
  - Market Data (ITCH TCP / ITCH multicast / ITCH retransmission / Glimpse)

  * Participants may receive the data from 3rd-party market data providers.
- Production and UAT are separate environments.



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Telecom Circuits

❑ Private Telecom Circuit

- Two types of circuits are available.

IP-VPN	Shared Services
Point-to-Point	Private Ethernet line. Latency is better.

- Minimum bandwidth :
  - ✓ 10Mbps for Order
  - ✓ 100Mbps for TCP Market Data
  - ✓ 1Gbps for multicast Market Data
- Clients should choose the bandwidth and managed device model.
- Demarcation
  - ✓ Japannext install a managed router and a circuit. The router interface is the demarcation point.

❑ Participants may use Internet VPN for only UAT.

- Establish IPSec connection between the participant and Japannext devices.
- ITCH multicast is unsupported over Internet VPN.

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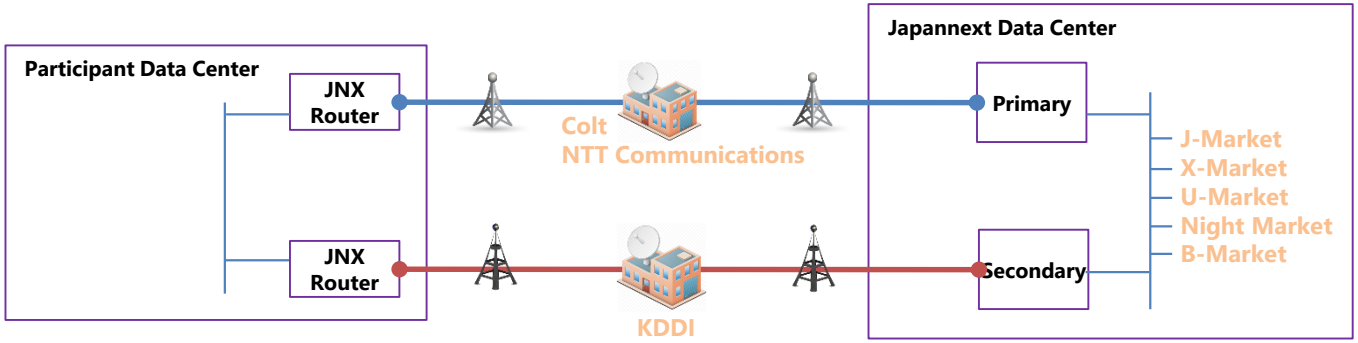
❑ Telecom Diversity

- Japannext provide “NTT or NTT dark fiber” and “Power company fiber (e.g. KDDI)” to make the fiber routes redundant.



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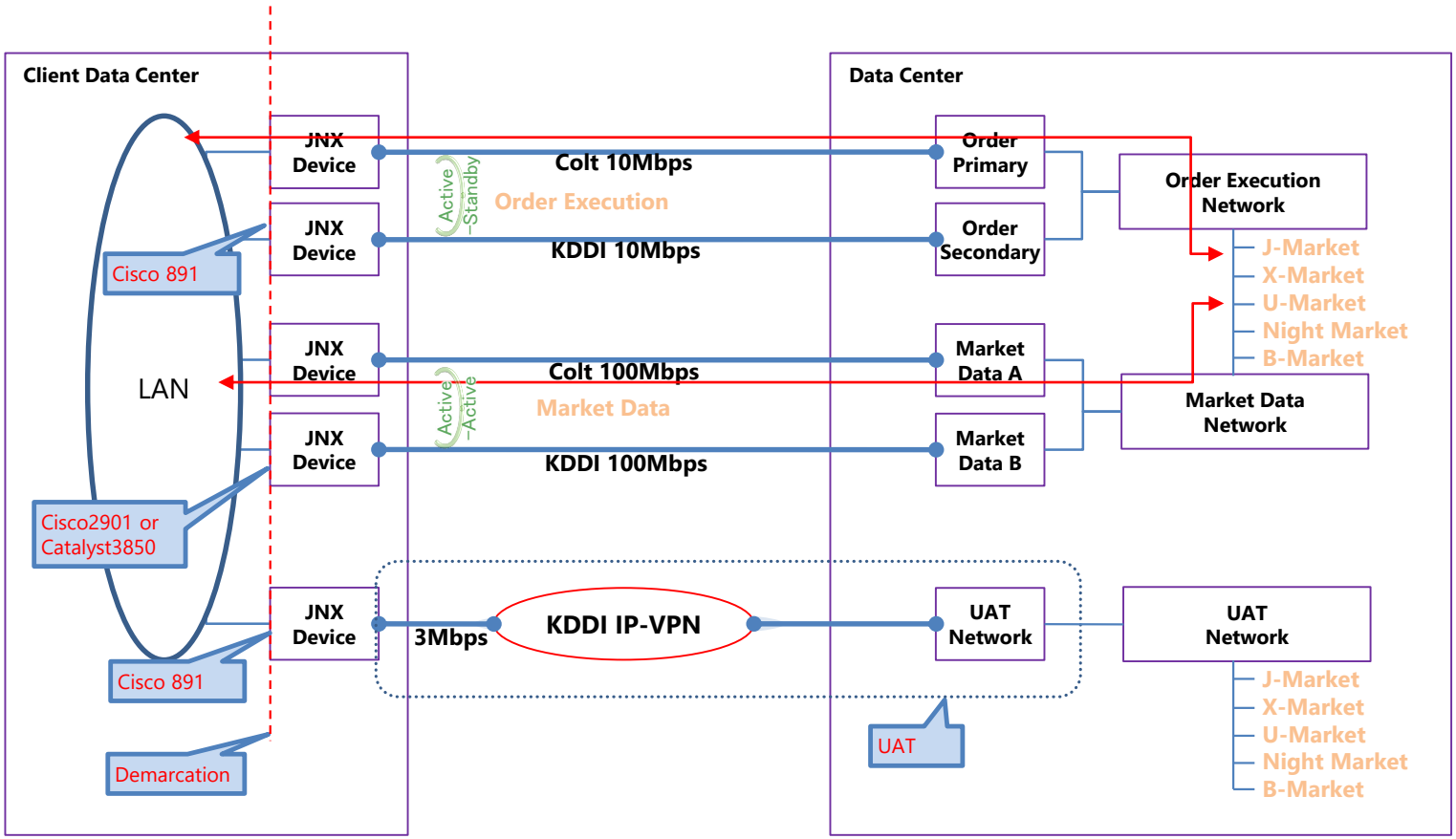
Circuit Use Case

- The default setup is 2 x Order, 2 x Market Data and 1 x UAT.



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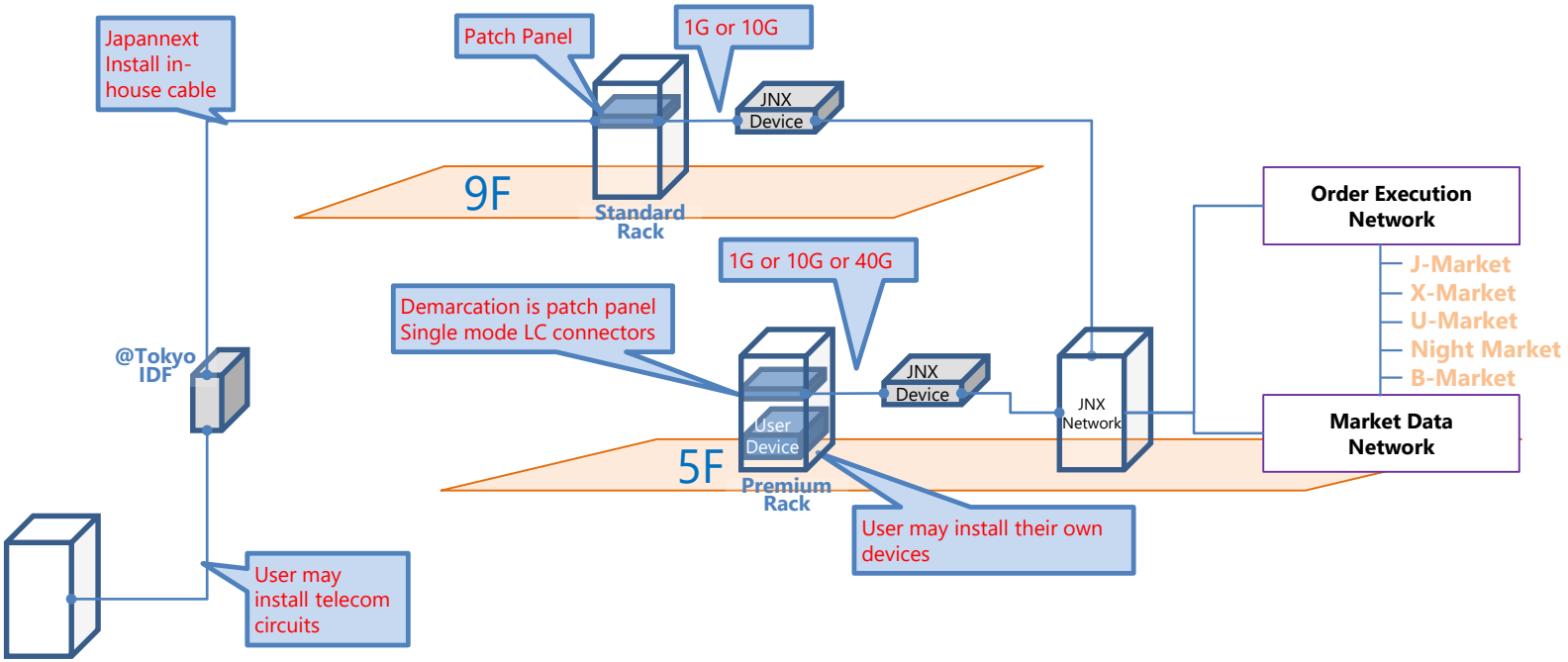
Colocation Rooms

- **Two offerings in Toyosu CC1 @Tokyo Data Center**
  - 9th Floor Standard Colocation
  - 5th Floor Premium Colocation – Lower latency. 40Gbps connectivity is available.

- **Types of racks**
  - Rack Height : Full rack and half rack
  - Power : 200V and 100V

- Users may install their own equipment in the rack and terminate telecom circuits.



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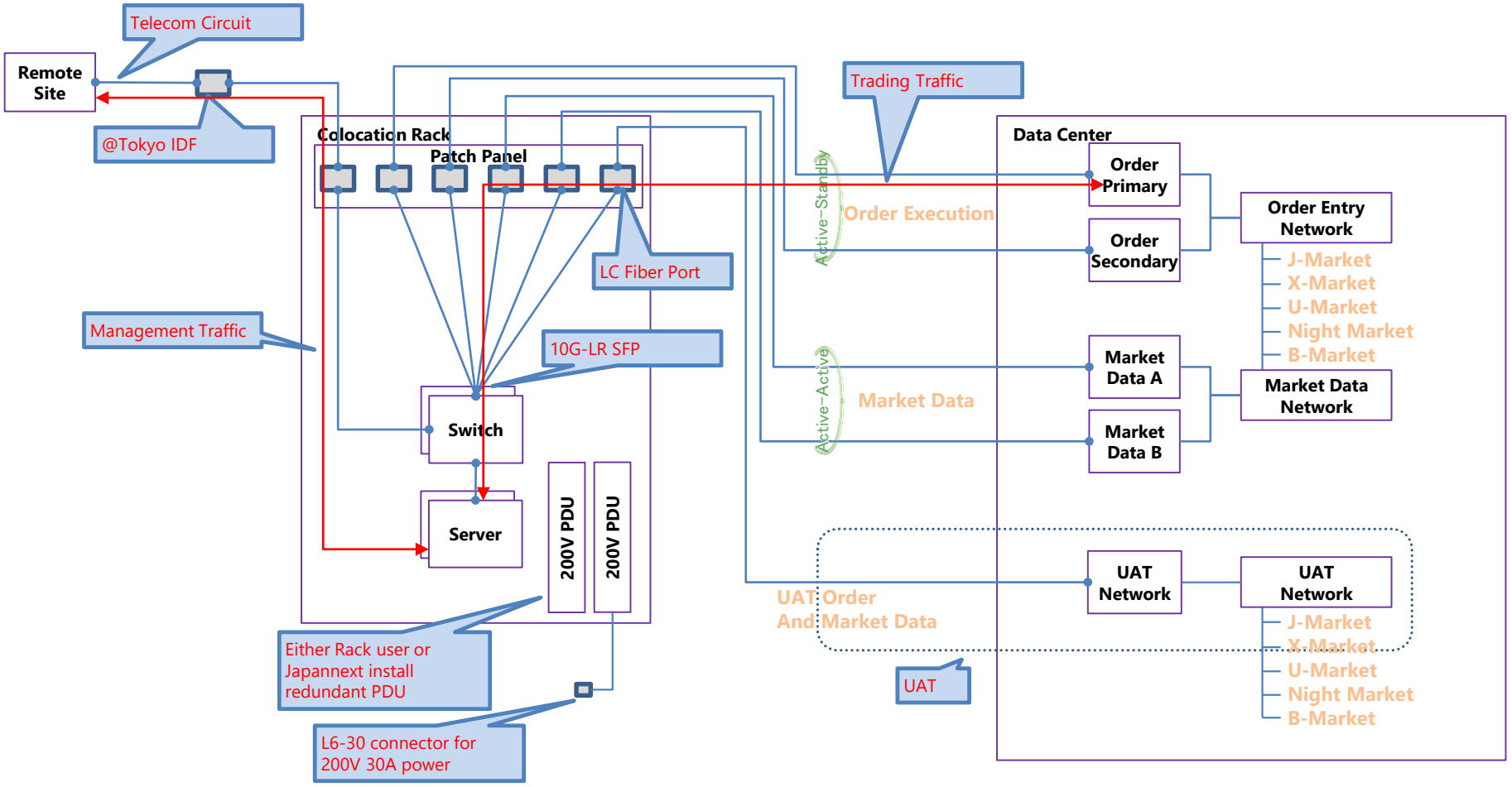
Colocation Use Case

- The default setup is 2 x Order, 2 x Market Data and 1 x UAT.
- Some external connections through @Tokyo IDF are required to maintain the devices in the rack.



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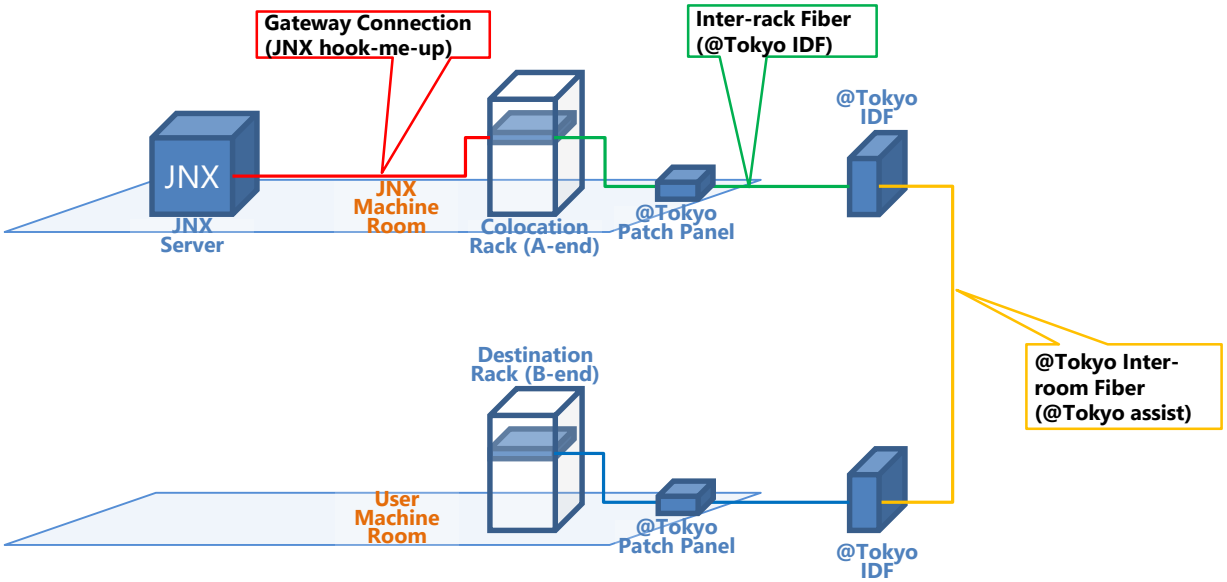
❑ @Tokyo In-house Cable

- Using @Tokyo IDF, Japannext provide inter-room fiber connectivity. This includes telco meet-me-rooms.



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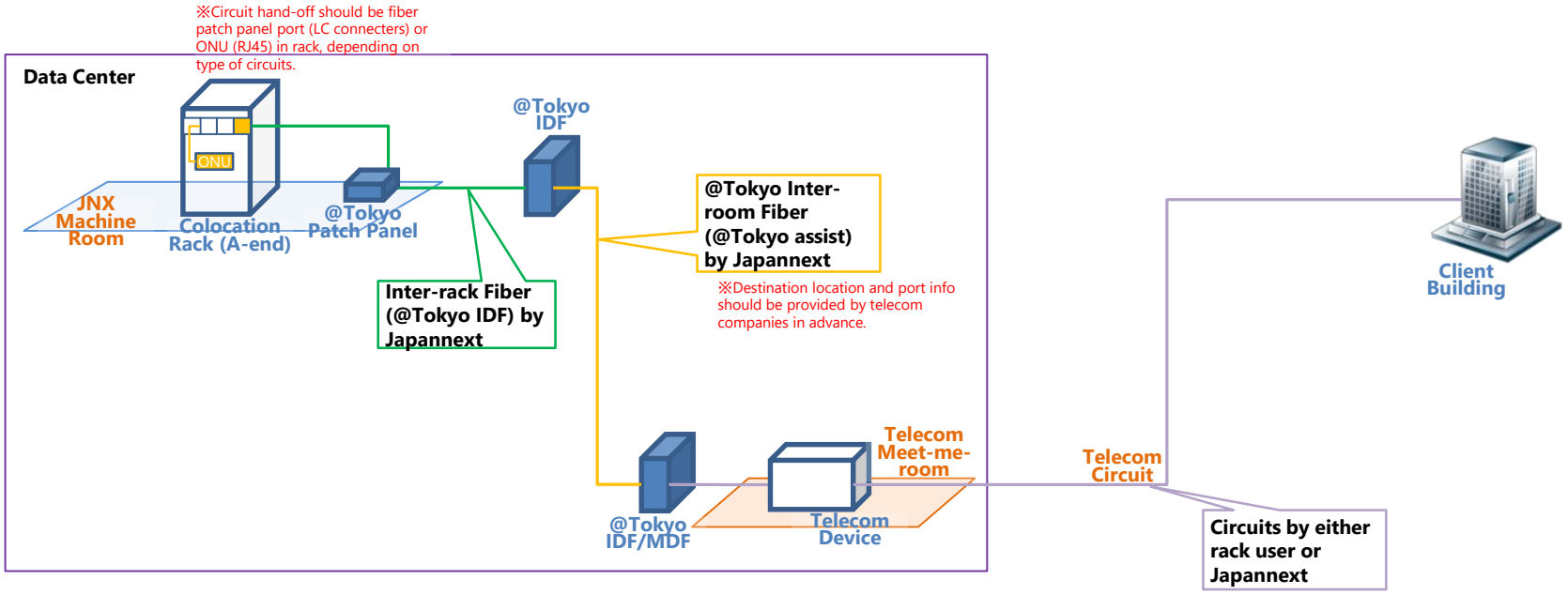
❑ Installation of Telecom Circuits

- Rack users may install their own circuits in colocaton racks. Japannext apply to @Tokyo data center for in-house cables on behalf of the rack user.
- Japannext can also provide telecom circuits as a package of services to rack users from a colocaton rack to the client's premises.



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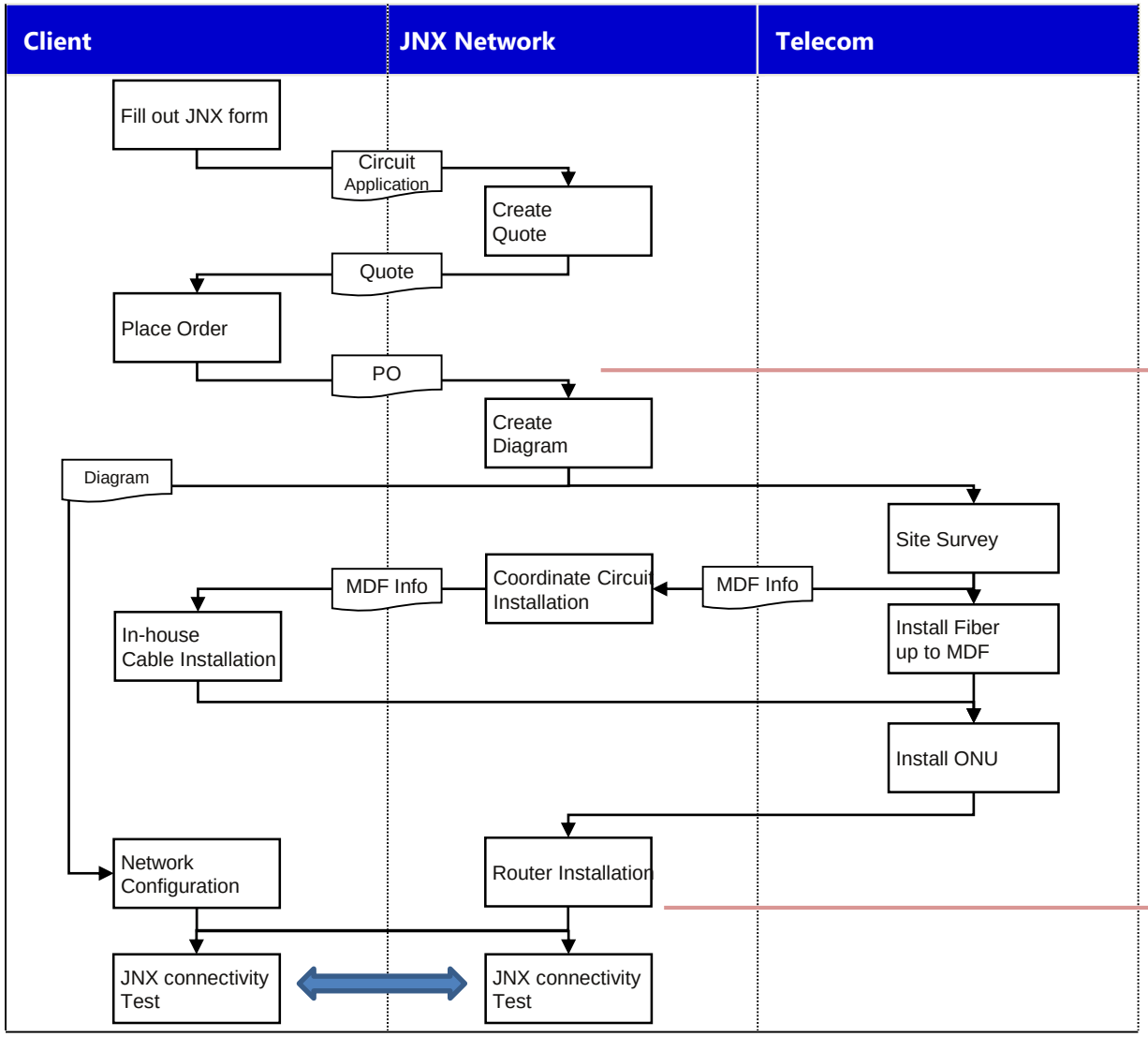
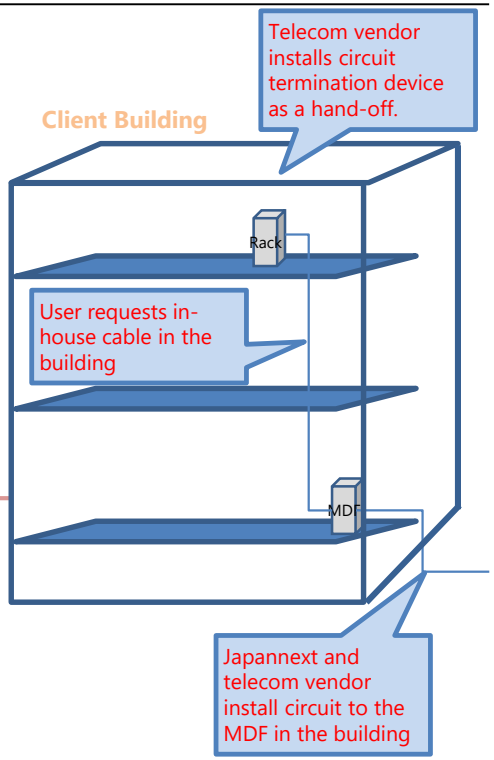
Workflow - Circuit

Circuit Installation Flow – PTS Service Agreement is required.





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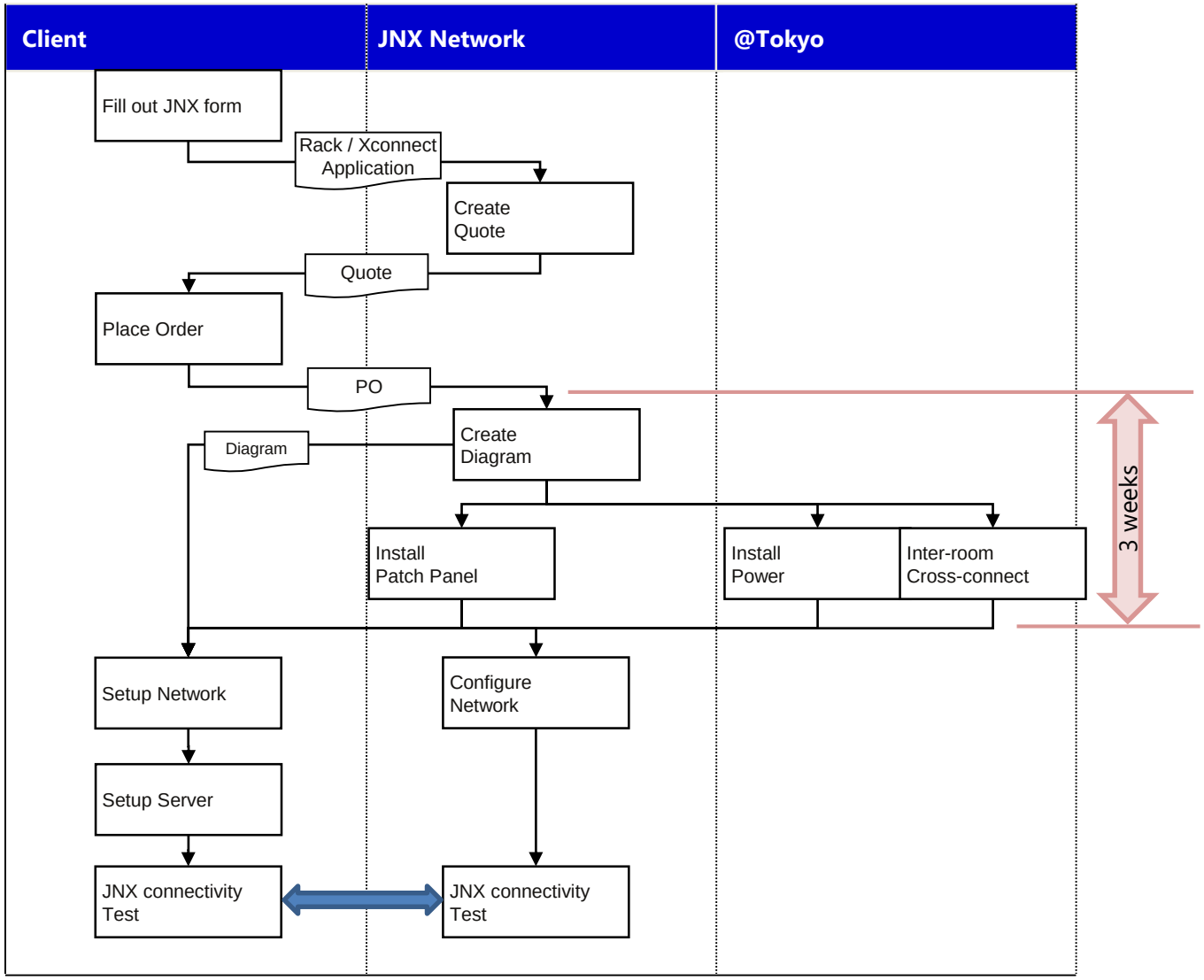
Workflow - Colocation

Cross-connect Installation Flow – Colocation Agreement is required.



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