

## Renovation of stations with the new "Ueno-Tokyo Line"

Takuji Ito,  
East Japan Railway Company (JR East)

### SUMMARY

Railway companies in Japan including East Japan Railway Company (JR East) have implemented direct-through services to different railway lines within a company or to lines of different railway companies for the purposes of improving capacity, reducing travel time and alleviating congestion.

In order to alleviate the congestion and reduce travel time, JR East started a new operation of "Ueno-Tokyo Line" in March 2015, connecting some of the existing commuter lines in Tokyo Metropolitan Area. Direct-through service leads significant changes of passenger flows and requires wide range of renovation of stations from changes of track layout and platforms to radical changes of station structures.

My presentation will include construction works to renovate Tokyo, Shinbashi, and Shinagawa Stations which were required for implementation of "Ueno-Tokyo Line".

### 1. DIRECT THROUGH SERVICES

Railway companies in Japan including East Japan Railway Company (JR East) have implemented direct-through services to different railway lines within a company or to lines of different railway companies for the purposes of improving capacity, reducing travel time and alleviating congestion. Direct-through services have increased comfort of urban railway network in Japan.

Some of the examples of direct-through services related to JR East are as follows;

#### (1) Direct-through services to different lines in JR East

- Shonan-Shinjuku Line (since December 2001)
- Ueno-Tokyo Line (since March 2015)

#### (2) Direct-through services between lines of JR East and lines of other railway companies

- Direct-through service with Fuji Express Line (since March 1990)
- Direct-through service with Rinkai Line (since March 2012)

### 2. RENOVATION OF STATIONS REQUIRED FOR UENO-TOKYO LINE

#### (1) Outline of Ueno-Tokyo Line

In 1987 the former Japan National Railways was privatized and split into six passenger railway companies including JR East. At that time, congestion rates of most of the commuter lines in Tokyo Metropolitan Area exceeded 200% in the morning rush hours. The section between Ueno and Tokyo was one of the most congested among these, and improvement of capacity between Ueno and Tokyo had been a top priority in JR East.

That's why JR East launched the project to construct new lines between Ueno and Tokyo which allow direct-through services among northward and southward commuter lines for the purpose of improving service quality of railway transport. Construction works started in May 2008 were unprecedentedly complex including construction of bridges and structures over the Shinkansen commercial lines, but JR East successfully opened the line on 14 March 2015.

#### (2) Renovations of stations

Direct-through service leads significant changes of passenger flows and requires wide range of renovation of stations from changes of track layout and platforms to radical changes of station structures. For implementation of "Ueno-Tokyo Line", JR East made renovations of Tokyo, Shinbashi, Shinagawa Stations and so on.

#### **- Tokyo Station**

The North Concourse with 6.8 meter width was anticipated to become over congested by the opening of Ueno-Tokyo Line together with large-scale developments around the station. Therefore, JR East enlarged the width of the North Concourse from 6.8 to 12 meters by replacing some parts of embankment into a new elevated structure with new stairways. In addition, we developed new commercial area of more than 10 thousands square meters in the station in order to fully utilize the station's potential value for business.

#### **- Shinbashi Station**

By the opening of Ueno-Tokyo Line, further congestions were anticipated in the concourse and platforms for Tokaido Line, the southward commuter line, in conjunction with the issue that accessibility was not secured for these concourse and platforms. Therefore, JR East integrated separated north and south concourse into one, enlarged platforms for Tokaido Line, and installed facilities to improve accessibility. In addition to the improvement of the platforms for Tokaido Line, the roof over the platform for Tokaido Line was replaced by a big train shed which covers over the platforms of other commuter lines.

#### **- Shinagawa Station**

The opening of Ueno-Tokyo Line required implementation of turn-back facilities in Shinagawa Station and enhancement of capacity in the train depot near the Shinagawa Station in order to operate trains flexibly even in case of transportation disruptions.