Tohoku – Pacific Ocean Earthquake: Current Status and Restoration Plan

NTT DOCOMO, INC.
March 30, 2011
Damage to Base Stations & Restoration Measures

- 788 base stations requiring inspection as of March 22
- Immediately inspected disrupted base stations & implemented temporary repairs
- Services restored at 413 base stations by March 28
- Services disrupted at 307 base stations as of March 28

<table>
<thead>
<tr>
<th>Base Stations Requiring Inspection (March 22)</th>
<th>Inspection Results (March 28)</th>
<th>Key Service Restoration Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>788</td>
<td>Transmitter route failure, transmitter equipment failure 224</td>
<td>1. Transmission line restoration</td>
</tr>
<tr>
<td></td>
<td>Flooding at base stations 62</td>
<td>2. Transmission equipment restoration</td>
</tr>
<tr>
<td></td>
<td>Under inspection 21</td>
<td>3. Large zone scheme utilization and satellite installation</td>
</tr>
<tr>
<td></td>
<td>Services Restored 413</td>
<td></td>
</tr>
<tr>
<td></td>
<td>By using Temporary optical fiber Base station vehicles Large zone scheme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspection pending (Within 30 km of nuclear plant) 68</td>
<td></td>
</tr>
</tbody>
</table>
**Restoration Progress & Outlook**

- **Base stations requiring inspection**: 788
  - March 22: 68 (Inspection pending)
  - March 24: 68 (Within 30 km of nuclear plant)
  - March 28: 68 (Within 30 km of nuclear plant)
  - Late April: 68 (Within 30 km of nuclear plant)
  - May: 68 (Within 30 km of nuclear plant)

- **Base stations (Disrupted)**: 491
  - March 22: 229 (Service restored)
  - March 24: 413
  - March 28: 307
  - Late April: 59
  - May: 59

- **Evacuation centers**: 248
- **Temporary housing**: 24
- **Highly populated areas**: 183
- **Optical fiber & temporary optical fiber**: 183
- **Microwave**: 23
- **Satellite**: 24
- **Large zone**: 18
- **Tunnels**: 18
- **Mountain regions**: 41

**Notes**:
- Inspection pending
- Within 30 km of nuclear plant
- To be restored soon
### Service Restoration Schedules (248)

<table>
<thead>
<tr>
<th></th>
<th>Scheduled for Completion by Late April</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mid-April</td>
</tr>
<tr>
<td>Iwate</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>89</td>
</tr>
<tr>
<td>Miyagi</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>61</td>
</tr>
<tr>
<td>Fukushima</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>248</td>
</tr>
<tr>
<td></td>
<td>150</td>
</tr>
</tbody>
</table>
### Service Restoration Schedules (59)

<table>
<thead>
<tr>
<th></th>
<th>Mountain Regions</th>
<th>Tunnels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iwate</td>
<td>47</td>
<td>37</td>
</tr>
<tr>
<td>Miyagi</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Fukushima</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

**Restoration Schedule Undetermined: 68**
(Within 30-km of Fukushima nuclear plant)
1. Optical fiber and temporary optical fiber

Restoring transmission lines by installing optical fiber cables

- Existing optical fiber
- Temporary optical fiber

![Diagram showing the restoration process]

Circuit restoration by NTT East

Cable reconnection
2. Large zone scheme
Utilizing large zone scheme applied to high-elevation base stations to restore services in affected areas
3. **Entrance microwave system**
Restoring relay transmission lines and access transmission lines by utilizing entrance microwave system

4. **Satellite circuits**
Restoring service by installing satellite circuits
**Restoration Area Maps**

- **Restoration are map uploaded on website (Japanese only) beginning March 20**
  
  Online map shows restoration status in the heavily damaged Iwate, Miyagi and Fukushima prefectures. Users can search by municipalities to confirm areas in which:
  - DOCOMO's FOMA 3G service is available
  - Services are scheduled for restoration using base station vehicles
  - Satellite phones and free phone-charging services are available
  - docomo Shops are open for business

- **Service restoration schedule to be introduced in early April**
## Disaster Recovery Programs

The following disaster recovery programs will be extended.

<table>
<thead>
<tr>
<th>Program</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extension of walk-in payment deadline for charges (extension approximately one month)</td>
<td>Payment deadline of May 2 for March bills</td>
</tr>
<tr>
<td>2</td>
<td>Mobile phone repair charges for half the regular price</td>
<td>Available until April 11</td>
</tr>
<tr>
<td>3</td>
<td>Free data restoring service for water-soaked mobile phones (Regular price: 5,250 yen including tax)</td>
<td>Available until April 11</td>
</tr>
<tr>
<td>4</td>
<td>Special discount at time of mobile phone purchase (maximum of 10,500 yen including tax)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>No fee for FOMA SIM card reissuance</td>
<td></td>
</tr>
</tbody>
</table>

Note: Programs 2, 3, 4 and 5 are offered at docomo Shops nationwide.
Currently reports are based on the number of disrupted base station equipments.

In the future, the number of disrupted base stations is to be updated as recovery efforts are made at each base station sites.

### Number of Disrupted Base Station Equipments and Base Stations

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Disrupted Base Station Equipments</th>
<th>Number of Disrupted Base Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iwate</td>
<td>220</td>
<td>184</td>
</tr>
<tr>
<td>Miyagi</td>
<td>180</td>
<td>97</td>
</tr>
<tr>
<td>Fukushima</td>
<td>130</td>
<td>94*</td>
</tr>
<tr>
<td>Total</td>
<td>530</td>
<td>375*</td>
</tr>
</tbody>
</table>

*Includes 68 disrupted base stations located within 30-km of Fukushima nuclear plant.

Base station: A site where base station equipments are installed. There may be instances where there are multiple base station equipments (i.e. 2GHz & 800MHz) installed in a single base station. As of March 28, 2011.
Attachment 2

Facility Damage

1. Base station facility (Matsuhima-Nobiru, Miyagi)
2. Transmission facility (Noda-mura, Iwate)
3. Base station facility (Ishinomaki-Midori-cho, Miyagi)
4. docomo Shop (Ishinomaki-Higashi, Miyagi)
Service Recovery (Iwate)

6:00 p.m. on Sunday, March 13

4:00 a.m. on Monday, March 28

Iwaizumi
Miyako
Kamaishi - Kaminakashima
Ofunato

Service available
Service disrupted
Attachment 3-2  Service Recovery (Miyagi)

Service disrupted
Service available

6:00 p.m. on Sunday, March 13
4:00 a.m. on Monday, March 28

Kesennuma
Ishinomaki – Oshika Peninsula
Sendai - Matsushima
Attachment 3-3  Service Recovery (Fukushima)

6:00 p.m. on Sunday, March 13

4:00 a.m. on Monday, March 28

Service disrupted

Service available

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