

# 6-2. Measures Taken in FY2011 (2)

## Restoration Measures taken following the Earthquake

### Emergency restoration of communications services

#### Emergency restoration of relay transmission lines, exchange offices, access facilities, etc.

- Prioritized restoration of critical sites through temporary restoration of relay transmission lines and switching exchange offices.
- Conducted the emergency restoration of buildings, communication facilities and residential areas within access areas permitting restoration.



<Emergency restoration of access areas>

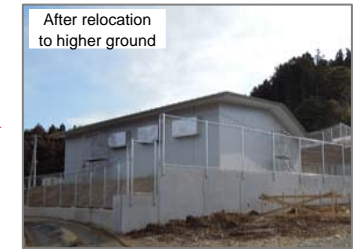
#### Disaster Area Support Measures

- Supported safety confirmation information gathering and related disaster status by securing means of communication at evacuation centers through the provision of special public telephones and an Internet connection environment.
- Provided Disaster Emergency Message Dial (171) and Disaster Message Board (171)
- Offered free public telephones (Entire East Japan area).



### Full-fledged Recovery

- Relocating damaged exchange offices to higher ground (19 buildings)
- Building relay transmission lines underground below waterways for sections that were washed away in bridge areas (9 areas)
  - Building new conduit lines underground below waterways to set up relay cables.
- Switching exchange offices in the nuclear power plant area to different buildings and implementing temporary relay transmission lines
  - The parent station function of exchange offices outside the warning zone were relocated to a building outside the warning zone and inland temporary transmission relay lines were set up.



<Relocating exchange offices to higher ground (Oshika Bldg., Miyagi Pref.)>

## Measures for Improving Reliability

### Improving reliability of communications services

- Building disaster-resistant facilities
  - Countermeasures against blackouts and flooding at exchange offices.
  - Improving relay transmission lines by establishing Route 3.
- Measures for Rapid Restoration of Services
  - Increasing disaster countermeasure equipment (such as portable satellites).
  - Providing support at temporary exchange offices during disasters.



←New portable satellite model  
Not only downsized but also the added an automatic satellite signal lock-on/tracking function.

Portable Wi-Fi device→  
Installed wireless devices in cars.  
Securing an Internet environment by dispatching the devices in affected areas

<<Enhancing Disaster Countermeasure Equipment>>



### Preparing for Future Disasters

- Securing a means of communication during disaster
  - Arrange emergency phones and build Wi-Fi environments at public facilities such as convenience stores, and promote information stations to be used during emergencies.
  - Improving Web171 (collaborating with other providers' message boards, notification function of registered messages, etc.).
  - Disclosing installation locations of public telephones on company homepage (scheduled for June 2012).
- Strengthening collaboration efforts with local governments
  - Conduct joint disaster-countermeasure drills with local governments (FY2011: approximately 100 times).

### Offering Reassuring, Convenient Services

- Enhancing cloud services
  - Established data centers in 17 prefectures and conducted experiments to verify the remote area backup services using disaster-resistant data centers (February 2012).
  - Planning to provide "Safe Server Hosting" and "Safe Data Backup" to meet Business Continuity Plan (BCP) needs mainly for local governments.
  - Enable the use of reliable and safe cloud service by adopting high-security Business Ether Wide in combination with FLET'S VPN Wide.

