

## R&D for a Rapid Response to Business Requirements

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The R&D Center cooperates with the design, construction, and maintenance divisions providing network services by conducting research and development of telephone and IP networks, including access networks, and related operations systems. We analyze the latest technology, business needs, and trends among competitors and then perform R&D to meet user demands in a timely manner. We support NTT branches and offices in introducing the systems and technologies developed at the Center and provide technical support to maintenance and operation divisions. Furthermore, we train engineers as part of ongoing development operations and send them back to NTT Corporation and other Group companies to raise the technical capabilities of the NTT Group as a whole.

### Prevailing environment and recent R&D trends

In Japan, other companies besides NTT have also begun full-scale development of optical fiber services, and the competition for customers has become extremely intense. Therefore, the R&D Center must develop services and systems that will promote the implementation of optical fiber services, including IP phones. We have begun to provide IP phone service for corporate customers as a starting point and “Hikari Phone” for apartment buildings and individual homes. To further expand these services in the future, we will conduct R&D activities aimed at increasing quality and providing added services on the level of fixed phones.

We are developing a Gbit/s-class optical fiber access system to further increase access speeds. To reduce costs, we are working to establish easy-to-use optical cable technologies and improving closures that accommodate fiber splicing points and other components to increase the utilization of optical service subscriber lines and ease of installation.

Although the shift from fixed phones to mobile phones and IP phones has accelerated recently, an overwhelming number of customers still use fixed phones. Since NTT has a responsibility to provide universal services, we believe it is also important to conduct R&D aimed at maintaining fixed phone

facilities. The communication systems that provide fixed phone services are gradually aging, as are the related operations systems, so immediate measures must be implemented to maintain them.

From the perspective of risk management in a trusted company, the NTT Group feels that R&D to prevent information leaks and damage from large-scale disasters is an important theme for providing its customers with safe, secure telecommunications services. As part of the security measures to prevent leaks of customer information, we are conducting R&D related to secure management systems for customer information on the network using the latest in security technologies, including biometrics.

### Strengthening ties inside and outside the company

When promoting R&D that contributes to business, it is important to ensure strong ties with the various offices and divisions responsible for that business. We are working to strengthen these ties in various forms, for example, by listening to the opinions of people in the equipment design, construction, maintenance, and operations divisions from the early stages of service development. There is no doubt that NTT East is facing harsh conditions in terms of the management environment and competition with other companies. We will continue to meet these challenges with a determined but positive approach, confident that NTT East will be the leader in opening up a new broadband era.

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