

### R&D toward Products with High Commercial Potential

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NTT Information Sharing Platform Laboratories was established in 1999 to develop common platform functions in an integrated manner to enable high-value-added services for IP networks. In deploying future products, we will not only consider functions and cost, but also respond sensitively to business and social conditions. We must provide solutions based on real business conditions instead of focusing solely on novel technology.

We intend to expand our R&D efforts with a focus on security and ubiquitous computing. Japan's Personal Information Protection Act, which will take effect in April 2005, will lead to new IT investments in the corporate world, creating new business opportunities for NTT. It also represents society's call for NTT, and other major enterprises, to manage information appropriately. We feel that NTT must strengthen its know-how and experience in protecting personal information and gaining customer trust if it is to expand its business in this area. Our initial plan is to provide measures to prevent the leakage of information from in-house systems in accordance with the new Act. We will do this by constructing and deploying total solutions that combine VPN (virtual private network), storage management, authentication, and other key technologies developed in NTT Laboratories with commercially available products. By discovering and resolving problems that occur in actual information management situations, we will be able to deliver security-related products with high commercial potential. Over time, these products and know-how should lead to new security-related business for NTT.

In relation to ubiquitous computing, our current efforts to construct new supply chain management (SCM) systems are centered on verification trials, but we still face many challenges, including the cost of tags, reading accuracy, and adequate security. While these problems are not unique to SCM, they are surely driven by the powerful flow of IT. Overcoming them will open the way to a huge market.

Ubiquitous computing will initially be used to provide specific services such as SCM within a single company or corporate group by identifying objects

through IT technology. Eventually, though, companies and corporate groups will become linked, and the flow of all kinds of objects will be identified and traced between different enterprises as needed. The application of such ubiquitous services is not restricted to the corporate world. There is a real possibility of creating platforms that can recognize and trace the state of a target item and collect information about it as needed. This will enable everyone to communicate or interact appropriately and safely with everyone else and with everything in the world. In such a world, an unbelievable amount of information will travel the network and be stored for immediate use, bringing about a major paradigm shift in network structure and data management methods. Whether such a world will ever be accepted by society is also an issue that must be addressed. Privacy issues will become an even greater concern, and in developing security technologies for authenticating individuals and objects, for encrypting information, etc. we will face new hurdles to overcome. In addition, the creation of such platforms will in itself create new business schemes requiring new product systems.

Both security and ubiquitous computing are technological fields closely related to large next-generation businesses. While endeavoring to stay one step ahead in R&D, NTT Information Sharing Platform Laboratories will strive to develop products that promote social acceptance of these technologies and services while providing total solutions. In this way, we hope to make a substantial contribution to the NTT Group.

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