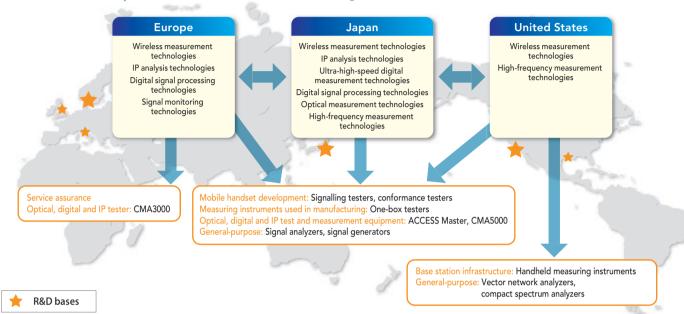
## **Research and Development**

Anritsu seeks next-generation advanced technologies, so research and development is a source of its competitiveness. The Company promotes close relationships with major customers around the world to offer solutions that accommodate their TTM based on its Original & High Level technologies.





### **Global R&D Structure**

Anritsu has research and development bases in Japan, the United States and Europe, which apply component technologies and acquire and share new technologies while developing new products globally. In the measurement businesses, we combined our wireline and wireless divisions in Japan and integrated the development department of the R&D Center, which performed research and development of fundamental technologies, with the development departments of the business divisions. This improved development efficiency by concentrating research and development resources and responded to the advent of fixed-mobile convergence (FMC). Further, in 2009 we reorganized research and development into two groups: measurement for leading-edge technologies, such as LTE, and general purpose measurement, which generates stable profits. As a result, we are flexibly developing solutions that precisely meet market and customer needs in each area.

# Original and High-Level Technologies and Know-How

Anritsu possesses various test and measurement technologies, including in wireless measurement, ultra-high-speed digital measurement, IP analysis, optical measurement, high-frequency measurement, digital signal processing, signal monitoring, network traffic measurement, bandwidth control and alien material inspection. Its proprietary key devices and fundamental technologies are the source of its product differentiation, and the Anritsu Group is expanding the application of these technologies and know-how in its products in response to customer needs. In 2008, the Group commercialized new products including the MD8430A signalling tester, which is indispensable in developing chipsets for LTE mobile handsets, and the MS464x series of general purpose vector network analyzers with applications including development of electronic devices in the aerospace and microwave fields. In addition, we are effectively using resources from

inside and outside the Group on a global scale in order to promote efficient development of software, which is growing in relative importance.

#### **Standardization Initiatives**

Standardization initiatives are an important part of Anritsu's research and development activities. We are working to standardize communications protocols through participation in the international standards body ITU-T<sup>1</sup> and the next-generation network forum 3GPP. In mobile phone systems, Anritsu has been involved in determining communications protocols from the earliest stages. As a result, we have provided measuring equipment for the world's largest number of approved conformance tests of transmission protocols between base stations and mobile handsets. Manufacturers of mobile handsets and chipsets throughout the world use our measuring instruments to test mobile handsets because handsets that pass are recognized as 3GPP compatible. This contributes to the smooth spread of 3G mobile phone systems.

Anritsu continues to conduct similar activities in LTE as well. As Sub-Chair of a protocol conformance testing group, Anritsu is promoting the formulation of protocols for commercial LTE services scheduled to begin in 2010 in Japan and the United States.

In wireline systems, Anritsu has participated in ITU-T for approximately 20 years to promote standardization of jitter and wander<sup>2</sup> measurement technologies. Our initiatives have included proposals of measurement technologies for 10Gbit/s, 40Gbit/s and other optical communications systems that have set standards.

Leading global corporations in the telecommunications industry participate in each standards body. Anritsu will continue to use the relationships, knowledge and technologies gained from its aggressive standardization initiatives in product development in order to provide timely, competitive solutions.

#### Note 1. ITU-T: (The International Telecommunication Union (ITU) )

Telecommunication Standardization Sector, which sets standards for the telecommunications field as a bureau of the International Telecommunication Union.

#### Note 2. Jitter and wander:

Defined respectively as short- and long-term variations in signal reception rates in a digital network due to noise or other interference during transmission.

## Anritsu Receives Award from the ITU Association of Japan

Anritsu employees were given an Award of Merit by the ITU Association of Japan (ITU-AJ). ITU-AJ Awards are presented every year to individuals who contribute to the ITU's standardization activities. The Award of Merit is the association's highest honor.

As rapporteurs, or chairpersons, of the ITU-AJ groups involved in the standardization of measurement for optical transmission systems and access networks, Anritsu employees contribute to standardizing protocols necessary for the construction of next-generation networks (NGN). The Award of Merit indicates the ITU-AJ's high regard for these initiatives.

