In line with my topic, “Road to a Service Creation Business Group,” I’d like to talk about how we do business in the ICT field, and the philosophy behind our business development.
• First, an overview of NTT Group.
• As this slide shows, with the holding company as a base, we provide a full lineup of information and communications services, from fixed-line and mobile to portal and systems integration businesses.
• And we have one of the largest ICT research facilities in the world, with some 3,000 researchers in basic and fundamental R&D, and a budget of about 800 million euros.
• Our researchers have produced results in various technology fields including optics, video compression and encryption.
• So, that’s NTT Group in a nutshell.
Four years ago, in November 2004, we formulated the NTT Group Medium-Term Management Strategy.

The strategy has two pillars:

First, creating a rich communications environment for people and communities with broadband and a networked society. We call it “ubiquitous broadband society.”

These services also increase corporate efficiency and open new business opportunities for our customers.

Second, to realize our strategy, we’re building the Next Generation Network, or NGN, with full IP services via optical fiber.

It supports various businesses to offer a wide range of services.

Also, NTT forms alliances with other businesses using these environments.

NGN is our platform for developing a wide array of ubiquitous broadband services.
• Put simply, here are some features of NGN:

- two-way transmission of images and voice with Quality of Service, or QoS.
- advanced security through sender ID authentication
- reliability in traffic control and important communications
- open interfaces as a platform for connecting various carriers’ networks and jointly developing new services.
• Now let’s look at our roadmap for NGN.
• It’s in three steps.
• In Step 1 we did field trials for over a year.
• Based on the results we moved to Step 2, NGN’s commercial launch in parts of Tokyo and Osaka.
• Step 3 will be seamless integration with mobile networks.
• Please look at the lower part of the slide.
• This slide shows our broadband subscriptions and NGN service area expansion.
• NTT Group broadband subscribers now exceed 14 million.
• Optical fiber has over 10 million.
• ADSL has 4.4 million.
• As you can see, by fiscal 2010 we expect 20 million optical fiber subscribers and 85% coverage of our conventional PSTN customer base.
We’ve looked at NGN’s roadmap and projections.

Now let’s turn to next generation mobile network.

In fact, we’ve been boosting the capabilities of the existing 3G network in stages.

First let’s break down the subscribers to see how we’ve done that.

NTT DOCOMO has 46 million 3G subscribers.

That’s 85% of its total mobile subscription base.

Of these 3G subscribers, the number using 3.5G services such as HSDPA has grown to 12 million.

DOCOMO is now readying what we call “Super 3G” service based on the Long Term Evolution, or LTE, the world’s first next-generation mobile IP network, for fiscal 2010.

As you know, Super 3G enables high-speed transmission comparable to optical fiber.

So we can readily merge it with our NGN.
• The network isn’t only for basic services.
• In fact, NGN has the potential to host many new services and applications.
• To this end, we are working with partners from various industries.
• So, our key words for NGN are “open” and “collaborative.”
• To promote open and collaborative alliances, we have disclosed details of three types of interface.
• One is the Network – Network Interface, or NNI.
• Another is the User – Network Interface, or UNI.
• And the third is the Application Server – Network Interface, or SNI.
• A key element in creating new services and applications is the SNI, which connects our NGN with servers and other equipment operated by content and service providers.
• As you can see, the SNI is represented by the red line in the slide.
To create new services using NGN more effectively, we launched the Next Generation Services Joint-Development Forum last March.

Interested vendors, service providers and venture businesses take part in this forum, and together we create new NGN-based application services.

Actually the forum has two roles. One is for providing information to participants and for consulting on business and technology issues.

The other is for incubation. We discuss new business and services creation with corporate participants, with NTT Group providing investment or other support if appropriate.

Over 1,000 corporations and individuals now take part in the forum.
Now let’s look more specifically at ICT technology on NGN, and what it can do for business and society.

This slide outlines how we can use NGN as social infrastructure, to provide a wide range of services.

Here’s a sample of what NGN can offer.

For communities, NGN functions as infrastructure for remote healthcare and education as well as access to central and local government services.

For the corporate sector, the spread of applications such as Software as a Service, or SaaS, as well as telecommuting and telepresence.

For individual subscribers, IPTV and home security services.

We believe these services will also promote creative and effective approaches to the pressures facing modern society.

These issues range from energy and the environment to aging populations and healthcare.

They also include service level gaps and labor qualification gaps among regions.

As a vital part of the social infrastructure, telecommunications carriers must build and maintain a highly reliable NGN, including the physical network.
Application Examples
First is SaaS, which provides network access to software and boosts efficiency and productivity.

SaaS is an example of cloud computing.

This is a recent trend with some hardware and software in a network rather than in the users’ computer, and services are accessed via the network.

This arrangement enables quick, low-cost system introduction and is expected to lead to expanded system use.

However, surveys show that many companies hesitate to introduce SaaS due to concerns about security and network reliability.

NGN answers those concerns with its high levels of security, quality assurance and reliability.

It can serve as platforms promoting SaaS.
• Hi-definition video-conference is another application.
• As well as facilitating corporate activities, this application supports the environment by reducing travel.
• NGN’s Quality of Service ensures stable, high-speed telecommunications.
• Video conference participants can actually feel they’re in the same room, thanks to clear stereo sound and large-screen hi-definition images, as you see here.
• In Japan and elsewhere, many vendors are bringing new video-conference systems to the market.
• This month Cisco Systems launched an NGN-compatible system.
• It’s the one you see here, used in Japan.
• The next example is healthcare over NGN. With these applications, healthcare can be available to areas that don’t have enough medical facilities.
• Also, it can reduce the cost of healthcare.
• At the moment we’re facing a fiscal crisis with more and more of our budgets spent on medical costs for rapidly increasing aging populations.
• Working with regional health authorities, we have trialed a system for the patient to get healthcare advice from another location by remote consultations via PC or videophone over NGN.
• Also, patients can send data, such as blood-pressure, from their homes to a central database.
• Medical professionals can access the database any time for updates on the patient’s condition.
• Since this kind of remote healthcare deals with information crucial to human lives, it is essential that transmissions are reliable and secure.
• NGN is exactly the platform to make such transmissions possible with high-level QoS and security.
Let’s move on to another example of an NGN-based application – IPTV.

More and more IPTV services are being offered in Japan, and the audience is growing.

In conjunction with our NGN launch in March this year, NTT Group introduced a triple play IPTV service called “Optical TV,” with telephone, high-speed internet and television via optical fiber.

Available to broadband customers, including NGN, Optical TV offers 75 channels and over 10,000 videos.

In addition, in May we started an IP retransmission service for digital terrestrial broadcasting.

Further, starting this December, Japan’s public broadcaster, NHK, will offer a new service allowing viewers to access programs for up to one week after broadcast.

Viewers can watch their favorite shows at their convenience.

Also they can access a library of past dramas and documentaries.

If such on-demand services become more widespread, it will change the way we watch television.
Now for our last example today: digital signage.

We can already see digital signs on outdoor billboards, monitors on trains and other places.

But so far they are not networked.

Building each unit system and adjusting for different formats costs a lot of money, so digital signage hasn’t attracted as many advertisers as it could.

To address that, our research facilities are working on a platform to manage advertisements from a central location and transmit them according to the specifics of each sign.

We’re also looking at business models for transmitting adverts via a broadband network such as NGN.

Also digital signs aren’t limited to video and audio.

Imagine passing a digital sign for a travel agency, and smelling ocean spray.

In August of this year, NTT Group launched new technology that links an scent-emitting device with digital signage terminals.

So we can associate smells with the images and sounds on digital signs.

Actually we expect digital signage to grow beyond advertising to become part of the social infrastructure.

Soon digital signs will be a street corner medium for communicating emergency and public safety information.
• There are many innovative and usable applications for NGN. I’ve outlined some of them for you.

• But until just a few years ago, overseas investors and industry players told us that our plan to build NGN and take optical fiber to our customers was crazy.

• But we knew it wasn’t. When I was speaking with Thomas Friedman, a well-known journalist, he said to me, “Whatever can be done will be done.” I immediately responded, “I agree.”

• In his recent book “The second life of network,” Mr. Lombard, Chairman and CEO of France Telecom-Orange Group took that one step further.

• He wrote, “What can be changed will be changed, because the means to do so are at everyone’s fingertips.”
• During more than forty years in information and telecommunications, I have worked with the belief that if something is technically possible and desired by customers, it will become a reality, no matter how many challenges have to be overcome.

• That belief has also driven optical fiber access and NGN.

• In fact, NTT’s fiber optical subscriptions have broken through the 10 million mark.

• Now the shift to optical fiber is worldwide, and nobody is calling us crazy anymore.

• Full optical fiber IP network will transform NTT from a carrier to a service creation group.

• We've taken the first steps down that road.