



Through the Experience of Great East Japan Earthquake/Tsunami 3.11

– Social Information Infrastructure and eGovernment for Basic Citizen Life –

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Disaster Situation

Outflow of Shichigahama Telephone Office (Miyagi Pref)
Before Tsunami



After Tsunami



Tokura Telephone Office (Miyagi Pref)







Pipeline of Kesen-ohashi (Iwate Pref)



Telephone Pole, Mobile Telecom Station (Miyagi Pref)



Damage Situation and its Affected Amount

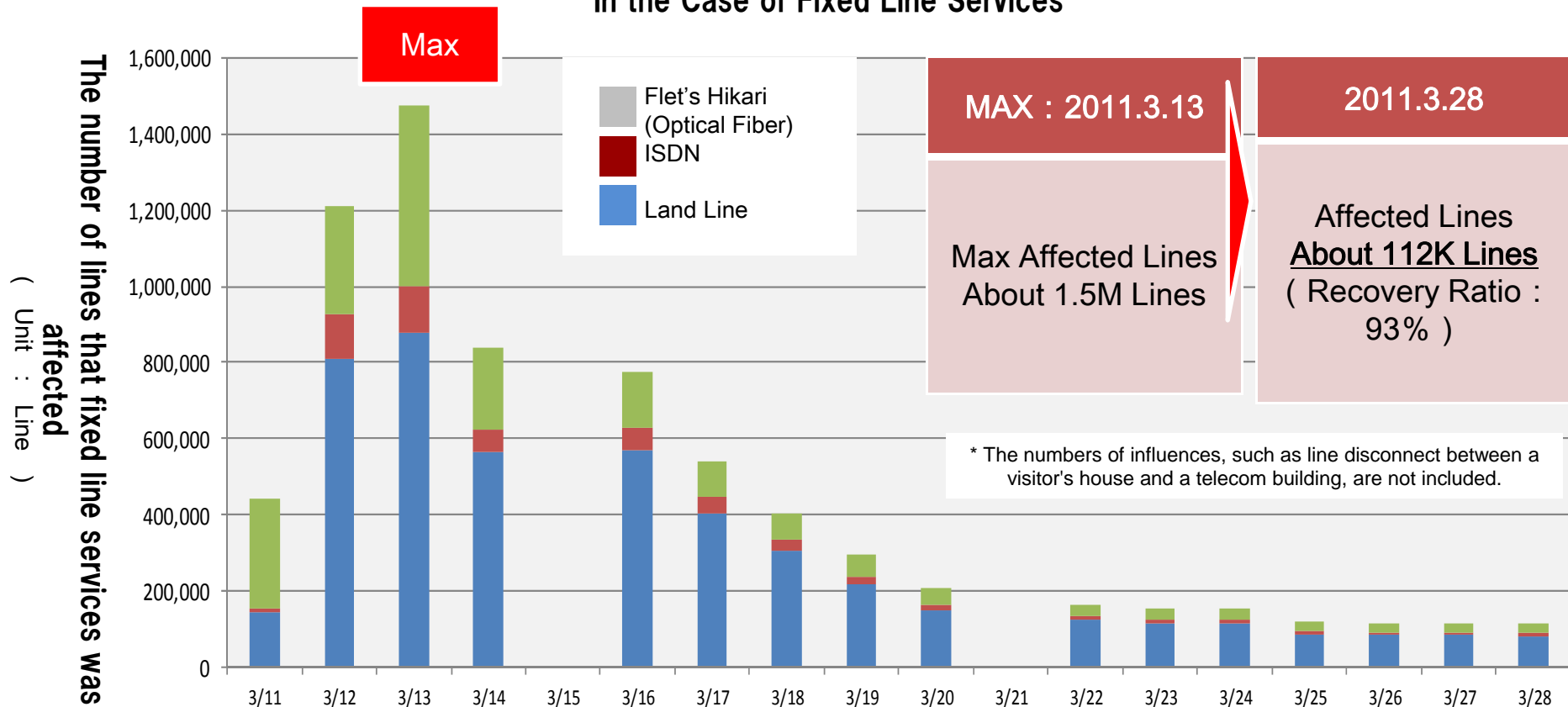
Damage Situation		FY2010	FY2011-
NTT EAST	Destruction of Telecom Bldg  <ul style="list-style-type: none"> ● Telecom Bldg <ul style="list-style-type: none"> ➢ Complete collapse : 18 Bldgs ➢ Flood : 23 Bldgs 		40B Yen (Investment Of Equipment) =380M Euro*
	Collapse of a telephone pole  <ul style="list-style-type: none"> ● Telephone pole outflow, breakage <ul style="list-style-type: none"> ➢ About 65,000 (area along the shore) 	20B Yen (Loss) =190M Euro*	20B Yen (Loss) =190M Euro*
	Transmission line, Switchboard outflow  <ul style="list-style-type: none"> ● Relay transmission line cutting <ul style="list-style-type: none"> ➢ 90 routes (except for area of nuclear power plant) ● Aerial cable outflow, breakage <ul style="list-style-type: none"> ➢ About 6,300km(area along the shore) 	*1Euro=105Yen	
Docomo NTT	Collapse of mobile telecom station  <ul style="list-style-type: none"> ● Station for restoration <ul style="list-style-type: none"> ➢ 375 stations (68 stations inside of 30 km of nuclear power plants)	6B Yen (Loss) =57M Euro*	10B Yen (Investment Of Equipment) =95M Euro* 10B Yen (Loss) =95M Euro*

※ The affect in the 2010 fiscal year in the NTT Group consolidated accounts including other group companies is about 30 billion yen (profit and loss) [removes the contribution money] .

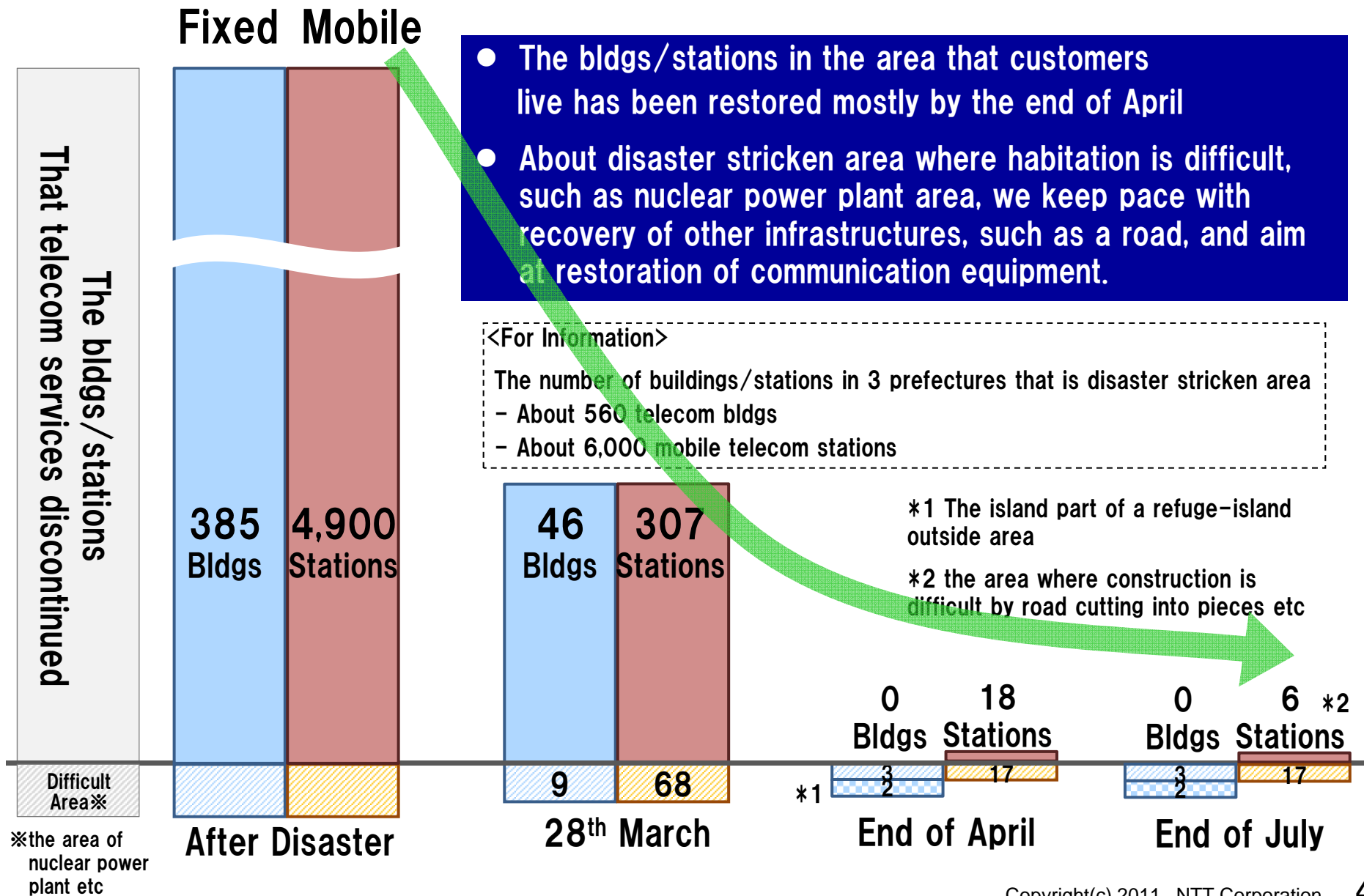
Restoration Situation – Telecom Services

- Carried out in organization exceeding 10,000 people for restoration of fixed and mobile services.
 - ✓ Relief by mobile power supply car and independent electronic power plant
 - ✓ Restoration of equipment by means of detour of transmission route etc

In the Case of Fixed Line Services



Restoration Situation – Telecom Equipment



Efforts/Activities – Offer of Comm Means

Fixed / Mobile

Internet

- ◆ Installation of especially prepared public phone by using portable satellite telecom equipment etc

About **3,900**



- ◆ The loan of free satellite mobile phone



About **900**

- ◆ Installation of free internet corner

About **410**



- ◆ The loan of free mobile phone



About **2,100**

- ◆ Offer of the internet environment by a tablet terminal



About **670**

- ◆ Installation of a free charge corner

About **410**



<p>Government</p>	<ul style="list-style-type: none"> ● Gratis offer of the map information and aerial photograph before and after suffering a calamity to a governmental agency etc.
<p>Medical</p>	<ul style="list-style-type: none"> ● Implementation of the remote health consultation by gratis offer of TV telephone to a refuge, etc. <p>By supporting a volunteer group's "East Japan great earthquake stricken area support / continuous care cure network project (C3NP)" activity, we will provide with it in Kurihara in Miyagi Pref. and Tono in Iwate Pref.</p>
<p>Education</p>	<ul style="list-style-type: none"> ● Gratis offer of the multicasting services from a school to parents and guardians ● Provision support of a juvenile student's learning environment <p>Through cooperation with the partner company of education fields, or an academic expert, we are under examination of offer of the drill teaching materials on a tablet type terminal, etc.</p>
<p>Others</p>	<ul style="list-style-type: none"> ● Disaster victims' assisted living information, including refuge information, a water station information, operating condition of a store etc., is offered in a portal site.

Efforts/Activities – Life Support for Victim



Safety Check	<p>Disaster Message Board (Voice) About 3.3M Messages (3.17M) Disaster Message Board (Internet) About 0.26M Messages (0.24M) Disaster Message Board (i-mode/Mobile) About 4.25M Messages (3.79M)</p>
	<p>Message custody activities Activity which keeps a message for disaster victims and tells a message instead of disaster victims</p>
Life Support	<p>Offer of 54 company residences / about 3,400 houses (43 company residences / about 3,000 houses), and 12 affairs such as land Offer as a life space for victims who suffered a great deal of damage, based on the request from a self-governing body.</p>
	<p>Gratis offer of the telephone to a makeshift house etc.: 30,000-set preparation for the beginning</p>
Others	<p>Contribution of 1 billion yen (=9.5M Euro, 1 Euro=105 Yen) as NTT Group.</p>
	<p>About 1 billion yen contribution through point exchange of a stricken area support charity site or membership system service</p>
	<p>Non-charge of the basic usage fee etc. for a period which communications service was not able to be used</p>
	<p>Use in the company cafeteria of the agricultural products which was made in a stricken area</p>

In this East Japan great earthquake, communication equipment was influenced by the unprecedented following matters, and diversification of the information connection means became to be remarkable.

- **Occurrence of a 4th world observed super-massive earthquake in history, Tsunami, and much aftershocks**
 - ✓ Serious damage caused by tsunami (wetted surface area is almost equivalent to Tokyo's 23 Wards)
 - Entry is impossible because of huge heap of rubble, road cutting into pieces, etc. for a long period of time.
 - ✓ A wide area and prolonged power failure (almost whole Tohoku region and Kanto bloc more than 7 million households in Kanto region)
- **Implementation of the Scheduled blackouts in metropolitan area**
- **The information connection means of the safety check, and restoration / disaster victim support are diversified (mobile, Internet).**

Since communications service is an important infrastructure socially, we advance the study towards future countermeasures against calamities based on the above-mentioned viewpoint.

① provision of making a network strong against a disaster, and an early restoration means

- The preparation to the broader-based disaster by promotion of local distribution of an important function, formation of many routes, etc.
- improvement in the power-proof over a wide area and a prolonged power failure etc.

- Large zone mobile telecom station
- Power failure correspondence

② Early communication reservation of local relief base

- practical use promotion of a satellite and radio Etc.

- Small satellite communication station

③ Reservation of the information sharing means after suffering a calamity

- Correspondence strengthening to needs, such as a safety check immediately after suffering a calamity (measure against congestion)
- correspondence to a visitor's needs that is being diversified from voice to mail and

- Voice message
- Information Station

④ Offer of the service/solution which is useful at the time of a disaster and revival

- local government support, school support, and medical support etc.

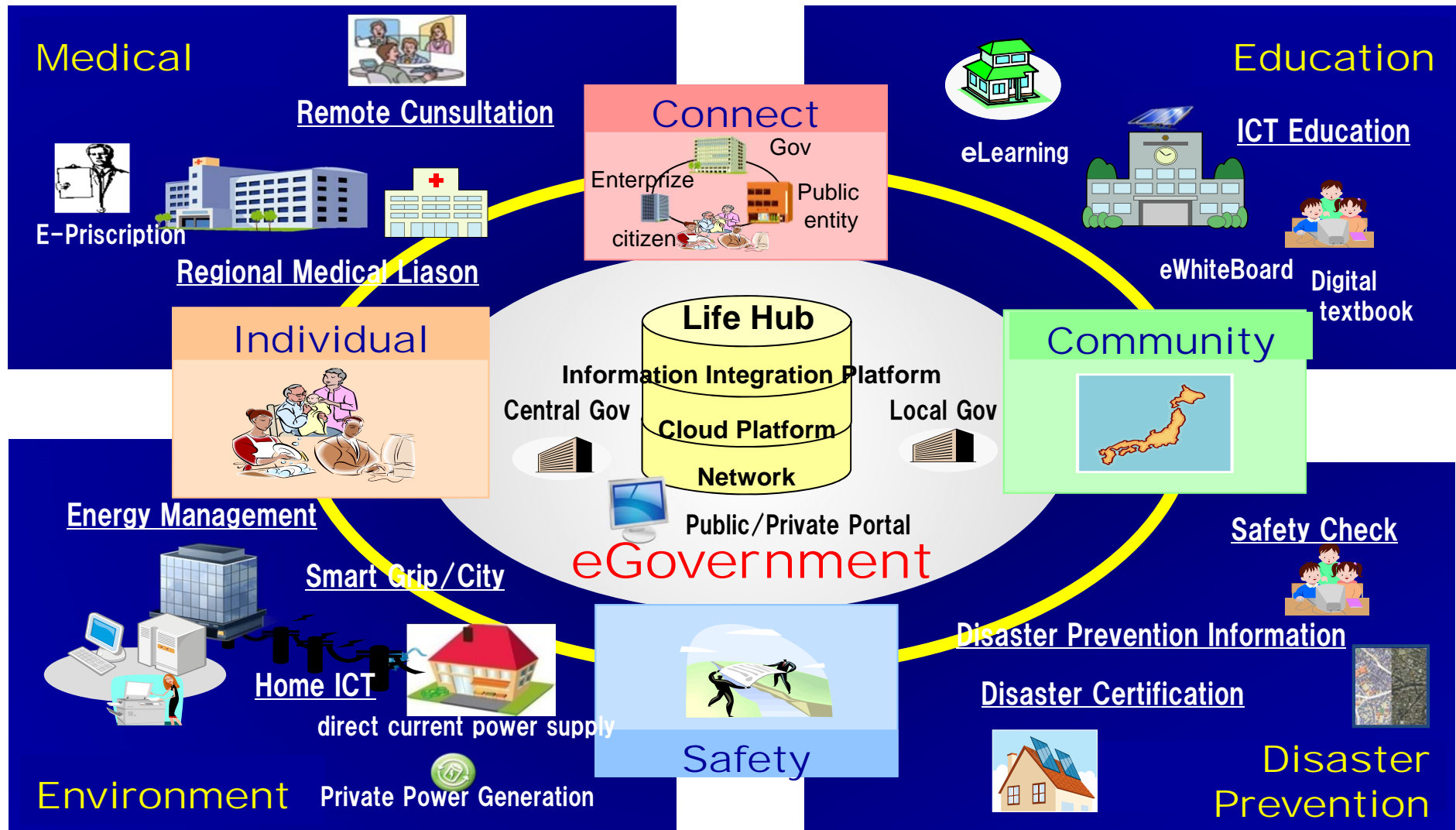
- Municipal cloud
- Remote health consultation
- Smart city
- Disaster Prevention Info.

Realizing those goals, and coordination, collaboration and cooperation with central/local government are important

Social Information Infrastructure and eGovernment



For Basic Citizen Life (Connect-Individual-Community-Safety Life)



Thank you for your Attention

