

# Not only Earthquake Early Warning but also Disaster and Evacuation Information to Cellular Phones

## Early Warning “Area Mail”



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- For the cases of earthquakes or disaster, there are expectations for the rapid provision of disaster information.
- In order to minimize the damage of disaster, it is necessary to deliver the rapid provision of disaster information to residents of a potentially affected area.
- Cellular phones, in particular, are the focus of much attention because they enable warning to be received at any time day or night.
- In order to deliver the information, we think that cellular phones can make up for the television or radio.
- As part of its efforts to achieve a safe and secure society, we developed the **Early Warning “Area Mail”** service to broadcast such emergency information in Dec. 2007

### Area Mail (Earthquake Early Warnings)

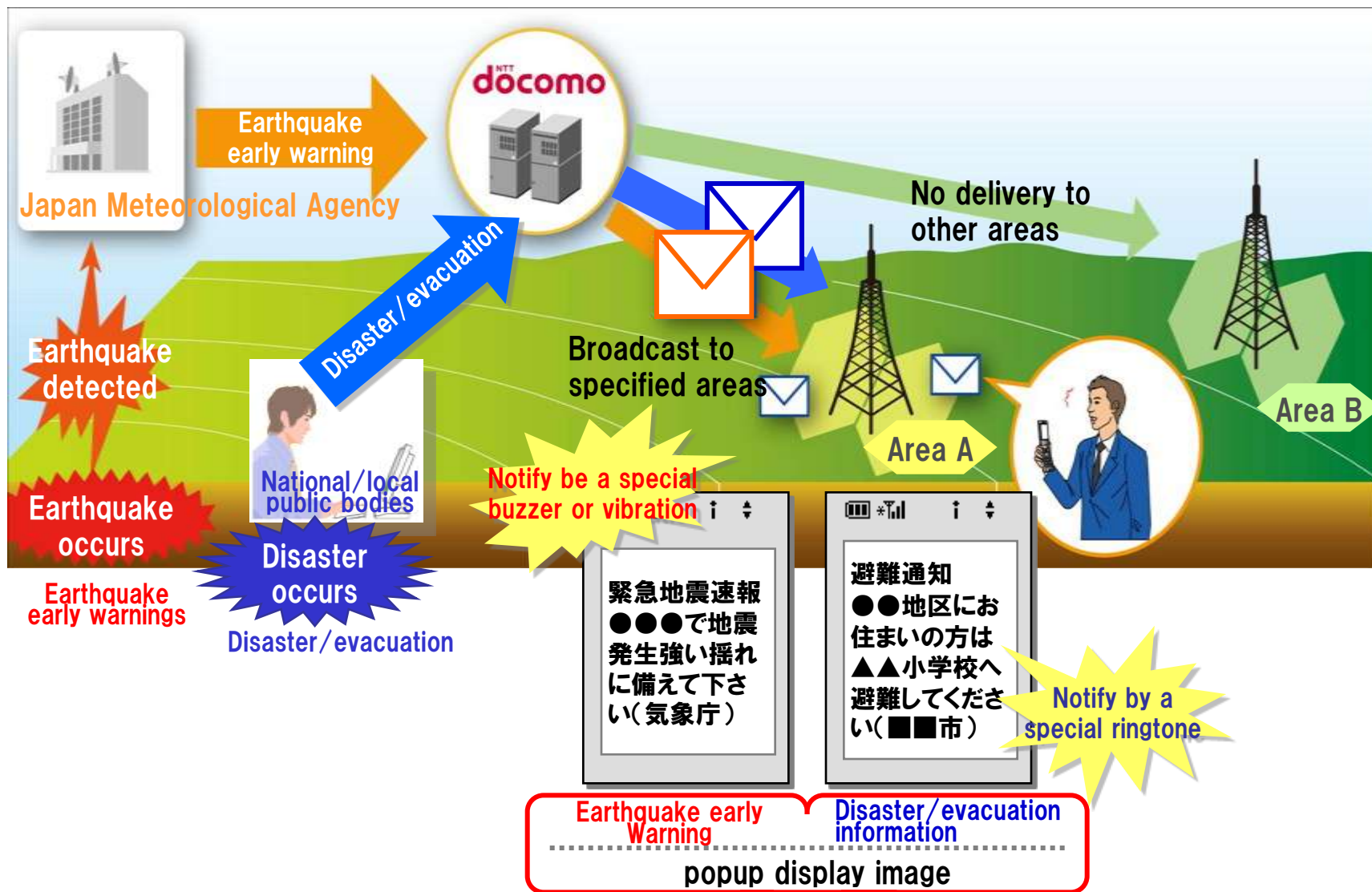
It enables docomo cell phone to receive earthquake early warnings for the general public.

### Area Mail (Disaster and Evacuation Information)

It enables docomo cell phone to receive emergency information (such as evacuation information, tsunami warning, various warnings, etc.) from national or local public bodies within potentially affected areas.

※It is necessary to apply to docomo to be Area Mail deliverer.

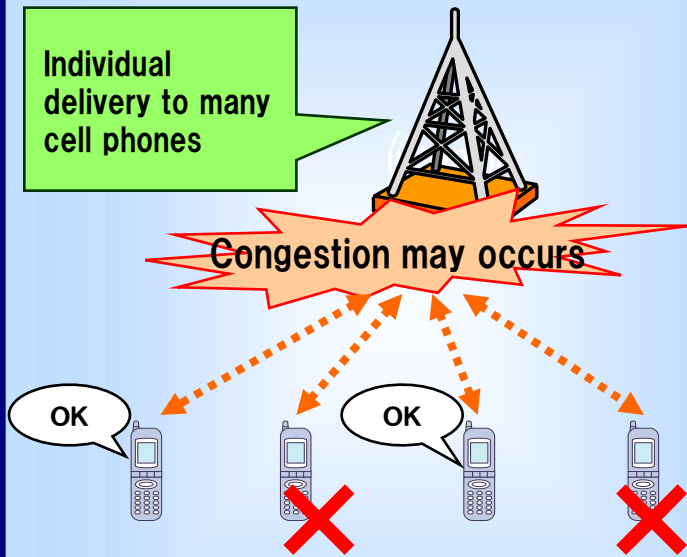
# 2. Area Mail Overview (whole image)



## Delivery by i-mode email

Individual delivery to many cell phones

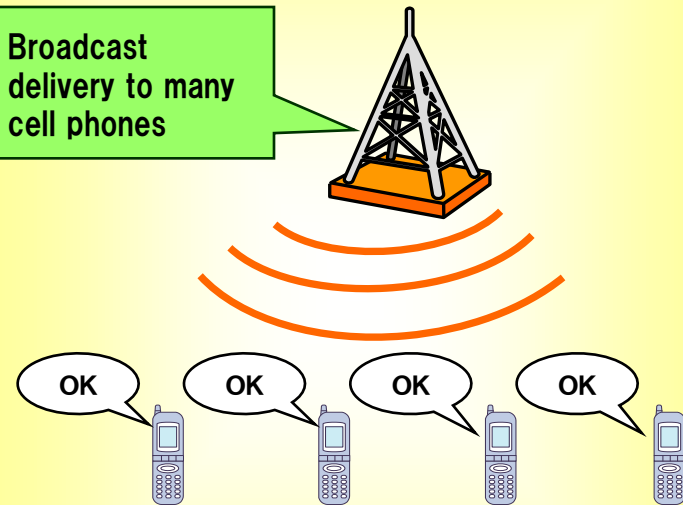
Congestion may occurs



Congestion hinders immediate delivery to many cell phones.

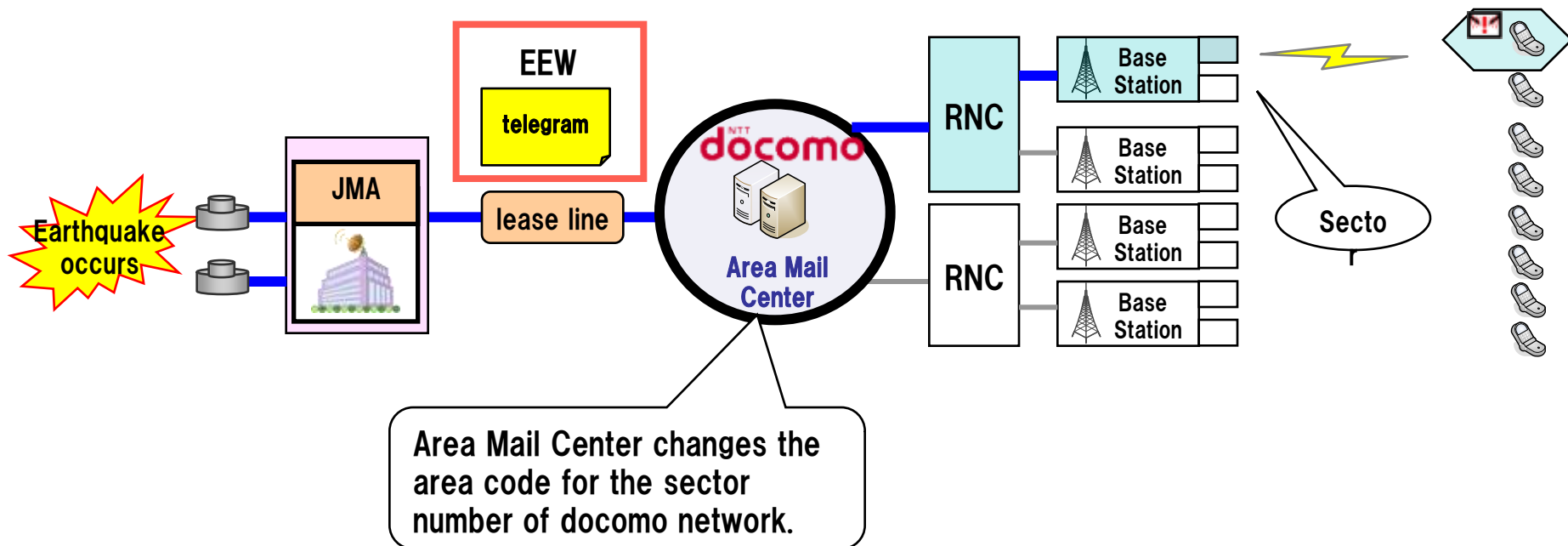
## Delivery by Area Mail

Broadcast delivery to many cell phones



Immediate delivery to many cell phones is possible.

Soon after docomo receives EEW from Japan Meteorological Agency, we deliver the Area Mail only to those areas expected to experience a strong tremor with a seismic intensity of 4 or greater.



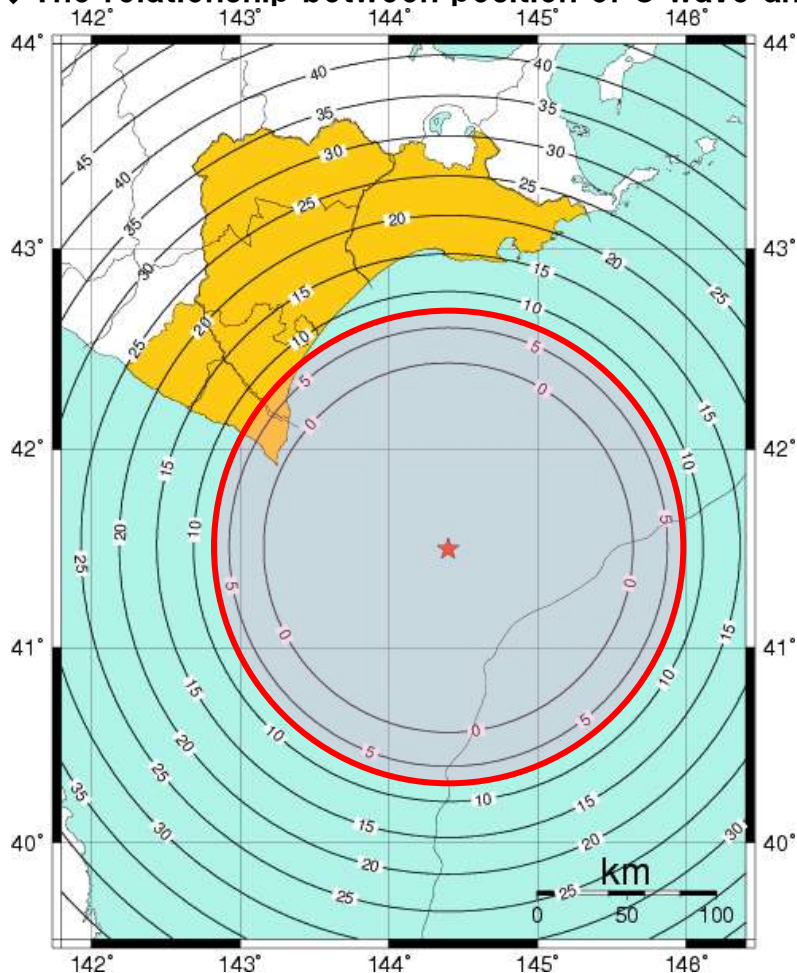
Area Mail is delivered in about 6 second at fastest after docomo receives EEW from JMA.

# 5. In case of Tokachi-oki earthquake

## ◆The earthquake

Date	Epicenter	N. Lat	Long. E	Depth	magnitude	Maximum seismic intensity
Sep. 11 <sup>th</sup> 2008 9:21 AM	Tokachi-oki	lat. 41° 5' N.	Long 144° 4' E.	20km	7.0	5-

## ◆The relationship between position of S wave and the time after EEW was delivered.



★ : Epicenter

■ : Area where the EEW was delivered

○ : Position of S wave

○ : Area where it seemed to be impossible for Area Mail to be delivered before S wave came.

Because hypocenter was at deep sea, and EEW from JMA was delivered in 10 second after the earthquake occurred, Area Mail was useful in most area except the area which is near the epicenter.

### Advantages

- ① No need to manage destination email addresses
- ② Possible to deliver all cell phone users in the area
- ③ Possible to deliver in a short time
- ④ Popup window on the handset screen

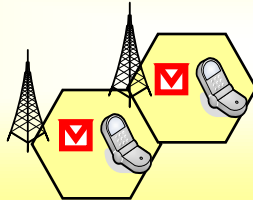


## Advantage 1

No need to register nor to manage destination email addresses.



Deliver the messages specifying the area.



### ■ Needed

Deliverer

to specify the area

Receiver

only to set Area Mail receive settings to ON

## Issue of i-mode emails

1. It is needed to collect the email addresses (personal information)

⇒ Local residents do not register the addresses easily.



Sense of Users  
not want to tell the  
address of cell phone

2. The list of email addresses becomes obsolete over time.

⇒ Needed to re-collect new addresses



in several years



correct address



changed address



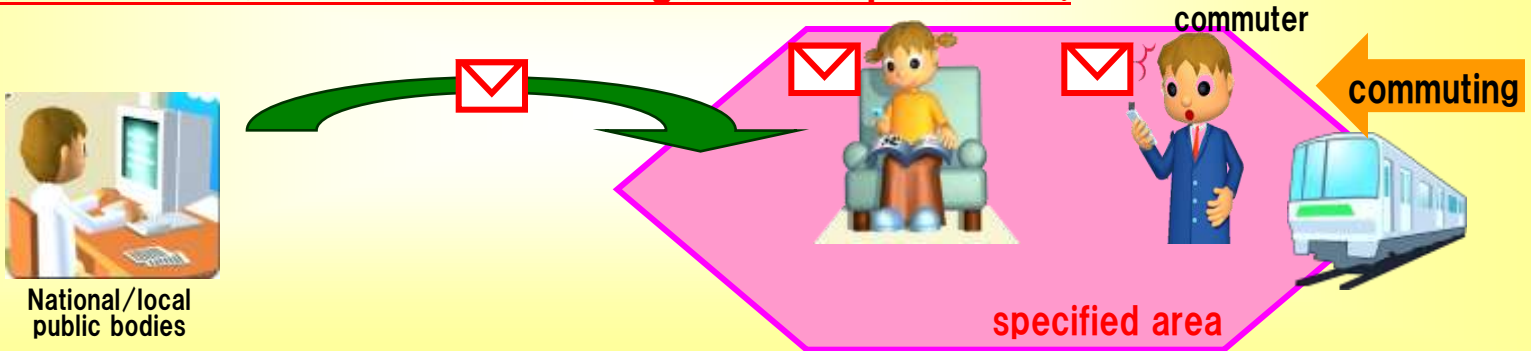
domain specification

can't send  
mails...  
(could send  
before)

## Advantage 2

Information is delivered to each area, which enables not only residents but commuter and tourist to notice the danger in the presence.

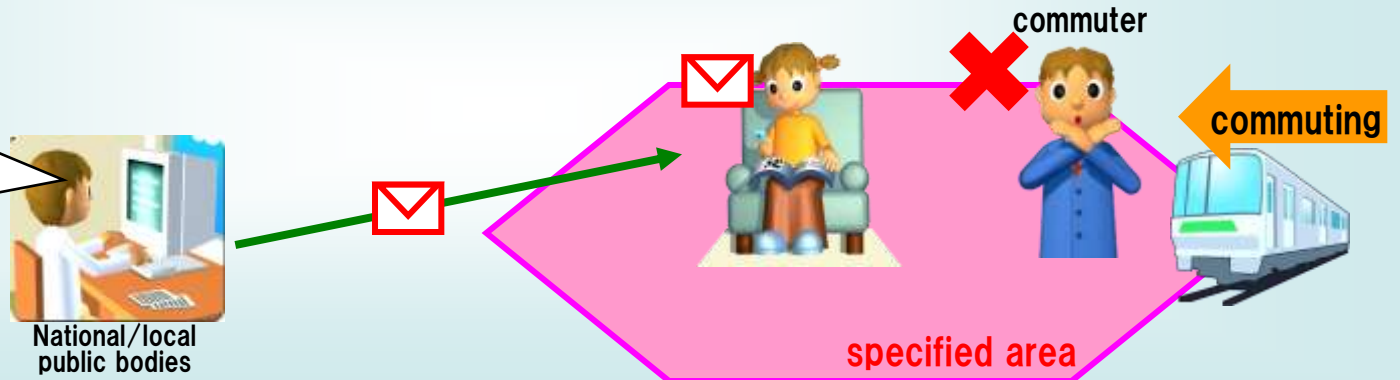
Deliver to each area



## Issue of i-mode emails

It is difficult to deliver the messages to commuters (to school and work) and tourists etc. visiting those area by chance.

- List
- Mr. A (××@jp)
  - Mr. C (△△@jp)
  - ⋮



## Advantage 3

Merely causing congestion etc, Area Mail can deliver the information to a number of cell phones in a short time.



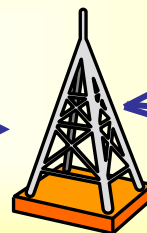
National/local public bodies



Message delivery site

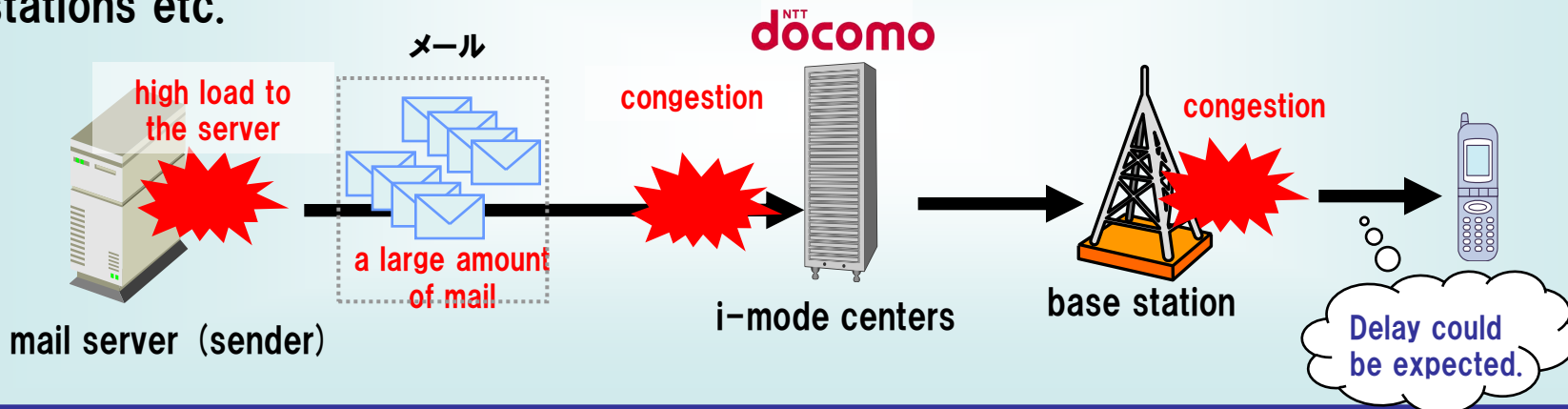


Area Mail Center  
NTT docomo



## Issue of i-mode emails

If a large amount of the i-mode mail were to be delivered, delay could be expected because of the congestion at the mail server, the i-mode centers, and the base stations etc.



## Advantage 4

The users can notice the information by special ringtone and popup, without doing complex operation.



Area Mail



National/local public bodies

[movie]  
popup display and  
special ringtone  
(for free)



The received content is displayed by popup.



※The display is different depending on the model.

PC site : <http://www.nttdocomo.co.jp/service/anshin/areamail/about/>  
Mobile site : <http://i.nttdocomo.co.jp/f/service/anshin/areamail/movie/>



	i-mode email	Area Mail
Delivery method	Specify addresses	Specify delivery areas
Address management	Address registration/management required	Unnecessary
Swift mass delivery	Not suitable (Congestion measures required)	best (broadcast delivery)
Required equipment [for deliverer]	Mail Server according to the number of users	PC (browser only)
Number of deliverable characters	Many	Few
Deliverable information	Text, image, icons, etc.	Text only
Undeliverable action	Saved at i-mode mail center	re-sent without being saved at Area Mail Center (disaster/evacuation information only) ※1

※1 Area Mail Center doesn't save the Area Mail

# 9. Impossible to receive

In case of below, it is impossible to receive Area Mail. Being different from i-mode email or SMS, Area Mail is not saved at Area Mail Center.

1. Out of range

2. Bad condition of radio wave

3. In communication  
(telephone, packet)

4. In using other services

5. After contract cancellation



**whenever and wherever**

Everyone can receive Early Warning "Area Mail".



Outside



During trip



Sleeping time (TV or Radio are off)



**Thank you**

NTT  
**docomo**