"Devastating Network In Miura Peninsula Japan"

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ABSTRACT

. This paper presents about the report of devastating network in Miura penin sula near Tokyo.1995,January.17, eary in the morning ,Kobe Earthquake damag ed many people in Japan. At this eart hquake,informations were very poor.Si nce then various cities had committee s to modify these situations.Yokosuka City and NTT(Nipon Telephone and Tel egram)(Chairman was myself)started th e committee in the same year of March 1. They were using the ordinary malti media because of difficalties of usin g extra methods(like the battery not working)when devastating earthquake comes. By 2 years,we could finish bas ic ideas and the now were realizing.

Key Words:Yokosuka City

Multimedia
Information network
Application software
Devastating network

1 INTRODUCTION

1995 January 17 eary in the morning, we had Kobe-Awaji devastating earth quake,and Japanese people had the big damages. The cities of Japanese at t hat time,should consider the informat ion systems,impotant to inform ? the damages of,for instance,p eople in the damaged areas fro m the cities or firefighting o ffices of the cities. Fortunat ely,Yokosuka City was quite ea ger for information systems of natural disaster. Especially the reservation of driking wat er,they must carry it from Saq ami River,far from Yokosuka,so they form the tanks of water before **Kobe** Earthquake.

2 DEVASTATING NETWORK

Devastating network was usefu l,of course, at natuural disas ter events,but even ordinally times using multimedia informa tion and correspondent network s,and information between rel ated organizations are very im portant. These are the basic i deas of"devastating network".S afeties of the people in the d istricts and better services o f administrations will be also important.The above network s ystems are used for ordinally time, for the information ser

vices,education infomation's common u
se and for information between admini
stration offices.At devastating time,
to chenge application software,using
the same tools of ordinally time,info
rmation of damages degrees,of accumil
ation, of good timing about the loss
of the people,the common knowledge ab
out the devastating information for e
ach information offices are necessary
. Uses of devastating network,on ordi
nal times,were not only the effectiv
e uses of devastating network in ordi
nal times but devastating network sys
tems must be used ordinal daily beca
use on devastating times,the ordinaly
people,sometimes,could not use specia
l devastating network or devastating
network was broken and the poeple cou
ld not realize it until they start to
use or the batteries of devastating
network were run out.

The reason of maltimedia for devasta
ting network were the following;
combinations of variouse information
of pictures,of places,of voices and l
etters to understand easily the damag
ed degrees by coming devastation will
be especially necessary at devastati
ng times.

3 MIURA PENINSULA City(Yokosuka City
) MADE A COMMITTEE FOR DEVASTATIG NET
WORK

Not only peninsula's closed situatio
ns but also this peninsula area are c
alled "Tanito"(valley and door),mixed
with vallies and hills,and when deva
stating earthquake comes,in the above
areas are qute difficult to
inform their damages to thei
r area or near areas.Actuall
y,some places of firfighting
radios and potable telephone
s could not communicate each
other(PHS:portable telephon
e became better communicatio
ns recently).Yokosuka City w
as eager about devastating n
etwork since long time ago,a
nd drinking water were store
d in the water tanks,for ins
tance under the parks becaus
e drinking water were brough
t from Sagami River by the s
teel pipes as already writte
n before.Beside the above,th
ey are promoted to prepare m
achine materials,food and me
dicines.However the method o
f information,between firefi
ghting offices or cities dev
astating network radios and
general telephones could onl
y use.Corresponcpondent meth
od between self defense armi
es,polices and medical offic
es are known to be only by t
elephones.These the above re
sons became to start the com
mittee of devastating networ
k.Beside the above items,NTT
s roles could not be missed.
In Yokosoka City,NTT may hav
e rsearch office soon,and so
meny people of NTT live in
Miura peninsula area.So NTT
plans the similar devastatin
g netwok with Yokosuka City.

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And this was the one of the reasons w
hy Yokosuka City made the committee o
f devastating network.

4 CONSIDERATION AND PROCESS

Almost all cities of Miura peninsula
have similar conditions,so other tha
n Yokosuka City,3 cities,1 town,NTT a
nd Kanagawa prefecture office joined
together for this committee.And self
defend army offices,marine security
offices,polices,medical offices and
lifeline business groups(all together
33 offices)joined together.2 years l
ong,committee started from March 1 th
e same year of Kobe-Awaji devastating
earthquake.In year of 1995,11 times o
f meetings(considerations:3 times org
anizer meetings:4 times top committe
e:4 times) and 45 times of person's h
earings were held to find out the rea
l problems.And basic concepts were de
termined.

Through these meetings,each related
offices discussed and concidered the
real necessary information,stiles of
these information and what the real u
seful information will be. Finally,Oc
tober 26 of the same year,『ARCS』(Aid
For District Devastating Network) wer
e made as the result for the rocal de
vastating network.

The second year of devastating netwo
rk committee,dependig upon basic conc
epts,realized devastating network,dis
cussed the specifications of devastat
ing network.11 times of meetings and
all together 41 times of hearings wer
e done.The specifications of necessar

y functions and practical us
es of this function were se
ttled,and concluded the 2 ye
ars project.By this devastat
ing network project,the trus
t each others of the related
offices were much more inc
reased.After this,committee
of devastating network,at Mi
ura peniunsula area,meny off
ices got together to do the
training of devastating netw
ok.In that sense,the new con
nections of each others will
be made.

The second years of this pr
oject,1996 April,4 cities an
d 1 town,collected together
the policies of the common p
urpose and once again get to
gether to fix the satellite
telephones,that were establi
shed in prefecture's office
and polices offices so that
at anytimes they can contact
with each other.Upon the ab
ove ideas,communications net
work by the real multimedia
will be prepared.The later o
f the second years,depending
upon the final results,star
ted the real devastating net
work.

The research people of NTT'
s developed application soft
ware and Miura peninsula are
became the fields and by ma
ny people of the related joi
ned together for the experie
nces of application software

s.Points of this development were the use of the standard communication system,at the same time,to many address , the communication traffic were flown about and treated them with composure.Hardwear to load the software were made by Yukosuka City with some assistance from the administration of trades and industries.Using LAN and sarvers of Yokosuka City and of their education study offices,the communication circuits and for the edge PC will be maintenanced after 1997.

At August 31 1997,using the studied facilities,the exercise was performed by Yokosuka City.The information of devastating network was to the main measure office and we stayed there to estimate the results.the main measure office necessaryly chenged some system and brought the new portable terminations with staffs of fierfighting,to exercise to send multimedia information to that main measure office through pictures,GPS data ,voices and letters.

5 FUTURE

The brushup of examined systems and prepare the real system will be necessary to improve these systems.Through these improvement,finally the wonderful systems will be made.

The practical use of the regulations will be sometimes quite difficult,so the through experiment system,hearings will be expected and the practical rules and systems will be obtained through the forms of 「rules」.

The costs of correspondent maintenances were not cheap, so ordinal correspondent information systems were used,We would like to use the exclusive correspondent safe systems in the future.

MAIN OFFICE OF YOKOSUKA CITY

CITY DESTINATION

(AT DIDASTER:CENTER OF DISASTER INFORMATION)

(AT ORDINARY:CENTER OF ADMINISTRATION INFORMAYION)

SATELLITE
TELEPHONE

Edge Of personal
computer

(Successively
Prepared)

SERVER·DETA BASE

INTERNETS

THE EDGE OF PERSONAL
COMPUTER
(Input and Output)

NETS OF PUBLIC
CORRESPONDENCE
(In futre,light
cable will be
used)

EVERY DEPT
(Successsively
prepared)

STUDY OF EDUCATIONS

LAN

(Ordinary Time:education center

Disaster Time:sub center

3 HIGH SCHOOLS

MAIN OFFICE OF
FIREFIGHTING

RELATED OFFICES
(Self defence armies
Polices medical
functions)

ELEMENARY AND
MIDDLE SCHOOLS

Indication of
picture

THE EDGE OF PORTABLE
TIBE IN AND OUTPUT

PHS

CITIES And 1 TOWN
THE PUBLIC
FACILITIES·SCHOOLS

THE EDGE OF
PERSONAL
COMPUTER

FIXED CAMERA (hill)

INFORMATION EDUCATION WIDE
AREA COOPERATION NETWORK

THE EDGE OF
PERSONAL COMPUTER
(Successively
prepared)

EDUCATION SYSTEM
OF THE REMOTE AREA

(Successively
Determined)

REMOTED CAMERA

Disaster waching
control technique

HOSPITAL

ESCAPE AREA

THE EDGE OF PORTABLE INFORMATION

THE MOBILE DISASTER INFORMATION COLLECTION

Support of community platform
・remote meetigs・support of
joint information

Various Information will be
fast and easily collected
・remote cameras
infomation of safety
Information of hospitals
Information of escape areas

SPEEDY COMMUNICATION
Speedy and simple
LAN constructed

Collected information were put and THE MAIN DISASTER OFFICE
connected easly to understand
looks grass,plots
in maps and reference

SERVER

TECHNIQUE OF
SETTLED MAPS

LAN

DISASTER
INFORMATION MAPS
DB   DB

INFORMATION OF DISASATER MEASURED OFFICE ambulance
ADMINISTRATION FIREFIGHT OFFICES ETC.

COOPERATION OF PORTABLE
TECHNQUE OF DATA BASES
Cooperation of different data bases
such as information of administration

DB ETC.

TECHNIQUE OF DISASTER INFORMATION

COLLECTION AND ARRANGEMENT

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