



IPSTAR service for communication recovery in the aftermath of 2011 Great East Japan Earthquake

## Case Study

## Business Continuity

# Local Japanese Government Invests in IPSTAR Business Continuity Service

Japan lies in a highly disaster prone area, on the north western part of the notorious Pacific Ring of Fire, which is associated with a nearly continuous string of volcanoes, tectonic fault lines,

and oceanic trenches. The tectonic area around Japan is extremely unstable with 10 percent of the world's volcanoes concentrated in this region. On average, more than 1,500 earthquakes occur

annually in Japan. Over the past 50 years, Japan has experienced around 25 earthquakes of a magnitude greater than 6.5 on the Richter scale.

### Challenge

- Provide backup satellite service in disaster hit areas.
- The link should provide a failover service as soon as the terrestrial infrastructure is down.
- The service should provide enough bandwidth to support normal IT operations of the organizations.

### Solution

- Use of 4/2 Mbps IPSTAR broadband service.
- The service can be activated as soon as the terrestrial networks are detected to be down.

### Benefits

- Reliability**
  - Provide reliable backup solution which can be turned on at any time.
- Nationwide Coverage and QoS**
  - IPSTAR provides nationwide coverage and consistent QoS regardless of which disaster hit area is to be serviced.
- IP Compatible**
  - Capable of providing a wide range of IP based solutions, along with Internet access.

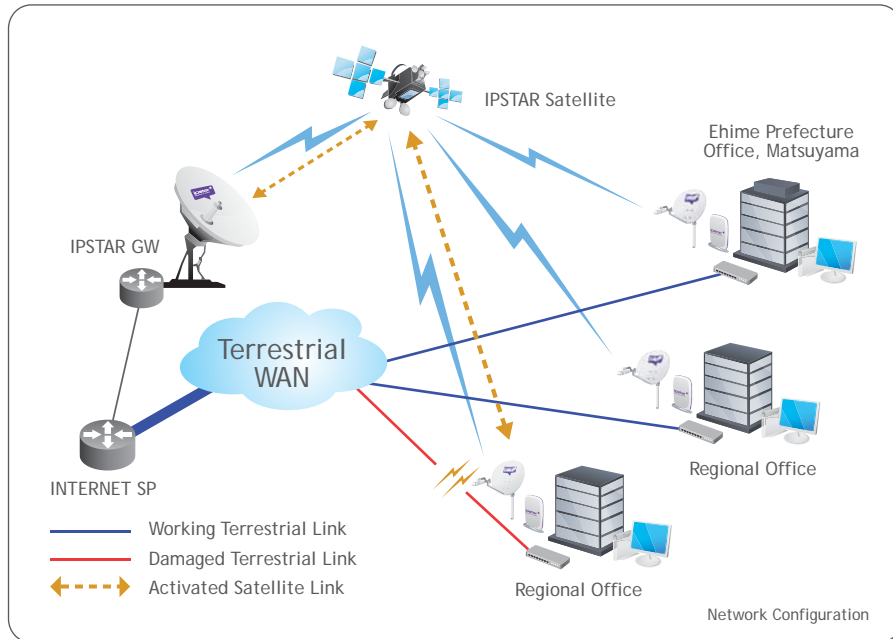
## Proof-of-Concept

The lower cost of IPSTAR broadband satellite over other conventional satellites makes the implementation of disaster prevention and backup networks feasible not only at the national level, but also at local administration level. Ehime is the first prefecture in Japan to make use of the advantages of IPSTAR to implement satellite-based backup links for Internet access. Mr. Taira Akizuki, Ehime Prefecture's Chief of Risk Management Section said, "We have found the ideal satellite broadband service in IPSTAR to prepare for backup communication services. During our tests and deployments with IPSTAR, we have found that the service can reliably provide the Internet bandwidth required to run the services of our Disaster Prevention HQ and help us maintain communication with our regional offices when other means of telecommunication are not available."



Ehime prefecture staff using emergency communication services

IPSTAR Country Representative of Japan, Mr. Yasuto Tanaka, commented that, "Local governments generally preferred to use closed private networks in the past. However, after seeing the important role the Internet played in the aftermath of Great East Japan Earthquake, especially the active use of social media for emergency communications, Ehime Prefecture has decided to use an open Internet based network over satellite. This is a good example for other prefecture governments to follow to prepare for disasters. In the past, the high cost of conventional satellites only allowed backup links to be setup in critical locations at a national level. However with cost effective broadband Internet service from IPSTAR, satellite backup links are now feasible at local and municipality levels."



## Massive Disruptions

All the telecom service providers had their cellular and other services severely disrupted during the Great East Japan Earthquake and Tsunami of 2011. The 4 major service providers of Japan had their infrastructure destroyed—with NTT Docomo, KDDI, Softbank Mobile, and Emobile losing 6720, 3680, 3800, and 878 base stations respectively in 11 prefectures. The role of communication services becomes vital during disasters, with rescue workers, first responders, the local authorities, as well as the victims all wanting to use the service. The work of local governments is vital for disaster relief coordination work, and their duties cannot be fulfilled without having intact means of communication in the event of any disasters irrespective of their scale and magnitude. Satellite based communication platforms are immune to disasters on ground and are best suited to provide uninterrupted communication services.

## The Situation

During the Great East Japan Earthquake and Tsunami of 2011, prefectural governments in the affected regions had their telecommunication facilities including Internet access and telephony links cut off. In order to prepare for such situations, the prefectural govern

ment of Ehime wanted a solution that could continue providing vital communication services in the face of any future disaster. The prefecture government aims to keep the communication links with its regional offices up and running, so that local situations can be reported back and information and instructions for disaster prevention and relief efforts can flow out. The prefecture government plans to be well prepared for any future earthquakes that will occur.

## The Solution

Ehime prefecture found a perfect solution in IPSTAR broadband satellite service for the provision of high bandwidth backup communication links which matched their exact requirements. The prefectural government has installed six IPSTAR UTs (User Terminals), one in their Disaster Prevention Headquarters in Matsuyama and the others in different regional offices such as in Uwajima. A dedicated workstation has been deployed with each IPSTAR UT to monitor the satellite link, which will eventually be used to collect and broadcast disaster related information in the event of disasters. The IPSTAR link is a total backup solution that can be used for Internet and other services the moment the terrestrial link is cut off. The prefectural government intends to ready multiple methods of communication to face any kind of disaster.

### About IPSTAR

IPSTAR is Asia Pacific's leading broadband satellite operator. The IPSTAR broadband satellite platform drastically increases bandwidth efficiency at significantly lower cost of service, resulting in a competitive advantage over conventional satellites. Full frequency licenses and strategic partnerships in 13 countries provide the telecom industry as well as enterprises direct market access for the cost-effective expansion of services in the rural and remote areas. In doing so, we are working closely with the region's operators and ISPs to develop affordable satellite broadband services and deliver truly scalable capacity from the low Megabit to multiple Gigabits—for increased competitiveness and flexibility with high Quality of Service (QoS) at lower cost.

For more information, visit [www.ipstar.com](http://www.ipstar.com).

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