

GA4D

Data Provider Case Study

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Intro to GA.4.D questionnaires

The GA.4.D Architecture Study is carrying out a number of case studies to help with the development.

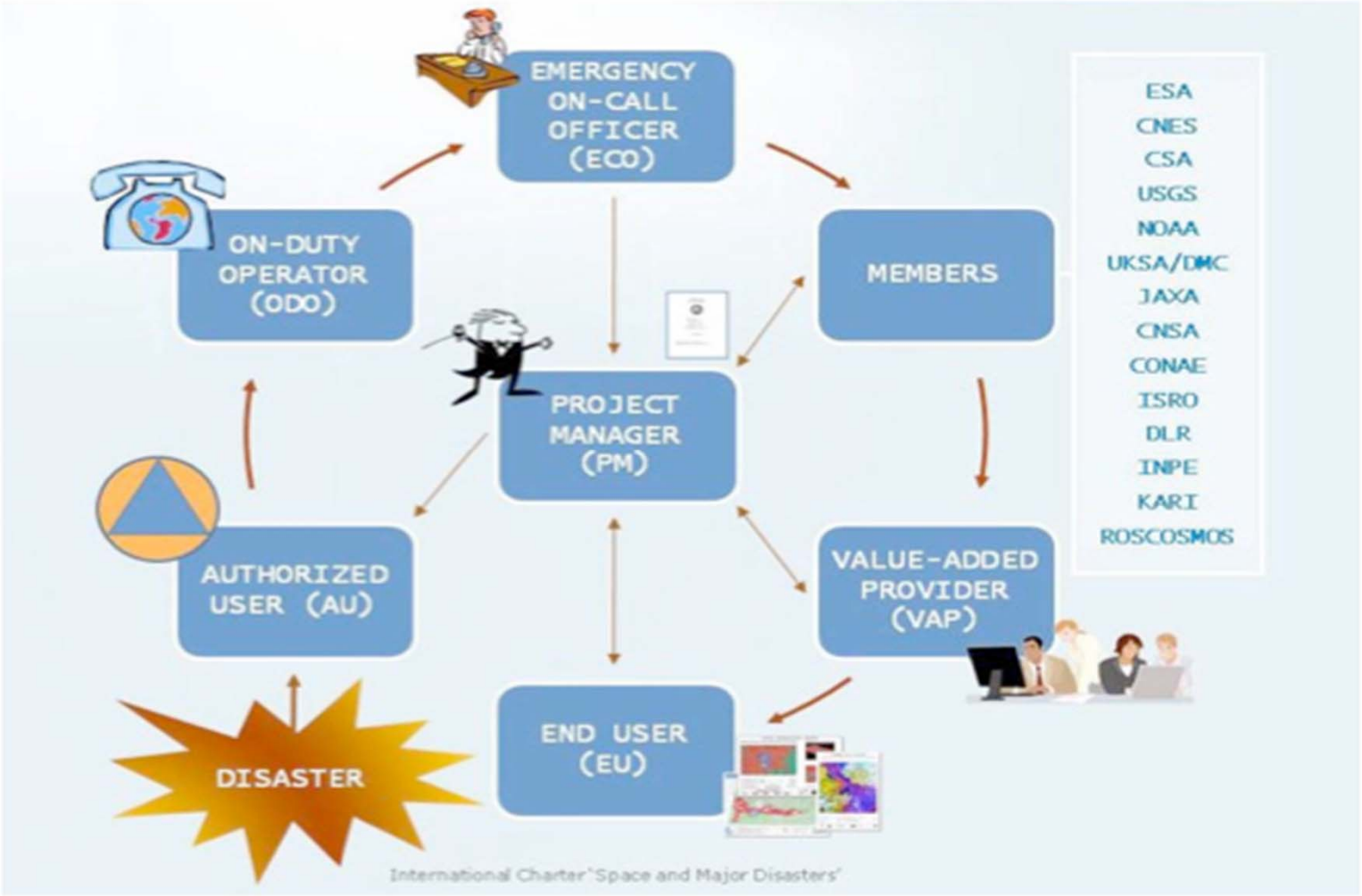
A questionnaire was created to help solicit information but this was targeted at users.

A different Questionnaire was created for Data Providers.

Questionnaire for Data Providers

- How many disasters have been supported?
- Who instigated the request in each case?
- How much data was supplied?
- Was "on-call" or out-of-hours work by staff required?
- Was any special/additional image processing carried out before delivery?
- How were the data delivered - and to whom?
- Was any follow-on work requested after initial request?
- Would have additional data, supplied outside of the Charter scope, been useful?
- Any suggestions for improving the process?

Charter Case Study



Several different types of "Actors" involved

Intro to DMCii – UK contributor to Charter

- DMCii, a commercial data provider, represents several members of the Disaster Management Constellation (DMC)
- In partnership with UK Space Agency – member of the Charter Board
- DMCii supplies 20m/30m resolution imagery from the DMC constellation
- DMCii provide a share of the Charter Emergency On-Call Officer (ECO)
- Provide one week of 24/7 cover for the ECO role every 2 to 3 months
- ECO personnel have formal training and a refresher every 6 months
- Adina Gillespie (DMCii) is Executive Secretariat Member of the Charter
- Responsible for UK operations
- Also assists UK Users (The UK Cabinet Office)

Summary of answers

1. How many disasters have DMCii supported?

170 events since 2005. Rate about 2 – 3 per month

2. Who instigated the request in each event?

The Charter supports requests from 4 main sources:

- National Civil Protection Authorities of countries signed up to the Charter
- From organisations with links to Charter Member Organisations
- UNOOSA and UNOSAT on behalf of UN organisations
- Sentinel Asia (who help co-ordinate requests from Asian countries).

Summary of answers

3. How much data was supplied?

Each DMCii image covers a relatively large area (~600km swath width). A single scene is therefore usually sufficient to cover an event. Anywhere between 1 to 5, or more, images may be provided during the 14-day activation period following an event. Data may be provided from Archive in addition to new satellite tasking.

4. Was "on-call" or out-of-hours work by staff required?

Out-of-hours support is only supplied when ECO support is being provided. Satellite-tasking requests and data processing are queued to be addressed as soon as staff become available during normal working hours.

Summary of answers

5. Was any special/additional image processing carried out before delivery?

Raw data is normally processed to ortho-rectified imagery before delivery. No other processing is carried out.

6. How were the data delivered - and to whom?

Data are ftp'd to the Charter ftp repository, specifically set-up to receive Charter data and allow it to be further distributed by the Charter Project Manager assigned to handle the particular event.

There are 5 designated Project Managers in the UK. These PMs are only called upon to handle events in the UK.

Summary of answers

7. Was any follow-on work requested after initial request?

Additional data processing is usually carried out by the appointed Value Added Provider. DMCii is considering providing Value Adding Services, but this would be outside of the scope of its current Charter Data Provider remit.

8. Would additional data, supplied outside of the Charter scope, have been useful?

For more extended disasters that do not qualify in the Charter definition of 'disaster' such as famine, data outside of the normal Charter service would be useful.

In cases where data is beneficial beyond the normal 14-day window for a Charter activation, some Agencies choose to continue to provide relevant data at no cost.

Summary of answers

9. Any suggestions for improving the process?

Already under consideration:

- Universal Access Initiative - to improve the marketing of Charter availability, and allow civil protection authorities from all countries to register to become an authorized user.
- Improve overall efficiency - e.g. encourage all Charter Data Providers to provide immediate out-of-hours support for satellite tasking and data processing.
- Further improvements in the co-ordination of Value Adding Services. However, many of these services could be considered as being outside the scope of the Charter and could be coordinated at a higher level, such as through GEO.

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Solar Storms

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A chance for scientists and
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International Charter 'Space and Major Disasters' Opens New Doors

(20 September 2012) The international space organisation that makes timely satellite data available to rescue authorities is now offering 'Universal Access' to the data for emergency response purposes, strengthening its contribution to disaster management worldwide.

Founded by ESA and the French and Canadian space agencies, the Charter is an international collaboration between the owners and operators of Earth observation missions. It provides rapid access to satellite data to help disaster management authorities in the event of a natural or man-made disaster.

Through the Charter, satellite data were used to create maps and aid rescue efforts following disasters such as the January 2010 earthquake in Haiti, the February 2011 earthquake in New Zealand and the March 2011 earthquake and tsunami in Japan.

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Photos, Words and

Conclusions

Disaster Charter provides good case study for Architecture Study because of well defined actors and interactions.

Although Users of one system become information suppliers in higher level system.

There is an argument to perhaps try to develop a hierarchical architecture.