(draft)Minutes FDSN General assembly II June 30 and July 4, 2011 Melbourne
Present at the first meeting (June 30): Tim Ahern* (US), Bernard Dost* (NL), Steinuun S. Jacobsdottir* (Iceland), Zhang Xuemei* (China), Bob Engdahl (US), David Burbidge (AU), Tim Barton* (AU), B.K. Bansal (India), R. Kind Germany), Rami Hofstetter (Israel), K. McLaughlin (US), I. Bondar (ISC), Mohsen Ghafory Ashtiany (Iran), Pekka Heikinnen (Finland), Elena Kozlovskaya* (Finland), Dmitry Storchak (ISC), Soren Gregersen (Denmark), John Clinton* (Switzerland), Rick Benson* (US), Reinoud Sleeman* (NL), Ogie Kuraica (US), Mark Chadwick* (New Zealand), John Adams (Canada), Wolfgang Lenhardt (Austria), Marcelo Assumpcao (Brazil), Kent Anderson* (US), Michelle Grobbelaar (SA), Seiji Tsuboi* (Japan), Florian Haslinger* (Switzerland), Johannes Schweitzer (Norway), Torild van Eck* (NL) *(* - also present at the second meeting – July 4)*

In absence of the FDSN chair, Tim Ahern, accepted to chair the meeting.

Report from FDSN Chair
Key points:
- Participation in IRIS/FDSN Metadata workshop in Foz do Iguaçu do Iguacu, Brazil
- Next IRIS/FDSN metadata workshop in Bangkok in January 2012
- FDSN Backbone has grown to 250 stations
- WG I Station inventory is now near 1,500 stations
- 18 new organizations joined FDSN since 2009 meeting
- Niger indicated they will join FDSN and contribute data to FDSN dataset

Actions and challenges:
- Continue our outreach to attract new members
- How do we increase the participation of new organizations in the decisions?
- Election of a new chair and WG leaders.
- Review and approve new terms of reference
- Presence of FDSN in international forums like GEM, GEO, CTBT, etc.
- How can we keep up the interest and momentum of our membership?
  - biannual newsletter,
  - Enable member input using FDSN web site
    - Newsletter contributions
    - Other ideas and comments
  - Ideas wanted and needed

Vote on current FDSN Membership as shown on the FDSN web page
The new members as listed and added to the membership list up to June 30, 2011 on www.fdsn.org/FDSNmem.htm are accepted unanimously.

Proposed revision of the FDSN terms of reference
The secretary, van Eck, presents and explains the proposed changes in the Terms of Reference of the FDSN. The main changes are aimed at accommodating current practice. The steering committee is asked to consider the changes, submit modifications and vote on the final version on Monday July 4.

Proposal for (re) election of FDSN executive committee
WG chair and vice chair concept
The secretary presents the concept of vice-chair of the Working groups. The motivation is to involve actively more people, and introduce them to the WG activities. The steering committee accepts the concept.
The executive present their proposal for (re)election. The steering committee is asked to consider the candidates, submit alternative candidates and vote on the new chairs and vice-chairs on Monday July 4.

Working groups
WG summary of specific issues taken up in the different WG's meetings

Presentations
- IRIS and FDSN (Tim Ahern)
- GSN overview (Kent Anderson)
- ORFEUS and European area overview (Torild van Eck)
- Japan and South-East Asia overview (Seiji Tsuboi)
- China (Zhang Xue-Mei)

FDSN and GEO

The secretary provides a short update on GEO;
The old FDSN task DI-02-09-01b has been modified to new task DS-01. Domenico Giardini has been active in modifying this task.

Other Network Presentations
IUGG Sessions (FDSN) in room MR 108
S05S1 on Friday @ 8:30
S05S2 on Friday @ 10:30

- ▸ 08:30 Introduction FDSN
- ▸ 08:45 The FDSN data center at the IRIS DMC: Management and distribution of data for the FDSN Seismological Networks(Tim Ahern)
- ▸ 09:00 European seismological observational Research Infrastructure and EPOS (Torild van Eck)
- ▸ 09:15 Pacific21, the geophysical network in North-Western Pacific Ocean (Seiji Tsuboi)
- ▸ 09:30 BR-network – the university of Brasilia Seismic Network, Seismological Observatory (George Franca)
- ▸ 09:45 Challenges of incorporating Small localized networks into a national seismograph network (Michelle Smith)

- ▸ 10:30 Australia (ANSN) and surroundings (ATWS and IOTWS (Tim Barton)
- ▸ 10:45 Swiss Seismic Network (John Clinton)
- ▸ 11:00 IRIS PASSCAL (Kent Anderson)
- ▸ 11:15 South Pacific network (Esline Garaebiti)

Voting on the revised Terms of Reference:
The proposed modifications of the Terms of Reference are unanimously accepted with one additional modification; in last bullet point "At any" is replaced with "Six weeks after" accepted.
The new terms of reference are put on the web site: www.fdsn.org/FDSNterm.htm

Concept of Vice-Chair
The secretary introduces and explains the new concept of vice-chair
The vice chair will replace the chair in the executive in case the chair is not present.
The steering committee approves the concept of the vice chair

(Re)election of the executive committee
The following proposed executive candidates are:
- ▸ **FDSN chair**:
    - ▸ candidate *Gerardo Suarez* (re-election)
    - ▸ vice chair: *Michelle Grobbelaar-Smith* (SA)
- ▸ **FDSN secretary**
    - ▸ candidate: *Torild van Eck* (re-election) (ORFEUS)
- ▸ **WGI**
    - ▸ candidate: *Seiji Tsuboi* (re-election) (Japan)
    - ▸ vice chair: *Jan Zednik*(Czech Republic)
- ▸ **WG II**
    - ▸ candidate: *Reinoud Sleeman* (acting) (Netherlands)
    - ▸ vice chair: *Rick Benson* (IRIS DMC)
- ▸ **WG III**
    - ▸ candidate: *Tim Ahern* (re-election) (IRIS DMC)
    - ▸ vice chair: *Ken Gledhill* (NZ)
- ▸ **WG IV**
    - ▸ candidate: *Florian Haslinger* (acting) (Switzerland)
    - ▸ vice chair: *Sergio Barrientos*(Chile)
- ▸ **WG V**
    - ▸ candidate: *Alex Brisbourne* (re-election) (SEIS-UK)
    - ▸ vice chair: *Bruce Beaudoin*(PASSCAL)

The proposed executive positions have been unanimously accepted.

WG I presented by Seiji Tsuboi
    Approval of minutes for 2009 meeting
    FDSN station inventory
    Propose regional coordinator

- ➢ Central America; Crista Von Hillebrandt, Rick Benson
- ➢ South America: Marcelo Assumpcao
- ➢ Australia and surroundings; Tim Barton, Mark Chadwick, Esline Garaebiti
- ➢ South East Asia; Wen-Tzong, Winfried Hanka
- ➢ South Africa: Andy Nyblade / Reinud Sleeman
- ➢ China: Lui Rui-feng
- ➢ Europe: Jan Zednik
- ➢ Central Asia and Middle East; Natalya Mikhailova
- ➢ North America: Rick Benson, Lind Gee
- ➢ Russia; Aleksey Malovichko need someone to add
- ➢ Middle East: Mohamed KARST

modified definition of backbone network should be included in the inventory
database for inventory should be developed
Reports from regional network (Africa, Greenland)

Steering committee discussed the regional coordinators and proposes a few names.
Database schema for the station inventory will be discussed between Jan Zednik, IRIS and Seiji Tsuboi.

WG II summary presented by Reinoud Sleeman

- • Minor changes in the SEED formatted metadata (dataless SEED) were requested by the community and discussed within WG II and led to the adoption of a new blockette (2001, for time delay) and 2 new instrumental codes (X and Y).
- • WG II foresees the end of life for dataless SEED, therefore no major changes in the dataless SEED format will be made to overcome presently recognized shortcomings.
- • WG II supports the development of a XML model towards a new standard format for station metadata. Presently 2 parallel developments take place, at IRIS and GFZ. An experts meeting is suggested (Sept 2011) to unify both developments into one XML model for metadata that could serve as the new FDSN standard (e.g. FDSNstationXML).
- • WG II recognizes the need for metadata synchronization between FDSN data centers. IRIS and ORFEUS will investigate the setup of a central repository for metadata. ArcLink has demonstrated interoperability in Europe between 7 datacenters.
- • WG II recognizes the need for notification the community on metadata updates. Currently no system includes this. The IRIS initiative Emerald may be a potential system (no funding yet).

WG III summary presented by Tim Ahern

- ▶ New WG III charge was accepted
- ▶ Reviewed Existing Web Services
  - ▶ ORFEUS, ETH, GA, IRIS
- ▶ WG III endorsed QuakeML resolution from John Clinton
  - ▶ See next slide
  - ▶ WG III recommends approval by FDSN Plenary
- ▶ Support for FDSN Station Book concept in a more modern and dynamic mode
- ▶ FDSN XML
  - ▶ Focus on 5 services initially
    - ▶ Station, Available, Event, waveform_data, bulk_waveform_data
    - ▶ WG III establishes standard input, output, naming conventions, and with WG II develops FDSN accepted XML schemas
- ▶ Federated Data Centers and FDSN Data Brokering possibility was discussed
- ▶ Product
  - ▶ ideas will be compiled by email
- ▶ Tools
  - ▶ Establish Links on FDSN WG III web site to FDSN software tools
  - ▶ Build on existing tool inventories such as that at ORFEUS

Resolution of support to QuakeML

- ▶ FDSN WG III adopts quakeML BED as a standard. As resources permit, the SED/ETH will act as Secretariat for moderating the community process, proposing future development, and coordinating releases.
- ▶ Other quakeML subpackages may also be developed, under the direction of the FDSN WG II & WG III, with the SED/ETHZ as Secretariat as resources permit.

The Steering committee endorses the QuakeML resolution: (change WG III and WG II will be removed) approved

Meeting planned for September 15-16, 2011 discussing stationXML and webservices
WG II discussed the standards and WG III the services
The discussions on th products will be continued by email
The products can be announced within the existing tool inventories (ORFEUS)
Tim Barton, Australia, will come up with a station book straw men idea
Note: Emerald is an Arizona state initiative

WG IV summary presented by Florian Haslinger

22 participants from 13 organizations
Main topics:
- Report from CTBTO S&T workshop, June 8-10 Vienna, Austria
- Discussion on future activities / collaborations with CTBTO
  including presentation by PTS
  - IMS data available to scientific community via vDEC;
    only for ~1yr time window;   still requires bureaucratic overhead
  - web-services development
  - training & capacity building
- Niger sent letter to propose cooperation agreement (including data sharing from TORD array) – FDSN will likely sign

Meeting outcomes:
- capacity building and training: agree to coordinate / inform each other about courses etc, try to set up exchange of course participant's information
- FDSN will promote & offer to coordinate bilateral agreements between FDSN member organizations and CTBTO host country institutions
- continue to follow ideas on cooperation with regard to access to CTBT data & products including integrating / merging of CTBT data & prod. with "scientific community systems" (also interface CTBT formats with community standards)
- try to arrange exchange of data & metrics on station problems, equipment failures and data outages

Resolution proposal FDSN WG IV CTBTO coordination
The FDSN,
recognizing the mutual benefits arising from close collaboration with the CTBTO/PTS
- welcomes the current efforts at the CTBTO/PTS to reach out to and seek closer collaboration with the scientific community, in particular with respect to making IMS data and IDC products available;
- offers its support and seeks active cooperation in the development and implementation of data access and exchange mechanisms and tools, and in the coordination of technical training and capacity building programs;
- endeavors to promote and support collaboration between FDSN member organizations and CTBT host country institutions (station operators and National Data Centres), specifically with regard to technical cooperation, capacity building and training.
Proposed resolution on FDSN/CTBTO collaboration: endorsed/accepted

PTS may need trainers. FDSN could help to provide trainers
Draft letter to TORD + accompanying letter will be sent (EN/FR) to Niger. The agreement and letter will concern the data exchange from (TORD array data) and to (FDSN data) between Niger and the FDSN members.

WG V summary presented by Kent Anderson

Kent Anderson acted as chair/presenter for WG V
1) Portable Experiment Data Formats:
   – FDSN would like to establish a standard for data formats for portable seismic data (passive and active source).
2) Portable Experiments Integrated Mapping Tool:
   – FDSN should have a goal of hosting an integrated mapping tool for providing spatial representation of past, present and future portable experiments.
3) Best Practices documentation:
   – It would be valuable to collect links to portable experiments best practices on line documentation to be displayed on the FDSN webpage.

4) Data Quality Control:
   – The group felt that data quality control of portable experiment data is very important and WG V should review available techniques to applying automated QC tools to this important data set.

Neither the chair of WG V or his designated representative were able to attend this meeting. Pertaining to recommendation #1 (Portable Experiment Data Formats), we recommend that exchange format for passive experiment data be SEED and for active source experiment data, SEGY.

Newsletter FDSN
The secretary will start up an (annual) newsletter

Next meetings FDSN
2013 meetings July 22-26 Goteborg, Sweden.
The FDSN Executive will consider other regional meetings or an additional general meeting if this is considered opportune.

Potential FDSN candidates:
Ireland prepared to join.
Peru (Rick and Florian will approach)
India is approached by IRIS
Morocco (is already a member, needs to be checked)

Meeting closed

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