



International Federation of Digital Seismograph Networks

FDSN Steering Committee

Plenary Meeting

IUGG/IASPEI 2019, Montreal



International Federation of Digital Seismograph Networks

General meeting 1

Proposed Agenda

11 July 2019

17:00-20:00

MCC - Floor 5 (513E)

1. Welcome and Introductions
2. Adoption of the agenda
3. Message from the Chair (in absentia)
4. Regional FDSN reports
 1. Europe
 2. Asia
 3. Africa
 4. Latin America and Caribbean
 5. North America
5. Current Status of the System of Federated Data Centers
6. Working Group updates (preview of WG meeting issues)
 1. WG I
 2. WG II
 3. WG III
 4. WG IV
 5. WG V
7. New Memberships
8. Changes in Terms of reference
9. Executive Committee Election (call for nominations)
10. ISC presentation
11. Adjourn



International Federation of Digital Seismograph Networks

(1) Welcome and Introductions

FDSN Meetings during the next few days

WG 1 Wen Tzong Liang/Ludek Vecsey

Fri, July 12 @ 12:00-13:30, MCC - Floor 5 (513D)

WG 2 John Clinton/Chad Trabant

Sat, July 13 @ 12:00-13:30, MCC - Floor 5 (513D)

WG 3 Tim Ahern/Mark Chadwick

Sun, July 14 @ 12:00-13:30, MCC - Floor 5 (513D)

WG 4 Istvan Bondar

Mon, July 15 @ 12:00-13:30, MCC - Floor 5 (513D)

WG 5 Bruce Beaudoin/Wayne Crawford

Tue, July 16 @ 12:00-13:30, MCC - Floor 5 (513D)

Closing Plenary

Wed, July 17 @ 12:00-13:30, MCC - Floor 5 (513D)



International Federation of Digital Seismograph Networks

(2) Adoption of the agenda

(3) Message from the Chair



International Federation of Digital Seismograph Networks

(4) Regional FDSN reports

- a) Europe - Helle
- b) Asia – Wen-Tzong
- c) Africa - AfSC
- d) Latin America and the Caribbean -Xyoli
- e) North America - Xyoli



International Federation of Digital Seismograph Networks

(5) Current Status of the System of Federated Data Centers



International Federation of Digital Seismograph Networks

(6) Working Group updates (preview of WG meeting issues)

- a) WG I
- b) WG II
- c) WG III
- d) WG IV
- e) WG V



International Federation of Digital Seismograph Networks

(7) New Memberships (in 2017, the members agreed that the procedure to follow would be:

- There should be an initial vetting of the applicant,
- Then the application will go out to members via email and will be open for 3 weeks for voting,
- At least a unanimous affirmative vote is required from 5 representatives,
- Should there be at least one negative vote, the decision will be deferred to the next meeting of the FDSN)



International Federation of Digital Seismograph Networks

7.1 Acceptance of new members (by email vote and no negative votes)

- **The Australian National University - Warraumunga seismic array** (and a federated data centre in Australia. AUSPASS data centre for temporary deployments in Australia as well as the S1 seismometers in Schools network in Australia).
Voted in March, 2018.
- **Spanish Seismic Network operated by Instituto Geográfico Nacional.**
Voted November, 2018.
- **The Hawaiian Volcano Observatory**
Voted November, 2018
- **The Botswana Seismological Network (BSN) operated by Botswana Geoscience Institute**
Voted April, 2019



International Federation of Digital Seismograph Networks

7.2 Voting of new members

Application by
University of Washington
United States of America

Network and Stations

Network : Pacific Northwest Seismic Network

Abbreviation: PNSN

FDSN Network Code: UW, UO, CC

Stations:

more than 300 stations.



International Federation of Digital Seismograph Networks

(8) Proposed changes in Terms of Reference

International Federation of Digital Seismograph Networks

The International Seismological Community recognizes the new opportunities within its field for improved understanding of the internal structure and dynamical properties of the Earth provided by seismograph network technology.

It also recognizes that rapid access to seismic data networks of modern broad-band digital instruments wherever they might be is now possible.

The developments include greatly improved broad-band seismographic systems that capture the entire seismic wave field with high fidelity, efficient and economical data communications, **vastly improved and storage systems**, and ~~widely available~~ powerful computing facilities.

The federation is open to all organisations committed to the deployment of broad-band seismographs and organisations involved in management of data from digital seismograph networks, willing to contribute to the establishment of an optimum global system with open and timely data exchange.



International Federation of Digital Seismograph Networks

I. Goals

In view of the above and to take advantage of existing and developing global and regional networks the “International Federation of Digital Seismograph Networks (FDSN)” provides a forum for:

- developing common minimum standards in seismographs (e.g. bandwidth) and recording characteristics (e.g. resolution and dynamic range);
- developing ~~standards for quality control and~~ procedures for archiving and exchange of data among component networks **and the research and monitoring communities;**
- **developing standards for quality control;**
- coordinating the siting of stations in locations that will provide optimum coverage;
- pursuing free and open access to data;
- improving access to data in real-time.
- **facilitate capacity building consistent with the goals expressed above**

II. Institutional Frame

The Federation is an independent international association and has commission status within the International Association for Seismology and Physics of the Earth’s Interior (IASPEI).



International Federation of Digital Seismograph Networks

III. Membership and organization

- Membership in the FDSN is open to national and international organisations committed to both the development and operation of the broad-band digital networks as well as organisations involved in management of data from digital seismograph networks consistent with the goals of the Federation. It is required that each network member will contribute digital waveform data, preferably in real time, from ~~at least one station from a subset of stations in their network to a data center participating in the FDSN Federated Data Center system. to the FDSN Archive for Continuous Data as well as to appropriate FDSN Regional Data Centers.~~
- Membership in the FDSN is one of three defined types:
 - Full Membership. Full membership is open to any network or Data Center that supports the goals of the FDSN and contributes at least \$5,000 per year in dues to the FDSN to support the activities and developments of the FDSN.
 - Associate Membership: Associate membership is open to any network or Data Center that meets the goals of the FDSN and contributes at \$1,000 per year in dues to the FDSN to support the activities and developments of the FDSN.
 - Participating Membership: Participating membership is open to any network that meets the goals of the FDSN.



International Federation of Digital Seismograph Networks

- **Sponsoring Membership:** Sponsoring members may be either for profit corporations providing financial or in kind support for FDSN activities or government agencies that wish to provide financial support for key activities undertaken by the FDSN, such as FDSN Data Workshops.
- The structure of the FDSN includes a steering committee and an executive committee.
- The members of the FDSN steering committee will consist of one representative per member organisation who will be appointed or selected from within the organization they represent. **Designation of the organisation's steering committee member must be sent electronically to the FDSN Secretary on the member organisation's letterhead and signed and dated by an authorized person of the organisation. If a new steering committee representative is selected by an organisation then it is the responsibility of the organisation to inform the FDSN secretary of the change in the same manner as specified in this paragraph.**
- **The members of the FDSN steering committee must approve all new memberships in the FDSN either electronically by email voting or in person at meetings of the FDSN.**



International Federation of Digital Seismograph Networks

- The members of the FDSN steering committee elect an FDSN executive committee. The executive committee will coordinate the activities of the Federation between meetings and is responsible for the organization and coordination of the steering committee meetings. Members of the FDSN executive committee are elected for a four-year term.
- The FDSN executive committee is headed by a chair, who will be assisted by a secretary and the chairs of all FDSN working groups. The chair of the executive committee will preside over the meetings of the steering committee. Members of the executive committee shall be elected from within the steering committee or the member organizations. Elections take place during steering committee meetings.
- The FDSN steering committee will form all necessary working groups or special technical committees as required to achieve the objectives of the FDSN. Each working group or special technical committee is headed by a chair **who is supported by a Vice Chair.**
- The FDSN steering committee will deliberate at least once every two years. Special meetings may be called by the chair as necessary for the progress of the FDSN.



International Federation of Digital Seismograph Networks

- **Voting:** Concerning all recommendations made and actions to be taken, each steering committee member **representing a Full Member of the FDSN** will have **one six votes**. Each steering committee member representing an Associate Member of the FDSN will have two votes. Participating members will have one vote in the FDSN and will be able to participate in the discussions in both the Working Groups and Steering Committee meetings. Sponsoring members do not have voting rights in the FDSN but may attend meetings of the FDSN.

A majority of $2/3$ **of the votes voting members cast** will be required for an affirmative vote. Five members of the FDSN will constitute a quorum for FDSN steering committee meetings. **Votes can only be made in person at FDSN Meetings and by those attending the meeting virtually.**

Only the official representative of an organization or their designated alternate is allowed to vote in votes of the steering committee and the working groups with the number of votes cast dependent on their level of membership in the FDSN.



International Federation of Digital Seismograph Networks

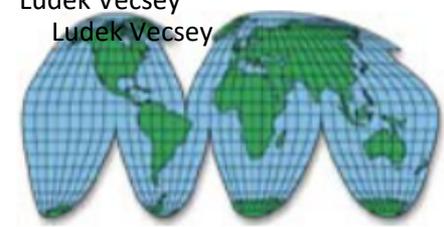
- ~~• No fees are imposed but voluntary contributions may be requested to cover costs for communications and for organisation of FDSN meetings.~~
- Any member may resign six weeks after giving written notice to the **FDSN Secretary**.
- The Executive Committee must approve the use of all FDSN funds in advance.
- Anticipated uses of FDSN funds include but are not limited to:
 - Travel support for the FDSN Executive committee members, when needed, to travel to meetings of the FDSN
 - Support for needed software initiatives that have been approved by the FDSN Working Groups and by the Executive Committee. Examples of software projects that might receive support include the development of new software to implement FDSN capabilities or services
 - Cost matching support for training workshops conducted on behalf of the FDSN.
 - Support for specific products such as documentation of FDSN Standards or FDSN Services.
 - Services of companies or consultants that have contracted with FDSN to perform specific tasks.



International Federation of Digital Seismograph Networks

(9) Executive Committee Election

Current slate:	Chair	Sergio Barrientos (elected 2017)
	Secretary	Michelle Grobbelaar (re-elected 2017)
	WG 1	Chair: Wen Tzong Liang (elected 2017) Vice-Chair: Ludek Vecsey (elected 2015)
	WG 2	Chair: John Clinton (elected 2017) Vice-Chair: Chad Trabant (elected 2017)
	WG 3	Chair: Tim Ahern (re-elected 2015) Vice-Chair: Mark Chadwick (elected 2015)
	WG 4	Chair: Istvan Bondar (elected 2015) Vice-Chair:
	WG 5	Chair: Bruce Beaudoin (re-elected 2017) Vice-Chair: Wayne Crawford (elected 2015)



International Federation of Digital Seismograph Networks

(9) Executive Committee Election

Nominations 2019:

WG1 Vice-Chair: **Ludek Vecsey**

WG2 Vice-Chair: **Rob Casey**

WG3 Chair: **Chad Trabant**

WG3 Vice-Chair: **Mark Chadwick**

WG 4 Chair: **Istvan Bondar**

WG4 Vice-Chair: **Öcal Necmioğlu**

WG5 Vice-Chair: **Wayne Crawford**

Elections during 2nd general meeting on 17 July 2019 at 12:00-13:30 in MCC – Floor 5 (513D).



International Federation of Digital Seismograph Networks

(10) ISC presentation



International Federation of Digital Seismograph Networks

General meeting 2

Proposed Agenda

17 July 2019

12:00-13:30

MCC – Floor 5 (513D)

1. Opening
2. Adoption of the agenda
3. Executive Committee Election
4. Working Group reports and recommendations
 - a) WG I
 - b) WG II
 - c) WG III
 - d) WG IV
 - e) WG V
5. Vote on the proposed changes in Terms of Reference
6. Any other business



International Federation of Digital Seismograph Networks

(3) Executive Committee election

Nominations 2019:

WG1 Vice-Chair: **Ludek Vecsey** (re-election)

WG2 Vice-Chair: **Rob Casey**

WG2 (Vice-)Chair: **Javier Quinteros**

WG3 Chair: **Chad Trabant**

WG3 Vice-Chair: **Mark Chadwick** (re-election)

WG 4 Chair: **Istvan Bondar** (re-election)

WG4 Vice-Chair: **Öcal Necmioğlu**

WG5 Vice-Chair: **Wayne Crawford** (re-election)

Any other nominations?



International Federation of Digital Seismograph Networks

(4) Working Group Reports

- a) WG I
- b) WG II
- c) WG III
- d) WG IV
- e) WG V



International Federation of Digital Seismograph Networks

(5) FDSN Terms of Reference



International Federation of Digital Seismograph Networks

(6) Any other business



International Federation of Digital Seismograph Networks

(7) Next meeting(s)



International Federation of Digital Seismograph Networks

Adjourn