

IUGG 2023 FDSN WG-IV Meeting
17 July 2023

Minutes

The agenda was proposed by the Chair and approved by the members.

Change of the current Chair (István Bondár) and Vice-Chair (Öcal Necmioğlu) positions, as agreed during the first plenary based on the proposal received from the nomination committee, was announced:

Chair: Mr. Spiro SPILIOPOULOS
Director - National Delegate of Australia for CTBTO
Geoscience Australia
Australia

Vice-Chair: Mr. Stephen MYERS
Research Seismologist and Program Leader / CTBTO-WGB Task Leader
Lawrence Livermore National Laboratory
USA

Chair introduced the new IMS Director Ms. Xyoli Pérez Campos. Ms. Campos provided a brief summary of her [background](#) and expressed her willingness for improved collaboration between the CTBTO and FDNS.

Chair provided information on the FDSN presentations given at various CTBTO workshops, whenever possible. Unfortunately, all relevant workshops were cancelled or postponed during the pandemic. Nevertheless, FDSN presentations were given at the NDC Capacity Building and RSTT Workshop (Muscat, Oman, 4 – 8 September 2022) and Workshop for improved seismic event location using the Regional Seismic Travel Time (RSTT) method (Kathmandu, Nepal, 7 – 11 November 2022).

This was followed by the Chair's presentation on the FDSN web services at the CTBTO. During the 2019 IUGG in Montreal, FDSN WGIV had an action item to explore the feasibility of FDSN web services at the IDC. At the 53rd Working Group B meeting in 2019, the Chair took the floor and on behalf the FDSN recommended the use of FDSN web services at the IDC secure site. The recommendation was well received both by the CTBTO and the State Parties and the WGB advised the PTS to look into the issue. On 21 April 2023, the CTBTO has announced that the alpha version is working operationally for GCI connected NDCs. Further work is needed on the authentication mechanisms to move the FDSN server from the GCI to internet.

In summary, to be able to move our FDSN server from GCI to the Internet, we are requiring to:

- a. Protect all services similar to fdsn-dataselect
- b. Improve the authentication mechanism to support one of the more modern standards such OAuth, OpenID.connect, etc. The current Digest authentication is not supported by our Single-Sign on solution as it is considered insecure. A [token authentication](#) would probably also work.

The proposed implementations would enable smooth data access and management both at the NDC and IDC level. FDSN WG3 made their recommendation on a token-based authentication, not only for the IDC but optionally for all federated data centers. The voting results in WG3 will be available in two months.

Peter Voss from NDC Denmark informed the group that they will do some testing with PTS. FDSN service Works fine on the GCI but it would be desirable to have it on the internet. He further added that video instructions will be made available before Christmas. WG3 Chair Chad Trabant informed the group on the continuation of the work within WG3.

Marino Protti (Costa Rica) informed the group on the i) first CTBTO training course in Spanish in November, and ii) and the LACSC meeting also in Costa Rica, which may provide good opportunities to present FDSN to the Central/South American NDCs and seismological communities.

In response to a question regarding whether there is any deadline regarding the open data access through the internet, the Chair clarified that there are no deadlines defined as such, but and the transition depends on the progress made by the group. There is no deadline on the CTBTO side. The operationalization of the system by the CTBTO should not take long time, as all tools are available internally. Once the FDSN approval is obtained, the full implementation may take place within one year at earliest, depending on the internal IDC software approval procedures and the WGB schedule. It's anticipated that the PTS would require to issue/control their own tokens, and the IDC will have to be registered as a Data Centre.

The Chair emphasized the need to receive (positive) feedback from the NDCs at the WGB formal session. In this regard, he recommended to investigate the possibilities to present FDSN at the Waveform Expert Group (WEG) of the WGB, or directly at the WGB. Florian Haslinger that necessary inquiries could be made at the upcoming session of the WGB, scheduled during 21 August – 1 September.

Concerning the level of effort on the FDSN side related to tokens, it was clarified that software have extensions to access a token and therefore no major workload is anticipated. It was further reminded that if such extension is enabled for SeisComp3, available to the NDCs through the CTBTO's NDC-in-a-Box, then there would be no obstacles left to initiate its effective operationalization.