## FDSN Working Group III Minutes 14 July 2019 12 noon- 13:30 2019 IUGG Montreal Canada

Tim Ahern chairman

The meeting began at 12:00 Room 513D

Tim Ahern welcomed the attendants and outlined the agenda with no extra items being requested.

Tim Ahern requested comments to the minutes from the 2017 meeting in Kobe. None were forthcoming and the minutes were approved.

Action: 2017 Kobe Minutes were approved

Tim Ahern listed and discussed the action items from the previous meeting. Action: Action items from the 2017 Kobe meeting are considered completed except for the continuation of the method to authenticate services.

Tim Ahern provided a status of the federated data centres, with 21 functioning federated centres with 11 in progress. John Clinton queried the absence of New Zealand, Mark Chadwick replied that they were having financially related difficulties with providing the waveform data services but that it was being worked on.

Tim Ahern outlined the Quality of Service (QoS) standards for the federated datacentres. These included datacentre uptime, meta-data availability, median time to service requests, data redundancy, completeness of holdings, internet capacity, availability of QA, availability of real-time data, and metrics reporting.

John Clinton asked how could some of these metrics be measured externally? Tim Ahern indicaed that some of the QoS metrics could be monitored from outside but others would be responsibilities of the individual data centres. The goal is to have a method to improve the QoS of centers starting with metrics identified in a priority order and adding other QoS measures later on. The goal is to "encourage" datacentres to meet the standards if required.

Javier Quinteros noted the usefulness of the metrics if they were in a machine readable version.

Action Item: Tim Ahern noted that the general sense of the meeting was that the QoS standards are a good start and proposed the action of publishing them to the mailing list and asking for comments on the definitions and if other metrics should be considered. Once feedback had been incorporated, a Survey Monkey would be developed to get input from data centers as to the priority order that they should be implemented as QoS standards for the Federated System as a QoS system is phased into federated data centers.

Reinoud Sleeman reported on the Harmonisation of QA metrics, there was consensus on metric naming but the differences in the underlying algorithms meant that they would be too expensive to recalculate.

Action Item: Yet to be done was a standardisation of the required QA service API including request parameters, and is expected to be coordinated between IRIS and EIDA, those being the two Quality systems in operation at present.

Reinoud Sleeman showed an example list from EIDA. Tim Ahern mentioned that the set of IRIS QA metrics grows. Reinoud Sleeman replied that being FDSN standards would be preferable, but that would take time and they would also need to be recalculated. Javier Quinteros commented that there should be a common set to define the backbone network. Tim Ahern suggested to focus on harmonising the list, or what to do first, and whether to encourage incorporating them into SeisComP. Reinoud Sleeman noted that this would be a quick start for those centres using SeisComp3.

Action Item: An action was proposed that after the QA service API has been defined, then look towards getting this into SeisComp3 assuming funding can be found.

Florian Haslinger led a discussion on whether the granularity of a day, as used by EIDA, may be too coarse and that it might be useful to have finer granularity. It was noted that this would require extra computational resources, or reworking of the metrics.

Javier Quinteros and Chad Trabant presented a "Datacentre Registry" proposal. The current list is curated manually on the FDSN web site and isn't easily machine readable, it doesn't allow search based subsets or datacentre prioritisation for duplicated data. The proposed replacement would be a centralised FDSN datacentre registry under the direct control of the datacentres. There will also be a web service query interface and creating a new datacentre is the only moderated step required.

Action Item: An action was proposed that the existing prototype system exists and that it is ready for use. Existing datacentres should be solicited to add their entries to the system.

Florian Haslinger commented that adding a DOI for a datacentre may be a useful addition for datacentre referencing, or at least a mechanism for describing "how you would like to be cited" could be useful. Tim Ahern mentioned that this proposal would also help with the appropriate "FAIR" data principles.

Chad Trabant reported on the reformatting of the web service documentation. This clarified service versions and made it more flexible for future changes. No changes to the specification meanings were made.

Tim Ahern discussed whether there were any new web services for consideration. He highlighted the "timeseriesplot" service, as developed at IRIS, and opened it up to the floor. John Clinton mentioned a strong motion parameters webservice proposal may be forthcoming in the next few years.

Action Item: Tim Ahern suggested that any other ideas for new services should be sent to the WG III mailing list.

Javier Quinteros described a new authentication system for FDSN, from an EIDA perspective using web tokens. The goal would be to provide authentication and authorisation, without storing personal information.

Chad Trabant asked what role could he see for FDSN, such as a token generator?

Javier Quinteros suggested that a discussion would be useful as to whether FDSN would like to produce tokens, and whether the FDSN should take a leading role? Tim Ahern commented that a task group could be useful for getting this to the next step. John Clinton mentioned that a proposal for this was close.

**Action Item:** When an EIDA proposal related to a new authentication system is ready it should be distributed to WGIII for comments.

There was no other business.

The meeting concluded at 13:25

NAME	Organization	Email
Tim Ahern	IRIS	tim@iris.washington.edu
Xyoil Perez-Campos	SSN-UNAM Mexico	xyolipc@sismologico.unam.mx
Florian Haslinger	ETH Zurich	haslinger@sed.ethz.ch
Jerry Carter	IRIS	jerry@iris.edu
Istvban Bondar	MTA CSTU	bondar.istvan@CSTU.mta.hu
Javier Quinteros	GFZ	javier@gfz-potsdam.de
Wiliam Yaak	USGS	wyaak@usgs.gov
Mark Chadwick	GNS Science	m.chadwick@gns.cri.nz
Chad Trabant	IRIS	chad.trbant@iris.edu
Sam Taylor-Offord	GNS Science	s.taylor-offord@gns.cri,nz
Seiji Tsuboi	JAMSTEC	tsuboi@jamstec.go.jp
Jose Antonio Jara	ICGC	joseantonio.jara@icgc.cat
Ludek Vecsey	IG CASK PrGUE	VEKSEY@ig.caz.cz
Bruce Beaudoin	PASSCAL	bruce@psscal.nmt.edu
Lucia Margheriti	INGV	lucia.margheriti@ingv.it
Peter Danecek	INGV	peter.danecek@INGV.IT
Andrea Bone	INGV	andrea.bone@ingv.it
Dmitry Storchak	ISC	marcelo@isc.ac.uk
Cristian Neagoe	NIEP	cristian.neagoe@inep.ro
Micahel Bettam	NRC Israel	bettanm@gmail.com
Duk Kee Lee	KMA	KMAdukkee@korea.kr
Ronan LeBras	СТВТО	ronan.lebras@ctbto.org
Yuan Gao	IEF/CEA	gOYUn@cea-ies.ac.cn
Paul Friberg	ISTI	p.friberg@isti.com
Peter Davis	UCSD	pdavis@ucsd.edu
Mouse Reusch	PSNS-Uwashington	topo@uw.edu
Martin Vallee	IPGP-GEOSCOPE	vallee@ipgp.fr
Katrin Hafner	IrIS-GSN	Katrin.hafner@iris.edu
Sid Hellman	ISTI	s.hellman@isti.com
Reinoud Sleeman	KNMI/ORFEUS	sleeman@knmi.nl
Nick Ackerly	CHIS(GSC)	nicholas.ackerley@canada.ca
John Adams	NRCan Canada	john.adams@canada.ca
Renate Hartog	PNSN-Uwashington	rhartog@uw.edu
Yinshuang Ai	China Academy of Science	ysai@mail.iggcas.ac.cn
John Clinton	ETHZ	jclinton@sed.ethz.ch
Wen-Tzong Liang	IES/Academia Sinica	wtl@earth.sinca,edu.tw
3	5 Total Number of Participants	