Data Provider Agreement
For contributors of data to the IRIS DMC
Policy Version 1.6
November 15, 2019

Introduction: The IRIS Data Management Center (DMC) manages data from the IRIS Global Seismograph Network (GSN) program, from other IRIS programs (i.e. PASSCAL) and USGS global networks, and from many non-IRIS sources. These represent valuable contributions to both IRIS and the international seismological research community who collaborate to make these data openly and freely available. This document articulates the responsibilities of IRIS Data Services (DS) as well as the data contributor in this collaboration.

Note: IRIS will not handle restricted data unless a clearly defined release date not exceeding 3 years is identified

Scope: This agreement applies only to contributions of non-quality-assured data (Level 0) and quality-assured (level 1) data. It is not intended to cover higher-level products (Levels 2-4) that contain knowledge products derived from the basic waveform data.

Network Contributor Obligations: Seismic Network Operators
The network contributor realizes that the value of the seismological data it generates may serve multiple purposes. A majority of seismic data is generated for local, regional, or national monitoring of earthquakes, but the data can be repurposed to support scientific research in many unanticipated ways. By providing the data to the IRIS DMC, the contributing network promotes the broader distribution and long-term management of the data it generates.

In order to maximize the quality of the data and its utility for new purposes, the **Network Operator agrees to the following requirements**:

1. Waveform data must be provided in the miniSEED (data-only http://www.fdsn.org/pdf/SEEDManual_V2.4.pdf - Appendix G) or PH5 format (https://github.com/PIC-IRIS/PH5). If miniSEED version 2 is used, it must always include the Data Only SEED blockette (blockette 1000) and, if needed, additional blockettes such as Data Extension blockette (blockette 1001) and the Sample Rate blockette (blockette 100) if the sample rate cannot be adequately represented in the miniSEED Fixed Section of Data Header (FSDH). The method employed to create miniSEED formatted data must be specified (e.g., vendor name if performed within data logger, or named software if format conversion is required).
2. Metadata containing required information about the seismic stations (latitude, longitude, site name, etc.) and seismic channels (geographic coordinates, effective times of operations, etc) must be provided in either dataless SEED (header-only) format or, in the future and as required by IRIS, in FDSN StationXML Format. In addition, the individual/organization responsible for creation of the metadata, along with the software used, must be specified.
3. Network operator agrees to maintain the dataless SEED or StationXML volumes to properly reflect the current “best” version of station metadata, and the network must proactively provide this metadata to the IRIS DMC either on demand (when problems are discovered) or when changes are made to network configurations (hardware or new stations). The individual/organization responsible for data/metadata maintenance must be specified.
4. Whenever possible, data must be provided in real time along with specification of transfer protocol (e.g., SeedLink, an open, non-proprietary protocol with implementations that are

available from the IRIS DMC at no cost to network operators https://ds.iris.edu/ds/nodes/dmc/services/seedlink/). A point of contact (individual) responsible for facilitating real-time transfer must be specified.

5. Other real time protocols currently supported by the IRIS DMC can be used if and only if IRIS agrees to an accepted protocol. The Operator must understand that the IRIS DMC will convert any data to miniSEED that is not already delivered in that format.
6. If no real time connections are available, data can be sent to the DMC using the miniseed2dmc application available from the IRIS DMC.
7. If no high capacity internet link exists from the network operator's location, then data can be sent by physical media such as DVD.
8. The network operator agrees to routinely interact with the IRIS DMC to ensure that their network data are being managed properly at the IRIS DMC, and in the case where discrepancies are found, the network operator will contact the Deputy Director of Operations at the IRIS DMC.
9. The Network operator must identify the point of contact and identify the method through which the metadata and miniSEED data will be produced and modified when changes are needed

Network Contributor Obligations: Non-Seismic Networks
IRIS encourages other types of networks (e.g. Infrasound, microbarograph, engineering seismic, hydrological, atmospheric, magneto-telluric, etc.) generating other kinds of time series data to consider using the IRIS DMC for their long-term data distribution and management plans. IRIS will consider accepting these data if:

1. the IRIS Director of Data Services determines the DMC has the resources to manage the networks data without significant impact, or
2. if there is significant impact, the IRIS Data Services Standing Committee determines that the IRIS DMC should accept these data on behalf of the scientific community, and
3. all of the above 9 conditions are also met.

IRIS has several resources that could assist potential contributors in developing the required formats for the time series data and metadata. For potential contributors interested in sharing data, please contact the IRIS DMC to find tools (e.g. format convertors, StationXML metadata validator, metadata creation utility), possible other formats, and methods that can help in the data preparation process.

Obligation of IRIS Data Services:
In return for sharing data openly, the **IRIS DMC agrees to** provide the following services to the network operator:

1. Receive waveform data and metadata for the network and use it to populate the appropriate database systems at the IRIS DMC.
2. Ensure the data are secure and available in perpetuity by routinely curating the data and transcribing data on a routine cycle to new media as necessary.
3. Maintain multiple copies of the data sets to protect from loss or damage to any single physical copy.
4. Expose the contributed waveform data and metadata to all users of the IRIS DMC through its suite of access tools.

5. Process the data through the quality assurance systems in place at the IRIS DMC and report problems identified to the network operator.
6. Provide statistics as to the volumes of data distributed for the relevant network(s) to the network operators. Reports to the second level IP address or email address can be provided if the network requests this information.

Termination of this Agreement
This agreement may be terminated upon written notification by either party, at which time all future obligations of this agreement cease. Data made freely and openly available up to the termination of this agreement must remain freely and openly available through the IRIS DMC, or through another FDSN Federated Data Center.

Agreed to by:

_____ _____
Seismic Network (printed) FDSN Network Code (if available)

_____
Organization (printed)

_____
Network Manager Name (printed)

_____
Network Manager Title (printed)

_____
Technical Point of Contact (printed) with email address

_____
System to produce metadata in a required format

_____
System to produce waveform data in required format

_____ _____
Network Manager Signature IRIS Director of Data Services

Date _____ Date _____