

# EIDA Availability Report

**Created at 30-01-2026 00:32**

This document contains results of automated tests of the waveform availability of European EIDA stations and the responsiveness of the EIDA servers to metadata requests.

## Description of waveform test program

Availability test of EIDA stations using Python obspy library.

- Conducts random waveform requests to single channels of EIDA stations.
- One request per minute.
- Requested time span randomly selected from last year, span length between 60 and 600 s.
- Station randomly selected from the subset of unrestricted European EIDA stations offering at least one out of channels HHZ, BHZ, EHZ or SHZ.
- Request full station metadata from selected station and choose channel randomly, restricted to channels HH?, BH?, EH? and SH?.
- On successful request apply a restitution to the waveform data.
- Evaluate and store result of request in a file database.
- Plot and statistically analyze content of file database.

The code does not use the waveform catalog, therefore empty waveform returns are due to data gaps or due to problems in data access and delivery.

## Statistics on waveform tests

Statistics on random requests between 30-10-2025 and 30-01-2026 00:32 using station metadata valid since 30-01-2025.

### Counters:

- unrestricted stations offering channels HHZ,BHZ,EHZ,SHZ: 3332
- evaluated stations: 3229
- number of requests: 125097

## Waveform availability plot

Color coded plot of evaluated EIDA stations. Shows results of 125097 random requests between 30-10-2025 and 30-01-2026. The availability displayed is computed as the relative number of request results with status OK (see table below) compared to the number of all requests to this station.

### EIDA waveform response statistics (260130)

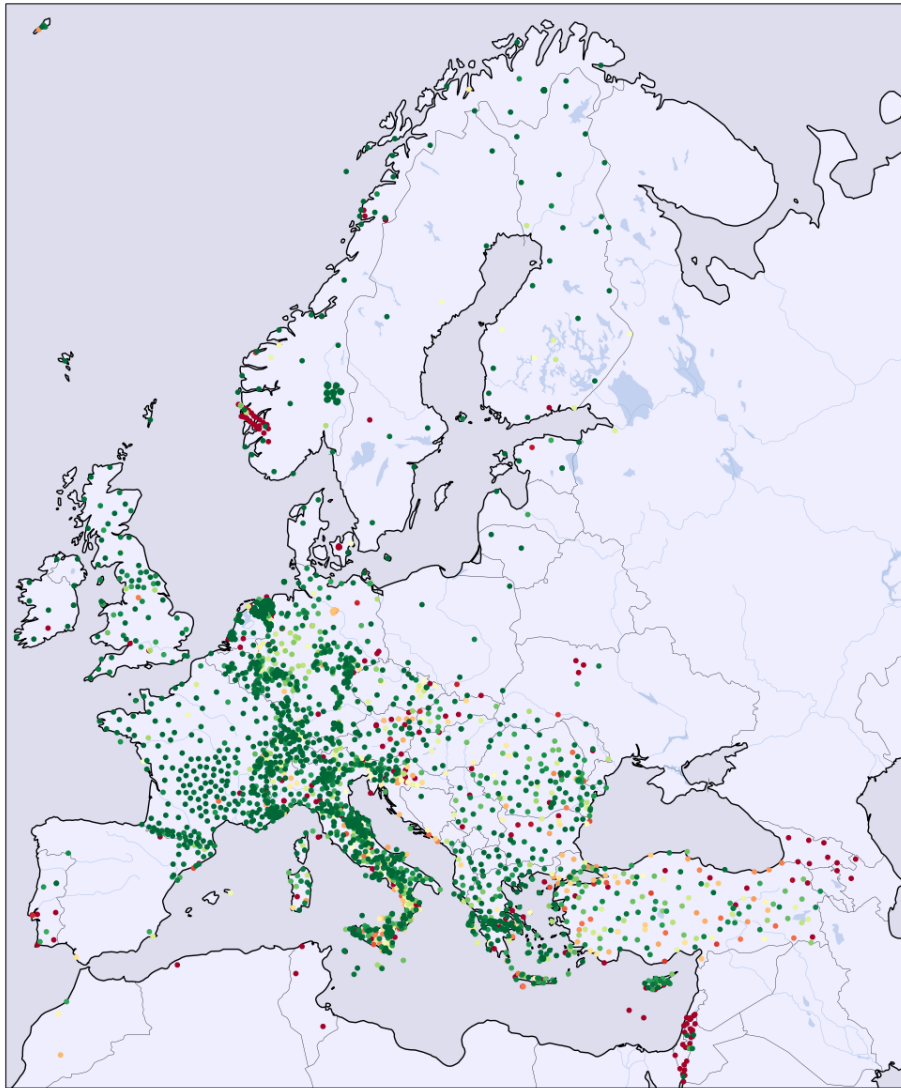


Figure 1: Availability of stations: green 100%, yellow 50%, red 0%

**Request status statistics of networks:**

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
1D	75	87	10	0	0	0	1	0
1I	76	61	47	0	0	0	0	0
2D	196	82	37	0	0	0	6	0
2E	4	66	2	0	0	0	0	0
2I	226	84	41	0	0	0	0	0
3D	74	32	154	0	0	0	2	0
4P	413	57	291	3	16	0	0	0
5A	9	47	1	9	0	0	0	0
5B	33	97	1	0	0	0	0	0
5R	105	60	68	0	0	0	0	0
7B	584	53	498	2	4	0	0	0
7C	0	0	147	0	0	0	1	0
7F	120	96	3	0	0	0	1	0
8D	38	97	0	1	0	0	0	0
8N	47	54	38	1	0	0	0	0
9L	32	62	19	0	0	0	0	0
9S	53	57	39	0	0	0	0	0
AB	0	0	140	0	0	0	0	0
AC	418	91	32	0	1	0	4	0
BE	1229	94	65	0	2	0	0	0
BN	233	66	110	9	0	0	0	0
BQ	412	93	14	0	2	0	13	0
BS	702	64	377	10	4	0	0	0
BW	1885	79	501	0	0	0	0	0
C4	85	70	36	0	0	0	0	0
CA	842	86	106	18	2	0	0	0
CH	3466	91	226	93	1	0	0	0
CL	564	89	65	0	1	0	0	0
CP	0	0	96	0	0	0	0	0
CQ	415	54	334	10	2	0	0	0
CR	527	37	860	0	6	0	0	0
CZ	670	84	112	1	2	0	9	0
DK	586	41	802	0	6	0	16	0
DY	51	31	111	0	0	0	0	0
DZ	0	0	45	0	0	0	0	0
EB	39	100	0	0	0	0	0	0
EE	189	80	42	0	0	0	3	0
EI	386	90	32	0	0	0	7	0
ES	158	80	29	9	0	0	0	0
FN	379	97	3	0	0	0	7	0
FO	127	92	10	0	0	0	0	0
FR	7550	96	272	8	6	0	2	0
GB	2323	94	106	21	3	0	0	0
GE	2562	71	980	2	5	0	25	0

**Request status statistics of networks (continued):**

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
GO	0	0	229	0	0	0	0	0
GQ	168	78	33	5	0	0	8	0
GR	3424	86	477	1	2	0	40	0
GU	1040	80	243	15	0	0	1	0
GX	106	85	12	3	1	0	2	0
HA	1207	92	98	0	1	0	0	0
HC	384	66	180	3	0	0	10	0
HE	676	78	171	0	0	0	10	0
HF	0	0	50	0	0	0	0	0
HL	1965	73	670	52	1	0	0	0
HP	808	92	40	20	1	0	0	0
HS	476	81	104	1	0	0	5	0
HT	1836	80	415	14	7	0	3	3
HU	567	86	81	0	1	0	8	0
IP	0	0	85	0	0	0	0	0
IS	0	0	1610	0	0	0	17	0
IV	14606	79	3417	203	21	0	6	43
IX	429	68	180	14	2	0	0	0
IY	471	63	257	10	1	0	7	0
JS	0	0	206	0	0	0	1	0
K3	15	78	4	0	0	0	0	0
KO	4413	62	797	1660	56	0	91	0
KQ	215	70	39	47	0	0	2	0
LC	0	0	47	0	0	0	0	0
LE	1442	91	100	0	0	0	28	0
LU	447	94	19	0	0	0	5	0
LX	71	63	40	0	1	0	0	0
M1	260	65	128	0	0	0	6	0
MD	112	87	16	0	0	0	0	0
ME	30	63	17	0	0	0	0	0
MK	365	99	1	0	0	0	0	0
ML	54	71	22	0	0	0	0	0
MN	718	65	356	18	0	0	1	0
MT	350	82	72	2	0	0	0	0
NH	334	66	159	1	0	0	9	0
NI	150	68	65	3	1	0	0	0
NL	9669	87	1232	117	26	0	2	0
NO	3393	87	205	9	7	0	252	0
NR	34	13	225	0	0	0	0	0
NS	1651	42	1932	1	0	0	265	0
OE	887	79	217	0	18	0	0	0
OT	555	80	88	5	1	0	0	41
OX	480	68	215	3	2	0	2	0
PL	346	97	2	0	0	0	6	0

**Request status statistics of networks (continued):**

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
PM	31	12	208	0	0	0	2	0
QE	227	54	164	0	0	0	22	0
QM	261	73	95	0	0	0	0	0
RD	522	98	5	0	1	0	0	0
RF	44	100	0	0	0	0	0	0
RN	198	45	206	6	16	0	8	0
RO	4068	81	895	6	10	0	1	0
SI	127	52	117	0	0	0	0	0
SJ	461	74	140	7	4	0	7	0
SK	237	49	234	0	0	0	7	0
SL	1073	81	215	5	18	0	0	0
SS	34	89	4	0	0	0	0	0
ST	349	99	1	0	0	0	0	0
SX	590	70	233	1	0	0	12	0
TH	1406	89	141	3	1	0	20	0
TQ	210	50	198	7	1	0	4	0
TT	0	0	131	0	0	0	1	0
TU	102	22	359	0	1	0	0	0
TV	15	40	22	0	0	0	0	0
UD	79	31	167	2	0	0	0	0
UP	413	93	24	0	4	0	0	0
UR	288	73	101	5	0	0	0	0
UT	205	93	15	0	0	0	0	0
VI	260	81	54	4	2	0	0	0
VM	45	100	0	0	0	0	0	0
WE	0	0	35	0	0	0	0	0
WM	96	45	112	0	0	0	3	0
XE	222	59	154	0	0	0	0	0
XP	1491	99	3	0	0	0	0	0
Y8	179	80	43	0	0	0	0	0
YV	100	55	81	0	0	0	0	0
ZO	302	90	31	0	0	0	0	0

Status codes used in above statistics:

**OK** data delivery and restitution successful

**OK in %** Percentage of successful data delivery

**NODATA** no data available

**FRAGMENT** returned data not contiguous

**INCOMPL** returned time interval less than requested

**METAFAIL** restituted data contain illegal values (Nans)

**NOSERV** station metadata request failed

**RESTFAIL** removing response failed

## Waveform requests, random hit distribution

How many stations have how many hits of random requests.

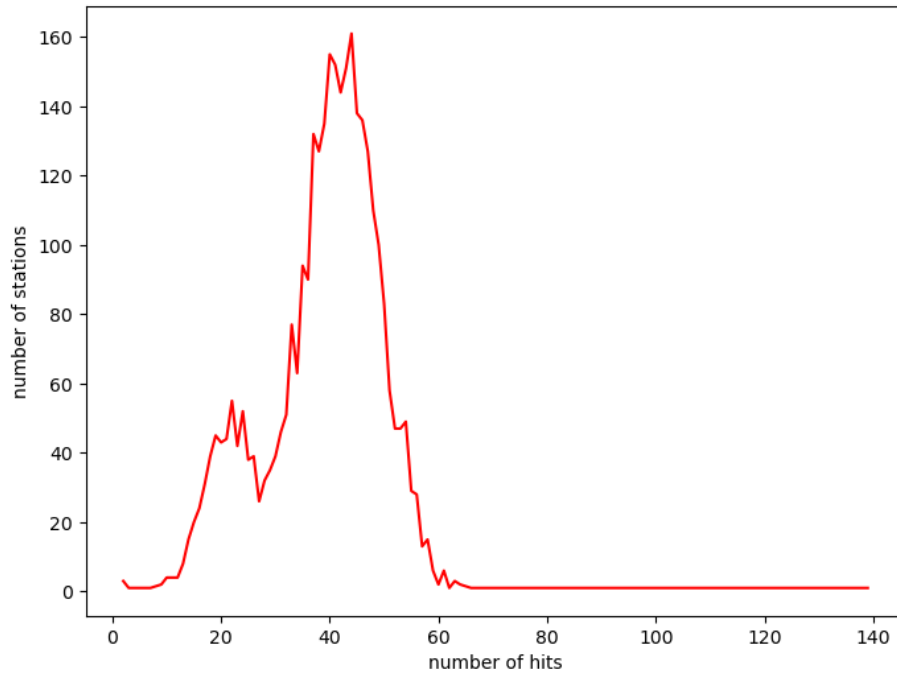


Figure 2: Request hit statistics showing the distribution of the 125097 requests on the 3229 evaluated stations

## Failure rate of inventory requests

This section contains results of inventory test requests on network, station and channel level. A few times per hour all servers get direct metadata requests followed by a metadata request using the routing client of obspy. It is checked whether all servers respond to the direct requests and whether all servers contribute to the routed request. The following results refer to tests carried out since 02-01-2026 00:32:02.

totals: direct requests 2015, routed requests 2015, federator requests 2015

Number of failed requests and failure rates of servers:

server	direct	routed	federator
AFAD	2016 (100.0%)	2015 (100.0%)	2009 (100.0%)
BGR	4 ( 0.2%)	13 ( 0.6%)	55 ( 2.7%)
BGS	0 ( 0.0%)	1 ( 0.0%)	5 ( 0.2%)
ETH	1 ( 0.0%)	2 ( 0.1%)	4 ( 0.2%)
GFZ	1 ( 0.0%)	76 ( 3.8%)	75 ( 3.7%)
ICGC	12 ( 0.6%)	7 ( 0.3%)	28 ( 1.4%)
INGV	10 ( 0.5%)	6 ( 0.3%)	10 ( 0.5%)
KOERI	57 ( 2.8%)	55 ( 2.7%)	26 ( 1.3%)
LMU	0 ( 0.0%)	2 ( 0.1%)	3 ( 0.1%)
NIEP	2 ( 0.1%)	5 ( 0.2%)	5 ( 0.2%)
NOA	8 ( 0.4%)	10 ( 0.5%)	16 ( 0.8%)
ODC	0 ( 0.0%)	1 ( 0.0%)	15 ( 0.7%)
RESIF	5 ( 0.2%)	2 ( 0.1%)	15 ( 0.7%)
UIB/NORSAR	4 ( 0.2%)	2 ( 0.1%)	12 ( 0.6%)

failures of routing client: 0

failures of federator: 6

runs without errors: 0 (0.0%)

## Remarks

A history of these daily reports (in pdf format) as well as request logs on station level are available at [ftp://www.szgrf.bgr.de/pub/EidaAvailability.files/history\\_eida\\_availability\\_reports.tgz](ftp://www.szgrf.bgr.de/pub/EidaAvailability.files/history_eida_availability_reports.tgz) and [stationlogs\\_eida\\_availability.tgz](ftp://www.szgrf.bgr.de/pub/EidaAvailability.files/stationlogs_eida_availability.tgz), respectively. Reports created after 15-08-2022 are available at [https://www.szgrf.bgr.de/eidaqc\\_report/EidaAvailability](https://www.szgrf.bgr.de/eidaqc_report/EidaAvailability)

This report was automatically created at 30-01-2026 00:32 MEST using pandoc 2.18.

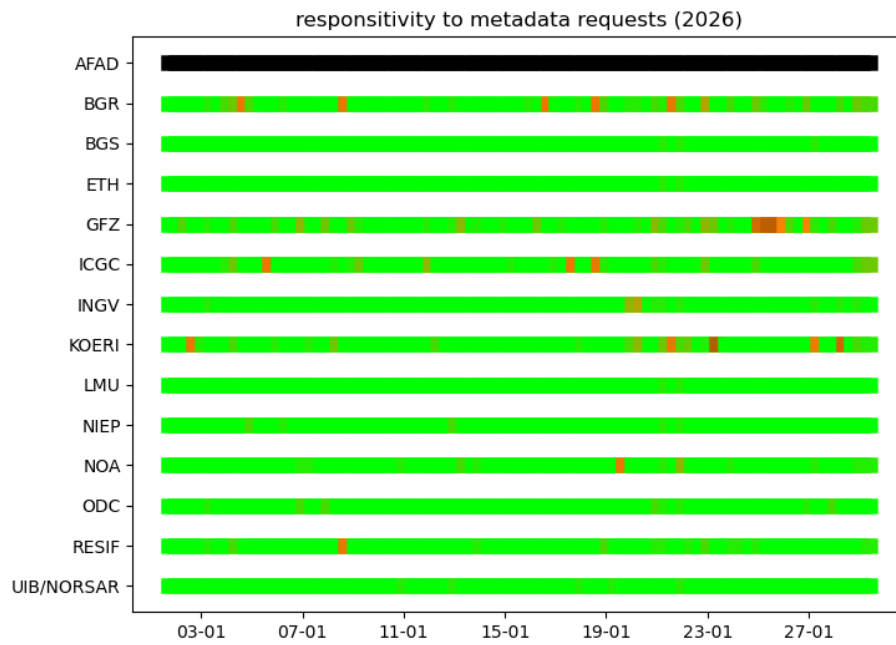


Figure 3: Responsiveness of all servers plotted with a granularity of 8h; green = 0% errors, orange = 10%, brown = 50%, black = 100%