

# EIDA Availability Report

**Created at 23-01-2026 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 23-10-2025 and 23-01-2026 00:32 using station metadata valid since 23-01-2025.

### Counters:

- unrestricted stations offering channels HHZ,BHZ,EHZ,SHZ: 3329
- evaluated stations: 3227
- number of requests: 125075

## Waveform availability plot

Color coded plot of evaluated EIDA stations. Shows results of 125075 random requests between 23-10-2025 and 23-01-2026. 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 (260123)

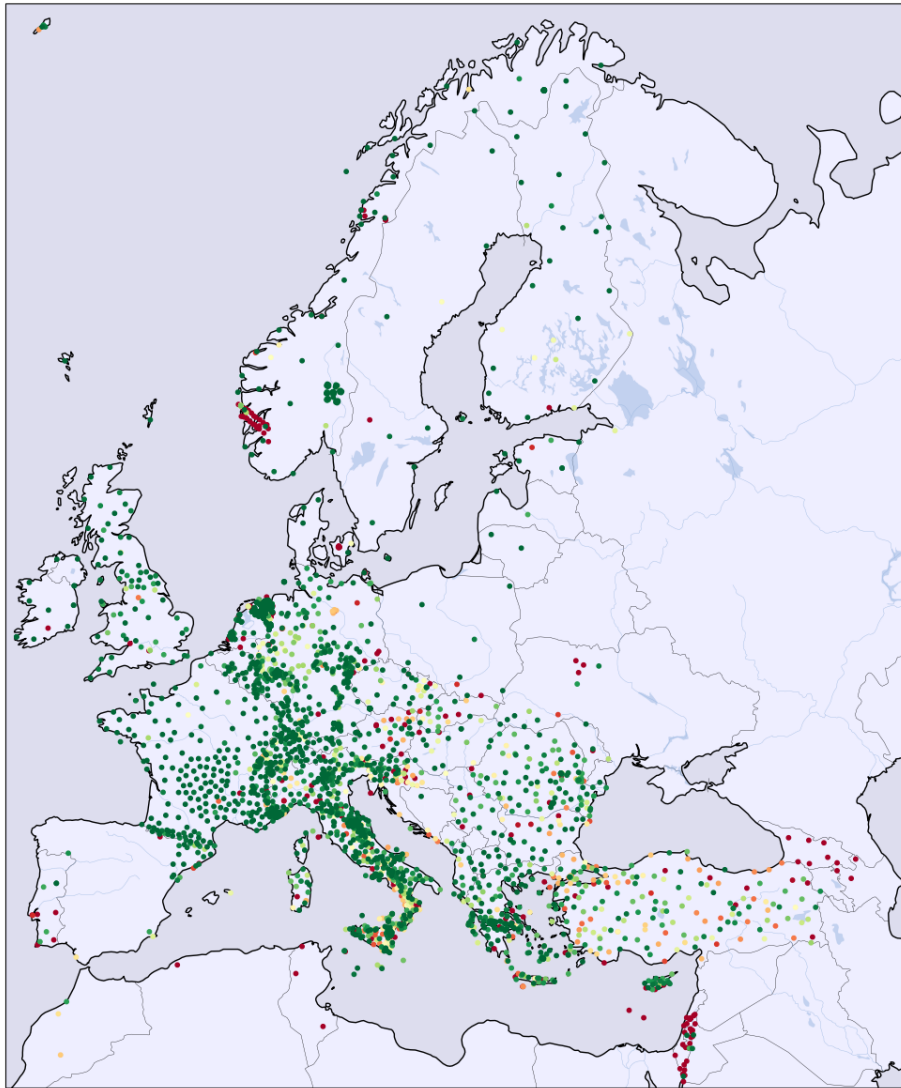


Figure 1: Availability of stations: green 100%, yellow 50%, red 0%

**Request status statistics of networks:**

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
1D	75	87	11	0	0	0	0	0
1I	72	62	43	0	0	0	0	0
2D	189	82	39	0	0	0	0	0
2E	3	100	0	0	0	0	0	0
2I	217	84	40	0	0	0	0	0
3D	74	32	150	0	0	0	1	0
4P	412	57	288	4	18	0	0	0
5A	7	50	0	7	0	0	0	0
5B	32	100	0	0	0	0	0	0
5R	105	60	68	0	0	0	0	0
7B	580	53	502	2	4	0	0	0
7C	0	0	140	0	0	0	1	0
7F	123	96	4	0	0	0	1	0
8D	40	97	0	1	0	0	0	0
8N	50	53	43	1	0	0	0	0
9L	32	65	17	0	0	0	0	0
9S	49	54	41	0	0	0	0	0
AB	0	0	134	0	0	0	0	0
AC	427	92	32	0	0	0	4	0
BE	1231	95	62	0	2	0	0	0
BN	229	64	117	10	0	0	0	0
BQ	399	93	14	0	1	0	13	0
BS	722	64	377	11	4	0	0	0
BW	1892	78	507	0	0	0	0	0
C4	85	69	37	0	0	0	0	0
CA	845	86	110	16	2	0	0	0
CH	3445	91	224	91	1	0	0	0
CL	566	88	71	0	1	0	0	0
CP	0	0	104	0	0	0	0	0
CQ	428	55	336	9	2	0	0	0
CR	531	38	860	0	6	0	0	0
CZ	670	84	118	1	2	0	1	0
DK	587	42	800	0	7	0	1	0
DY	55	33	107	0	0	0	0	0
DZ	0	0	45	0	0	0	0	0
EB	41	100	0	0	0	0	0	0
EE	194	83	39	0	0	0	0	0
EI	388	92	33	0	0	0	0	0
ES	156	81	29	6	0	0	0	0
FN	387	99	3	0	0	0	0	0
FO	123	91	12	0	0	0	0	0
FR	7554	96	274	7	6	0	4	0
GB	2343	94	115	21	3	0	0	0
GE	2564	72	963	2	5	0	3	0

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

net	OK	OK in %	NODATA	FRAGMENTINCOMPL	METAFAILNOSERV	RESTFAIL
GO	0	0	233	0	0	0
GQ	172	80	29	4	0	8
GR	3412	86	473	1	2	43
GU	1050	80	240	18	0	1
GX	97	85	12	3	1	0
HA	1199	92	99	0	1	0
HC	383	64	195	3	0	10
HE	685	79	177	0	0	0
HF	0	0	51	0	0	0
HL	1963	73	656	52	1	0
HP	812	93	40	20	1	0
HS	497	82	96	1	0	5
HT	1822	80	417	13	7	3
HU	564	87	81	0	1	0
IP	0	0	86	0	0	0
IS	0	0	1622	0	0	2
IV	14529	79	3462	207	19	6
IX	426	67	191	13	2	0
IY	461	62	264	10	1	7
JS	0	0	203	0	0	0
K3	18	78	5	0	0	0
KO	4407	62	792	1684	55	91
KQ	223	70	43	49	0	2
LC	0	0	44	0	0	0
LE	1450	91	96	0	0	33
LU	454	97	12	0	0	0
LX	71	63	40	0	1	0
M1	266	66	131	0	0	1
MD	116	87	16	0	0	0
ME	28	60	18	0	0	0
MK	369	99	1	0	0	0
ML	52	71	21	0	0	0
MN	734	66	358	17	0	1
MT	349	83	66	2	0	0
NH	317	63	173	0	0	13
NI	152	68	67	2	1	0
NL	9688	87	1240	117	24	2
NO	3373	87	195	9	6	252
NR	34	12	237	0	0	0
NS	1660	42	1964	1	0	265
OE	884	79	207	0	20	0
OT	539	79	90	5	2	0
OX	496	69	213	4	1	2
PL	344	99	2	0	0	0

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

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
PM	33	13	213	0	0	0	0	0
QE	227	55	161	1	0	0	22	0
QM	253	72	95	0	0	0	0	0
RD	515	98	5	0	1	0	0	0
RF	46	100	0	0	0	0	0	0
RN	193	45	200	6	17	0	8	0
RO	4076	82	872	7	11	0	2	0
SI	137	53	118	0	0	0	0	0
SJ	454	75	140	6	3	0	0	0
SK	239	50	239	0	0	0	0	0
SL	1056	81	215	6	19	0	0	0
SS	30	85	5	0	0	0	0	0
ST	346	99	1	0	0	0	0	0
SX	595	70	235	1	0	0	14	0
TH	1429	89	137	3	1	0	20	0
TQ	215	51	196	7	1	0	0	0
TT	0	0	141	0	0	0	0	0
TU	104	22	364	0	1	0	0	0
TV	20	47	22	0	0	0	0	0
UD	80	31	169	2	0	0	0	0
UP	425	93	24	0	4	0	0	0
UR	281	71	106	5	0	0	0	0
UT	206	93	15	0	0	0	0	0
VI	260	80	55	4	2	0	0	0
VM	49	100	0	0	0	0	0	0
WE	0	0	34	0	0	0	0	0
WM	99	46	115	0	0	0	0	0
XE	213	56	162	0	0	0	1	0
XP	1471	99	3	0	0	0	0	0
Y8	174	79	45	0	0	0	0	0
YV	96	54	80	0	0	0	0	0
ZO	296	90	30	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.

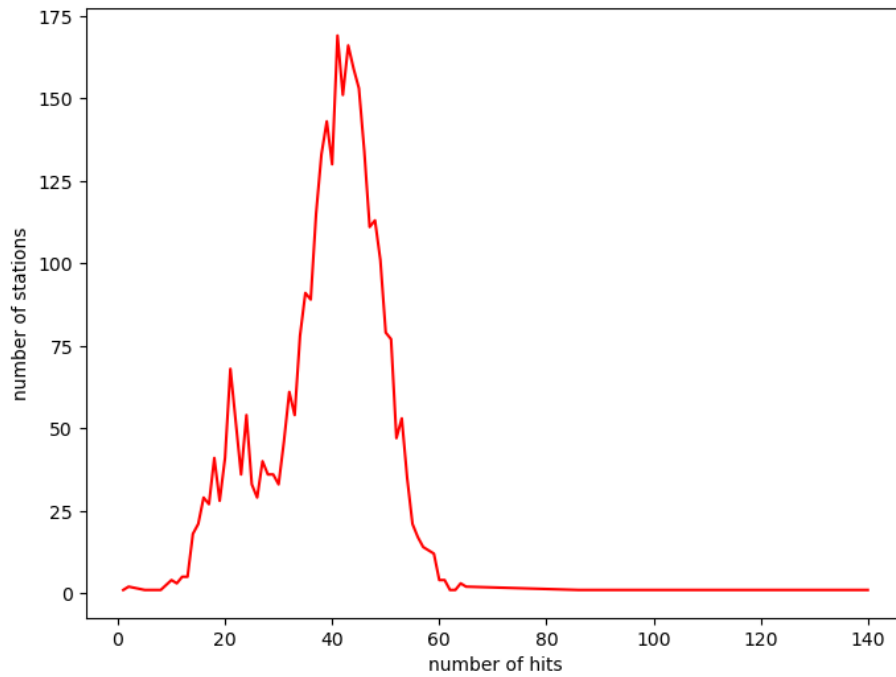


Figure 2: Request hit statistics showing the distribution of the 125075 requests on the 3227 evaluated stations

## 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 26-12-2025 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%)	2011 (100.0%)
BGR	4 ( 0.2%)	9 ( 0.4%)	38 ( 1.9%)
BGS	0 ( 0.0%)	1 ( 0.0%)	4 ( 0.2%)
ETH	1 ( 0.0%)	2 ( 0.1%)	3 ( 0.1%)
GFZ	0 ( 0.0%)	1 ( 0.0%)	56 ( 2.8%)
ICGC	9 ( 0.4%)	6 ( 0.3%)	23 ( 1.1%)
INGV	10 ( 0.5%)	6 ( 0.3%)	9 ( 0.4%)
KOERI	34 ( 1.7%)	96 ( 4.8%)	12 ( 0.6%)
LMU	0 ( 0.0%)	2 ( 0.1%)	3 ( 0.1%)
NIEP	5 ( 0.2%)	8 ( 0.4%)	4 ( 0.2%)
NOA	20 ( 1.0%)	22 ( 1.1%)	13 ( 0.6%)
ODC	0 ( 0.0%)	1 ( 0.0%)	19 ( 0.9%)
RESIF	4 ( 0.2%)	1 ( 0.0%)	12 ( 0.6%)
UIB/NORSAR	4 ( 0.2%)	2 ( 0.1%)	10 ( 0.5%)

failures of routing client: 0

failures of federator: 4

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 23-01-2026 00:32 MEST using pandoc 2.18.

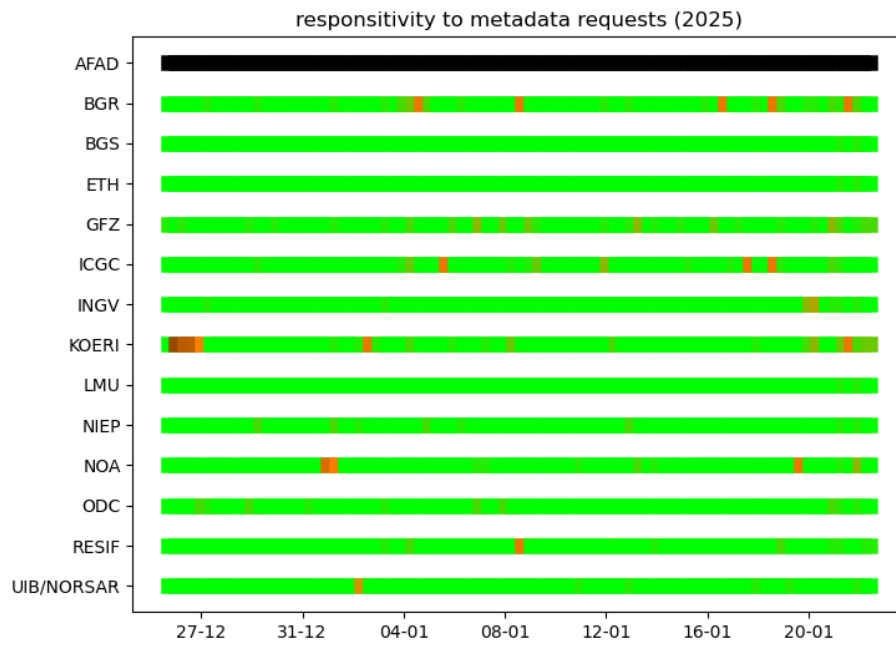


Figure 3: Responsiveness of all servers plotted with a granularity of 8h; green = 0% errors, orange = 10%, brown = 50%, black = 100%