

# EIDA Availability Report

**Created at 05-01-2026 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 05-10-2025 and 05-01-2026 00:32 using station metadata valid since 05-01-2025.

### Counters:

- unrestricted stations offering channels HHZ,BHZ,EHZ,SHZ: 3290
- evaluated stations: 3181
- number of requests: 122875

## Waveform availability plot

Color coded plot of evaluated EIDA stations. Shows results of 122875 random requests between 05-10-2025 and 05-01-2026. 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 (260105)

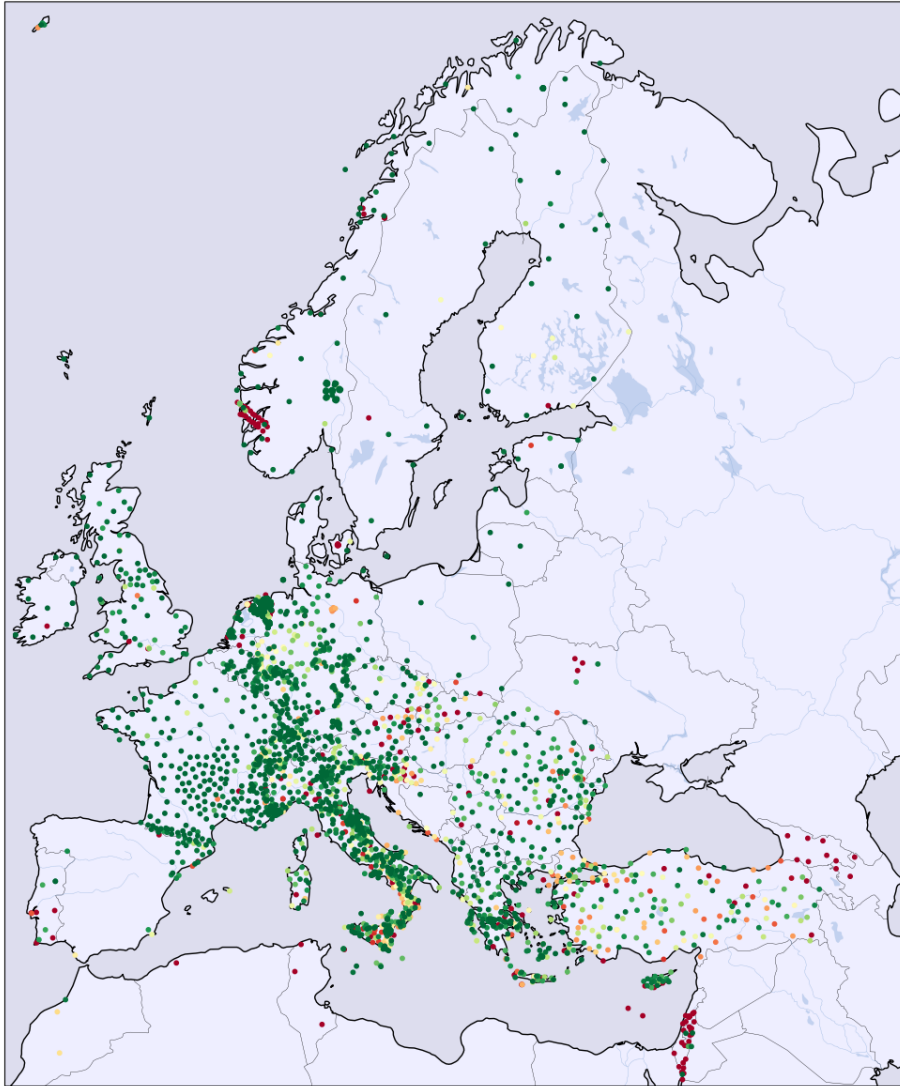


Figure 1: Availability of stations: green 100%, yellow 50%, red 0%

**Request status statistics of networks:**

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
1D	74	83	15	0	0	0	0	0
1I	65	61	40	0	0	0	0	0
2D	194	82	42	0	0	0	0	0
2I	227	86	35	0	0	0	0	0
3D	79	34	147	0	0	0	0	0
4P	442	60	268	4	21	0	0	0
5A	2	50	0	2	0	0	0	0
5B	34	100	0	0	0	0	0	0
5R	105	60	68	0	0	0	0	0
7B	577	52	515	2	2	0	1	0
7C	0	0	134	0	0	0	1	0
7F	117	95	4	0	0	0	1	0
8D	41	97	0	1	0	0	0	0
8N	69	56	53	1	0	0	0	0
9L	33	64	18	0	0	0	0	0
9S	50	53	44	0	0	0	0	0
AB	0	0	132	0	0	0	0	0
AC	437	92	32	0	0	0	4	0
BE	1264	95	64	0	2	0	0	0
BN	217	64	113	7	0	0	2	0
BQ	396	87	40	0	1	0	15	0
BS	723	65	368	14	4	0	0	0
BW	1858	78	514	0	0	0	0	0
C4	82	66	42	0	0	0	0	0
CA	837	86	111	17	2	0	0	0
CH	3408	91	234	92	2	0	0	0
CL	579	90	62	0	0	0	0	0
CP	0	0	97	0	0	0	0	0
CQ	441	56	329	9	2	0	0	0
CR	509	39	786	0	6	0	0	0
CZ	644	83	128	1	2	0	0	0
DK	568	41	796	0	8	0	1	0
DY	50	32	106	0	0	0	0	0
DZ	0	0	47	0	0	0	0	0
EB	44	100	0	0	0	0	0	0
EE	197	84	35	1	0	0	0	0
EI	395	91	35	0	0	0	0	0
ES	160	79	39	3	0	0	0	0
FN	396	98	5	0	0	0	0	0
FO	122	86	19	0	0	0	0	0
FR	7590	96	264	7	4	0	3	0
GB	2160	93	106	20	3	0	16	0
GE	2518	72	949	3	8	0	2	0
GO	0	0	259	0	0	0	0	0

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

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
GQ	171	85	25	3	0	0	2	0
GR	3346	86	478	1	4	0	43	0
GU	1069	80	238	19	0	0	1	0
GX	84	84	12	2	1	0	0	0
HA	1210	92	103	0	1	0	0	0
HC	361	61	214	3	1	0	9	0
HE	684	78	183	0	0	0	0	0
HF	0	0	45	0	0	0	0	0
HL	1932	74	620	47	0	0	0	0
HP	813	93	39	19	0	0	0	0
HS	520	87	71	2	0	0	0	0
HT	1780	79	442	12	5	0	0	2
HU	548	85	91	0	1	0	0	0
IP	0	0	89	0	0	0	0	0
IS	0	0	1608	0	0	0	1	0
IV	14472	79	3505	205	28	0	3	44
IX	397	65	197	11	3	0	0	0
IY	440	60	279	6	1	0	6	0
JS	0	0	207	0	0	0	0	0
K3	21	80	5	0	0	0	0	0
KO	4383	62	770	1712	55	0	91	0
LC	0	0	40	0	0	0	0	0
LE	1395	90	105	0	0	0	35	0
LU	448	96	17	0	0	0	0	0
LX	77	63	42	0	2	0	0	0
M1	283	66	139	0	0	0	1	0
MD	119	87	17	0	0	0	0	0
ME	27	57	20	0	0	0	0	0
MK	375	99	1	0	0	0	0	0
ML	65	81	15	0	0	0	0	0
MN	746	66	358	15	1	0	1	0
MT	346	82	70	1	0	0	0	0
NH	263	53	215	2	0	0	9	0
NI	152	69	64	2	0	0	0	0
NL	9705	87	1248	112	22	0	2	0
NO	3413	88	193	9	7	0	252	0
NR	29	10	244	0	0	0	0	0
NS	1642	42	1960	1	0	0	266	0
OE	866	78	213	0	22	0	0	0
OT	535	79	91	7	2	0	0	35
OX	495	69	207	3	2	0	2	0
PL	350	99	2	0	0	0	0	0
PM	34	14	202	0	0	0	0	0
QE	232	58	140	1	0	0	22	0

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

net	OK	OK in %	NODATA	FRAGMENT	INCOMPL	METAFAIL	NOSERV	RESTFAIL
QM	257	72	99	0	0	0	0	0
RD	509	99	2	0	2	0	0	0
RF	40	100	0	0	0	0	0	0
RO	4080	81	901	6	10	0	3	0
SI	132	53	113	0	0	0	0	0
SJ	446	75	139	4	3	0	0	0
SK	243	50	239	0	0	0	1	0
SL	1070	83	194	6	18	0	0	0
SS	29	85	5	0	0	0	0	0
ST	350	99	1	0	0	0	0	0
TH	1392	90	129	3	2	0	20	0
TQ	199	51	179	9	1	0	0	0
TT	0	0	135	0	0	0	0	0
TU	99	21	369	0	1	0	0	0
TV	25	54	21	0	0	0	0	0
UD	83	31	180	3	0	0	0	0
UP	420	94	24	0	2	0	0	0
UR	257	70	99	4	0	0	5	0
UT	199	93	13	0	0	0	0	0
VI	233	79	56	3	1	0	0	0
VM	50	100	0	0	0	0	0	0
WE	0	0	38	0	0	0	0	0
WM	102	47	113	0	0	0	0	0
XE	226	58	157	0	0	0	1	0
XP	1468	99	5	0	0	0	0	0
Y8	160	80	40	0	0	0	0	0
YV	103	56	80	0	0	0	0	0
ZO	309	91	27	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.

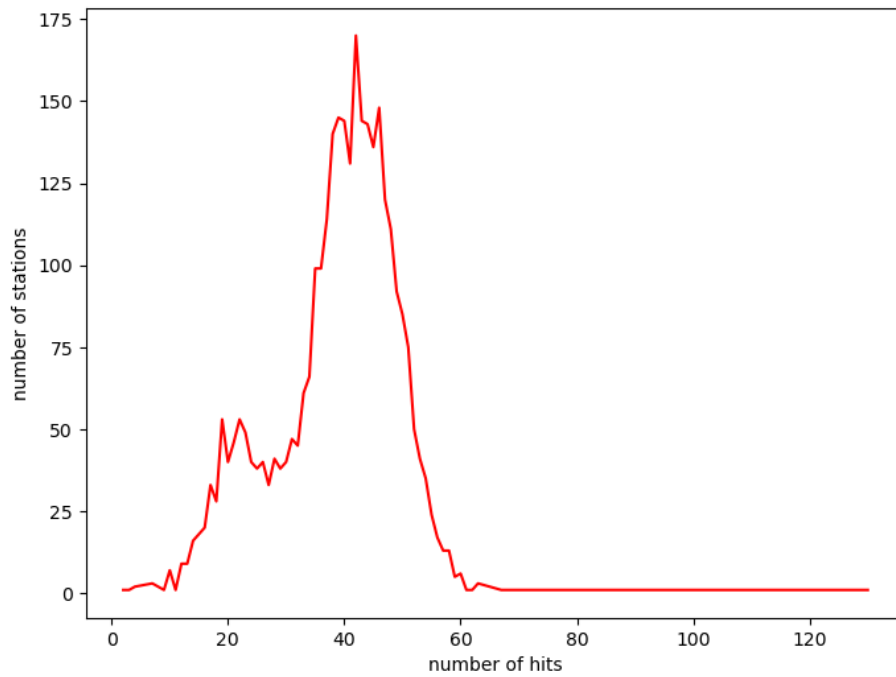


Figure 2: Request hit statistics showing the distribution of the 122875 requests on the 3181 evaluated stations

## 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 08-12-2025 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%)	1971 (100.0%)
BGR	7 ( 0.3%)	11 ( 0.5%)	38 ( 1.9%)
BGS	1 ( 0.0%)	1 ( 0.0%)	6 ( 0.3%)
ETH	0 ( 0.0%)	1 ( 0.0%)	3 ( 0.2%)
GFZ	0 ( 0.0%)	0 ( 0.0%)	260 (13.2%)
ICGC	2 ( 0.1%)	1 ( 0.0%)	21 ( 1.1%)
INGV	1 ( 0.0%)	0 ( 0.0%)	19 ( 1.0%)
KOERI	20 ( 1.0%)	85 ( 4.2%)	10 ( 0.5%)
LMU	3 ( 0.1%)	3 ( 0.1%)	7 ( 0.4%)
NIEP	9 ( 0.4%)	9 ( 0.4%)	18 ( 0.9%)
NOA	17 ( 0.8%)	15 ( 0.7%)	15 ( 0.8%)
ODC	0 ( 0.0%)	0 ( 0.0%)	73 ( 3.7%)
RESIF	3 ( 0.1%)	2 ( 0.1%)	17 ( 0.9%)
UIB/NORSAR	54 ( 2.7%)	159 ( 7.9%)	37 ( 1.9%)

failures of routing client: 0

failures of federator: 44

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 05-01-2026 00:32 MEST usingpandoc 2.18.

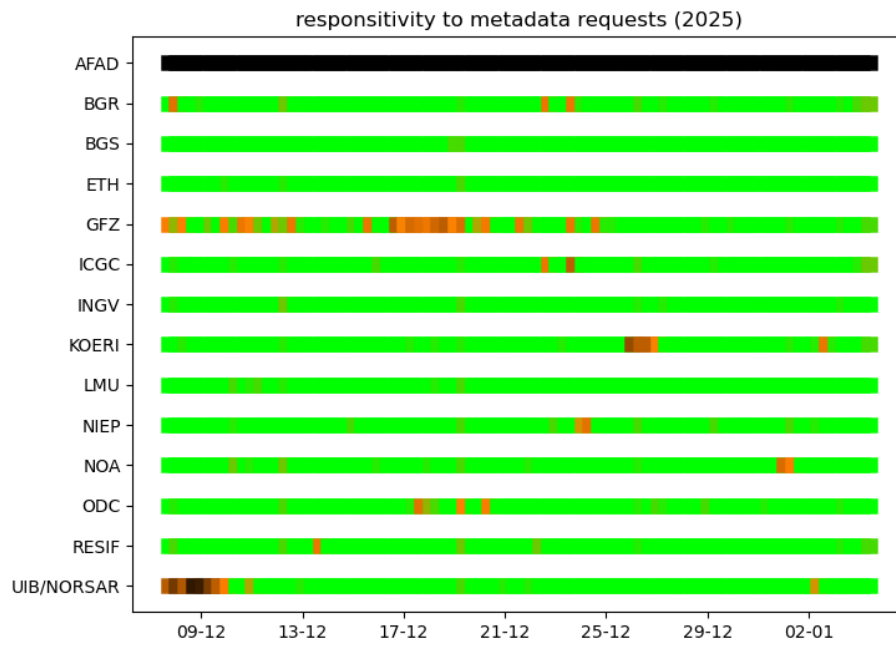


Figure 3: Responsiveness of all servers plotted with a granularity of 8h; green = 0% errors, orange = 10%, brown = 50%, black = 100%