

stats.garr.net

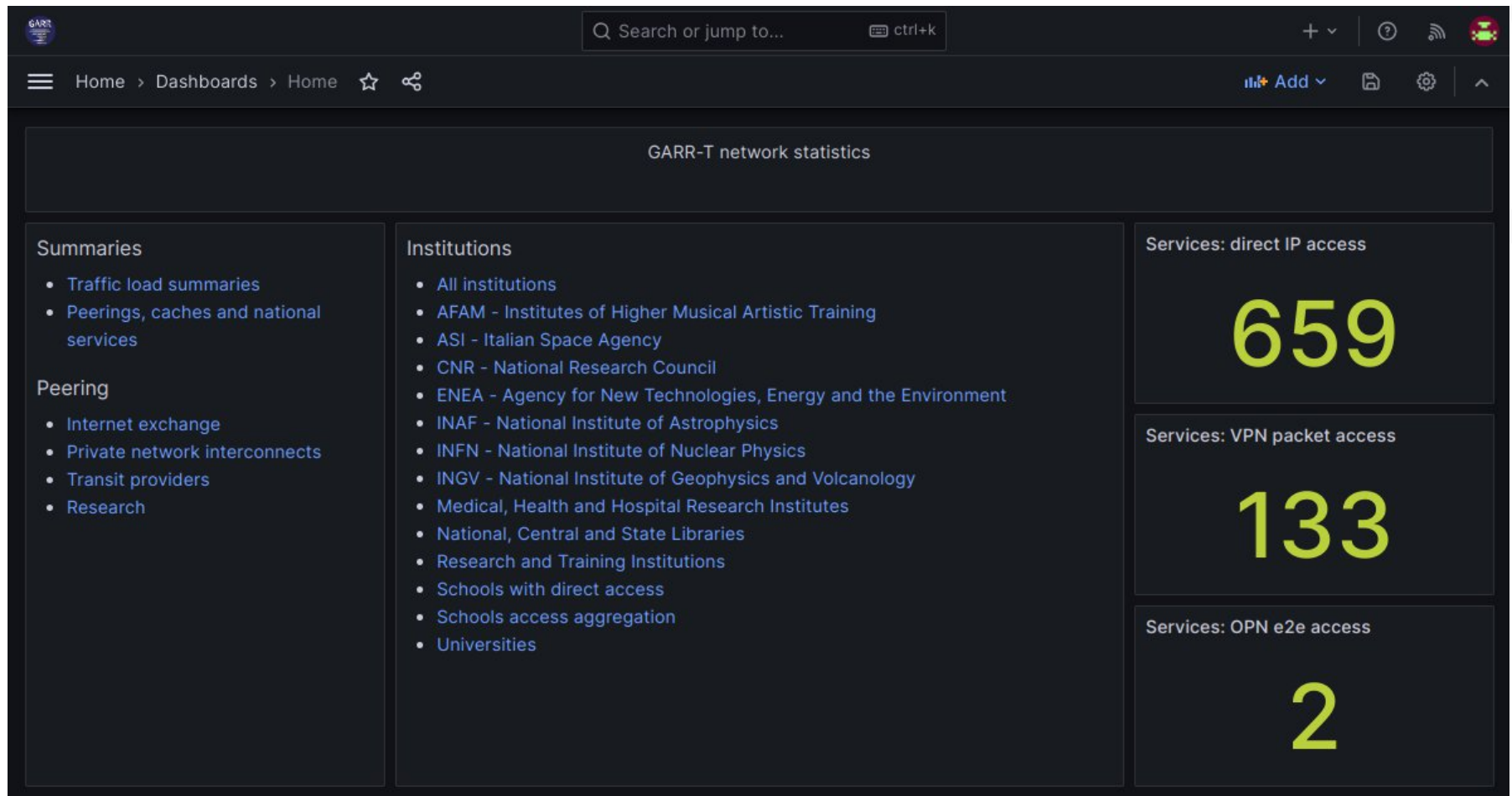
L'osservabilità per gli utenti GARR-T

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GARR

<https://stats.garr.net>



Statistiche pubbliche dei servizi di rete ad accesso diretto su rete GARR-T



Dashboard template

Summary

IP services
count

IP
services
total
capacity

VPN
services
count

VPN
services
total
capacity

IP services

Service name ▾	Bandwidth ▾
UNI-Aosta	100 Mb/s
UNI-Bari	10 Gb/s
UNI-Benevento	1 Gb/s
UNI-Bergamo	1 Gb/s
UNI-Bologna	10 Gb/s
UNI-Bolzano	1 Gb/s
UNI-Brescia	10 Gb/s
UNI-Cagliari	10 Gb/s
UNI-Camerino	10 Gb/s
Total	685 Gb/s

IP service

IP service capacity

< 1 2 3 4 5 6 7 ... 12 > 28 - 36 of 106 rows

VPN services

Service name ▾	Bandwidth ▾
UNI-Messina - Policlinico	1 Gb/s
UNI-Insubria Varese-Como - lato Como	1 Gb/s
UNI-Bari - sede di Valenzano	1 Gb/s
UNI-Bari - sede di Taranto - Scienze	1 Gb/s
UNI-Bari - sede di Taranto - Polo Jonico	1 Gb/s
UNI-Bari - sede di Taranto - Economia	1 Gb/s
UNI-Bari - sede di Brindisi - Fisioterapia e Infermieristica	1 Gb/s
UNI-Bari - Scienze Motorie e Sportive	1 Gb/s
POLI-Milano sede di Piacenza - lato Piacenza	1 Gb/s
Total	143 Gb/s

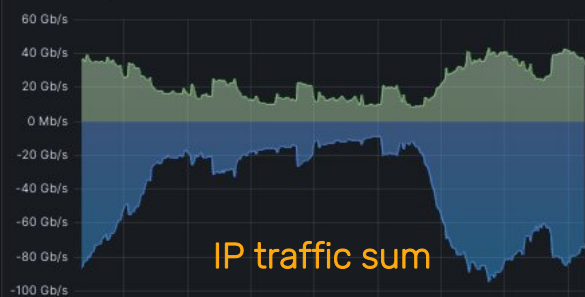
VPN service

VPN service capacity

< 1 2 3 4 5 6 7 8 > 28 - 36 of 65 rows

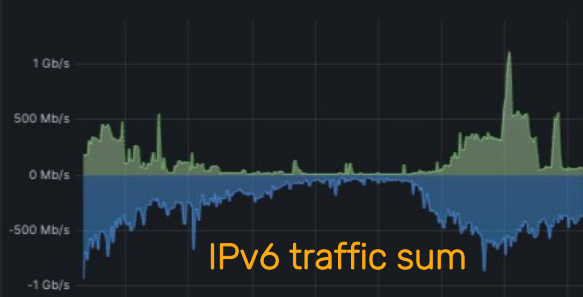
Traffic sum

Total traffic



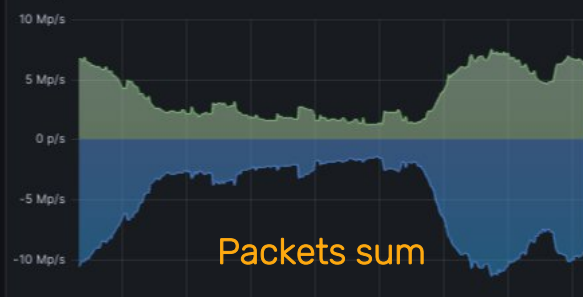
Name	Last *	Min	Max	Mean
IN mean	33.3 Gb/s	8.23 Gb/s	43.7 Gb/s	23.4 Gb/s
OUT mean	-71.6 Gb/s	-94.2 Gb/s	-9.05 Gb/s	-41.9 Gb/s
IN peak	33.3 Gb/s	8.23 Gb/s	43.7 Gb/s	23.4 Gb/s
OUT peak	-71.6 Gb/s	-94.2 Gb/s	-9.05 Gb/s	-41.9 Gb/s

Total IPv6 traffic



Name	Last *	Min	Max	Mean
IN mean	67.5 Mb/s	2.71 Mb/s	1.11 Gb/s	139 Mb/s
OUT mean	-399 Mb/s	-944 Mb/s	-24.7 Mb/s	-297 Mb/s
IN peak	67.5 Mb/s	2.71 Mb/s	1.11 Gb/s	139 Mb/s
OUT peak	-399 Mb/s	-944 Mb/s	-24.7 Mb/s	-297 Mb/s

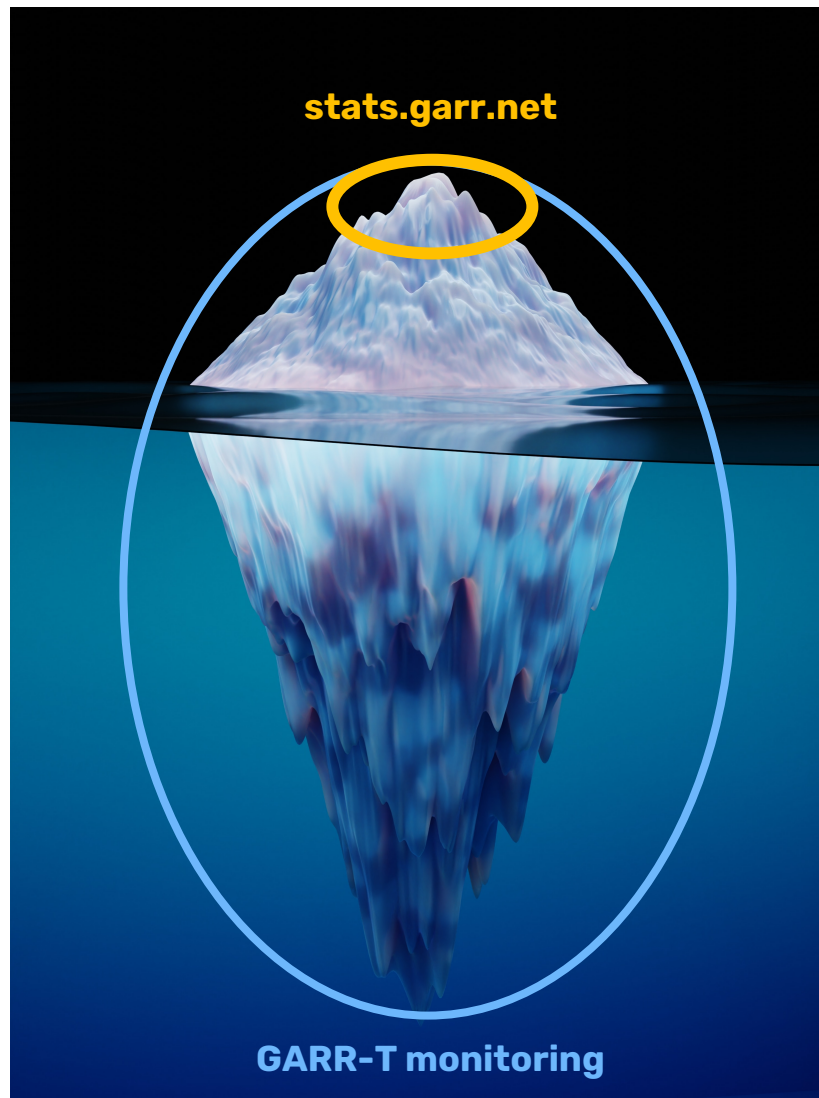
Total packets

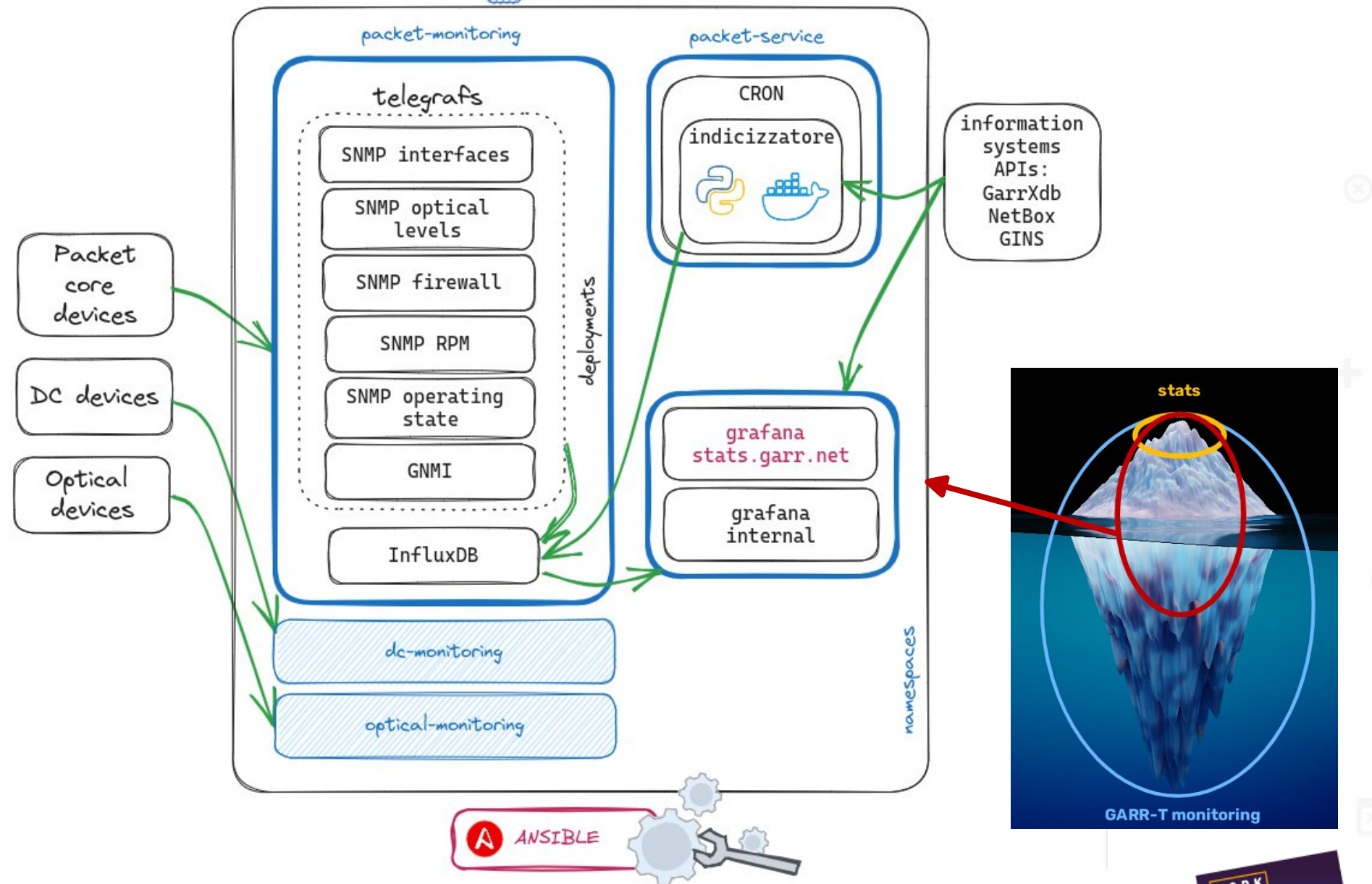


Name	Last *	Min	Max	Mean
IN mean	5.99 Mp/s	1.26 Mp/s	7.55 Mp/s	3.72 Mp/s
OUT mean	-8.95 Mp/s	-11.3 Mp/s	-1.45 Mp/s	-5.25 Mp/s
IN peak	5.99 Mp/s	1.26 Mp/s	7.55 Mp/s	3.72 Mp/s
OUT peak	-8.95 Mp/s	-11.3 Mp/s	-1.45 Mp/s	-5.25 Mp/s

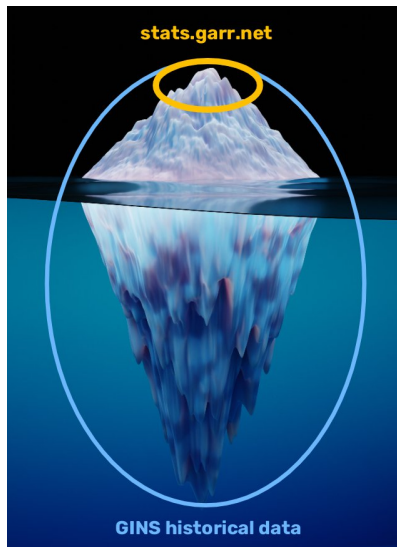
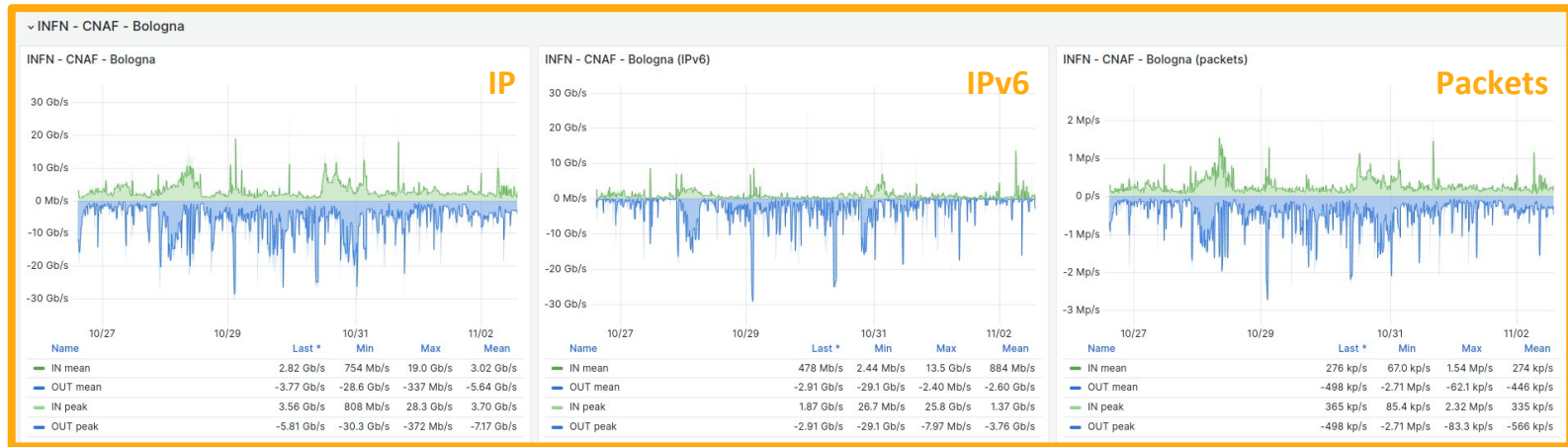
+ grafici per ogni servizio

GARR-T monitoring



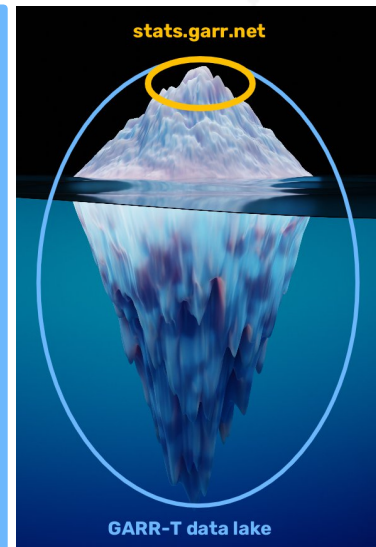


stats.garr.net current metrics

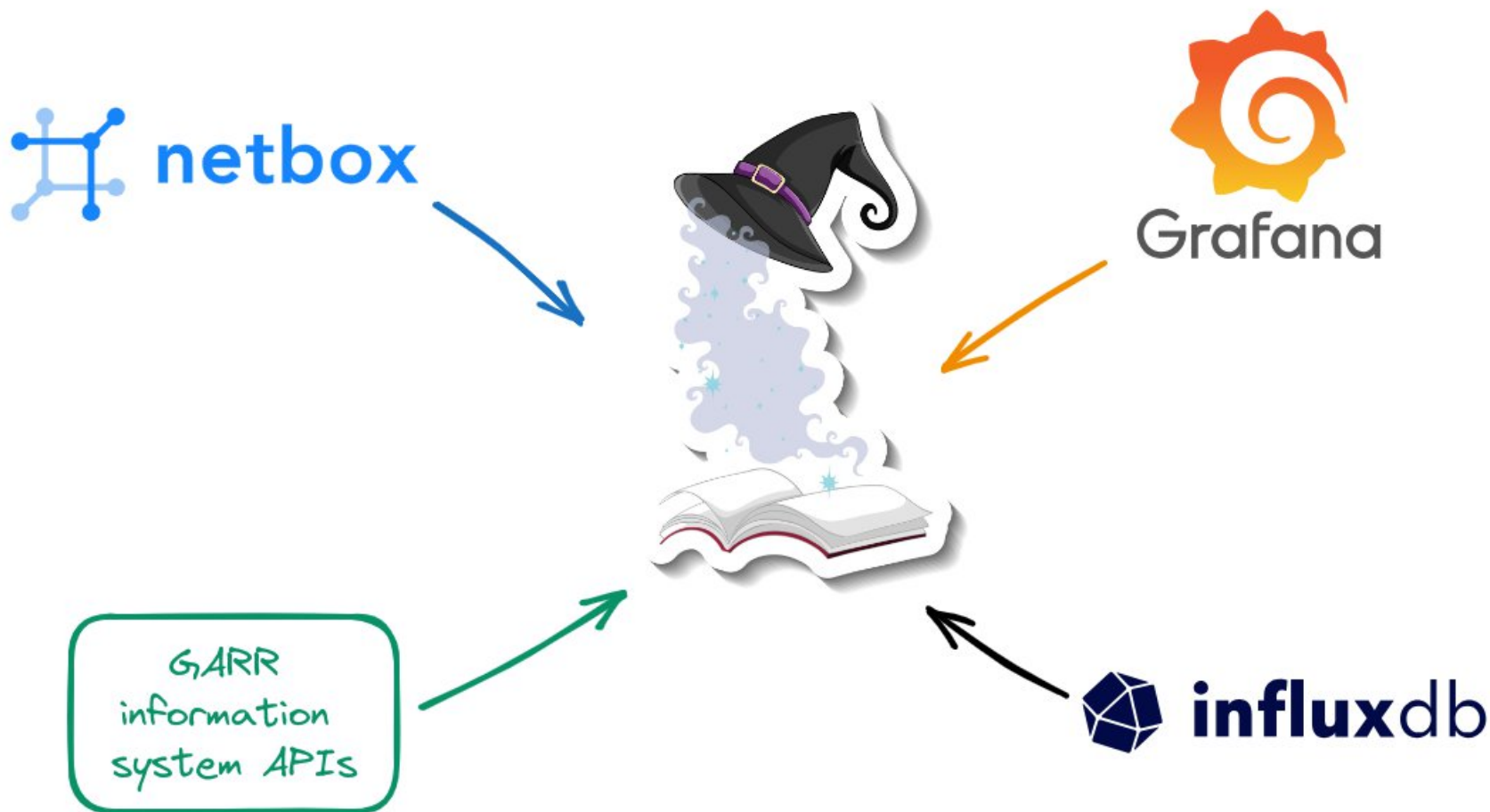


- 20 years of data retention
- monthly traffic reports volumes, 95th percentile

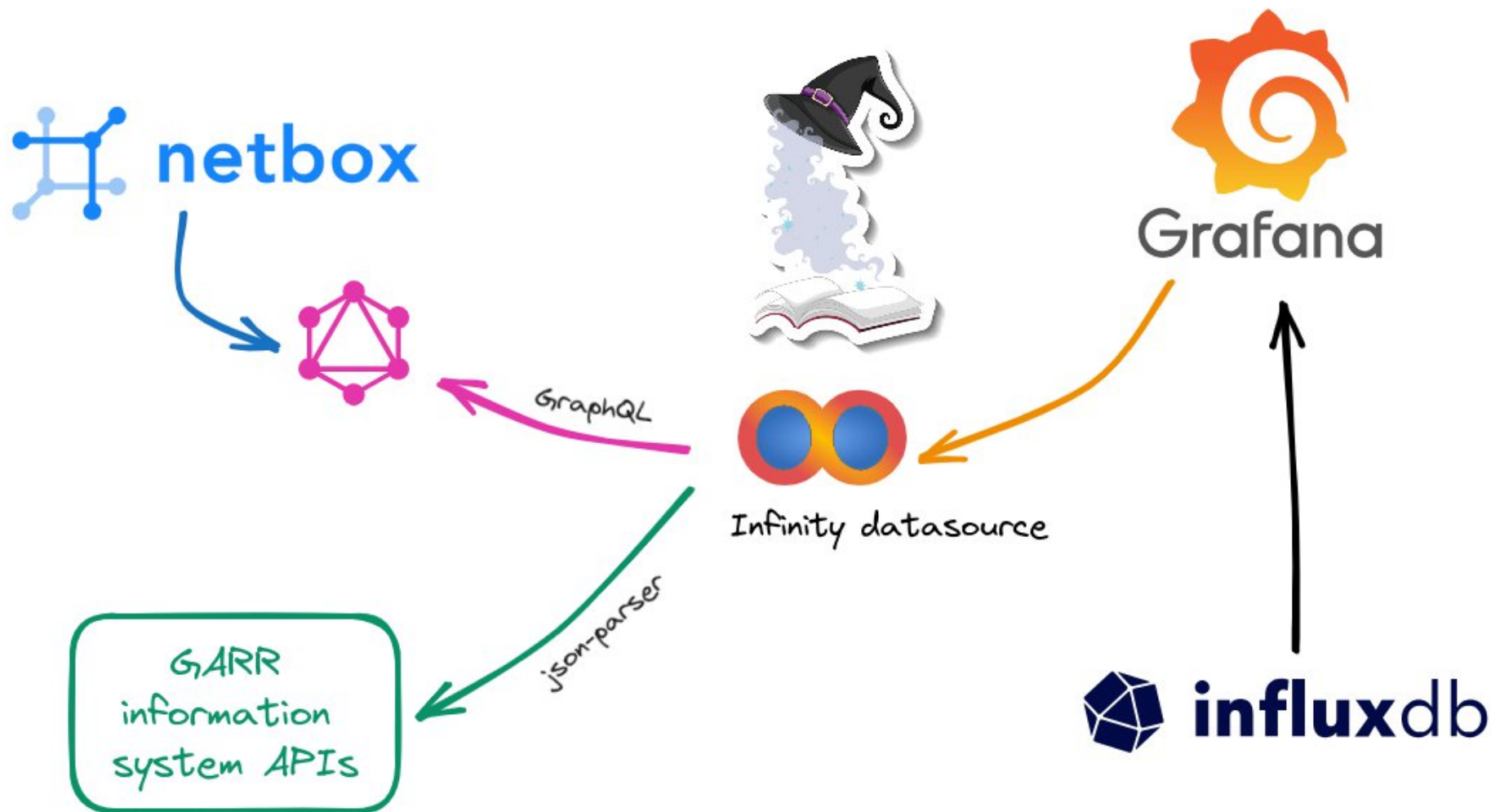
- IP, IPv6, packets
- Errors, drops
- power consumption
- temperature
- latency
- optical levels
- routing protocols
- fast rates 30" (GNMI)



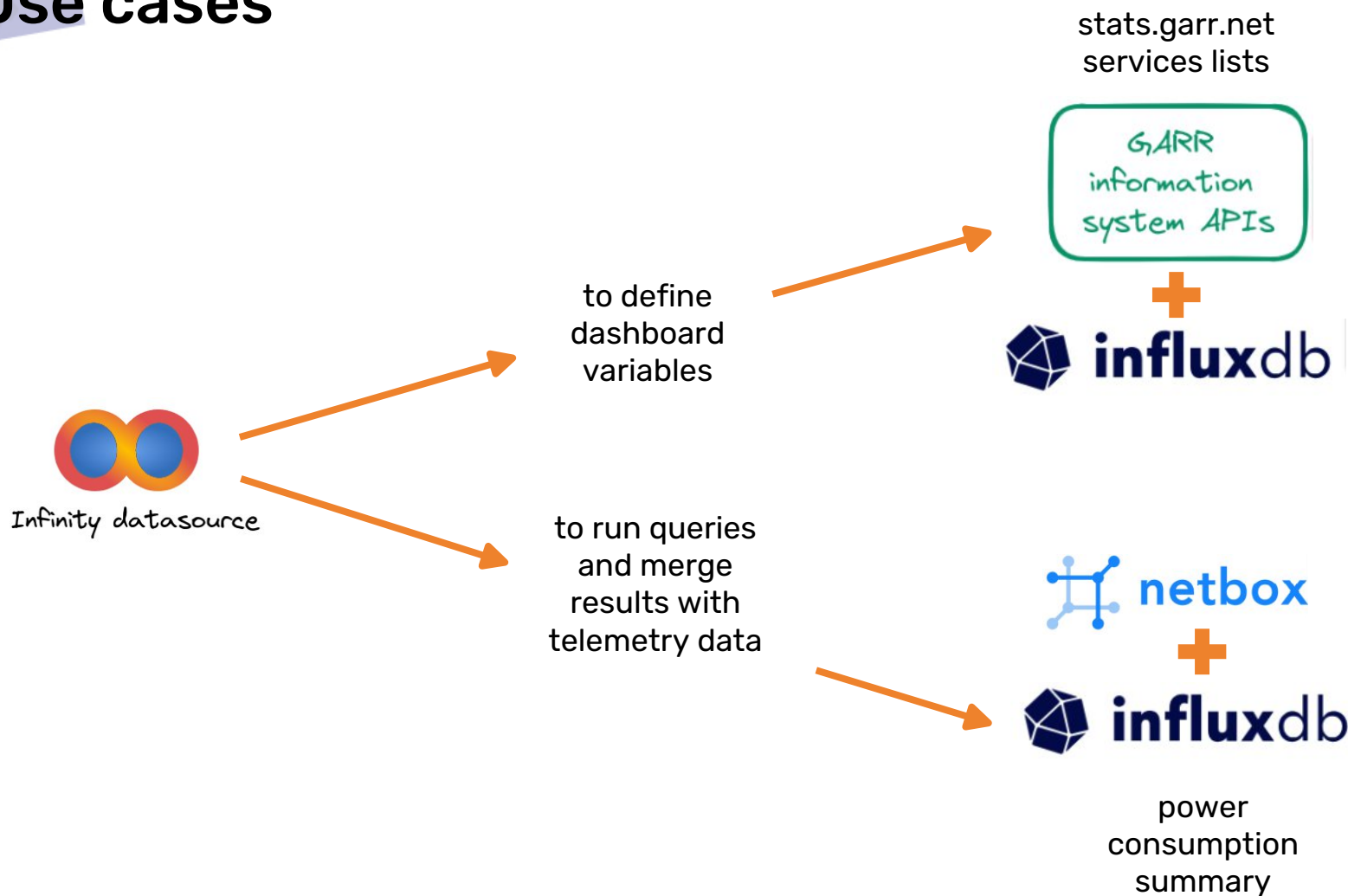
Low code: integration problem



Low code: integration solution



Use cases



stats.garr.net dashboard variables

Query options

Data source
Infinity-GINS

Query
Query Type Infinity

Type UQL Source URL

Method POST URL GARR information system API URL

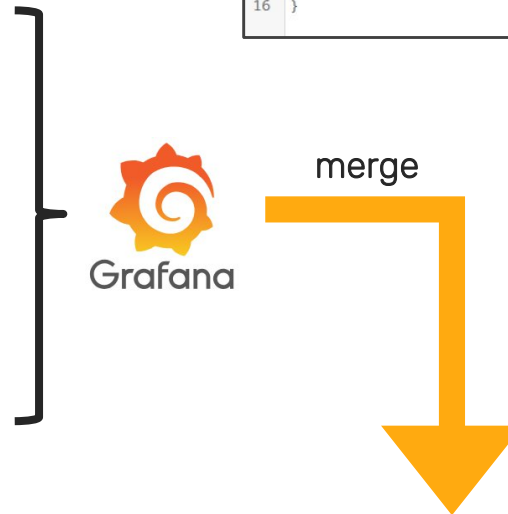
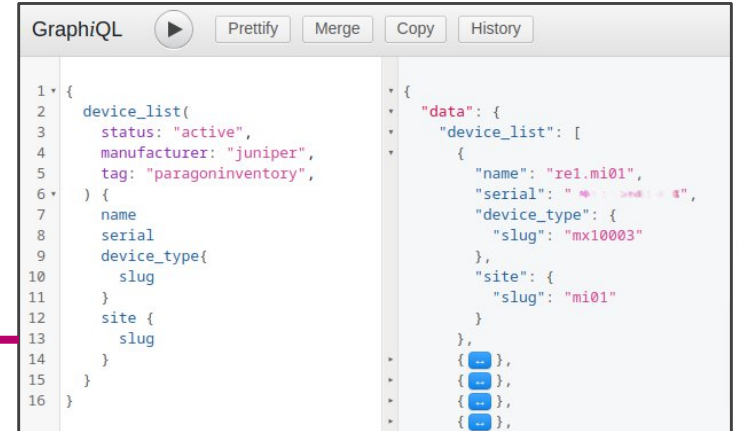
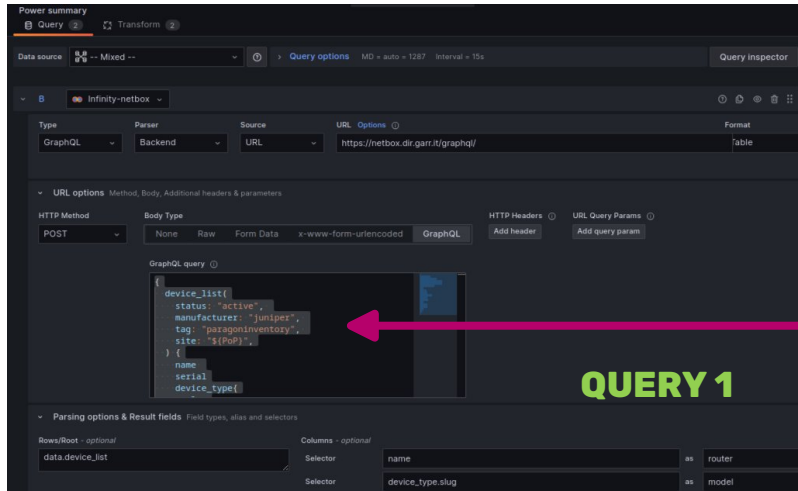
UQL UQL

```
parse-json
| where '<conditions here>'
| extend "__text__"=name, "__value__"=id
| project "__text__", "__value__"
```

GARR
information
system APIs

dashboard {k:v} variable

NetBox + Grafana Infinity datasource + InfluxDB



Power consumption summary



Infinity datasource



Grafana



inventory data



influxdb

telemetry data



PoP

rm02 + mi02

▼ PoP: mi02

Power summary

Model	Device	Power
mx10003	re1.mi02	1.30 kW
mx480	rl1.mi02	1.55 kW
jrr200	rr1.mi02	96 W
ptx10004	rs1.mi02	3.31 kW
Total		6.26 kW

from: GARR-T monitoring internal Grafana
soon on stats.garr.net

Grazie

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References:

<https://sriramajeyam.com/grafana-infinity-datasource/>

Images from:

<https://unsplash.com/>