



SKPOS®

National report of Slovakia

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10th EUPOS Council and Technical Meeting
October 24-25, 2024, Skopje, North Macedonia



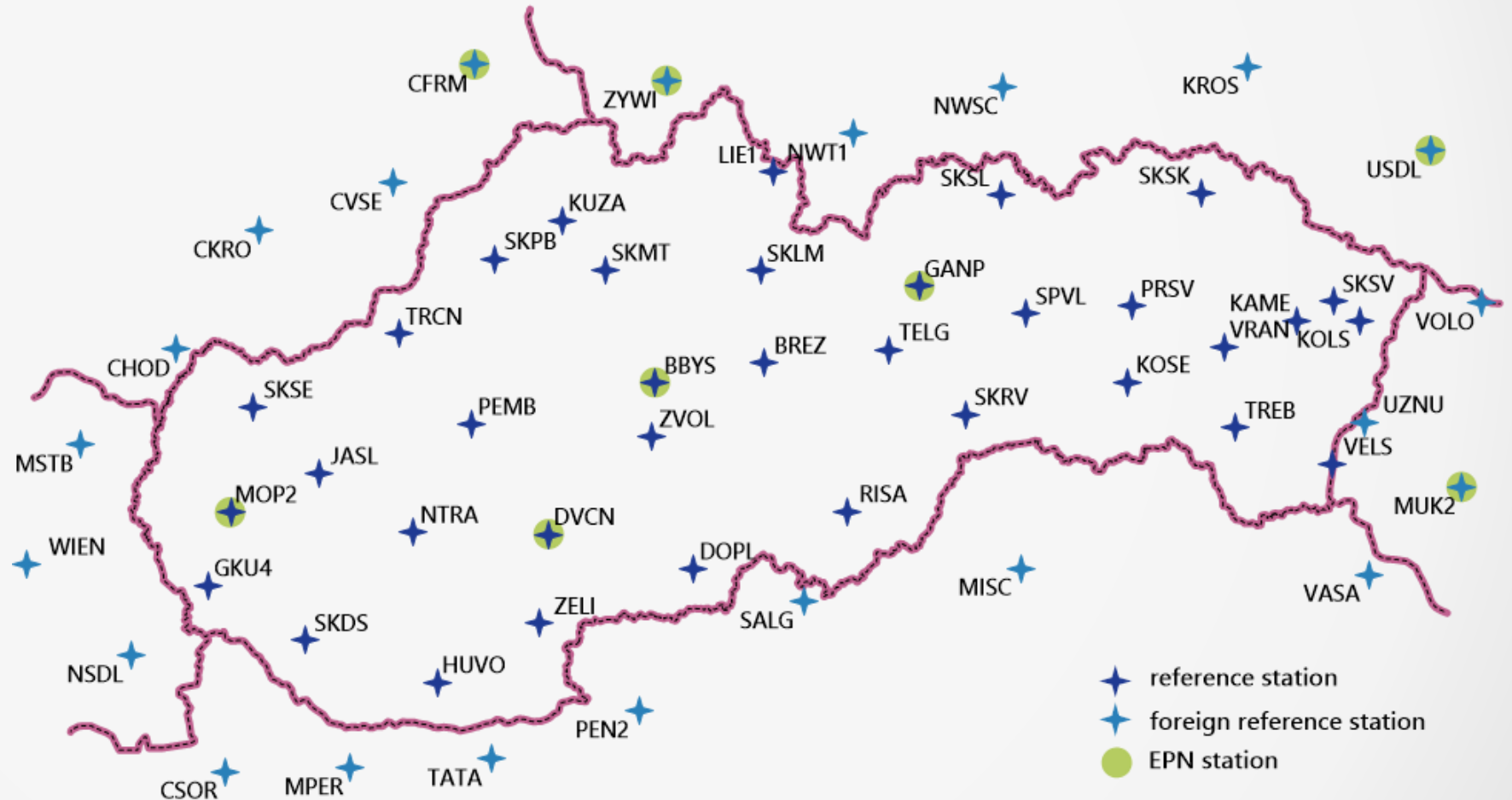
Status in October 2024

of continuous operation

active users

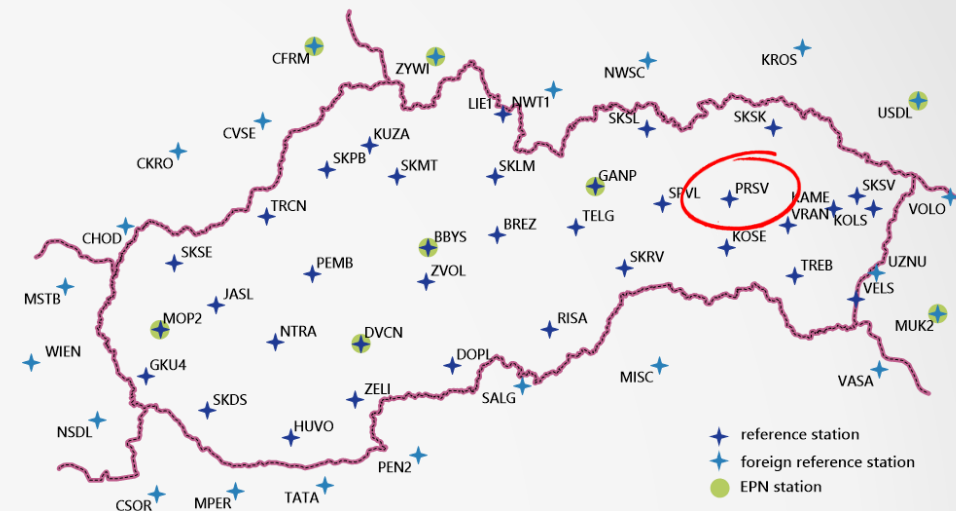
reference stations

GPS, GLONASS, Galileo, BeiDou



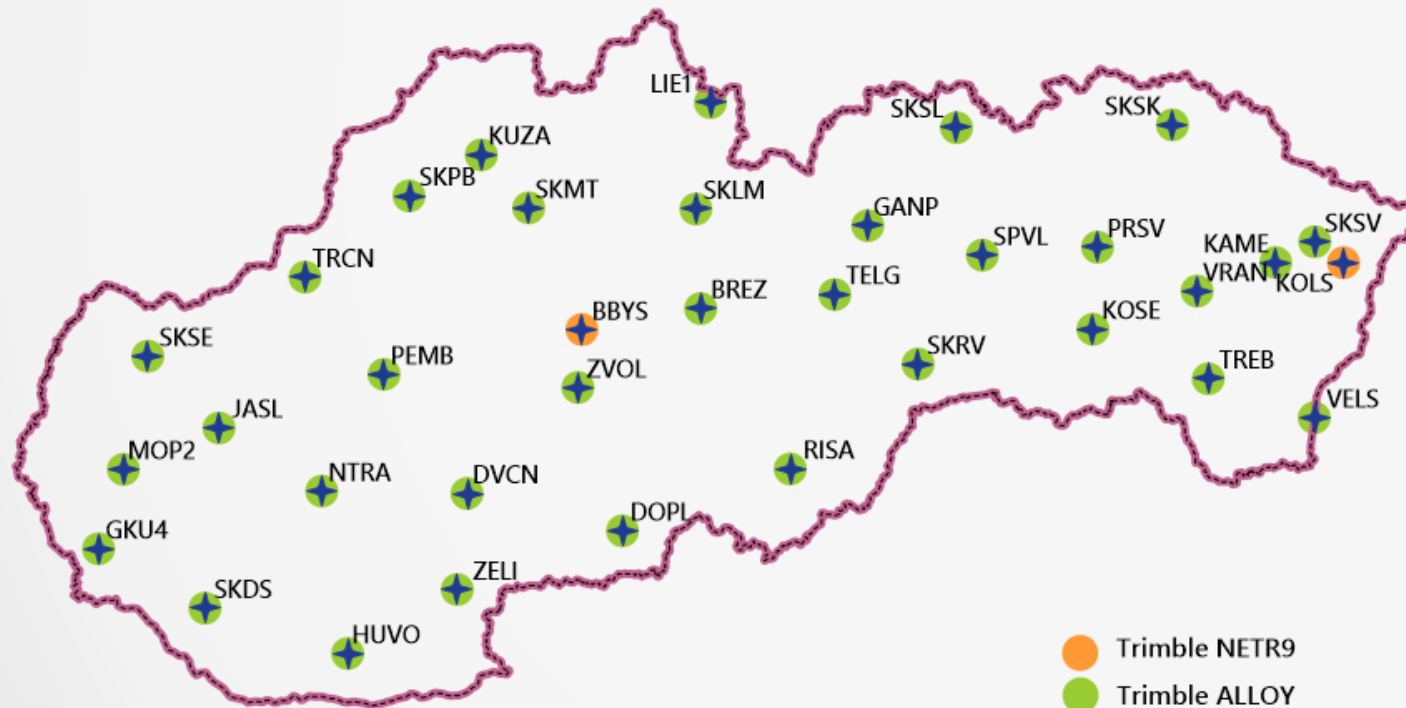
SKPOS stations infrastructure

- Prešov station relocation
 - reinforced concrete pillar instead of roof monumentation



SKPOS stations infrastructure

- 33/35 Trimble Alloy receivers



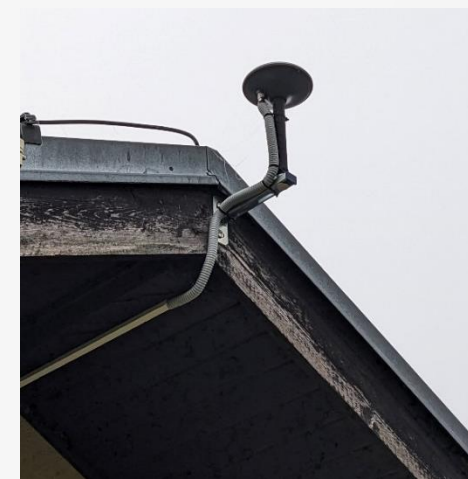
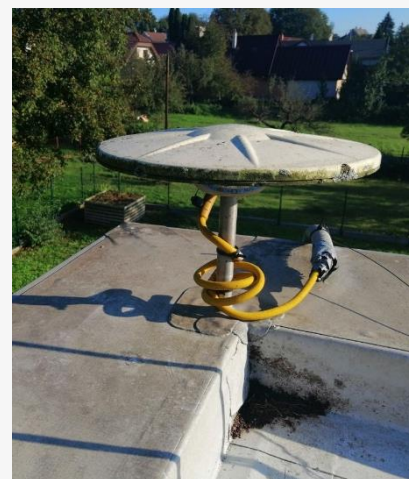
SKPOS stations infrastructure

- Antenna exchange on station SKPB and HUVO
 - Zephyr 3 Geodetic
 - TRM115000.00 NONE



Physical monitoring stations

- **2013**
Quality monitoring based on virtual stations
- **2020**
New physical monitoring station SUT2
- **2022**
Relocation of monitoring station SUT2 → AGOA
- **2023**
Relocation of monitoring station AGOA → AGOC
New physical monitoring station TUZV
- **2024**
New physical monitoring station PRES
New physical monitoring station MOPI
New physical monitoring station RISO
New physical monitoring station TUKE



SKPOS Infrastructure

- Control software:



- Version 5.1.1 (Primary server)
- Version 5.2.0 RC5 (Backup server)



- Receivers firmware

- Alloy: 6.23
- NetR9: 5.63



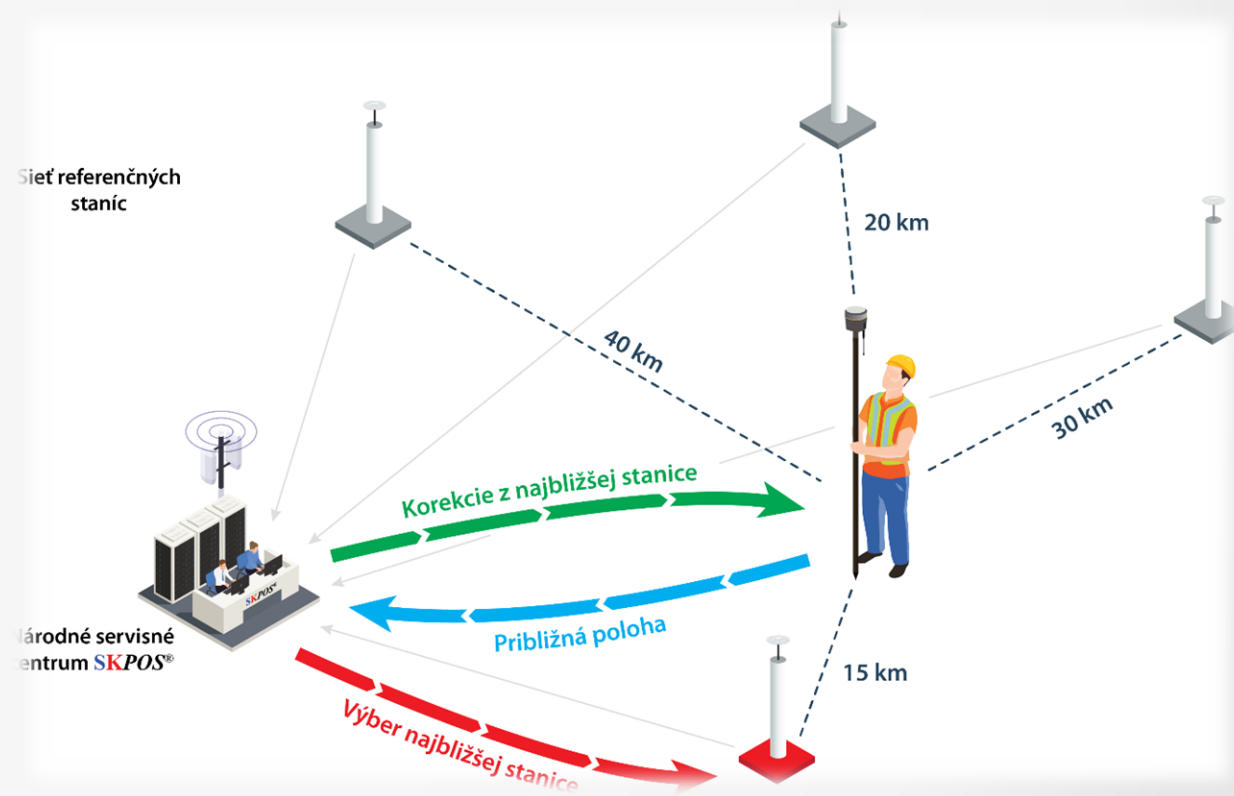
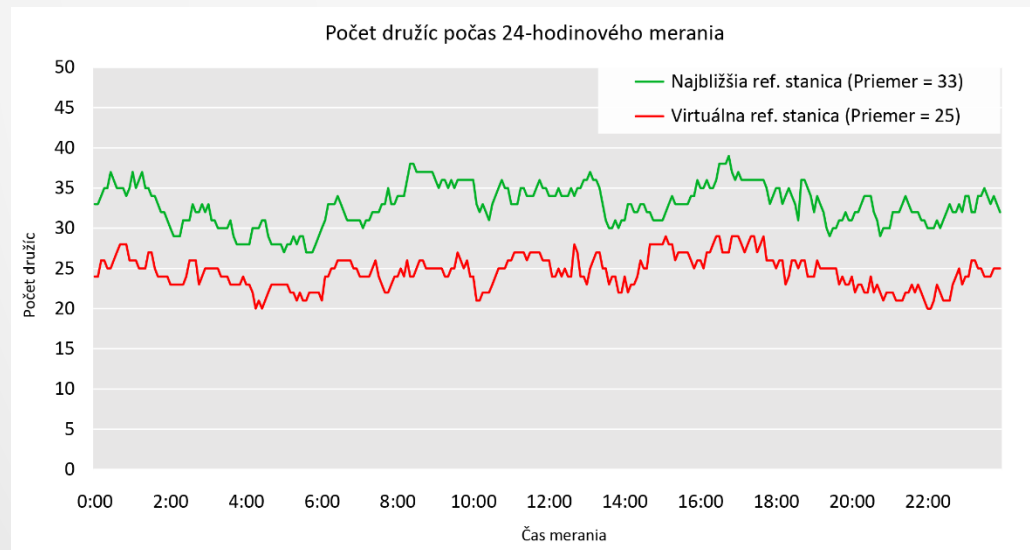
SKPOS portfolio

Data formats – content - charges

Package	Content	Duration	Format	Flat rate
SKPOS_mm	RINEX 1000 h	year	RINEX 2.x, 3.x	70 €
SKPOS_cm (year)	RTK unlimited + 50 h RINEX	year	RTCM 2.3, 3.1, RTCM 3.4, CMRx, CMR+	70 €
SKPOS_cm (month)	RTK unlimited	month	RTCM 2.3, 3.1 RTCM 3.4, CMRx, CMR+	25 €
SKPOS_dm	DGNSS unlimited	year	RTCM 2.1, 2.3	25 €

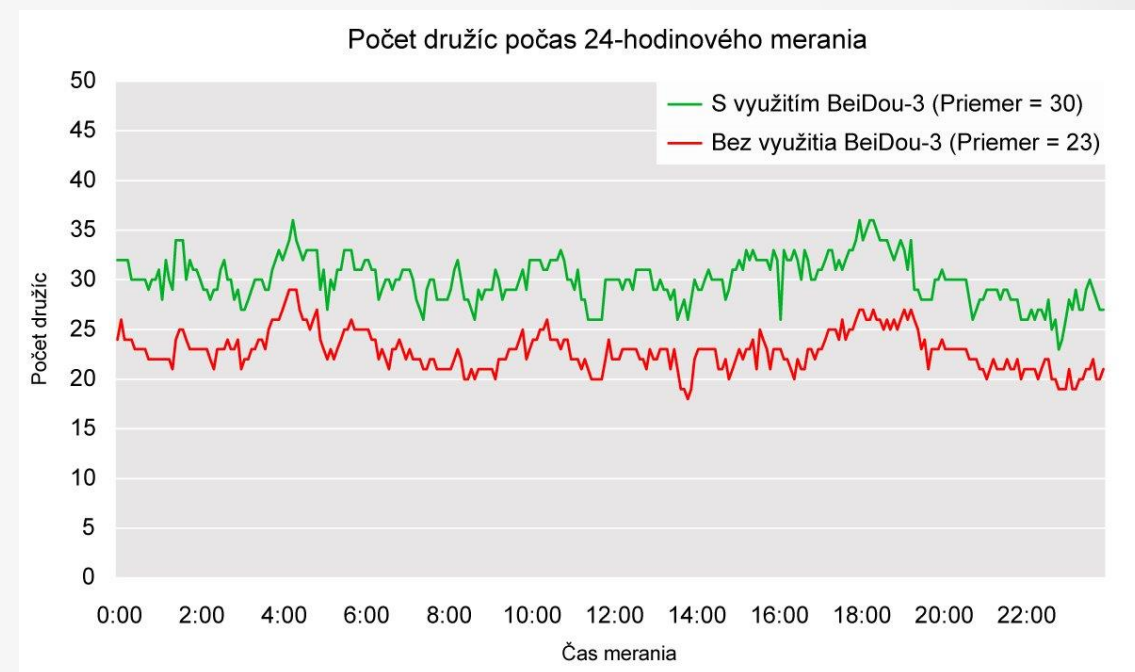
Nearest reference station

- 2006
VRS concept
- 2024
Nearest reference stations concept



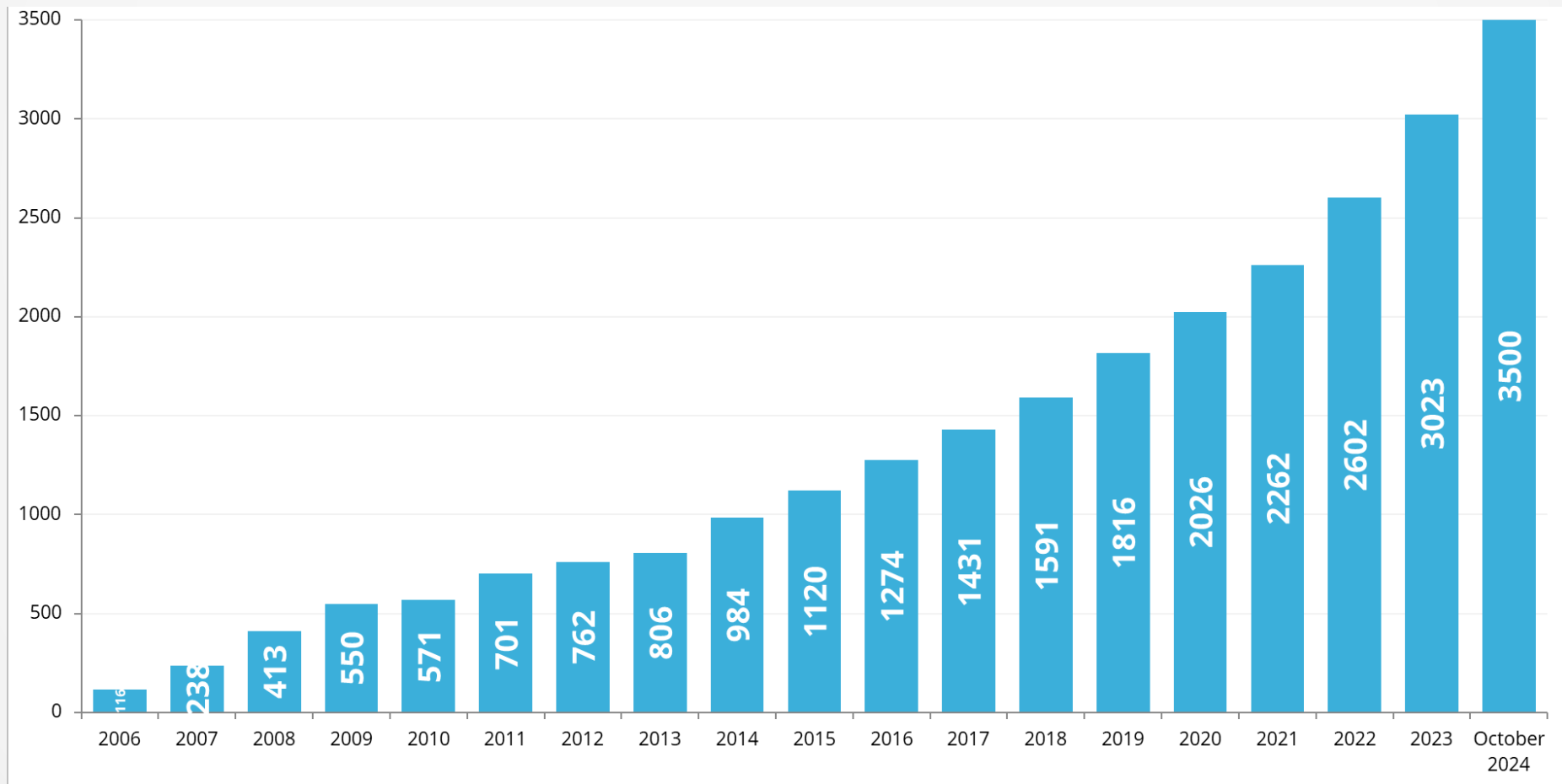
BeiDou-3

- 2018
Galileo and BeiDou-2
- 2021
Replacement of Trimble NetR9 with Trimble Alloy (3 unit)
- 2022
Replacement of Trimble NetR9 with Trimble Alloy (2 unit)
- 2023
Replacement of Trimble NetR9 with Trimble Alloy (14 unit)
- 2024
Replacement of Trimble NetR9 with Trimble Alloy (14 unit)
- 2024-05-13
BeiDou-3



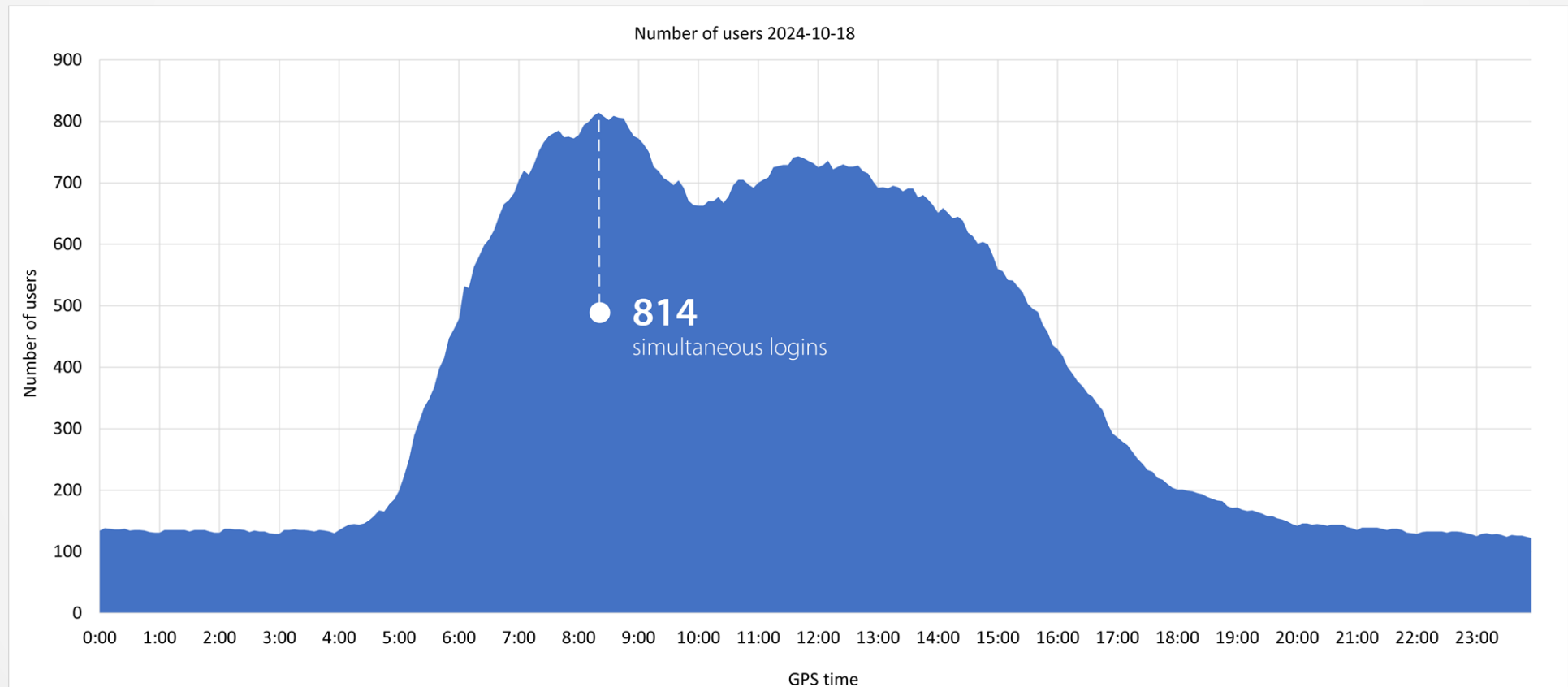
Number of users

- Number of users: 3500 (Oct. 2024)



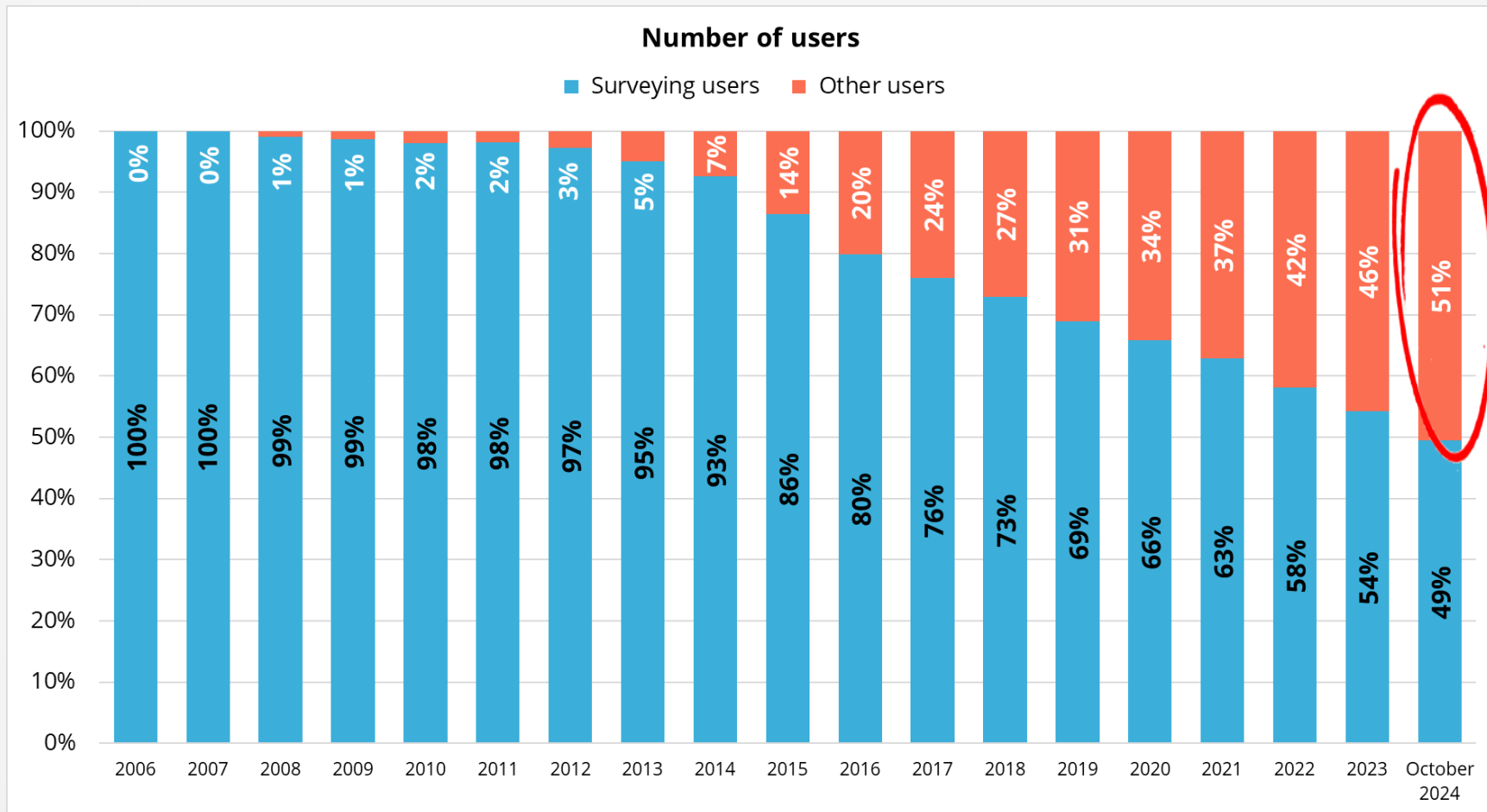
Maximum simultaneous logins

- Maximum 814 simultaneous logins (2024-10-18)



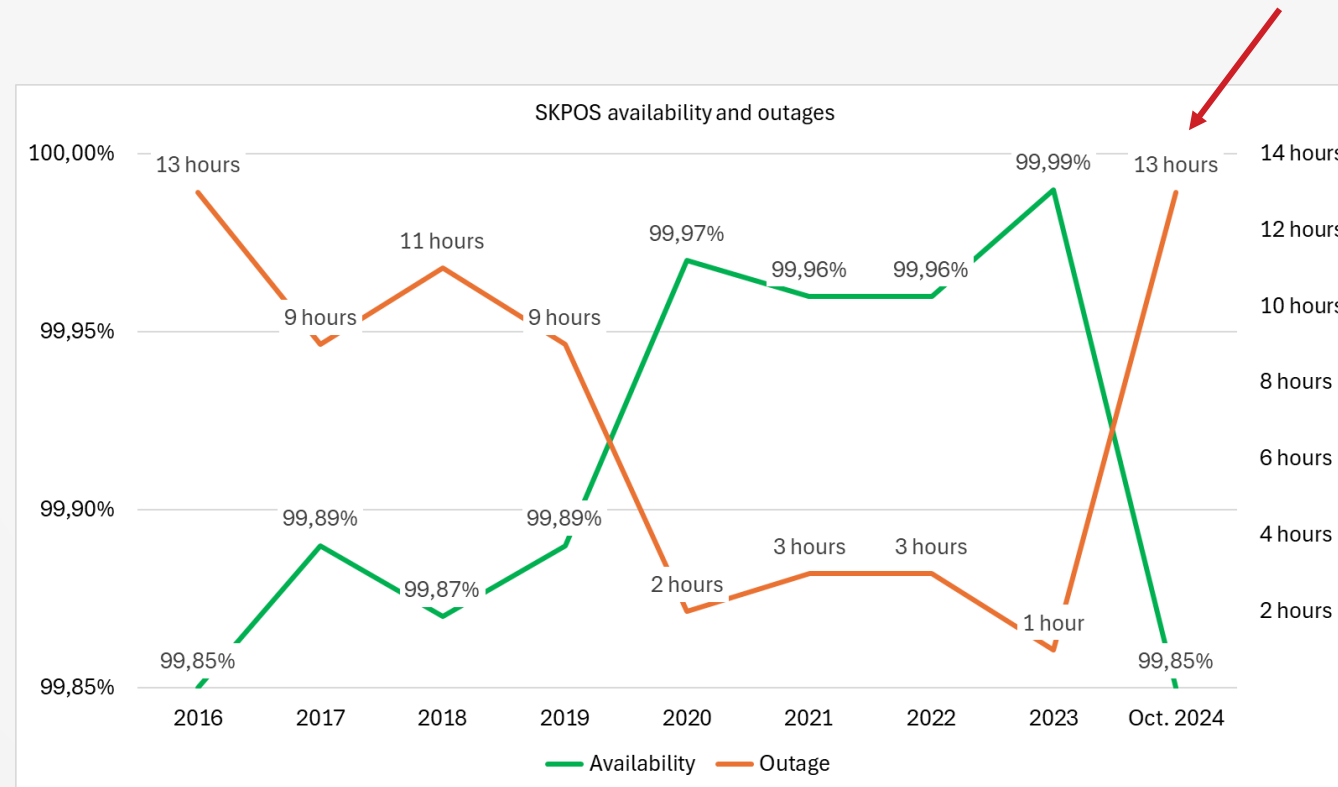
Type of users

- From Oct. 2024 more non-geodetic users



Power outage + motor generator failure

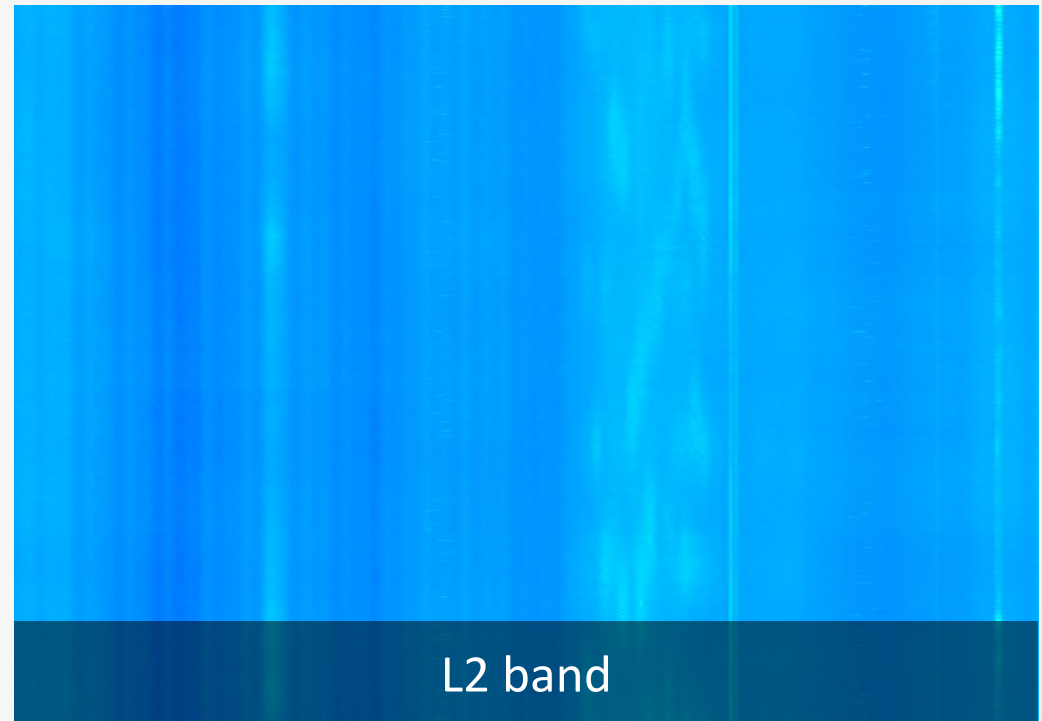
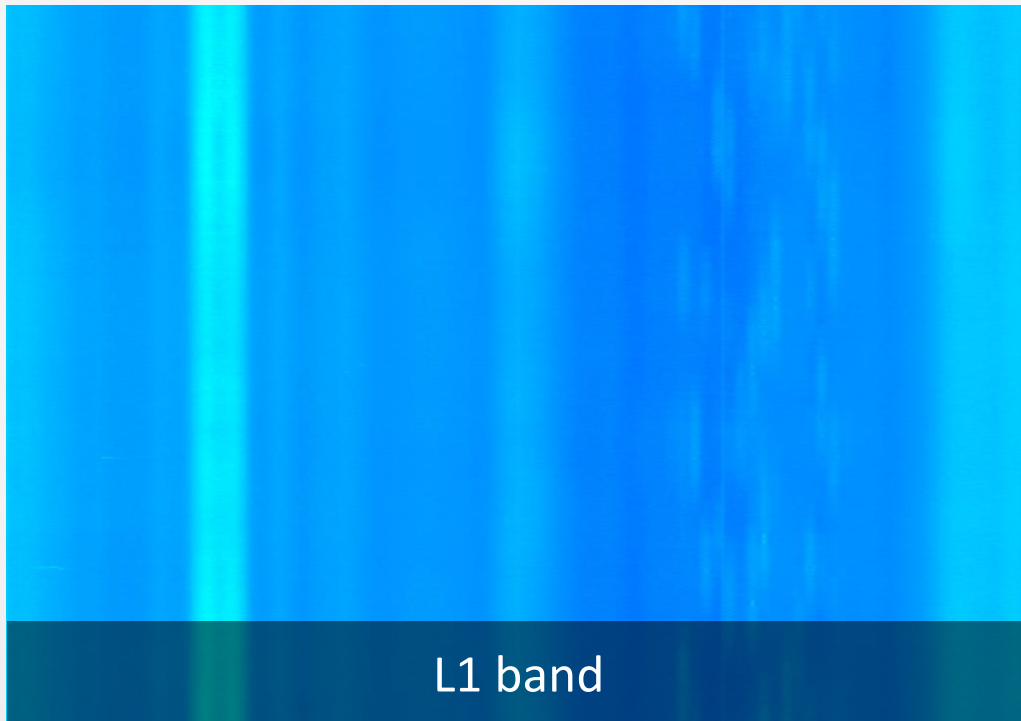
- Primary and backup solution on the same infrastructure = big problem
- Separate locations are necessary



Interference monitoring

Trimble Alloy - Spectrum Analyzer

- automatic download as image
- ready for further analysis





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Thank you for your attention

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