# MONITORING OF RTK SERVICE

## AVAILABILITY AND CONTENT OF STREAMS ON NTRIP CASTER

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LANTMÄTERIET

# Why we need a monitor

- Check that the RTK service is available for end user.
  Notify operator if it goes offline
- Measure availabilty

## SWEPOS is using Alberding monitoring as a service but are looking for an alternative

- We want **redundant** monitoring
- The settings in our setup means we can only measure service outages that are 2 minutes or more.
- Number of mountpoints that can be checked is limited.
  Expensive to extend the licence for more.

- We could write a program that checks the service but to run it from internal network will not detect if internet connection to Lantmäteriet is down
- Perhaps we are not the only nordic country that need a solution for this?

# Solution – Check each other's services

Write a program that connects to one or more mountpoints on a Ntrip-caster and test that they are working.

- The program can monitor multiple casters in neighboring countries
- If the connection is successful a simple check of the content is done.
  (Number of satellites, message types, age?)
- If the connection fails it can send an alarm to the control centre for that Ntrip-caster
- Successful and failed connections are logged to files that can be used to measure availability
- Keep the program simple to start with. Can add more functionallity later.
- Should be possible to run in all countries that want to.
  Not depend on in features in IT infrastructure that is only available in some countries.

Later this program could also be modified to be used internally for other monitoring like:

- Randomly test the service for different positions
- Add more checks of received data

# Things to decide

- How are notifications/alarms sent to a control center? To keep it simple  just email to start with?
- Format for the log-files.
  What information should be included?
- How can you access the log-files for your own caster?
  - a daily report that is sent with email?
  - files on a an ftp server?
  - something else?
- How to configure what streams you want to check
- Should the information about connections be made available in realtime?
  API or NMEA like text messages on a mountpoint?
- Is there something in the IT infrastructure in your country that could make this hard to do?
- The source code for the program should be available for everyone if you need to make modifications. Solution for that?
- What programming language should be used?