## Service Infrastructure #7 Specification and Design

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### Dissemination level

- **PU** = Public
- **PP** = Restricted to other program participants
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1 Public Abstract

TSI#7 is called Time Monitoring and Steering. Its two major aims are provide to users a monitoring of their time scale through the Point Precise Positioning technique and frequency corrections to be applied to the user atomic clock in order to keep the resulting time scale aligned to UTC.

The PPP monitoring is computed using Atomium PPP software developed by ROB. It provides to the user a near real-time comparison of its atomic clock with respect to the reference time scale of the TRF, and inform the user in case a phase or a frequency jump is detected. In addition some information on the performance of the user GNSS station are also provided, like the multi-path, the satellite visibility etc. . The results will be displayed on a web page where the users will be able to observe the performance on a configurable time period.

The Steering and Prediction function is based on the heritage of Galileo TVF IOV developed and operated at INRIM during the IOV phase. The software will be developed by INRIM according to the Galileo GMS-TSP-ICD, so that TSI#7 is potentially able to provide steering products also to GMS to steer the Galileo System Time and provide the timing information GST-UTC to be broadcast through Galileo Navigation Message.