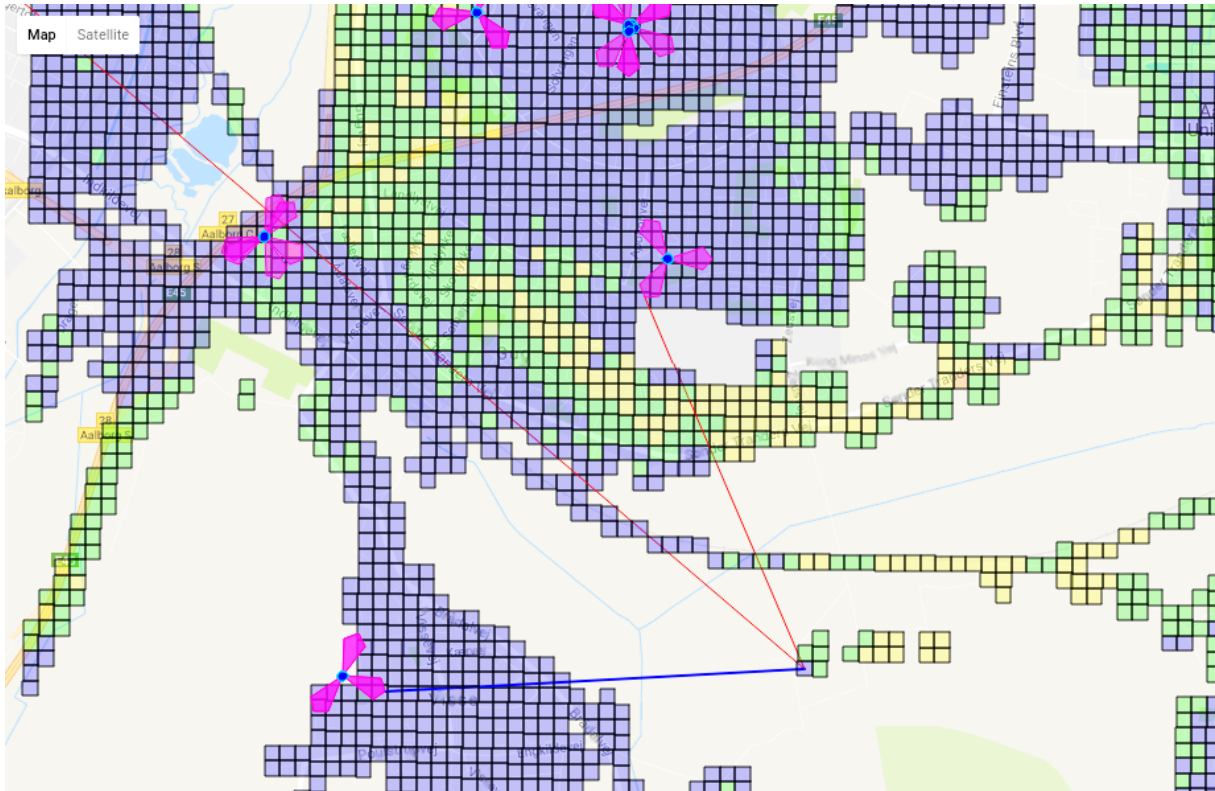


Visualize service quality information from your network plan



Service quality classification can be visualized from network planning data

2solve Service Classifier

Service Classifier is a new module for the well-proven 2solve OSS suite provided by 2operate.

Service Classifier provides clear, easy-to-read graphical presentations about how geographical conditions and topography will impact service quality (e.g. experienced data rates).

The tool presents highly technical planning data in a straightforward way that personnel throughout the service provider organization find easy to understand and put to good use for better-informed decisions and better customer service.

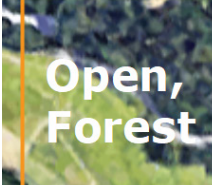
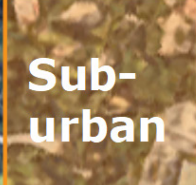



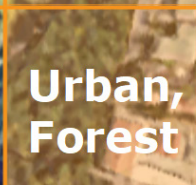
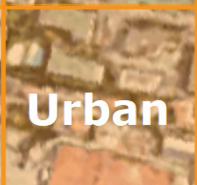
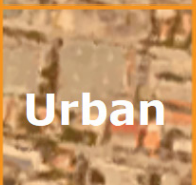

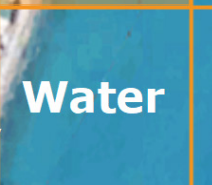

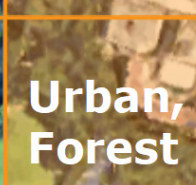
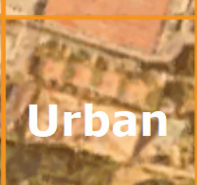
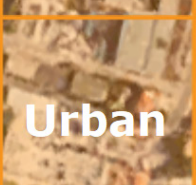

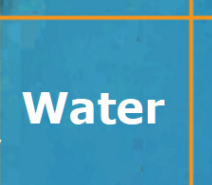
Information mining

The combination of signal coverage and service quality data for a mobile network adds up to a lot of information. The Service Classifier module helps service provider personnel to just focus on information that is relevant for their jobs.

The module does this by:

- ✓ Breaking down the maps into 50 x 50m or 100 x 100m squares
- ✓ Automatically classifying these squares into area classes (dense urban, urban, suburban, open rural, road, railway, water, etc.)
- ✓ Automatically selecting relevant squares from area classes, in configurable patterns
- ✓ Aggregating service quality calculations from the planning system for each square
- ✓ Calculating which are the primary and secondary serving sites/cells for each square
- ✓ Providing clear, easy-to-grasp representations of relevant squares, service quality, and the serving site/cell - in one single screen image

Service Classifier

 Open, Forest	 Sub-urban	 Urban	 Urban	 Urban, Railway	 Water, Railway
 Open, Forest	 Urban, Forest	 Urban	 Urban	 Urban, Railway	 Water
 Forest	 Urban, Forest	 Urban	 Urban	 Urban, Railway	 Water

Automated classification of squares into area classes helps to "mine" for relevant information

Information sharing

Network planning data has traditionally only been accessible to small groups of specialist engineers – the raw data is complex and can be difficult to interpret.

The rest of the organization usually had to make do with static, color-coded signal coverage maps just featuring estimated signal strengths. These maps only gave Customer Care and Account Management personnel hints and indications about why there might be complaints about service quality. Any conclusions about the levels of data throughput that could be achieved remained pure guesswork.

The Service Classifier module converts the accurate coverage calculations available from planning software such as Atoll into classifications of squares in a map. These squares then show the levels of service quality that can realistically be expected, because of the specific geographical profile, and conditions affecting the signal.

Service Classifier is an integrated module for the 2solve OSS solution, and provides easy-to-use graphical representations of planned service quality. Users can then compare with this real-time alarms and performance data in 2solve. In just a few clicks, users are easily able to identify deviations between

the planned service coverage and the actual on-the-ground performance, with reliable information about probable causes associated with geography and topography.

Key benefits

- ✓ Effective, intuitive presentation of very large amounts of data in a single view
- ✓ Fast, responsive user interface (all coverage/service quality calculations are done offline and in advance)
- ✓ Effective support for efficient processes that clearly identify any mismatches between planned and actual service quality
- ✓ Great support for cost-effective process to achieve capacity upgrades
- ✓ Overall productivity gains in service provider organization, with greater staff satisfaction and lower skills requirements



We selected 2operate for providing a Service Quality Classification solution for TT Network, the joint mobile radio network of Telia and Telenor in Denmark. 2operate proved that they had both the skills and the staff to manage this highly complex project and deliver as agreed and to our great satisfaction.

Sune Studstrup, RAN Network Design Lead, TT Network Denmark

2operate is an innovative Danish company that specializes in advanced, cost-effective Operations Support Systems (OSS), with reference installations and satisfied customers worldwide. 2operate solutions are specially designed to supplement and

leverage existing OSS tools, paving the way to much faster incident handling as well as greater efficiency and simplicity in network operations – all making for less downtime, improved customer satisfaction metrics and better profit margins.

For more information

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