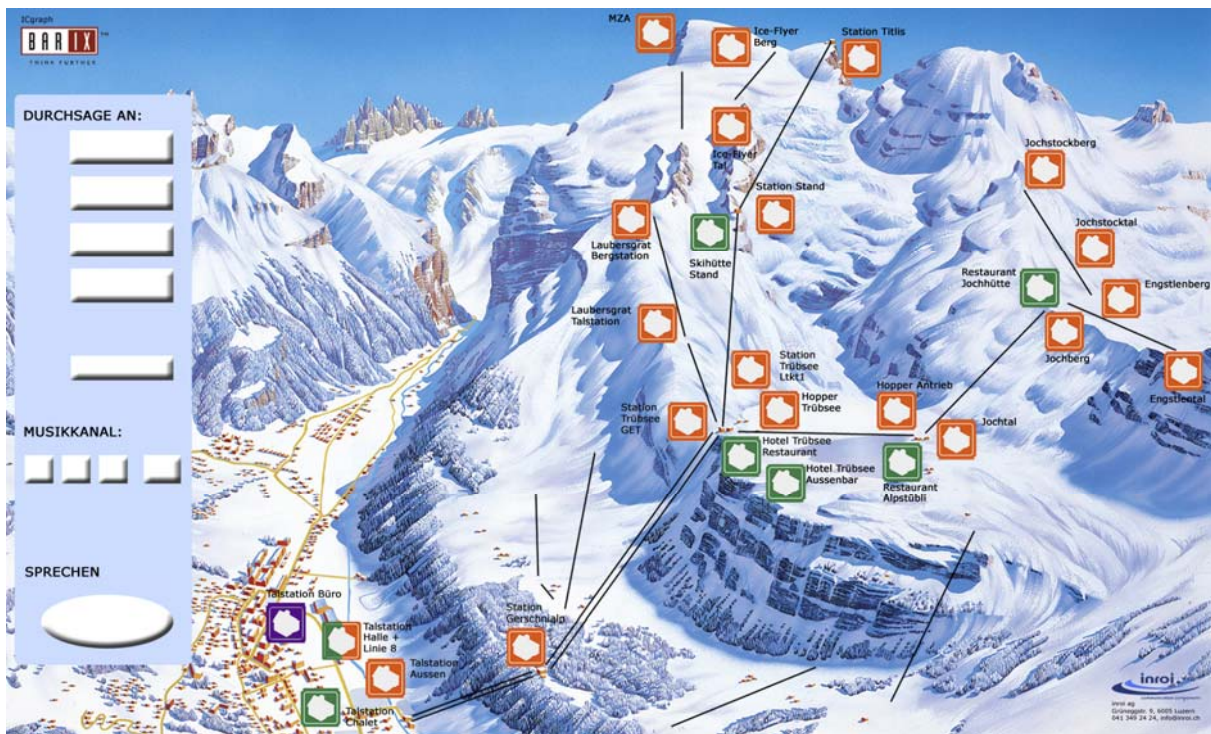


## Case study: Audio Distribution and Paging in the Swiss Mountains

Bergbahnen Engelberg-Trüebsee-Titlis AG, commonly known as Titlis Rotair, one of the leading ski areas in central Switzerland, has installed an innovative paging and background music delivery system from the Swiss technology company Barix AG. The main lines have been set up and are in operation. The full deployment will be finished well in time before the 2008/09 ski season opens. The solution is strictly based on the TCP/IP standard and uses the existing network infrastructure, which has been installed in the whole area mainly for video surveillance and access control purposes. The system also works well over 802.11 b/g wireless LAN networks.

The Barix solution distributes many different background music channels in CD quality and provides low latency announcements, priority controlled. A very large number (thousands) of devices can be deployed on large LAN/WAN infrastructures, and no central equipment is needed. Any number of devices can be grouped together for zone and group announcements.

At the base of the ski area, Barix' ICGraph software is used as the central paging station. The operator can overview the whole installation with a glance, and select any individual station, group, or dynamically group stations for announcement. The status of every output station is shown graphically, and the current background channel for each station (where appropriate) can be configured from the central application.



An Annunicom-100 device serves as a PC-independent backup for system wide announcements. Two Instreamers, Barix' real-time, low power encoders, encode independent background music channels and distribute them system-wide.

At the various locations – ski lift stations and restaurants - Exstreamer-200 devices, which have built-in amplifiers, and Annunicom devices are used. The Annunicom activates a relay in case a page is made to that zone to enable the legacy PA amplifier. In some stations, a paging microphone is connected to the Annunicom so regional announcements can be done. These announcements can

be heard locally within the station as well as on defined other devices (so the station Annunicoms serve as a local paging master !).

A striking reason to select Barix over other solutions was the price, besides the full IP conformance of the system. Other solutions offered were not IP based or magnitudes higher priced than Barix. Inroi AG, the Barix VAR in Switzerland specialized on IP systems and applications, worked closely with Titlis Rotair to define and install the solution. “With a cost of average €400 per location and CD quality background music and paging, the Barix solution is ideal for mixed paging, music distribution and intercom solutions. Especially the ease of installation, decentralized system approach and very high reliability have easily convinced our customer to go with the Barix solution”, Philipp Ineichen, Inroi's CEO, states.