



CUSTOMER OVERVIEW

Flamsbana is a spectacular and scenic train journey through the Norwegian fjord landscape. It is one of the steepest railway lines in the world running on traditional tracks. The train journey runs through steep mountains, 20 tunnels, breathtaking waterfalls and beautiful scenery. The train stops near the top of the mountain to allow passengers to walk out on a platform next to one waterfall that runs under the train. 600,000 tourists ride the train each year, many arriving at the docks in Flåm on large cruise ships. They board the train at sea level and climb to the top of the mountain where they can connect to the Oslo-Bergen line. National Geographic Traveler Magazine has named the Flam Railway as one of the top 10 train journeys in Europe and Lonely Planet named it the best train journey in the world in 2014.

SCOPE

Flamsbana is a major tourist destination in Norway. The small picturesque village of Flåm sits in a natural harbor at the mouth of the Aurlandsfjord with shops, hotels and restaurants. On the docks are outdoor kiosks with scheduling information and the current status of incoming ships. When you enter the Flåm rail station, you are presented with interactive wayfinding displays to help you navigate the area or learn about available services. In the retail shops are large displays promoting new or featured products. Scheduling information is available throughout the facility on strategically located displays. When you enter the ticketing area, you are greeted by a large 3x3 video wall promoting the area and things to do in the region.

Once you board the vintage trains, you are greeted by information playing at each end of the car on displays accompanied by an audible track explaining your trip. Each car provides information in the language that suits the occupants of that car. Since many of the groups riding the train arrive as part of a tour group, the language is set to accommodate those passengers. As staff move through the trains, they confirm suitability and if the mix is different than anticipated, they can override settings to suit that specific car, with 16 spoken languages. In order to provide accurate information, the train needs to know where it is along the route. The fjords are very steep, so GPS signals which work fine to track things such as cruise ships are not reliable in steep gorges and tunnels, so special RFID antennae are used for location tracking. From your arrival in Flåm to the Myrdal station at the top of the mountain, information moves with you through a series of connected displays.

INDUSTRY SECTOR
Transportation

LOCATION
Flam, Norway

APPLICATION
Advertising, Communications,
Schedules/Timetables, Wayfinding

SOLUTION
Omnivex Moxie



SOLUTION

Flamsbana working with DataServer in Oslo selected Omnivex Moxie to power their network because of the flexibility of the product and ability to use live data to drive content at each location independently. At the harbor, information is provided from the cruise line for schedules and current position of ships to display at the outdoor kiosks. All of the information is centralized on the Omnivex server, so new information can be pushed to any display that requires it at any time.

Operators can update displays remotely through the Moxie Studio but most of the day to day operation is completely automated. As train and ship schedules are updated by the service providers, Moxie retrieves the data and updates any displays that subscribe to the information. Retail displays in the shops promote current products and the wayfinding kiosks provide tourism information and local events. The Flamsbana train has two RFID antenna mounted on the side of the train that pick up position information at each post along the route. GPS is not effective within the steep walls of the Flam valley or within tunnels so DataServer designed an RFID solution using Moxie's IOLink interface.

In a special compartment at the front of the train is a touch panel indicating each car and the three languages currently playing in that particular car. To switch the audio, the operator simply taps the car and country flag to select the language track to play. These settings are automatically set prior to the trip based on ticket sales and seat assignments but people may move within the train so a local override is available. The audio tracks and information on the screen are triggered by the train's location, so if the train stops for a few minutes longer to allow another train to pass or passengers to reboard, the content will wait until the train is at the appropriate location. At the top of the Myrdal Plateau is a train station where passengers can connect to the Bergen-Oslo line going across the top of the mountains. Here there are interactive kiosks with more information about the area. Everything is connected with Omnivex Moxie.

RESULTS

Flamsbana are able to provide an end to end experience for visitors engaging them at different points along their trip with a consistent brand and informing them of relevant information about their experience. No additional staff is required to update the screens, most of the information updates automatically based on current conditions. The experience is subtle and seamless; information moves with patrons. They don't need to carry anything with them, the experience is continuous and information pertinent to them. Flamsbana continues to win awards as one of the world's best train experiences year round.