



# Mobility Applications

Mobile Broadband Connectivity

People today demand connectivity to the world at large on a constant basis – in the home, the workplace and today while in transit. As carriers turn to WiFi to support the mobile users high data requirements, how to enable WiFi on moving vehicles such as buses, trains and ferries is a difficult challenge to solve. Many times the requirement from public agencies for Internet connectivity on public transportation also mandate video security on those same transport platforms. Commercial interests are looking at mobile advertising, on board sign boards and more as an additional, third application requiring moving vehicles to maintain cost effective, high speed Internet Access while moving at speeds as high as 285km/hr.

Proxim with over 15 years of continuous development aimed at solving this problem, brings to this challenge it's FastConnect mobility feature. FastConnect delivers low cost, high speed seamless mobility application support with full QoS to mobile platforms trams, trains, buses and ferries. This allows Proxim Tsunami on a single network to backhaul off of moving platforms multi media traffic including voice, video and web data with strict QoS treatment for each application.



A person wearing a light blue long-sleeved shirt is seen from the side, looking at a wall of multiple computer monitors. The monitors display various data, including what appears to be a map or a complex interface. The person's right hand is resting on a desk in front of the monitors. The overall scene is a control room or a monitoring station.

## Live Video Security

With Tsunami solutions deployed, real time video can be off loaded and sent to a security NOC or Video Monitoring Software center. Cameras on board the vehicles, or fixed cameras at bus stops or rail stations can all be connected



A woman with dark hair is shown in profile, wearing a bright yellow headset. She is looking at a tablet computer held in her hands. The background is a blurred interior, possibly a train or bus, with blue seats and a window. A dark blue rectangular box is overlaid on the image, containing white text.

## Voice Messages and Advertisement to Users

With connectivity to the moving platform advertisements and customer services notifications are relayed from a central location directly to all trains/buses. This will enhance customer satisfaction with timely information updates, be used to relay security announcements and be available to third parties for ad campaigns that are location specific



A man in a dark suit and white shirt is seated in the driver's seat of a train, viewed from the side. He is looking forward at the control panel. His right hand is on a yellow joystick, and his left hand is on a control panel with a numeric keypad and various buttons. The train is moving on tracks, with a crosswalk visible through the window. A blue semi-transparent box with white text is overlaid on the right side of the image.

## Telephony Connection with Driver and Crew

The same wireless network that is off loading video, internet access and supporting messaging can be used for voice communications to and from the train crew. Supporting voice communications is a must, and for this requirement the Proxim's WORP and Fast Connect technologies provide proper service levels for real time traffic such as voice

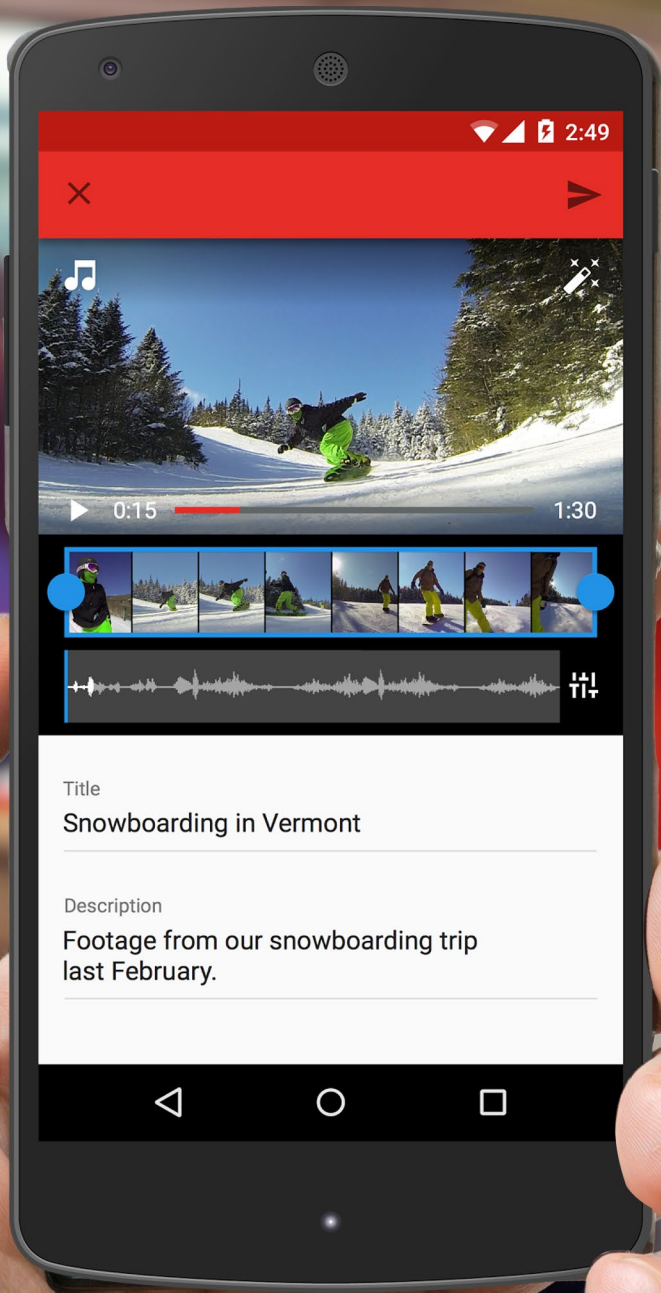




## Internet Connection

Vehicle high speed connectivity together with WiFi coverage inside the vehicle can give users internet access that can be given for free with the ticket or charged as an additional service





## Onboard Entertainment

Movies, newspapers, magazines, music can be given to the users directly to their devices such as tablets or smart phones. Users prefer to use their own devices and have content on demand. The content offered by the company could be downloaded directly by the users through the wifi connectivity and limited only to the duration of the trip



## Video information to driver with information of the coming station/stop

When a vehicle is approximating certain places like stops or garages position, video can be sent to the driver to see status of the station and take action if there are issues with people or objects on the track

## Train Management information Download (road plans, updated live track information).

Operational information about the route and trip plan can be updated, changed or downloaded. At the same time information can be uploaded to the Control Center to keep track of the train parameters in every moment

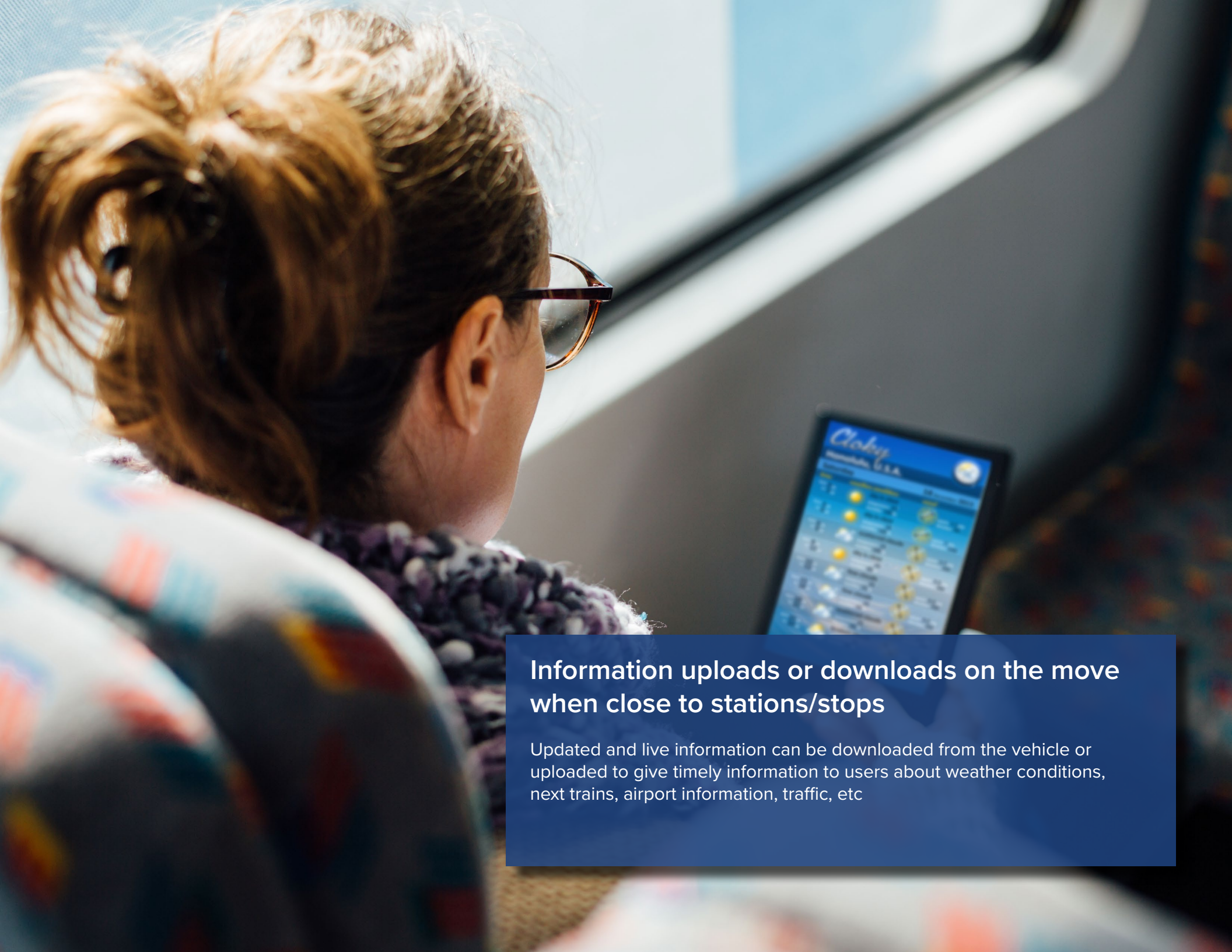




## Touristic information download based in actual position of the vehicle

Different type of information can be shown based on the GPS coordinates where the vehicle is passing, touristic places, restaurant or hotel adds, weather forecast, activities in the vicinity, etc.





## Information uploads or downloads on the move when close to stations/stops

Updated and live information can be downloaded from the vehicle or uploaded to give timely information to users about weather conditions, next trains, airport information, traffic, etc