Bus on the Edge: Continuous monitoring of traffic and infrastructure

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System Overview

Applications:

Monitor and assess infrastructure and traffic



Damage detection – e.g. landslides



Traffic counts – parked and moving cars

Detect relevant changes and events Send only relevant information, given bandwidth, time, and privacy constraints Bus with cameras, GPS,

storage, communication and computing. Bus: FREEDOM Equipment:



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Traffic management center



Update HD maps

Application: Counting of parked and moving vehicles



Application: Landslide detection

Example: Spring Run Road



November 11, 2018

March 12, 2019

May 20, 2019

Application: HD map update



- 1. Localize new camera poses
- Detect and project the road sign to HD map
- If no existing road sign in adjacent area, mark it as a new road sign

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Your application?

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Equipment:



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Traffic management center



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