

Downer
Relationships creating success

ITS across New Zealand

Traffic Signals, ITS stuff & eSigns





All the things

- **Traffic Signals:**
- **Dunedin (DCC & NZTA)**
- **Regional Wellington (NZTA, KCDC, Porirua CC, Both Hutt city councils)**
- **Christchurch (project work for CTOC)**
- **Auckland**



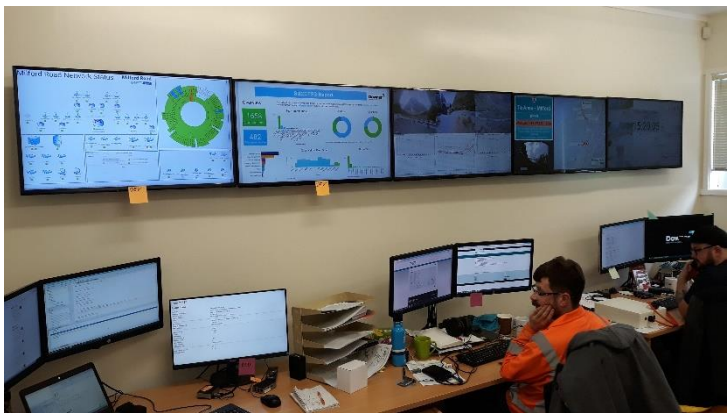
More of the things

- **VMS Signs from New Plymouth to Dunedin**
- **Support ITS into NOC contracts across the country**
- **Irrigation Scheme Rangitata in conjunction with NIWA**
- **Milford Highway full automation and control systems**
- **Internal Water and Telco electrical work**



Measure / Control / View

Anything – Anywhere - Anytime



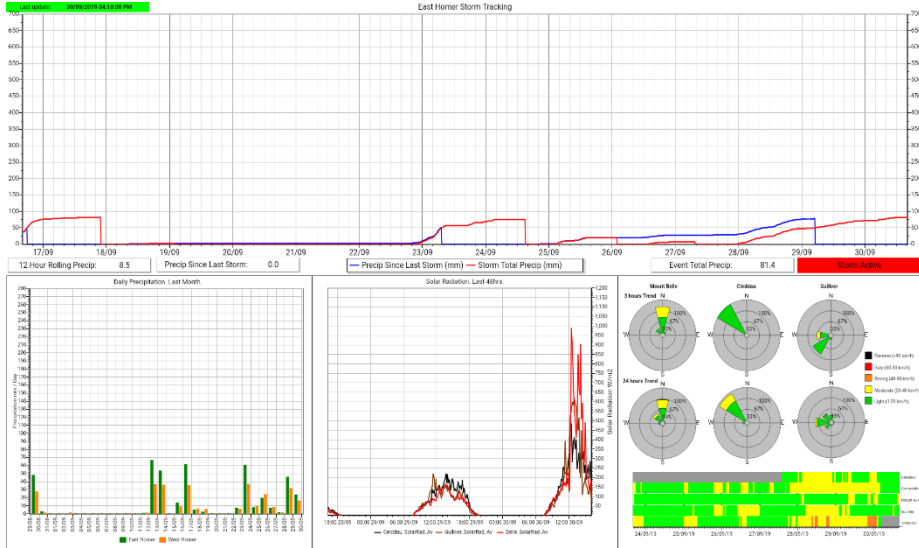
Remote Communications

Getting "IT" done in the harshest and most

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Data Representation



Real-time data collected from weather stations displayed graphically allow onsite Avalanche Technicians and key stake-holders to make informed decisions on the weather and snow pack conditions. Historical snow pack events are easily tracked and

A custom application 'RED' has been developed by our in house team to provide information on the current road condition. These screens are found in Hotels, food establishments, service stations and tourism centres. Any



Tue 29th October 2019

14:16:54

Last data received:
2019-10-29 14:16:00

Lindis Pass five day weather forecast



Secure the remaining part of the chain.

Tuesday



Temp: 7.27 °C

Rain: none in last 30mins

Last updated: 18 minutes ago

AccuWeather

Wednesday



0.1/14.8 °C
67% percent chance of rain
18.5km/h W
Mostly cloudy, afternoon rain

Thursday



2.4/14 °C
4% percent chance of rain
13km/h WNW
Sun and clouds

Friday



5.3/16 °C
11% percent chance of rain
9.3km/h WNW
Mostly cloudy

Saturday



10.7/27.2 °C
3% percent chance of rain
13km/h NW
Mostly sunny and warmer

More information: www.onthemove.govt.nz

0800 4 HIGHWAYS (0800 44 44 49)

Tue 29th Oct 2019
14:18:54

 NZ TRANSPORT
AGENCY
WAKA KOTAHU

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94

Te Anau - Milford

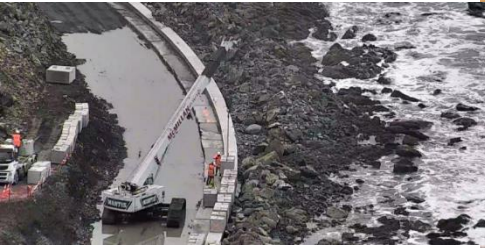
OPEN

**ROAD CLOSING AT 5PM HOLLYFORD RD / 5.30PM
CHASM**

WEATHER FORECAST FOR TOMORROW MEANS THERE WILL
BE RESTRICTED OPENING HOURS FOR WEDNESDAY DUE TO
INCREASED AVALANCHE HAZARD. UPDATE AT 5PM

NEXT UPDATE: 05:00PM 29 OCTOBER 2019



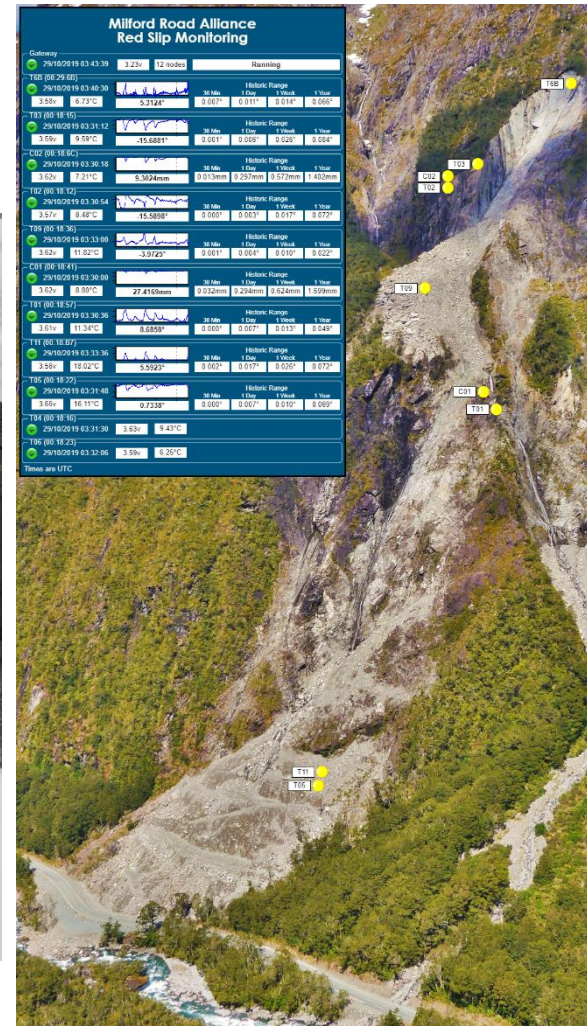


End to End Project Support and Management

VMS, RIAWS, SID, DFS, control centres, weather stations, remote sites, slope stability monitoring



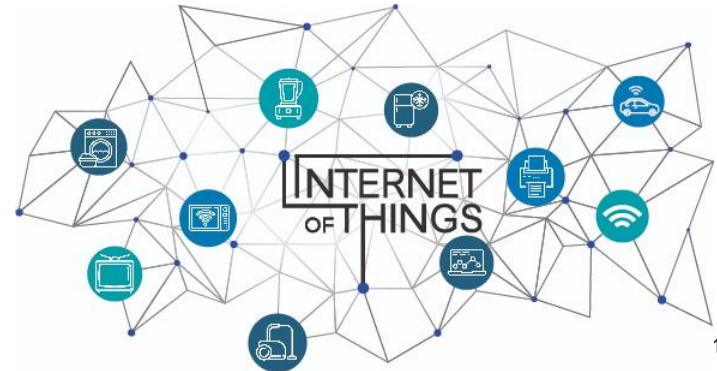
Slope Stability Monitoring in Real Time



- Visualisation of movement
- GNSS Continuous GPS
- Tilt sensors and Inclinometers
- Vibration / slope failure warning
- Creep sensors
- Robotic total stations
- Integration with Environmental Monitoring

What's around the corner?

- **Integration of IVA (Intelligent Video Analysis)**
- **Automation of VMS warning from weather station sensors & IoT**
- **Improved visualisation through CCTV of Journey Routes**
- **Use of smart data to improve road safety from new and existing infrastructure**
- **Maintenance of the existing systems**
- **Development of new technologies**



I'm done, let's eat



LUNCH

**Same instructions as
yesterday**

Food goes in mouth