## ASSET OPTIMISATION

### **CATENARY MONITORING**



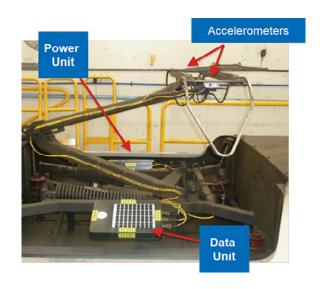


# CATMON DETECTS IMPACTS ON PANTOGRAPH UNITS CAUSED BY OVERHEAD WIRES

CatMon is a monitoring system that detects imperfections in the catenary/overhead wire (OHW) by measuring abnormal impacts recorded by passing pantograph units.

The system is mounted to the pantographs on regular in-service trains, which then provide continuous readings of the OHW condition as the train travels the network.

The information is reported to maintenance teams via the CatMon dashboard. Should predefined thresholds be breached, CatMon will issue an alarm to prompt immediate attention.



#### HOW IT WORKS



- Accelerometers mounted on the pantograph head to detect any large impacts in OHW
- Oata is sent via 3G
- 3 Data is aggregated and analysed
- 1 Information is sent to users through web interface or alternative system via data API

CatMon is already used in a range of territories, with each currently looking at wider roll-outs: Sydney Trains, Adelaide DPTI, Queensland Rail, Infrabel, Calgary Transit, KiWi Rail.

#### **BENEFITS**

- All hardware is clamped to the pantograph without permanent changes to the train.
- Installation takes less than one hour with the unit immediately ready for use.
- All power for the units comes from solar panels proven to operate in a wide range of climates.
- Camera (option) sends video footage in case of alarm.
- Low maintenance. Only solar panels require cleaning every three months.
- OHW imperfections are detected through abnormal impact on the pantograph using sensitive accelerometers.
- An alarm with relevant information is send to the dashboard when the impact exceeds a (definable) threshold.



#### For more information:

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