ROAD ASSET MANAGEMENT SOLUTIONS

*(**Category:** Pavement Condition Monitoring with AI and IoT)*

VTWAYS™ BACK24

Automating FWD Data Analysis

PROCESS CHALLENGES THAT VTWAYS^{TM} BACK24 ADDRESSES:

1. Handling large batches of FWD data is time-intensive and requires significant manual effort.
2. Eliminating the possibility of manual errors being introduced.
3. Providing an integrated platform for design calculations.
4. Data challenges such as validations, calculations etc.
5. Error reporting.
6. Use of modern computing infrastructure (Cloud and Edge).
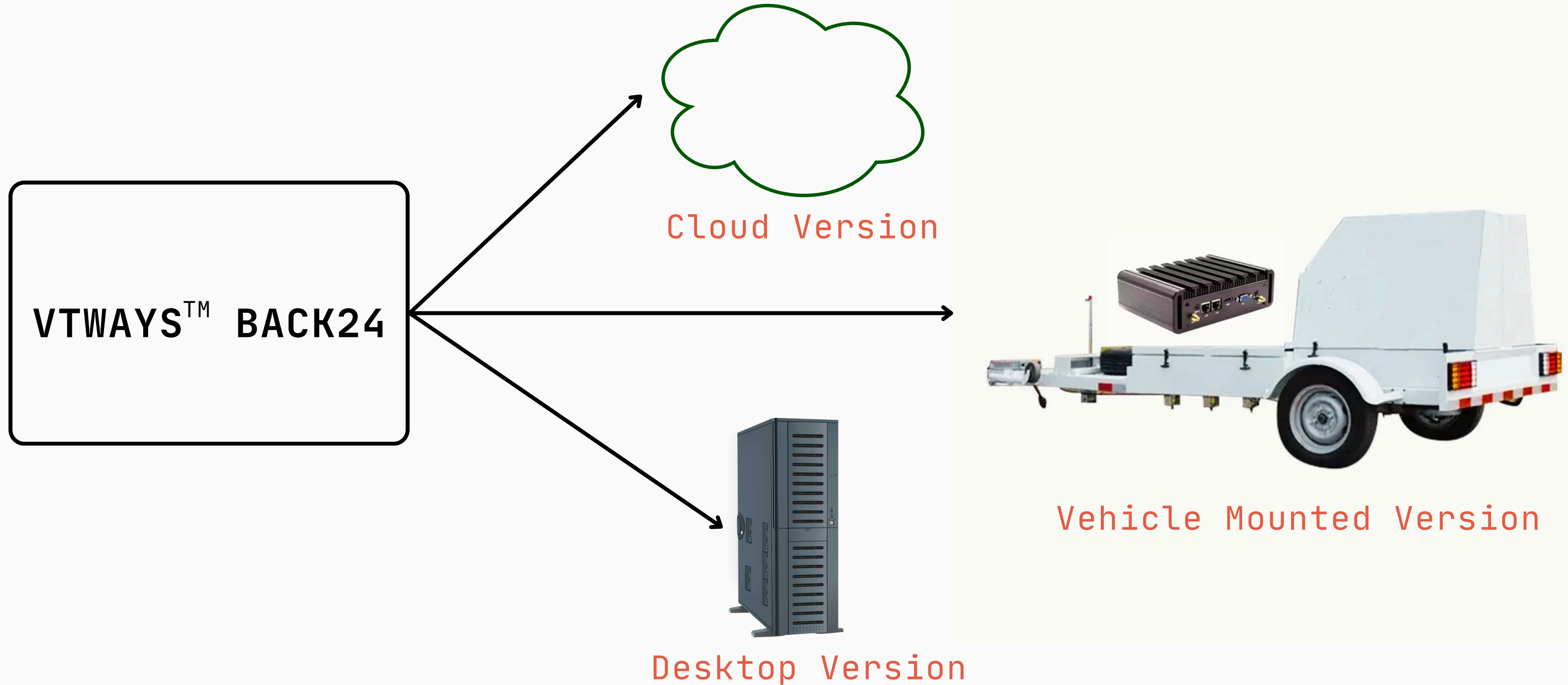7. Enabling data analysis at the VMFWD (Vehicle Mounted FWD).

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Automating FWD Data Analysis

- Automates the processing of FWD data with KGPBACK thus enabling faster processing of FWD data for flexible pavements as per IRC:115-2014.
  - Computes temperature corrections for the Bituminous layer and seasonal corrections for Granular and Sub-base layers.
  - Data validation (deflections, drops, load etc.)
- Modern computing infrastructure and operating systems
  - Platform: Desktop PCs, Industrial PCs and Cloud.
  - Operating Systems: Windows and Linux.
- Vehicle mounted FWD
  - Ready to integrate with VMFWD equipment and pavement design workflows.
- Integrations
  - A flexible platform and frameworks for developing custom solutions including AI/ML for Road Asset Management.
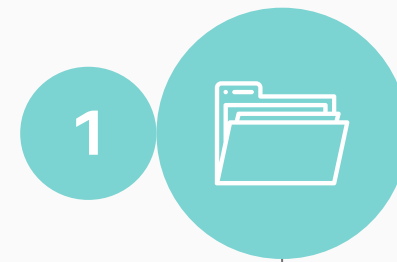- Eliminates manual effort considerably (more than 90%).

VTWAYS™ BACK24 SOFTWARE DEPLOYMENT OPTIONS

VTWAYS™ BACK24

Cloud Version

Desktop Version

Vehicle Mounted Version

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Automating FWD Data Analysis

SALIENT FEATURES /1
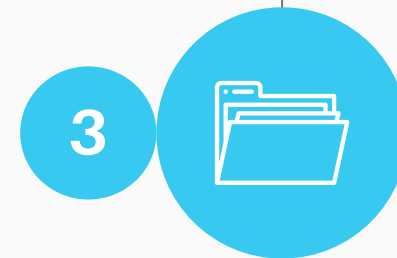
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1 Batch Processing of FWD Data

Enables batch processing of FWD data using KGPBACK (IRC:115-2014) to determine layer moduli.
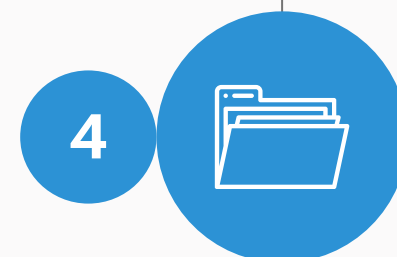
2 Temperature and Seasonal Corrections

Performs post processing on the layer moduli to determine temperature and seasonal corrections.
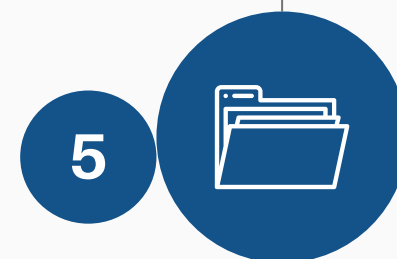
3 Automatic Handling of Drops

Performs Normalization to standard load (40kN) and average of the deflections. Handles drops automatically.

4 Supports 7 to 10 Geophones

Automates the backcalculation of FWD data, supporting configurations with 6 to 10 geophones.
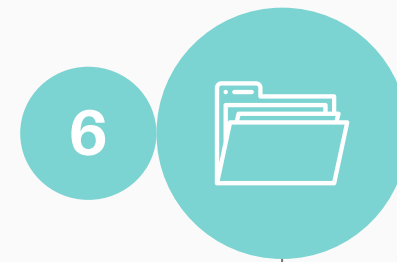
5 Software Deployment

Runs on Windows, Linux (Ubuntu), Industrial PC (at VMFWD), Cloud (AWS, Azure, Servers) and Intranet.

SALIENT FEATURES /2

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6 Managed Data Services

Upload the batch data to the web portal. We run the processing and provide the results back.

7 Vehicle Mounted FWD

Runs on commercially available industrial PC (Linux /Windows11) to perform data analysis at VMFWD.

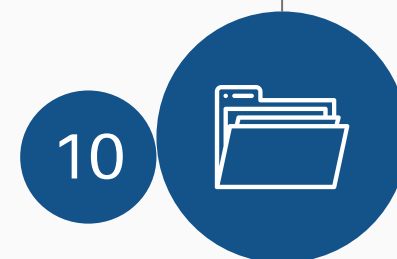## 8 Customization and Workflow Integration

A flexible platform for designing custom solutions including AI/ML for Road Asset Management.

9 Software Pricing Plans.

Cloud / Desktop: Yearly or Monthly
VMFWD: Yearly (Hardware to be purchased separately)

10 Support and Training

Online training will be provided to the team. The software comes with regular updates and new features.

THANK YOU

CONTACT

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FOR DEMO AND EVALUATION DEPLOYMENT