

TRAIN THE FUTURE



Integrated digital solutions
for railway operations and safety

Innovation • Reliability • Scalability

enetelsolutions.com



Enetel Solutions in numbers



16+
Years of
experience



150+
Employees



70+
Clients



300+
Implemented
projects



15+
Proprietary software
solutions



8+
Countries



Partnerships

Collaborating with global leaders to deliver innovative solutions.



Technology for smarter, safer and more connected transport

Enetel Solutions is a technology company specializing in software development, systems integration and IT consulting, with extensive experience in developing digital solutions for complex business and operational environments.

As a certified SAP GOLD Partner, we combine enterprise technology expertise with in-house software development and deep industry knowledge to support the digital transformation of modern transport and railway systems.

By connecting passengers, vehicles, infrastructure and operational teams through reliable, integrated and real-time technologies, we help create smarter, safer and more efficient transport environments.





AVIS

Bringing information to Life
through Sound and Vision



22.07.2026		13:50		Dolazak / Arrival	
Icon	Train	Destination	Platform	Arrival	Departure
	723	Šid	4	13:48	15
	2606	Vršac	8	13:54	2
	2409	Petrovaradin	9	14:13	0
	8026	Ovča	3	14:15	0
	8025	Batajnica	8	14:22	0
	649	Subotica	5	14:40	0
	8027	Batajnica	8	14:52	0
	2607	Zemun	3	14:58	0
	8028	Ovča	5	15:05	0

AVIS – AUDIO-VISUAL INFORMATION SYSTEM

AVIS is a centralized information system for real-time audio and visual passenger notifications.

What information holds significance for travelers when consolidated in one place?

01



- Boards (arrival and departure info)
- Synthesized voice messages

02



- Full consistency of audio messages and information boards

03



- Visual notifications
- Generation of audio messages in real

04



- Interoperable architecture enables easy integration with external systems, supporting secure and efficient bidirectional information exchange

Centralized



Reliable



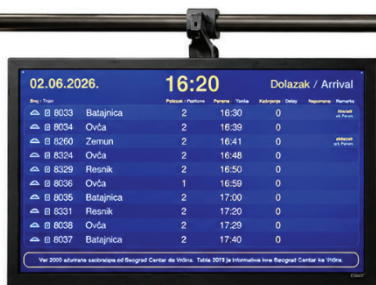
Real-time



Interoperable



INFORMATION BOARDS



A digital information board with a blue background and white text. It displays the date 02.06.2026, the time 16:20, and the title 'Dolazak / Arrival'. The board lists train arrivals with columns for train number, destination, platform, arrival time, and status. The data is as follows:

Brig / Train	Polazak / Platform	Prisranci / Arrival	Prisranci / Arrival	Prisranci / Arrival
8033 Batajnica	2	16:30	0	
8034 Ova	2	16:39	0	
8260 Zemun	2	16:41	0	
8324 Ova	2	16:48	0	
8329 Resnik	2	16:50	0	
8036 Ova	1	16:59	0	
8035 Batajnica	2	17:00	0	
8331 Resnik	2	17:20	0	
8038 Ova	2	17:29	0	
8037 Batajnica	2	17:40	0	

At the bottom, there is a small text line: 'Van 2000 alufinane sadržajne od Beograd Central de Vidite. Tabela 2019 je informacija iz Beograd Central na Vidite.'



A digital information board with a black background and yellow text. It displays the date 02.06.2026, the time 16:20, and the title 'Polazak / Departure'. The board lists train departures with columns for train number, destination, platform, departure time, and status. The data is as follows:

Brig / Train	Polazak / Platform	Prisranci / Arrival	Prisranci / Arrival	Prisranci / Arrival
7903 Resnik	1	16:11	0	
8033 Ova	2	16:31	0	
8034 Batajnica	1	16:39	0	
8260 Vrsac	2	16:42	0	
8324 Resnik	2	16:48	0	
8329 Ova	2	16:51	0	
8036 Batajnica	1	16:59	0	
8035 Ova	2	17:01	0	
8331 Ova	2	17:21	0	
8038 Batajnica	1	17:29	0	

At the bottom, there is a small text line: 'Van 2000 alufinane sadržajne od Beograd Central de Vidite. Tabela 2019 je informacija iz Beograd Central na Vidite.'

01

Display information on different information boards:
track/platform
incoming/outgoing train

03

Generating important notifications for emergency
events on demand

02

Multilingualism information boards

04

AVIS is compliant with COMMISSION REGULATION
(EU) 1300/2014 regarding the visual presentation
of information to **persons with disabilities**

AUDIO MESSAGES

1

Generation of audio messages on demand for emergency broadcasting

2

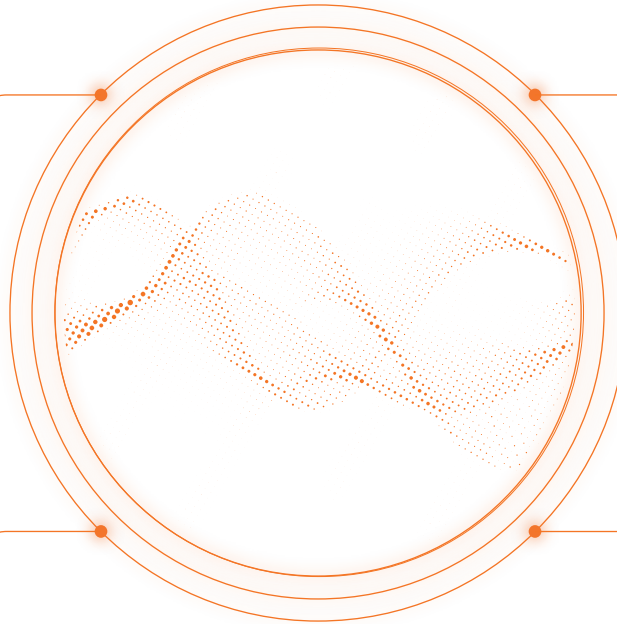
Defining message, content, priority, frequency and segmentation based on vehicle category, traffic event and station type

3

Text-to-speech (TTS) component for text-based speech synthesis with built-in elements of natural intonation

4

Dynamic generation of audio messages based on the planned and realized timetable



OAM

PLATFORM



Operations

Online and chronological
monitoring of automatic audio
and visual notifications



Administration

System configuration and
audit log



Monitoring

Monitoring, statistics and diagnostics

Integrated. Connected. In Control

KEY BENEFITS



Boosts passenger satisfaction with accurate and timely information



Enhances operational efficiency and passenger flow



Reduces operational costs via automated, error-free announcements



Openness for integration with external systems and centralized monitored infrastructure



Automated emergency alerts (e.g. severe weather, security incidents, amber alert) for passenger safety



Centralized information point for passengers and dispatchers

AVIS DEPLOYMENT ACROSS SERBIAN RAILWAYS

Implemented at “Belgrade Center”
railway station in 2015.

Today AVIS supports:

253 displays

1300+ messages
generated per day

27 stations

150 AVIS users

240+ departures
per day

27 Bosch audio
controllers





PAMS

Panic Audio
Management System



PAMS

Intelligent Emergency Communication & Monitoring Platform

When seconds matter, infrastructure must respond instantly.

PAMS is a real-time emergency communication and monitoring platform designed for railway environments, elevators, schools, and public infrastructure facilities.

The platform enables users and operators to instantly report critical situations to command centers while supporting faster incident awareness and response coordination.

Real-time emergency

GSM/LTE/GPS Connectivity

Centralized monitoring

24/7 operational readiness

OUTDOOR PAMS

Railway Station Emergency Infrastructure

Outdoor PAMS devices are designed for deployment in railway stations and public infrastructure environments, enabling passengers to instantly alert operational staff and command centres during security threats, medical emergencies, passenger safety incidents, or operational disruptions. The platform supports rapid communication, real-time incident escalation, and centralized operational awareness in high-traffic public environments.



INDOOR PAMS

Smart Emergency Communication for Controlled Environments

Indoor PAMS devices are designed for deployment inside railway carriages, elevators, schools, and other controlled infrastructure environments where immediate communication and rapid response are critical.

All Indoor PAMS devices are equipped with integrated monitoring and sensing technologies capable of recognizing abnormal operational and environmental scenarios through sensor fusion methodologies and contextual monitoring.

MODEL: **ENETEL 175**



INDOOR PAMS

Train Carriage PAMS

- **Instant** emergency communication with train personnel and control centres
- **Fast response** during smoke incidents, injuries, accidents, or door entrapment
- **Ethernet-based** master/slave communication architecture
- **GSM/LTE/GPS** connectivity for centralized monitoring and operational awareness

Elevator / school PAMS

- **Instant communication** with command centres and emergency personnel
- **Fast assistance** during entrapments, medical emergencies, or technical failures
- **Reliable emergency** response support for elevator safety
- **Continuous** monitoring and rapid incident escalation capabilities

Public station PAMS

- **Designed** for harsh outdoor conditions
- **Instant emergency** passenger-to-operator communication
- **Quick alerting** responsible staff to urgent situations – security threats medical emergencies or safety
- **Fast and direct** way to contact control centres for immediate assistences.

PAMS STANDARDS

Proizvod:
Product: Panic button

Tip:
Type: PAMS (Enetel 175)

Trgovačka marka:
Trade mark: Enetel Solutions

Naručilac:
Applicant: ENETEL SOLUTIONS DOO BEOGRAD
Dunavska bb, 11060 Belgrade, Serbia

Proizvođač:
Manufacturer: ENETEL SOLUTIONS DOO BEOGRAD
Dunavska bb, 11060 Belgrade, Serbia

Train Carriage PAMS

- EN 50155:2021
- EN 50121-3-2:2016

Elevator/school PAMS

- EN 303 446-1 V1.2.1
(EN IEC
61000-6-2:2019, EN
IEC6 1000-6-3:2021)
- EN 50121-3-2:2016

Public station PAMS

- EN 50155:2021
- EN 50121-3-2:2016

Datum:
Date: 2025-04-01



Potpis ovlašćene osobe:
Authorized person sign: Zoran Vuković

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Proizvod:
Product: PAMS Panik Taster

Tip:
Type: Enetel 175

Trgovačka marka:
Trade mark: Enetel

Naručilac:
Applicant: Enetel Solutions DOO
Dunavska bb, RS-11060 Beograd, Serbia

Dozvoljeno je samo integralno objavljivanje Atesta o usaglašenosti. Ovaj atest se može reprodukovati u celosti i bez ikakvih promena.
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WHY PAMS?



Detect Before It Escalates

01

PAMS supports recognition of abnormal operational scenarios, enabling faster incident awareness and response coordination.



Always Aware. Always Ready.

03

PAMS continuously performs automated self-monitoring to maintain operational reliability and emergency readiness.



Connected in Critical Moments

02

PAMS enables instant two-way communication with emergency response personnel during critical situations.



Smarter With Every Update

04

The platform supports remote software deployment and seamless updates across large device networks.

ACTIVE DEPLOYMENTS & SMART-CITY INTEGRATION

The PAMS hardware platform currently operates across more than 1,000 active emergency devices deployed throughout Belgrade in elevator and educational environments.

The platform enables real-time emergency alerting and centralized incident escalation, supporting rapid response workflows in critical situations.

In elevator environments, PAMS supports passenger safety during entrapments and technical failures, while **in schools**, silent emergency triggering enables immediate escalation of security or medical incidents to monitoring centres.

1,000+

Active Devices

Real-Time

Emergency Alerting

24/7

Monitoring

Centralized

Incident Coordination

TEMIS

Transport Enterprise
Management & Intelligence
Platform



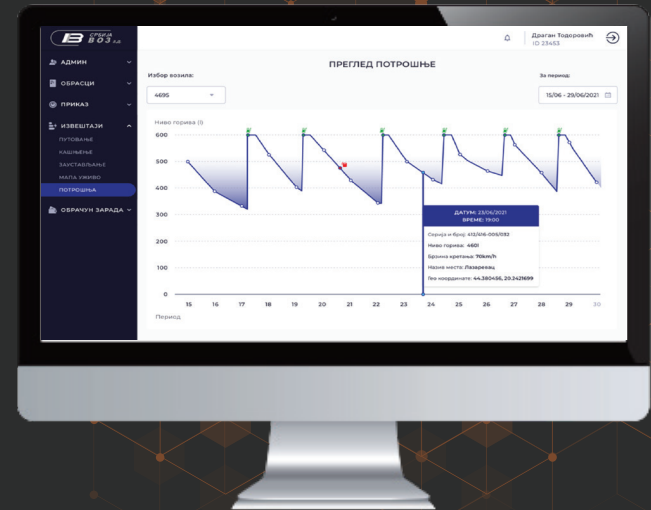
TEMIS

Transport Enterprise Management & Intelligence Platform

TEMIS is a comprehensive railway operations platform designed to digitalize, optimize and monitor railway operations in real time

**One Platform.
Full Railway Visibility.**

- Fleet Operations
- Workforce Management
- Train Crew Scheduling
- Driver Assistance
- Energy Management
- Digital Railway Processes
- Analytics & Reporting



TEMIS Ecosystem

Driver Assistance

Digital operational workflows

Event logging

Digital forms and procedures

Real-time operational support

Digital Railway Processes

Paperless operations

Digital documentation

Automated reporting

Integrated workflows

Workforce management



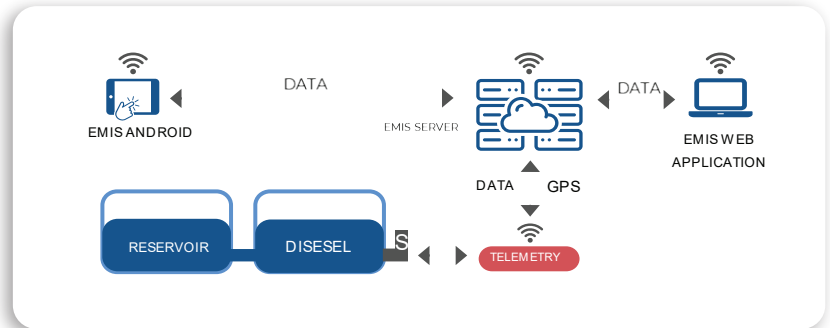
TEMIS Ecosystem

Fleet & Operations Intelligence

- Real-time GPS train tracking
- Operational event monitoring
- Delay and disruption management
- Route and movement analytics
- Maintenance digitalization

Energy Intelligence

- Diesel fuel monitoring
- Electricity consumption monitoring
- Fuel theft and leak detection
- Energy optimization analytics



From Operations to Intelligence

TEMIS centralizes operational, technical and workforce data into a single platform.

Designed Specifically for Railway Operators

- Unlike generic ERP or asset management systems, TEMIS was built around real railway operational processes.



Real-Time Visibility

- Train movements
- Energy consumption
- Workforce activities
- Mobile operations
- Maintenance processes

Business impact

- Reduced operational costs
- Improved energy efficiency
- Better workforce utilization
- Increased operational visibility
- Reduced manual procedures
- Improved maintenance planning
- Advanced analytics and reporting
- Faster response to disruptions

TEMIS Workforce Intelligence

Next Generation Train Crew Management

TEMIS extends the platform with advanced workforce digitalization capabilities.

Business Outcome

Better crew utilization.

Lower operational costs.

Faster scheduling.

Human Resources Management

- Train crew scheduling
- Monthly roster planning
- Workforce optimization
- Real-time crew reassignment
- Medical and other certification management
- Absence management

Mobile Workforce Application

- Employee profile
- Work schedule overview
- Attendance tracking
- Notifications and alerts
- Medical examinations and training records
- Automatic duty check-In

Proven in Real Railway Operations



Srbijavoz operates as Serbia's exclusive national passenger rail operator, positioning it uniquely to capture substantial growth as rail infrastructure improves and mobility demand accelerates in region.



1300+
Users

120+
Trains

2M+
Passengers by
2030



Supporting one of the fastest growing railway passenger networks in the region.

REFERENCES



REFERENCES





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