

Reliable communication solutions in every situation

Zenitel's reliable, robust and scalable communication solutions guide and protect millions of travelers on their rail journeys every day.

With a wide range of Public Address/Voice Alarm and Emergency Help Points for Rail Infrastructure as well as for Rolling stock, Zenitel is truly the onestop shop for your audio communication needs. We offer tailored packages and turnkey solutions to meet your specific requirements.





An expert in clear communication

Zenitel delivers reliable state-of-the-art voice alarm and passenger emergency communication solutions for rail applications. We design our products in accordance with the most rigorous safety standards worldwide, such as EN 54, CSA, and UL, as well as meeting many local pre-approvals. Our team closely collaborates with world-leading rail operators, integrators, our customers and end users to design innovative communication systems backed by our railway expertise and experience.



Tailored solutions to elevate the security of your passengers, staff and assets

With installations at more than 3000 stations and central control spanning hundreds of lines, Zenitel has firmly established itself as a leader in the rail industry. Together with our trusted partners, we deliver tailored audio communication solutions such as passenger information points. IP speakers and more to suits your needs.

We are trusted around the globe







Empower your communication potential with Zenitel

Give a voice to your security solution

Zenitel delivers audio communication systems that provide peace of mind and keep your employees, passengers, and assets safe. We deliver seamless integration with other rail systems such as Video management, rail signaling, passenger information systems, access control, and other security systems to keep millions of people informed and protected. Our emergency communication solutions comply with SIP and ONVIF making it easier to manage from your rail security platform.

Improved customer experience with unparalleled speech quality

Reinforce your overall railway security with Zenitel audio communication solutions. Our audio solutions is designed with advanced algorithms that dynamically adjust broadcast volumes, optimizing performance and speech clarity for both noisy and guiet environments. The system also features powerful DSP technology that provides further control to enhance the customer experience.

Robust, Reliable, Tailored to perform for railway transport

Zenitel communication systems are engineered to endure the most challenging environmental conditions and remain functional for extended periods. These systems boast a modular design that guarantees uninterrupted operations 24/7, with minimal downtime. As a result, they provide superior system availability. Moreover, they offer costeffective solutions that minimize operational risks and maintenance complexity throughout the product life cycle. Zenitel has a proven track record of delivering reliable communication systems, with some systems having been operational for more than two decades.

Keep your travelers safe

Zenitel Public address and voice alarm ensure every message is delivered in real time and clearly in any situation, especially in case of emergencies. Our scalable, reliable and cost-effective solutions come with in-built automatic fault reporting combined with an intuitive interface that minimizes human error.

Streamlining rail operations

Zenitel technology connects all audio elements of your



Public Address and Voice Alarm Solutions

Keep your travelers informed with both live and automated operational and critical broadcasts.



Emergency Communication Solutions

Enhance Rail safety with quick and efficient communication systems for your staff.



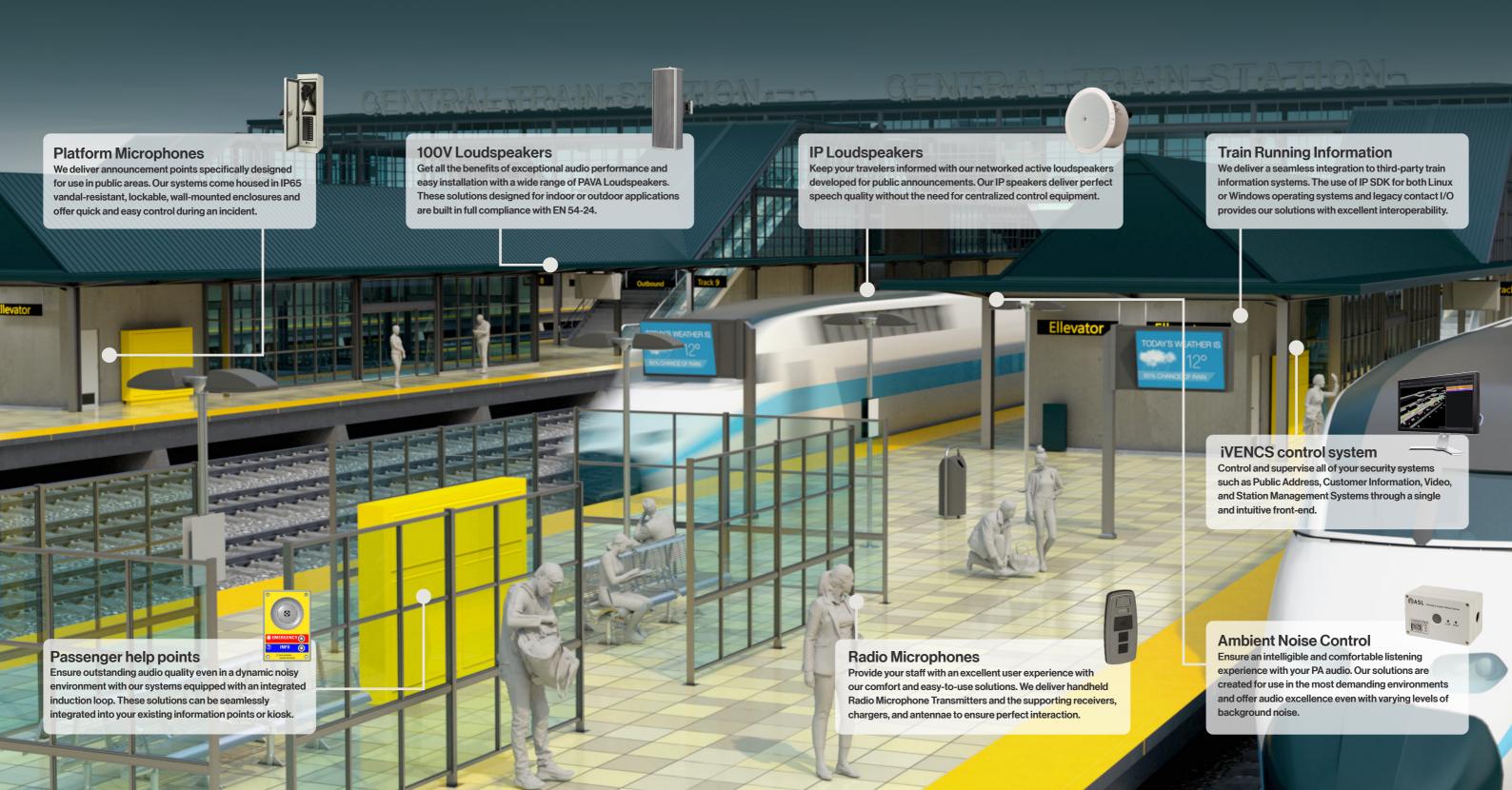
Intrusion Protection Solutions

Enhance airport safety by providing Reliable & intelligent communication in emergency situations.



Rail Security Control Solutions

Control and monitor hundreds of stations centrally via a simple yet powerful front end.





Public Address and Voice Alarm Solutions

We help you keep your travelers informed with both live and automated operational and critical broadcasts



Ensure excellent audio quality even in challenging and noisy acoustic environments

The solutions are equipped with an Ambient Noise Sensor and noise compensation technology and our VIPEDIA's Digital Signal Processing provides sophisticated EQ Controls. You get perfect broadcast intelligibility and optimized audio quality in real time depending on varying ambient noise levels.

Provide effective operations 24/7 and eliminate downtime

We design reliable systems with built-in redundancy. VIPEDIA's decentralized architecture and automatic hot standby systems ensure high availability. With our exclusive 'hardware bypass' function local emergency microphones remain operational even if the central controller is unavailable

Scalable and flexible solutions for future expansion

Our communication solutions are based on VIPEDIA's futureproof audio-over-IP architecture and come with a modular design, ensuring a straightforward installationand excellent scalability. As your needs change, you can easily and quickly adapt your solutions by adding new modules.

Ensure easy migration and seamless integration

We design communication solutions with excellent interoperability. Our products work together with your existing thirdparty PA systems. Manage risks in a predictable way and install our system with ease during changeover phase, or on a more permanent basis.

Cut costs. Save on equipment with multifunctional systems

With VIPEDIA you get critical communication, information and entertainment broadcasting in a single reliable all-inclusive and cost-effective solution. This system is designed to provide you with a safety-critical Voice Alarm as well as highfidelity background music and public address applications.

Emergency Communication

Solutions

We enhance railway safety and security by providing your staff with a quick and efficient emergency management system



Ensure great audio quality despite challenging and noisy acoustic environments

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Recommended products

AUDIO CONTROLLER (VIPEDIA RANGE)

- EN 54-16 IP enabled Audio Controller
- Cost-effective solution for delivering flexible zonal live and automated paging and background music
- High quality audio performance with powerful built-in DSP
- · Local connectivity via the Digital Backbone, offering up to a 48x48 routing matrix
- Wide connectivity via the IP, offering connection up to a 32 audio controllers
- Optional Dante[™] Interoperability for specialist applications
- Analogue audio and contacts for simple connection to legacy PA systems

DYNAMIC AMBIENT NOISE SENSOR (DANS)

- Designed to operate in harsh environment with IP65 rating
- DSP technology to distinguish the ambient noise from the announcement to continually optimize broadcast intelligibility

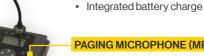
INTELLIGENT IP SPEAKERS

- Quick and easy extension of a traditional PA system
- Flexible control and management options
- IP Connectivity over existing network infrastructure
- POE powered providing up to 10W audio power
- Finite zoning
- Localised talkback and ambient noise adjustmentcreating disjointed audio zones









AGING MICROPHONE (MPS RANGE)

Flexible amplifier options providing up to

POWER AMPLIFIERS (V2000 RANGE)

Compact yet powerful 2000W, 10

Dual power supplies (AC and DC)

channel mainframe

150W or 500W

- EN 54-16 Gooseneck Operator Panel with up to 50 physical buttons
- IP or analogue connectivity
- Supports live, store and forward and recorded broadcasts
- · Dual hosting and hardwire bypass
- Optional wall mounting brackets
- Optional fist mic

EMERGENCY MICROPHONE (EMS RANGE)

- EN 54-16 Fist Operator Panel, wall mount with up to 50 physical buttons
- Lockable IP 30 enclosure IP or analogue connectivity
- Dual hosting and hardwire bypass

Recommended products

ICX 500 CONTROLLER

- Made to provide critical communication in any environment
- Dual software images for system robustness and low downtime during software upgrades
- Secure boot, hardware Root of Trust RoT
- High quality professional PA broadcasting and messaging services
- Security voice guidance for airport security

CUSTOMISED HELP POINT STATION

· Wide range of audio and video IP kits, which can be used to build customized passenger help points to fit your exact needs



INTERGRATION WITH **COMMUNICATION TOWER**

 Our help points can easily be integrated into the communication tower

THAT MEET YOUR NEEDS

For more details, visit: www.zenitel.com



Intrusion Protection

Solutions

Protect the perimeter of your Railway and your valuable assets within it



Prevent: Manage or limit access to the protected areas

Zenitel's cutting-edge help points provide advanced security measures for sensitive areas. Equipped with HD video, these devices enable security personnel to effortlessly verify visitors' faces or badges, ensuring that only authorized personnel gain access to the protected zone. With Zenitel help points, you can rest assured that your sensitive areas are always protected by state-of-the-art security solutions.

Detect: Surveillance for identification and suspicious behavior

Our IP speakers and help points comes with built-in microphones and when integrated with audio and video analytics system, it can automatically alert on gunshots, breaking glass or verbal aggression even if the trespasser is out of sight.

Mitigate: Enable proactive intervention

Zenitel's IP speaker and help point solutions come with built-in storage for storing pre-recorded audio messages.

This enables automatic warning messages to warn off intruders. Staff can also intervene proactively via live instructions, deterring criminals while staying at a safe distance.

Investigate: Easy Migration

Zenitel provides you the flexibility to send audio and video streams from our intercoms and IP speakers to third-party party recorders over standard interfaces such as ONIVF to assist police with post-event analysis.

Alternatively, use our VS-Recorder software to store audio, video, and other incidents centrally.

Rail Control

Solutions

Control and supervise all of your security systems through a single, intuitive front-end



Ensure fast decision-making in emergencies

Your staff needs to react quickly and make correct decisions in an emergency. That's why Zenitel delivers security solutions with a simple and intuitive 3D interface that classifies and prioritizes alert events. With our intuitive routing all the needed information is instantly transferred to the relevant officer making it easy to act appropriately: you can pan the camera, zoom in on desired areas, or make announcements via the public address or voice alarm.

Reduce equipment downtime

Intelligent alarm handling significantly reduces our equipment's downtime and maintenance costs. In case of failure, contingency plans are automatically enacted where necessary. All halting alerts are accompanied by detailed diagnostic information along with suggested actions to take. With a single click, the operator can see the affected equipment or rack location. Two levels of alarm information are available: low-level-detailed for the maintenance team and summary-level for operational staff.

Flexible and scalable solution

Our systems are based on flexible hardware architecture that enables our engineers to design custom solutions and adjust our products to meet all your specific needs. We can set our intuitive iVENCS railway Control Solution to work smoothly on any number of operator workstations with multiple redundant servers deployed either locally or at a remote location. The system can be virtualized in our customer's data center.

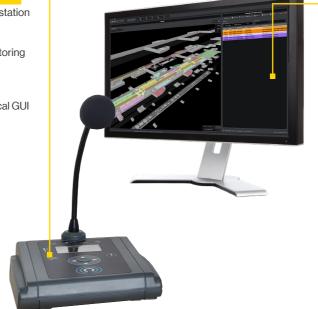
Recommended products



Recommended products

VIPA-WS

- Public Address touch screen workstation
- Integrated client server
- IP connectivity
- Providing flexible control and monitoring of the PAVA System
- Scalable up to 384 zones
- Support multiple user accounts
- Customisable 2D button or graphical GUI
- No ongoing license costs



iVFNC

- Award-winning Open and intuitive integrated management platform
- Offering comprehensive control, monitoring, and incident analysis across various subsystems, typically the PA system
- Modular system architecture; easily expandable
- IP connectivity
- Customisable 2D GUI or powerful true 3D model
- Remote Condition Monitoring
- Cross-platform supportOptional customer
- Optional customer site-specific integrations
- No ongoing license costs

*) Available soon in the Americas market

For more details, visit: www.zenitel.com

RAIL INFRASTRUCTURE SOLUTIONS 9



Supporting you all the way

When it comes to transportation solutions, Zenitel's product reliability, range and quality are unparalleled. But what truly sets us apart from the competition is the comprehensive range of services and support that we offer.

Specification

Our specialists can join at any stage to help specify and design a solution.



3rd Line Maintenance

Our customizable annual 3rd line maintenance contracts provide flexible ongoing solutions for clients that need support.



Ongoing Support

Our training courses cover all our products and systems and cater for all skill levels.



Design

Delivery Our end-to-end delivery services cover everything from system building and testing to international export.

Our comprehensive design

technical drawings and more.

services encompass

requirements capture,



Site Commissioning

Our engineers are experts in commissioning, testing and integrating systems.



Begin your journey with us

Get in touch with our team of experts: zenitel.com

RAIL INFRASTRUCTURE SOLUTIONS 11

Peace of mind with proven and trusted communication solutions

With over 125 years of experience and thousands of successful deployments of transportation solutions, Zenitel has a proven track record of delivering on customer expectations and helping them with ensuring the safety, security and well-being of both the staff and the passengers.

We gained a reputation as an expert in creating robust and reliable products and services. That's why Zenitel is trusted by many Railway operators worldwide to ensure the safety and security of their travelers, employees, assets, and critical infrastructure.

Selected References

London Underground, UK

Zenitel's advanced Public Address and Voice Alarm Solutions and Long Line PA technology help make journeys on the London Underground safer and more secure.

Klang Valley MRT, Malaysia

Zenitel delivered PAVA solutions, together with our iVENCS Control System for PIDS, with intuitive user displays that allow complete control of their rail security facility.

Bane NOR, Norway

Zenitel has delivered reliable Public Address and Voice Alarm systems for Norway's primary state-owned railway company, Bane NOR, for more than 12 years.

Oslo Central Station, Norway

Zenitel emergency communication system at critical points within the station connects passengers and staff to control room operators.

Public Address & Alarm products availability in the Americas market is pending.

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