Next-Gen Dispatcher Solutions

from Kontron Transportation and Telematix

Telematix

kontron
The Power of IoT

The Kontron Transportation Next-Gen Dispatcher is a future-proof, standards-based dispatching solution for existing and future rail networks.
It supports individual, user-tailored applications for rail operations.

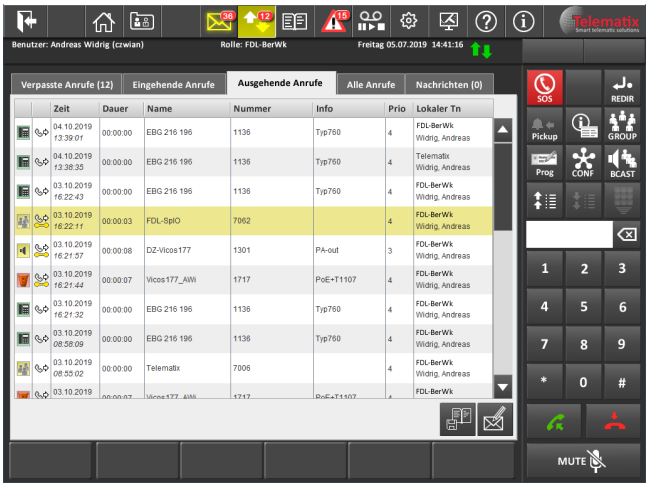
Integrated Dispatcher terminal SBG Ti15

Kontron Transportation and Telematix jointly develop next-generation Dispatcher solutions.

The Kontron Transportation Next-Gen Dispatcher is an integrated, compact and flexible Dispatcher terminal solution for voice, data and video communications. It combines point-to-point, group and broadcast call functions with message-based communication, such as chat with data transfer, SMS, SDS and emergency alarm.

System-wide-Role Management

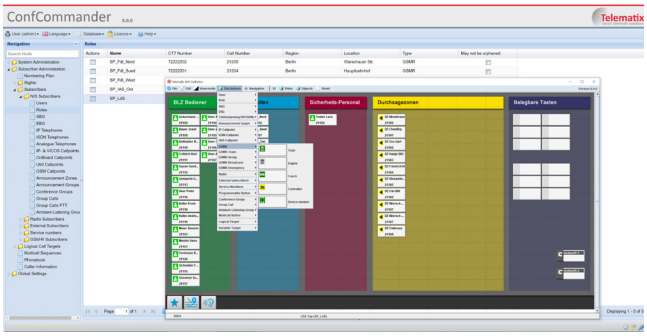
All communication is role-based. The support of the socalled “Roaming user” profiles and dynamic role management allow roles to be dynamically taken on different devices, whereby the user always uses his own defined functions and settings based on his profile. In the case of a dynamic parallel takeover of a role from another device, the call queue, call journal and messages (including templates and emergency alarms) are also loaded in parallel. Several roles can be accepted simultaneously on one device.



Call journal of outgoing calls

Flexible and individual Design of the User Interface

With the Kontron Transportation Next-Gen Dispatcher, you can respond to operational and personnel changes in the organization immediately by customizing the user interface quickly and easily. These changes can be made in a user, role or group configuration via a web-based graphical editor. The editor runs as a central system network service and can be operated by the customer himself. The modified configuration and adapted user interface is distributed and deployed on the terminals in a time-controlled manner and it has no impact at all on the running operations.



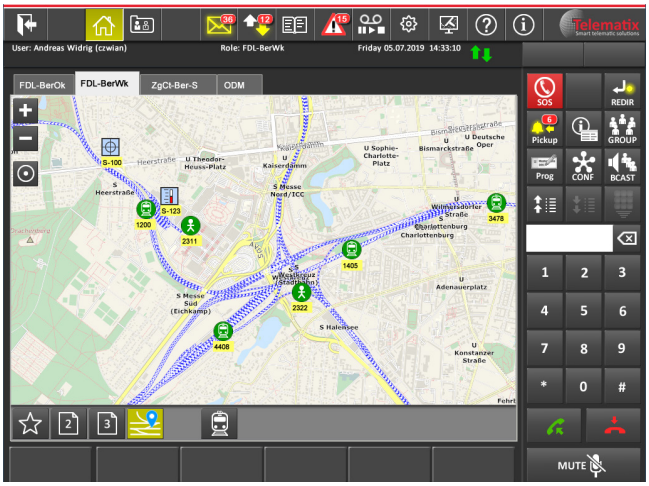
TMX-ConfCommander

Audio Modules

Various audio modules are available for the Dispatcher in order to take space and functional requirements into account. Depending on whether there is a need for additional loudspeaker, gooseneck microphone, dialing keys or display, the appropriate type of audio module can be used. All devices are designed for high quality voice transmission with HD voice. In addition, if desired, standard COTS audio devices can be connected to all types of Dispatcher terminals.

Telephone Directories

In order to enable flexible working with subscriber directories, user and role-specific directories can be created in addition to the central company-wide directories. The view of the role-specific directory depends on the roles currently taken on at this Dispatcher terminal and the view is dynamically adapting to the taken and left roles.



GIS-supported Dispatcher terminal

GIS-supported Dispatcher Terminal

The Kontron Transportation Next-Gen Dispatcher features a dynamic overlay or map, that displays the current location and operational status of all localized subscribers as well as the desired resources and assets in the area of responsibility. Furthermore, a geo-based dynamic group formation and subsequent initiation of voice, messaging and video communication is enabled. This can significantly shorten the dialing process. Conference calls, group calls and collective calls can be started either with a predefined group of participants, dynamically with the help of intelligent dialing wizards or "ad hoc" by a geographic selection of the trains and participants in the GIS (on a map).

Intelligent Emergency Call Management

FRMCS REC alerting allows the Dispatcher to take control of alerting areas. Alerts such as REC are distributed intelligently only to affected vehicles and participants in alert areas. The Kontron Transportation Next-Gen Dispatcher supports alerting areas that can be defined for any desired geographical level and shape.

MBG 10 Dispatcher tablet

Hierarchical Call Switching

Hierarchical call processing enables sequential distribution of incoming calls over several levels to groups, roles and devices according to individually configured rules. The flexible call processing and distribution depend on the workload. It ensures availability even in the event of high workloads or technical failures. The responsible shift supervisor can also manually influence the processing and distribution of incoming calls to his team, depending on the operational situation.

Convergent:
GSM-R, MCx, FRMCS Dispatcher Solution

The Kontron Transportation Next-Gen Dispatcher solution is based on a future-proof MCx server/client architecture according to the 3GPP standard, which is an FRMCS enabling technology.

Flexible Dispatcher solution SBG Te23

The MCx implementation is built on an IMS-based SIP core, a Dispatcher application server and a convergent rail application server with MCx and GSM-R functionality. This enables seamless interconnection and interworking between GSM-R and FRMCS. Thanks to this architecture, existing Kontron Transportation GSM-R R4 networks with fixed and mobile GSM-R subscribers can be converged into GSM-R, MCx and FRMCS networks.

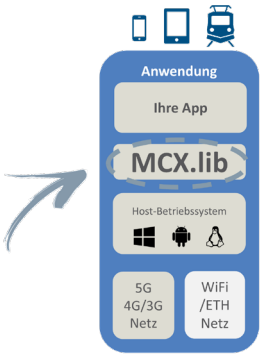
Integrated compact Dispatcher terminal SBG Ti10

FRMCS terminals, such as Next-Gen Dispatcher solutions can be used alongside GSM-R terminals, such as fxed GeFos. Thus migration possibility and investment security is given.

Compact Dispatcher solution SBG Ti7

MCx Client Framework

The Kontron Transportation Next-Gen terminal portfolio like the Next-Gen Dispatcher terminal or the Next-Gen Mobile Android app are built on an interoperable MCx client framework. The framework is licensable and enables the creation of custom value-added applications, even without prior MCx/FRMCS knowledge.



MCX.lib Client Framework - Program library

Standardization, Interoperability and Conformance

To meet the mission-critical requirements of a next-generation environment, Kontron Transportation actively participates in MCx standards, ETSI 3GPP and the ETSI 3GPP MCx PlugTests initiative. In this way we participate in the validation of the 3GPP standards, with the goal of creating a single, interoperable and global standard.

To confirm conformance, the independent inspection body RINA (a Notified Body of the EU), which is accredited for ISO / IEC 17020, has certified the MCx solution as compliant with the relevant ETSI TS 103 564 „PlugTest Scenarios for mission critical services“ in relation to 3GPP standards assessed and demonstrated.

About Kontron Transportation

Kontron Transportation GmbH is a global leading supplier of end-to-end communication solutions for mission-critical networks. The core customer segment is railways throughout Europe and beyond.
The focus is on systems that produce, transport, and process voice, data, and video information reliably, securely, efficiently, and sustainably. This includes GSM-Railways, FRMCS (future railway mobile communication system), MCx (mission-critical over public networks) with IWF (interworking functions), enhanced radio solutions and radio access networks, transmission networks, private cloud platforms and cybersecurity concepts round off the portfolio. This portfolio also offers selected communication products to utilities and enterprises. In addition, specific mobility products such as validators and fare collection systems are provided to public transport operators.

As a driving force in the definition and specification of FRMCS standards, Kontron Transportation is significantly involved in standardization working groups and European research projects such as Morane2.
The company has more than 700 employees, 11 sites all over Europe and is headquartered in Vienna.

Kontron Transportation is part of Kontron Group.

For more information, please visit: **www.kontron.com/ktrdn**

Your Contact

Kontron Transportation GmbH

Lehrbachgasse 11
1120 Vienna, Austria
Tel.: +43 1 25 33 700
kta_office@kontron.com

www.kontron.com/ktrdn

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