NEXT-GEN DISPATCHER SOLUTIONS
from Kontron Transportation and Telematix

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<table>
<thead>
<tr>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
</tr>
<tr>
<td>SYSTEM-WIDE ROLE MANAGEMENT</td>
</tr>
<tr>
<td>FLEXIBLE AND INDIVIDUAL DESIGN OF THE USER INTERFACE</td>
</tr>
<tr>
<td>AUDIO MODULES</td>
</tr>
<tr>
<td>TELEPHONE DIRECTORIES</td>
</tr>
<tr>
<td>GIS-SUPPORTED DISPATCHER TERMINAL</td>
</tr>
<tr>
<td>INTELLIGENT EMERGENCY CALL MANAGEMENT</td>
</tr>
<tr>
<td>HIERARCHICAL CALL SWITCHING</td>
</tr>
<tr>
<td>CONVERGENT</td>
</tr>
<tr>
<td>GSM-R, MCX, FRMCS DISPATCHER SOLUTION</td>
</tr>
<tr>
<td>MCX CLIENT FRAMEWORK</td>
</tr>
<tr>
<td>STANDARDIZATION, INTEROPERABILITY AND CONFORMANCE</td>
</tr>
</tbody>
</table>
Kontron's 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.

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

The Kontron 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 so-called “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.

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
The Kontron 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 Next-Gen Dispatcher supports alerting areas that can be defined for any desired geographical level and shape.

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. This 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 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.

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 GSM-R R4 networks with fixed and mobile GSM-R subscribers can be converged into GSM-R, MCX, FRMCS networks.

FRMCS terminals, such as Next-Gen dispatcher solutions can be used alongside GSM-R terminals, such as fixed GeFos. Thus migration possibility and investment security is given.
MCX CLIENT FRAMEWORK
The Kontron 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.

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.
For more information about the Next-Gen Dispatcher solutions, please contact:
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About Kontron – Member of the S&T Group

Kontron is a global leader in IoT/Embedded Computing Technology (ECT). As part of the S&T technology group, Kontron offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: www.kontron.com

About Kontron Transportation – Member of the S&T Group

Kontron Transportation is a leading global supplier of end-to-end communications solutions for mission-critical and carrier networks. Its portfolio includes GSM-Railways, FRMCS (future railway mobile communication system), TETRA, DMR, LTE solutions for mission critical networks as well as mobility solutions for the public transport sector and is enabled with the entire service value chain, from planning, developing and producing to deploying, integrating, maintaining and operating. A further mission is to provide a critical E2E IoT solution dedicated for railway operators to support data collection, transport, monitoring and analysis.

Kontron Transportation invests in research and development and is driving the evolution into the next generation of broadband solutions for mission-critical networks, for instance as an associated member of the European research initiative Shift2Rail.

Kontron Transportation is part of S&T group and headquartered in Vienna (Kontron Transportation GmbH) with main subsidiaries in Belgium, France, Germany, Portugal, Spain, the Czech Republic and United Kingdom.

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