

Connecting Your Personal World

embedded world 2026

PUBLIC

Experts in software embedded systems

- OpenSynergy is an Independently managed company set up in 2007 and is headquartered in Berlin, Germany, with a global team of 40 employees located in Europe and USA
- With a broad global base of Customers and Partners, we continuously invest in research, innovation and product development, so that we can license automotive grade embedded software enabling developers to quickly integrate **Bluetooth® in automotive, industrial, IOT, medical applications with our Blue SDKs** and software radios with our **Radio Tuner SDK** in the next generation of vehicles
- Our Bluetooth® stacks, Blue SDK & RapidLaunch SDK, are the reference Bluetooth implementation for many automotive Tier1s and OEMs, now **deployed in hundreds of automotive programs and in more than 400 million vehicles worldwide**
- OpenSynergy also provides engineering services to support the customization of its products

RENESAS

NXP arm

RENESAS
R-Car Consortium

Bluetooth™

Qt The Qt Company

THE LINUX FOUNDATION
AUTOMOTIVE GRADE LINUX

GlobalLogic® knowit

Come & meet our team!

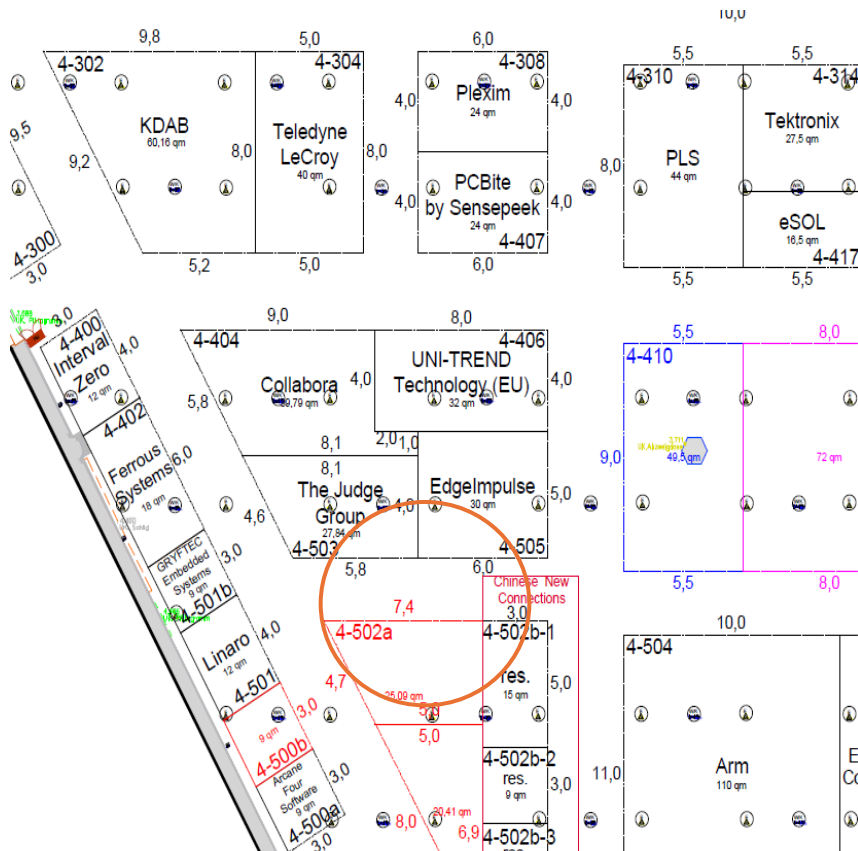
Hall 4 Booth 4-502a

**embeddedworld**
Exhibition&Conference

SAVE THE DATE!
10. - 12.03.2026
NUREMBERG | GERMANY

COME AND SEE US AT
Hall 4, Booth 502a

 **OPENSYNERGY**



Find out more about Bluetooth® Channel Sounding

During the Bluetooth® technology in automotive applications session track

12 March | 14:30-16:15

Secure Localization with Bluetooth® Channel Sounding for Localization and Smart Keys in Automotive Systems

Presented by Rudi Latuske | OpenSynergy GmbH

World-Wide Presence



Distributor

knowit



Ubiquitous AI Corporation

Connecting Your Personal World



OVER

25 YEARS
of  **Bluetooth®**

- Automotive Industry
Leader for Bluetooth
- Serving Mobile,
Consumer, Industrial, &
Automotive Industries
- Android™, Linux®,
Windows™ & RTOS
Expertise
- ISO9001 Certified

400 MILLION+
BLUE SDK

AUTOMOTIVE SHIPMENTS

1 BILLION +
BLUE SDK

DEVICE SHIPMENTS

EMBEDDING BLUETOOTH ANYWHERE

BLUETOOTH PRODUCTS



BLUE SDK

DUAL-MODE EMBEDDED BLUETOOTH STACK



BLUE SDK
FUSION

REPLACEMENT BLUETOOTH STACK **FOR AOSP**



BLUE SDK
RAPIDLAUNCH

BLUE SDK INTEGRATION **FOR LINUX**

BLUE SDK
MESH

BLUETOOTH MESH STACK

BERLIN

UTAH

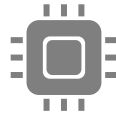
BLUE SDK

Automotive-Grade, Embedded Bluetooth® 6.0 Core Specifications Stack

**1 BILLION +
BLUE SDK**
DEVICE SHIPMENTS



FLEXIBLE, ROBUST, PROVEN



WORKS WITH ANY HARDWARE AND MULTIPLE RADIOS



CHANNEL SOUNDING &  AURACAST™



DECREASES COST & TIME TO MARKET

**400 MILLION+
BLUE SDK**
AUTOMOTIVE SHIPMENTS



AUTOMOTIVE GRADE

WORKS WITH ANY HARDWARE

EASY PORTING — UP AND RUNNING ON NEW HARDWARE PLATFORMS WITHIN HOURS

ANY

BLUETOOTH CHIPSET

HOST PLATFORM

VENDOR



AND MORE

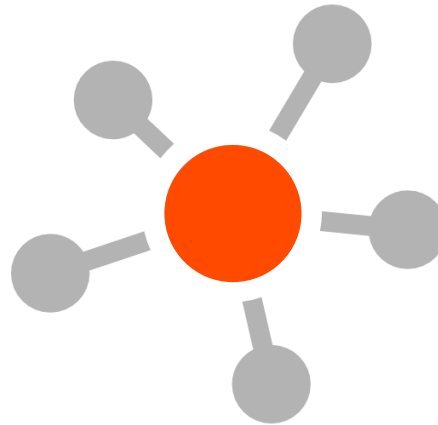
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AUTOMOTIVE READY

EASILY HANDLES COMPLEX AUTOMOTIVE USE CASES



**CONCURRENT
MULTIPLE PROFILES**



**MULTIPLE
CONNECTIONS**



**SECURE PHONEBOOK
CACHING**

AND MORE

FLEXIBLE & ROBUST

EASILY IMPLEMENT HIGHLY COMPLEX REQUIREMENTS

IOP

INTEROPERABILITY

EASILY HANDLES COMPLEX INTEROPERABILITY REQUIREMENTS



STABILITY

PRECISION TO PREVENT CRASHES WHILE MAXIMIZING HARDWARE CAPABILITIES



QUALITY

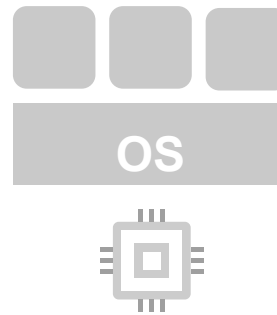
CONFIDENCE FOR CRITICAL SYSTEMS THAT CANNOT FAIL

PROVEN RELIABILITY

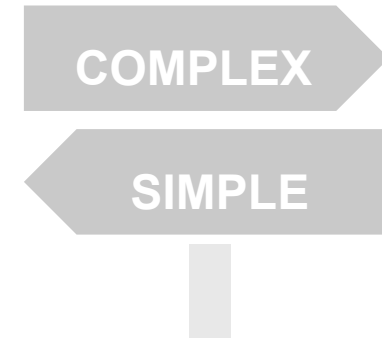
#1 BLUETOOTH STACK USED ACROSS A VARIETY OF OPERATING SYSTEMS, COMPILERS, RADIOS, & APPLICATIONS FOR OVER **25 YEARS** IN OVER **1 BILLION END-DEVICES**



Large range of customers spanning many industries with varying requirements



Supports many different interoperability requirements in many different environments with high stability



Proven results from simple to complex applications, including multi-connection & multi-profile

DIVERSE REQUIREMENTS & WIDESPREAD ADOPTION HAVE DRIVEN BLUE SDK TO BECOME
HIGHLY FEATURE-RICH, FLEXIBLE, ROBUST, & STABLE

SUPERB INTEROPERABILITY

EASILY HANDLES COMPLEX INTEROPERABILITY REQUIREMENTS

INTERNAL TESTING

FOR EVERY RELEASE

Reference Platform + Common Smartphones

Proprietary Tests

3rd Party Bluetooth Test Tools

including static code analysis & DefensicsTM Fuzz testing

EXTERNAL TESTING

Extensive Partner Testing

Invested in latest devices and equipment

Customer Feedback

Blue SDK Deployed on over a Billion Cars & Devices

Bluetooth UnPlugFest

Other implementations and 3rd Party Software

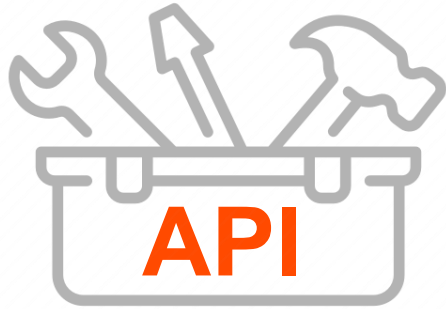
ENDLESS EXTENDABILITY

EXTENDABLE API ALLOWS FOR ADDITIONAL FEATURES AND FUNCTIONALITY

FEATURE	COMMON EXAMPLES
CONNECTION MANAGEMENT	<ul style="list-style-type: none">• Control When Profiles Connect• Reject Incoming Connection Requests• Change Behaviors Based on Use (e.g., Apple CarPlay or Android Auto)
MULTI-PROFILE CAPABILITIES	<ul style="list-style-type: none">• Pause PBAP Downloads While Streaming Music• Address Specific Use Cases Specified by OEMs
PHONEBOOK ACCESS PROFILE	<ul style="list-style-type: none">• Parallel Sessions - Two Phone Book Downloads in Parallel• Pause/Resume Phonebook Download• Limit DB Size to Prevent Crashes
HANDSFREE PROFILE	<ul style="list-style-type: none">• Dual SCO Connections (Mixing In-Band Ring-Tones with Ongoing Call)• Multiple Phones Connected to IVI• AT Extensions for Phone/Vendor Specific (E.G., Apple Siri Commands)
A2DP/AVRCP	<ul style="list-style-type: none">• Cover Art Support (AVRCP)
ENHANCE EXISTING PROFILES	<ul style="list-style-type: none">• SMS/EMAIL Download and Browsing (MAP)

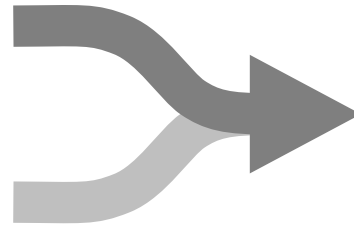
EASY INTEGRATION & UPDATES

MINIMAL EFFORT, ROBUST PERFORMANCE



COMPLETE, FLEXIBLE, & ROBUST

Rich set of flexible APIs with over 25 years' worth of helper APIs, macros, and utilities



SIMPLE TO UPDATE & MAINTAIN

Clear abstraction of platform-specific code and between integration code and the stack



PRE-INTEGRATED PROFILES

Profiles can be compiled with the stack into a single self-contained task or multi-threaded

BLUETOOTH 6.0

CHANNEL SOUNDING

HIGH-ACCURACY DISTANCE MEASUREMENT VIA A SINGLE ANTENNA



EASILY LOCATE DEVICES WITH ACCURACY OF LESS THAN 1M

BLUETOOTH 5.4



LE GATT SECURITY LEVELS CHARACTERISTIC

Adds two optional characteristics in GAP that contain the required security level(s) of a BR/EDR or LE connection that allows a connecting device to use all supported GATT functionality



ENCRYPTED ADVERTISING DATA

The ability to encrypt Advertising data



CODING SCHEME SELECTION ON ADVERTISING

Allows the Host to select the LE Coded PHY coding scheme for LE Advertising Extensions.

BLUETOOTH 5.3

NEW



PERIODIC ADVERTISING ADI

Enables filtering of duplicate periodic advertising reports before sending to the Host



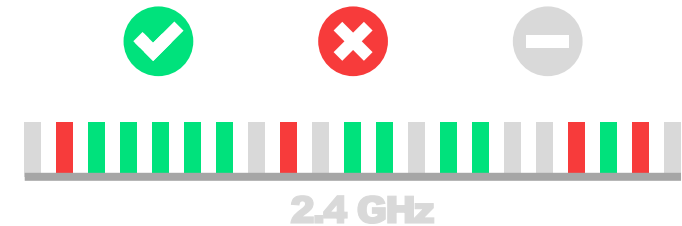
LE CONNECTION SUBRATING

Allows the connection interval of existing connections to be rapidly modified, adjusting duty cycle based on use case



ENCRYPTION KEY SIZE CONTROL

Provides the Host the ability to program the minimum encryption key size in a BR/EDR Controller



LE CHANNEL CLASSIFICATION

Reports radio channel as good or bad to help avoid channels with interference during adaptive frequency hopping

BLUETOOTH 5.2



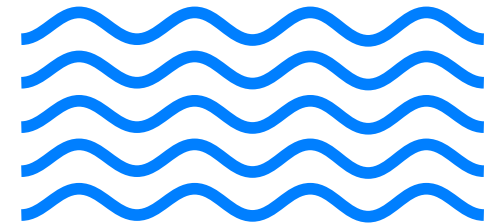
ENHANCED ATTRIBUTE PROTOCOL

ATT and GATT-based profiles can now
handle concurrent transactions



DYNAMIC LE POWER CONTROL

Reduces transmitter power consumption
and optimizes signal strength

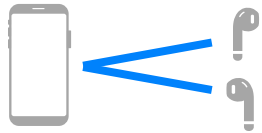


LE ISOCHRONOUS CHANNELS

Enables LE Audio, new topologies,
and new use cases

LE AUDIO

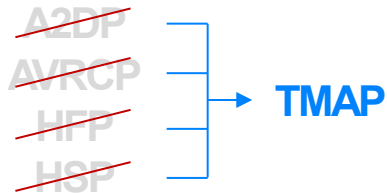
WIRELESS AUDIO STREAMING VIA AN LE RADIO



MULTI-STREAM
AUDIO



AURACAST™
BROADCAST AUDIO



NEW PROFILES



NEW CODEC

AND MORE

The Auracast™ word mark and logos are trademarks owned by Bluetooth SIG, Inc. and any use of such marks by OpenSynergy is under license

OPTIMIZED SINGLE-MODE LE

OPTIMIZED FOR AUDIO STEAMING & DATA TRANSFER OVER A SINGLE-MODE LE RADIO



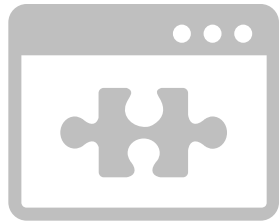
Removes unneeded Classic components to better support resource-constrained systems

BLUE SDK RAPIDLAUNCH

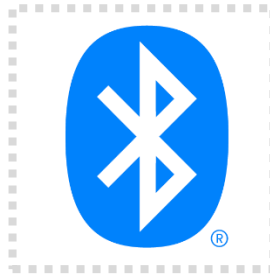
Blue SDK Integration for Linux®

ACCELERATES BLUETOOTH DEVELOPMENT ON LINUX

Simplified Bluetooth APIs over D-BUS allow for several applications to easily access the Bluetooth services



**PRE-INTEGRATED
INTO LINUX**



**ISOLATED FROM
KERNEL**



**EASILY ADAPTED
FOR ANY IPC / OS**

SUPPORTS ANY LINUX DISTRIBUTION



**AUTOMOTIVE
GRADE LINUX**

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RADIO TUNER SDK

THE AUTOMOTIVE SOFTWARE RADIO

OVER

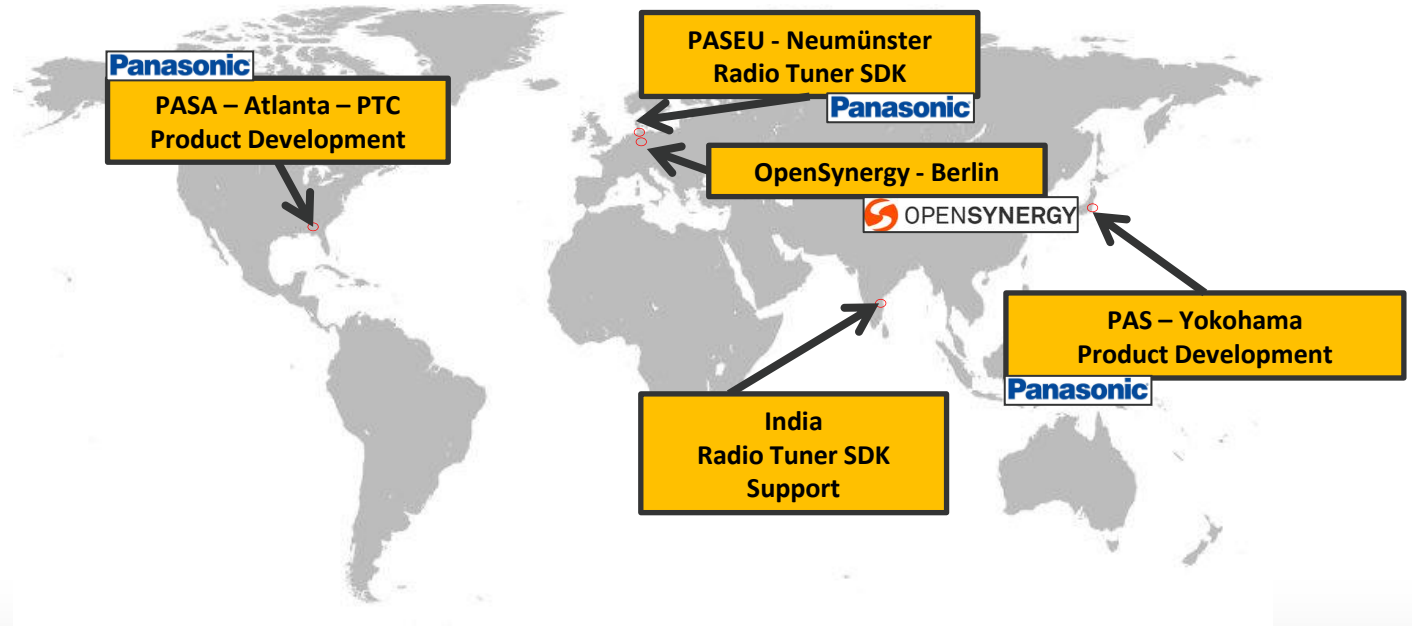
20 **YEARS**
of Continuous
Development

- Radio Software Integration Experts
- Hardware agnostic
- Multiple OEMs
- Android, Linux, Windows, & QNX Expertise
- ISO9001 Certified

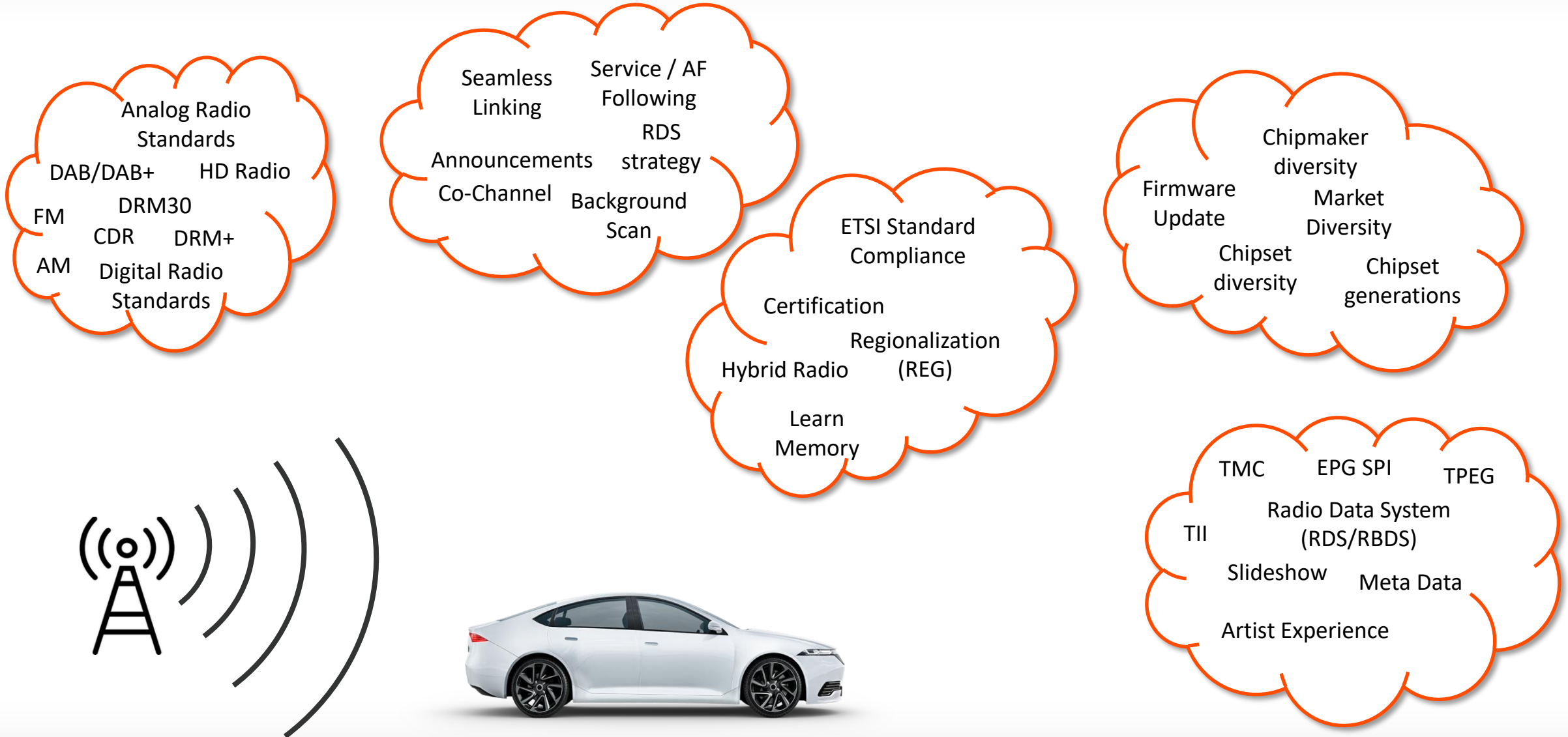
TENS OF MILLIONS**RADIO TUNER SDK****CARS SHIPMENTS**

Global presence

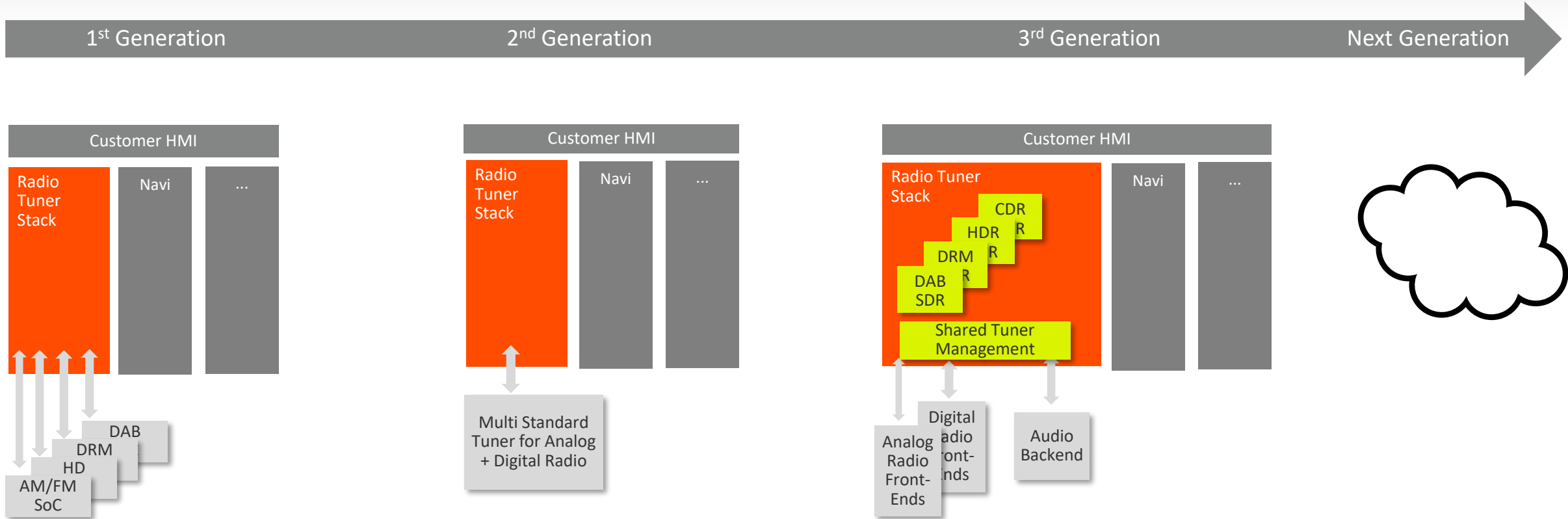
- Located in Neumunster, North of Germany
- Meeting customer's needs since 2004
- Center of Competence for Radio Standards, Tooling, Benchmarking and Field-Testing
- Members of RDS, DAB and DRM Forums



Automotive Radio Integration is a Complex Challenge



Designed to virtualize the Software Radio



- Dedicated Tuner SoCs
- Multi-standard tuner hardware
- Software Defined Radio
- Wideband multi-tuner systems
- Shared tuner management

Radio Tuner SDK now with **USB** support

Software Radio component for automotive
infotainment systems



- Supports different broadcast standards worldwide
- Supports chipsets from major makers
- Supports Android Broadcast HAL, Linux and QNX
- Comes with integration and optimization tools (e.g. Radio GUI and Service Tool)
- Enables hybrid radio
- Rapid prototyping with USB tuner ^{NEW}

Radio Tuner SDK

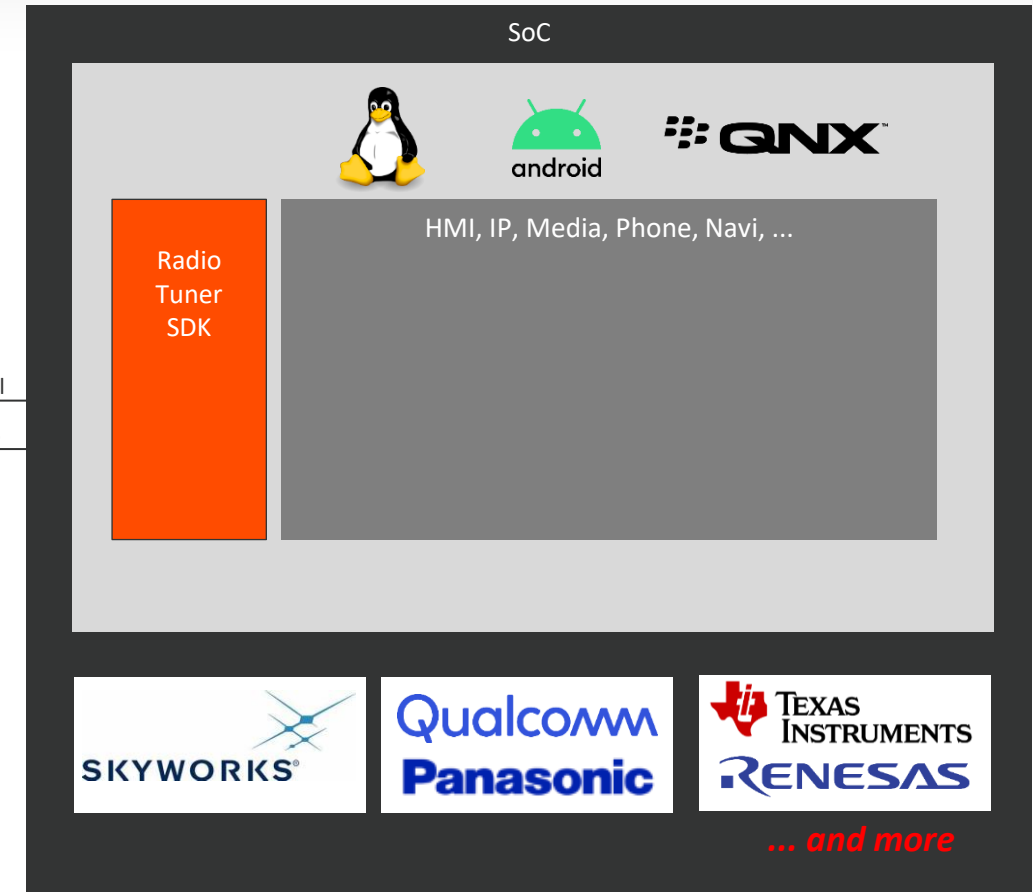
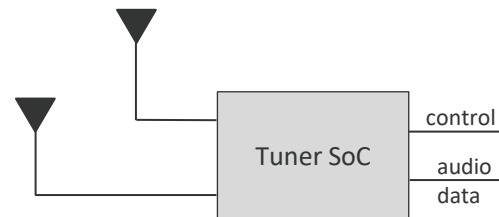
It's hardware agnostic:

- it supports most popular car radio tuner SoCs and tuner chips
- It's portable on various OEM-specific hardware, easy adaptable to new BSP and OS due to abstraction layers
- supports of distributed HW/SW architectures (e.g. remote tuner)

Provides the same quality level in every vehicle

- in different car lines (entry, mid, high)
- worldwide (supports all relevant reception standards, such as AM/FM, DAB, HD Radio, DRM, CDR)

The SOFTWARE RADIO



NXP Tuners

- SAF400x (Mercury Family)
- TEF7100 (Merlin)
- TEF3200 (Radion)
- And older products

Skyworks Tuners

- SI47X (Dual Eagle Tuner)
- SI46X (Dual Falcon Digital Decoder)

Panasonic Tuners

- Panasonic's Cubit Family (Amigo3.5)

WHY OPENSYNERGY

EXPERT SERVICE & SUPPORT



INDUSTRY LEADER



FAST, DETAILED
RESPONSES



BLUETOOTH AND
RADIO TUNER EXPERTS

PORTING AND INTEGRATION SERVICES AVAILABLE UPON REQUEST



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