This document bundles public information about hexDEV (Stuttgart): technical articles, short summaries of current customer projects, and a compact overview of Tempo2Market (T2M).

Quick links

Website — https://hexdev.de/

hexBLUE

Product page — https://hexdev.de/hexblue
Datasheet (PDF) — https://hexdev.de/pubimg/hexBlue-SBC-datasheet-A.pdf

Tempo2Market

Product page — https://hexdev.de/tempo2market
Public site — https://tempo2market.com/
Pitch video (90s) — https://hexdev.de/temp/hexdev-its-tempo2market-pitch.mp4
Description (PDF) — https://hexdev.de/temp/hexdev-tempo2market-description.pdf

fleetwarden

Product page — https://fleetwarden.de/
Screencast (PDF) — https://hexdev.de/api-docs/fleetwarden.pdf

hexLIN

Product page — https://hexdev.de/hexlin
Video (product) — https://hexdev.de/assets/hexlin.836712a4.mp4
Manual (PDF) — https://hexdev.de/manual/hexlin-manual.pdf

hexNFC

Video (demo) — https://hexdev.de/temp/RGB_LEDs_pattern_NFC_adapter.mp4

Technical articles

How to use telemetry to configure multiple devices at once

Discover the most important considerations on telemetric device configuration.
This article discusses strategies and their efficiency when you implement a system with telemetry. It covers both views from the embedded device and from the infrastructure side.
Referenz: https://hexdev.de/how-to-use-telemetry-to-configure-devices

OP-TEE (Trusted Execution Environment) for embedded products

This technical article explains how OP-TEE can be used to protect sensitive key material and security-critical functions on embedded devices - as a building block for a chain of trust and lifecycle operations.
Reference: https://hexdev.de/op-tee

Tempo2Market (T2M) – Product overview

Tempo2Market (T2M) is a full-stack platform for embedded products. It provides reusable infrastructure across the entire lifecycle - from manufacturing and a secure device OS to fleet operations.

Manufacturing (Provisioning & ramp-up)

- Device identity created in manufacturing (cryptographic identity + serial number as the basis for secure operation).
- Standardized onboarding processes for reproducible production and service workflows.
- EOL checks & handover into operations: "fleet-ready" (update capability, basic connectivity, fleet/group assignment).

Embedded (Hardware & Device Platform)

- Long-lifecycle Linux foundation: Yocto/OE-based software stack for long product lifecycles.
- Security-by-design: secure boot, signed artifacts, and robust update mechanisms.
- On-device runtime: ttmdaemon as a stable API anchor between hardware/OS and the application.
- hexBLUE (SBC): industrial Linux single-board computer as a reference/development platform (optional for variants).

Cloud (Fleet Operations)

- fleetwarden: OTA updates, telemetry/logs, configuration, and remote live service features.
- Governed rollouts: staged deployments, groups/policies, robust update chains.
- Operations & support: observability and targeted remote actions instead of backdoors.

App (OEM USP)

- Focus on product functionality: the OEM application is decoupled from platform details and uses stable device APIs.
- Flexible app models: web UIs (kiosk), native components (Qt/QML), and helper services.
- Integration at scale: roll out configuration across fleets - without firmware special cases.

Guiding principle: OEMs focus on their core competence and product value - hexDEV takes care of the infrastructure: platform, security, and lifecycle operations across the entire product lifecycle.

Customer projects – short summaries

Kärcher — Cutting costs in nine months

Context: Further development of an existing Customer Success Management tool.
Implementation: Tailor-made improvements for better usability and more efficient workflows.
Result: Significantly reduced running costs - up to a 50% reduction within nine months.

TCI — Migration from Android to Tempo2Market and secure cloud updates

Context: Short Android lifecycles and high maintenance effort in product operation. Implementation: Migration to Tempo2Market including lifecycle-capable update and operations processes. Result: Long-term, controllable update operations and better planning across the product lifecycle.

Mercedes Cars — Open-source LIN bus driver for the Linux kernel

Context: Need for standardized, cost-efficient LIN integration in a Linux environment. Implementation: Development of an open-source LIN bus driver for the Linux kernel. Result: Reduced costs and fewer dependencies across supply chains through an open foundation.

Sensor manufacturer from Baden-Württemberg — Market-ready IoT solution in three months

Context: Tight timeline for an IoT solution to capture system data.
Implementation: Fast delivery of a complete solution including integration and operational readiness. Result: Market-ready in three months - customers can install and use sensors effectively.

German industrial supplier — Implementing security requirements with Tempo2Market

Context: New security requirements and lifecycle expectations (e.g., CRA/NIS2) for a product generation.
Implementation: Alignment with security-by-design and maintainable operations (updates, policies, governance). Result: Higher lifecycle readiness and a more controllable security and update process in the field.