

E2E Secure CAN-USB/Ethernet Interface

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Product updates



Need a secure CAN-USB/Ethernet interface?

The [CANsub](#) sends/receives CAN FD data in real-time via USB or Ethernet. Over Ethernet, anyone on the network (LAN, WiFi or a remote VPN) can reach it - which is both a feature and a risk.

Without proper security, a CAN-Ethernet interface opens the door to unauthorized eavesdropping on proprietary CAN data - or even hostile/accidental connections that may disrupt operation of critical equipment.

However, with [FW 02.03.00](#), the CANsub now supports **mutual TLS authentication (mTLS)** - enabling 100% encrypted and authenticated CAN streaming!

In our new [intro to CANsub security](#), we highlight the key security features:

- **TLS by default:** All traffic is encrypted over TLS (HTTPS) on both USB and Ethernet, and the device proves it is a genuine CANsub via a built-in certificate
- **mTLS access control:** Optional mutual TLS lets you decide exactly which users may connect over Ethernet - like passwords, but certificate-based
- **Scales to fleets:** Self-signed certificates can be used for single users, while CA-signed certificates enable flexibility for fleets and multi-user deployments
- **Signed firmware:** The device can be securely updated with digitally signed firmware files via USB or Ethernet, and firmware code is protected from readout
- **Read-only options:** The CANsub supports configurable hardware silent mode - or [contactless CAN readers](#) for non-configurable read-only access
- **Software/API support:** [webCAN](#), [python-can](#) and custom REST/WebSocket apps all support both TLS and mTLS

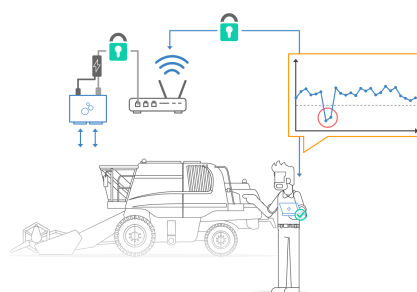
With mTLS enabled, the CANsub is a 100% end-to-end secure device to deploy - ideal for labs, end-of-line testing, production automation and in-vehicle field service. We also provide R155/ISO 21434 related documentation on request.

Use case examples



Test labs, end-of-line and production

Several CANsub devices often share one network, each used by different engineers or test stations. With mTLS, only clients holding a valid certificate reach each device, so a wrong connection cannot disrupt a running test or line.



Wireless diagnostics in the field

Connect the CANsub to a WiFi router on a vehicle so technicians can stream data and run diagnostics wirelessly. mTLS ensures only authorized technicians connect, even if the WiFi is compromised, blocking access to a moving asset.

[Learn more](#)

Other updates



CouchBuilt: AI CAN bus reverse engineering with the CANsub

Check out Jon Volk's latest video on his CouchBuilt channel! This time, Jon uses the [CANsub.2](#) and our open source Claude Code skill to make [AI CAN bus reverse engineering](#) a core part of his workflow.

See in particular 08:40-16:10, including Jon's use of Meta's Ray-Bans to capture time-correlated video recordings for the skill's Optical Character Recognition (OCR) workflow.

[Watch the video](#)



Call for diagnostics data & use cases

We are planning new articles on using AI agents to help in CAN bus diagnostics and troubleshooting - both for real-time streaming and cloud-based telematics use cases.

The goal is to apply techniques similar to our popular [AI CAN bus reverse engineering](#) article, but focused on the troubleshooting challenges faced by OEM engineers.

We are very interested in end user input incl. practical examples of challenges (incl. ideally data) as well as just general ideas/suggestions.

Simply reply to this email to provide your inputs!