EtherCAT Industrial Ethernet Protocol Software

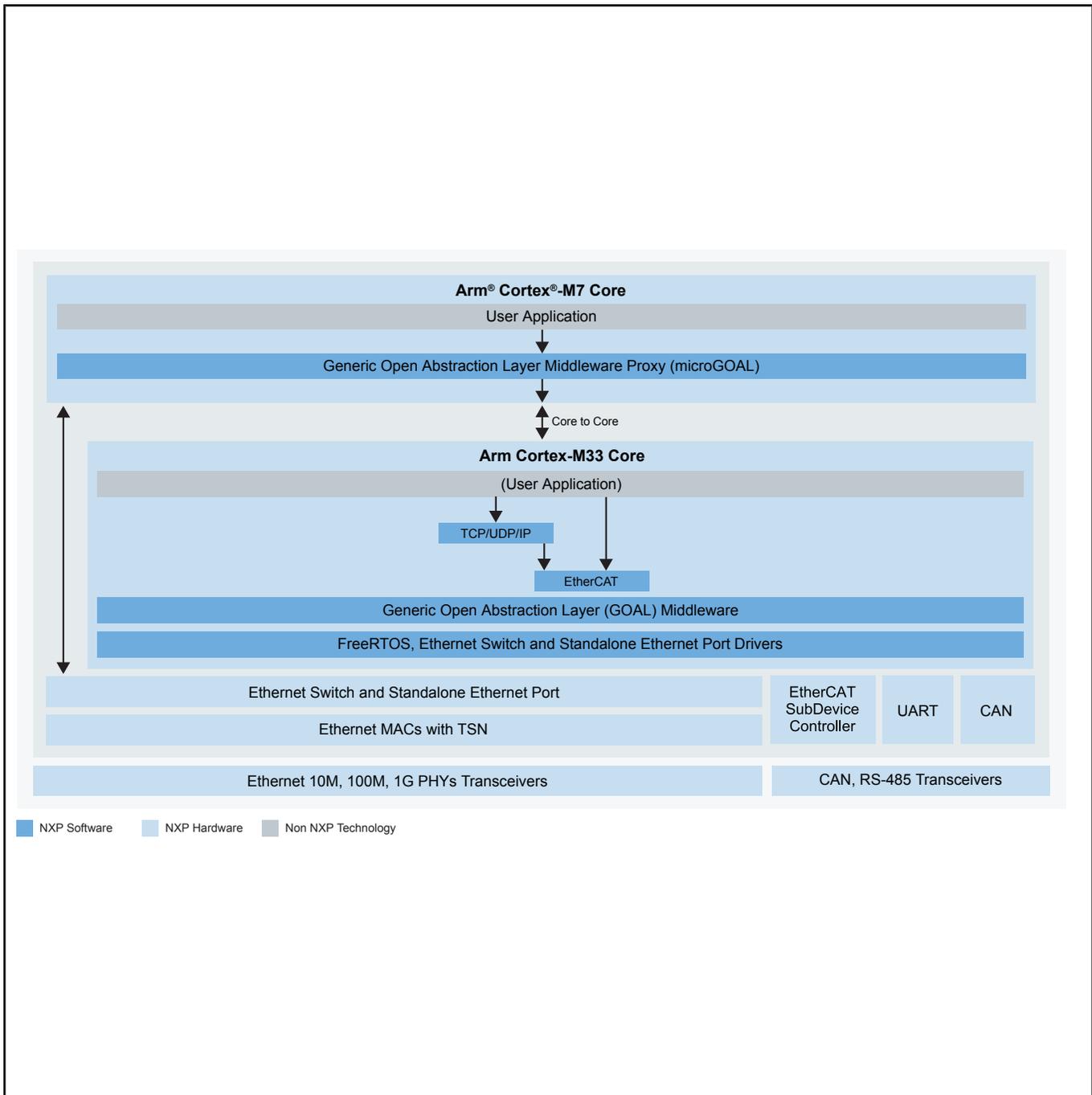## ETHERCAT-INDUSTRIAL-COMMUNICATIONS-SOFTWARE

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EtherCAT® (Ethernet for Control Automation Technology) is a high-performance Ethernet-based fieldbus system developed by Beckhoff, based on IEC61158. As part of a suite of robust, certifiable industrial Ethernet protocols on a common software architecture, NXP offers EtherCAT Sub-Device protocol software for selected NXP processors, enabling scalable automation, robotics and PLC integration.

The software is delivered in two forms: binary images suitable for basic functional evaluation of the implementation on NXP hardware; compiled object libraries and associated source code, EtherCAT Stack Library suitable for building into your own application on NXP hardware.

To assist development of your own applications, the Industrial Communications Creator (ICC) Tool provides a user-friendly mechanism for configuration and object dictionary management.

EtherCAT Industrial Communications Software Block Diagram

Arm® Cortex®-M7 Core

User Application

Generic Open Abstraction Layer Middleware Proxy (microGOAL)

Core to Core

Arm Cortex-M33 Core

(User Application)

TCP/UDP/IP

EtherCAT

Generic Open Abstraction Layer (GOAL) Middleware

FreeRTOS, Ethernet Switch and Standalone Ethernet Port Drivers

Ethernet Switch and Standalone Ethernet Port

Ethernet MACs with TSN

EtherCAT SubDevice Controller

UART

CAN

Ethernet 10M, 100M, 1G PHYs Transceivers

CAN, RS-485 Transceivers

NXP Software   NXP Hardware   Non NXP Technology

View additional information for EtherCAT Industrial Ethernet Protocol Software.

Note: The information on this document is subject to change without notice.