



# HARPOON (RTOS on Cortex-A)

## HARPOON

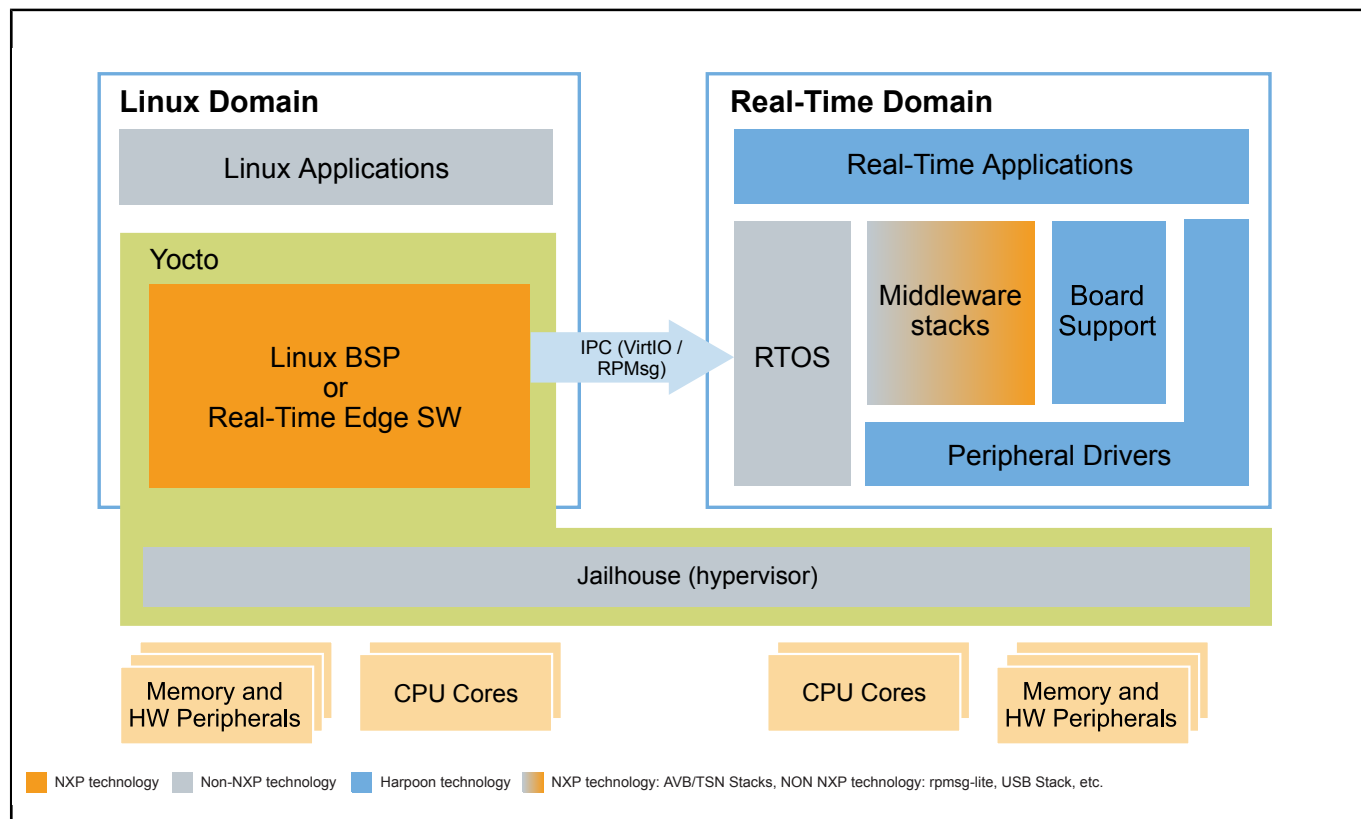
Last Updated: Dec 18, 2025

Harpoon is a base enablement software which provides an isolated real-time domain running on high performance 64-bit Arm® Cortex®-A core(s). The Jailhouse hypervisor is used for hardware resource partitioning, allowing the real-time domain RTOS to run in parallel with a feature rich Linux distribution and with minimal impact on the RTOS real-time performance.

Harpoon supports FreeRTOS and Zephyr as the Jailhouse guest operating systems. This offers customers a choice to develop real-time applications on higher performance Cortex-A cores (Armv8-A) compared to the Cortex-M cores.

Harpoon is supported on NXP applications processors—i.MX 8M Mini, i.MX 8M Nano, i.MX 8M Plus and i.MX 93. Harpoon provides reference real-time audio and industrial applications, plus a real-time latency measurement application for quick customer evaluation.

## Harpoon Software Architecture Block Diagram



View additional information for [HARPOON \(RTOS on Cortex-A\)](#).

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

**www.nxp.com**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.