Layerscape 1024A Applications Solutions Kit (ASK) for High-Performance Vertically-Oriented Networking Applications
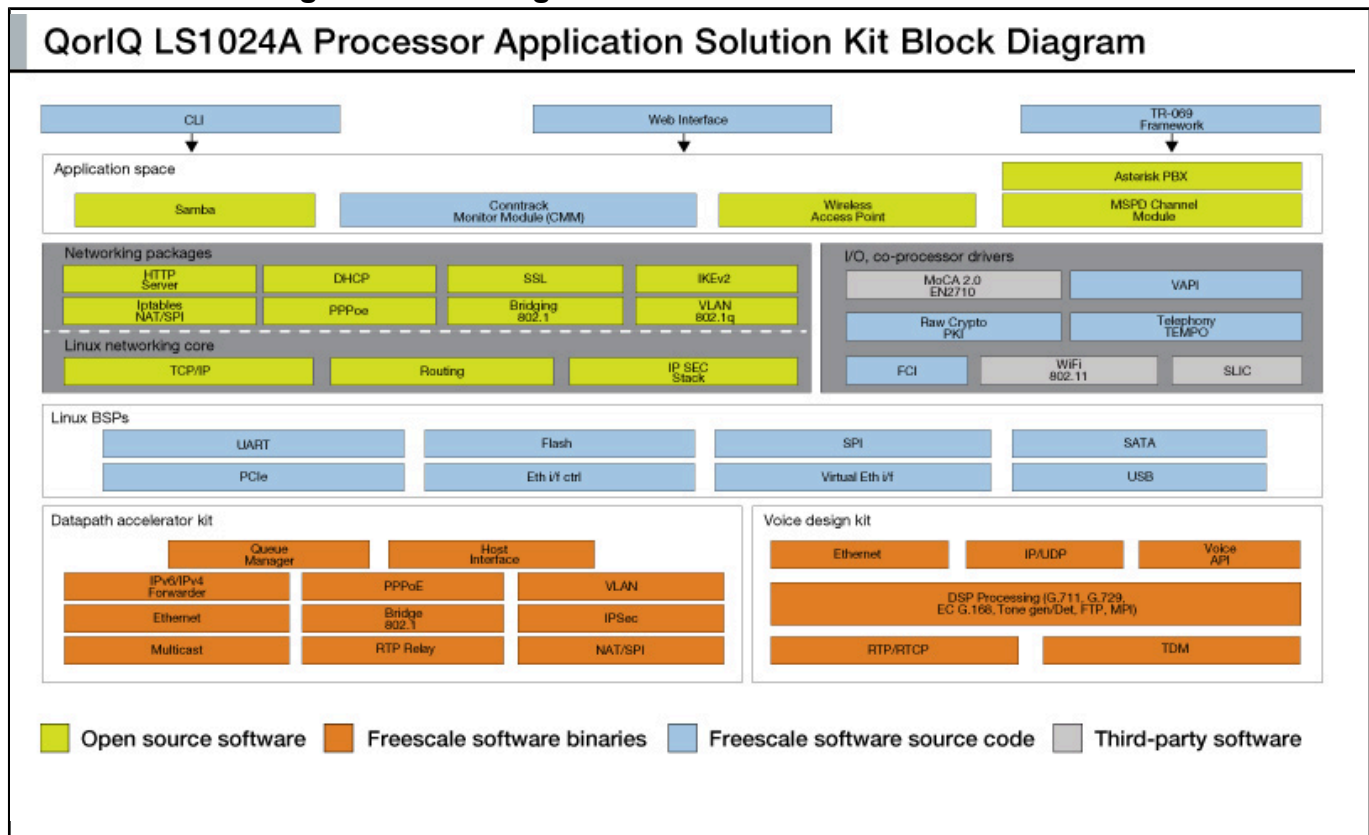
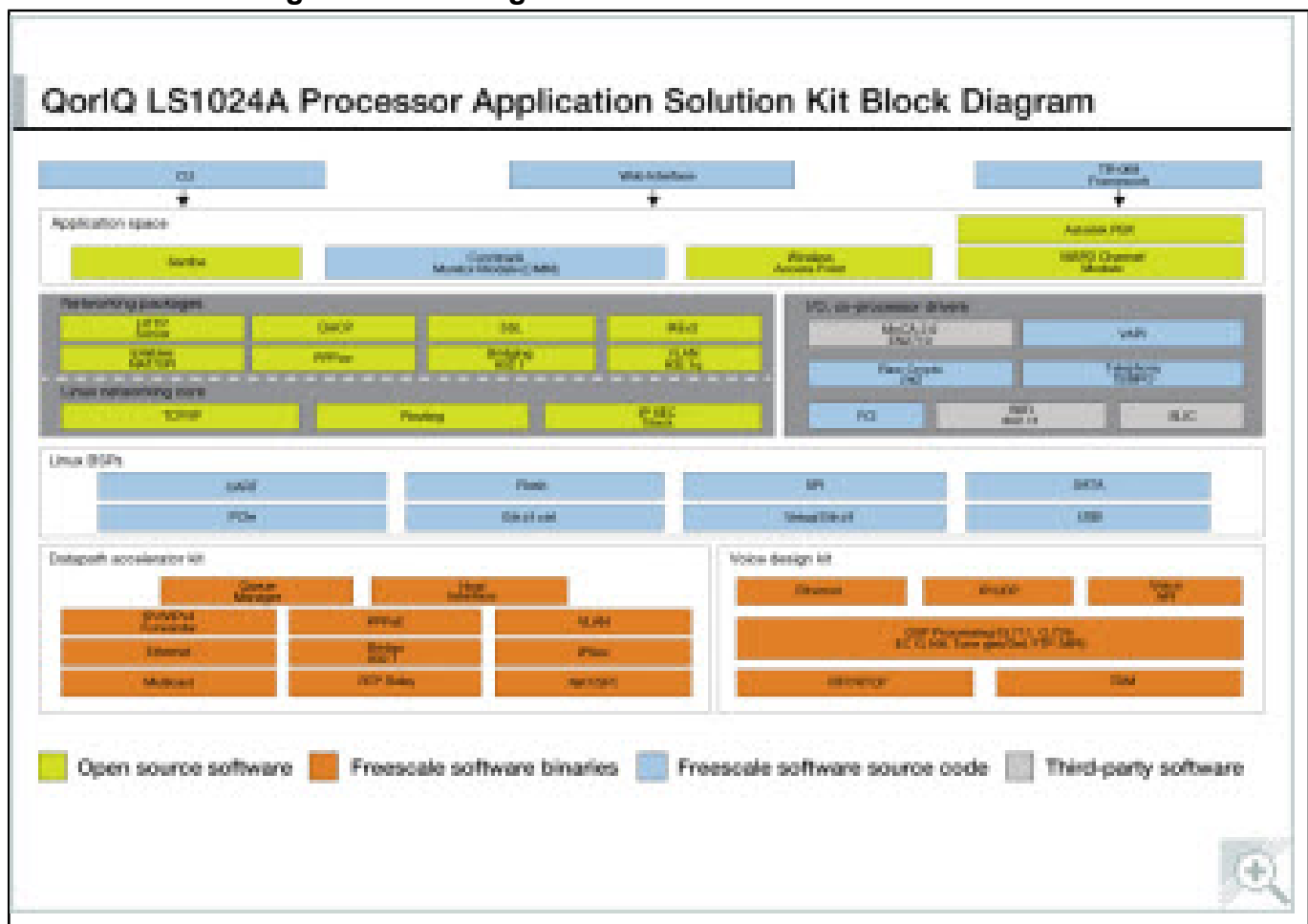## QORIQ-LS1024A-ASK

Last Updated: Apr 25, 2025

NXP® offers a comprehensive Linux® based OpenWRT application solution kit (ASK) to OEM/ODMs inclined to build multi-segment network products based on the LS1024A communications processors. The field-hardened and feature-rich OpenWRT software package will enable the OEM/ODMs to significantly shorten their software design cycle and achieve quicker time to market without compromising on quality or features.

Optimized third-party software solutions, such as OSGi, Java, Android and IMS/VoLTE etc., compliment the OpenWRT software package and offer a software ecosystem that is highly modular and scalable. OEM/ODMs can reap the benefits of such modular software and eliminate hardware redundancy by offering more services, thereby reducing system costs. The OpenWRT software, coupled with our LS1024A communications processors, offers a high-performance, energy-efficient and scalable platform that will help OEM/ODMs meet the demanding needs of next-generation consumer or enterprise networks reliably and efficiently.

LS1024A Block Diagram Block Diagram

QorIQ LS1024A Processor Application Solution Kit Block Diagram

CLI	Web Interface	TR-069 Framework

Application space

Samba	Conntrack Monitor Module (CMM)	Wireless Access Point	Asterisk PBX
			MSPD Channel Module

Networking packages

HTTP Server	DHCP	SSL	IKEv2
Iptables NAT/SPI	PPPoe	Bridging 802.1	VLAN 802.1q

I/O, co-processor drivers

MoCA 2.0 EN2710	VAPI
Raw Crypto PKI	Telephony TEMPO

Linux networking core

TCP/IP	Routing	IP SEC Stack

FCI	WiFi 802.11	SLIC

Linux BSPs

UART	Flash	SPI	SATA
PCIe	Eth i/f ctrl	Virtual Eth i/f	USB

Datapath accelerator kit

Queue Manager	Host Interface	
IPv6/IPv4 Forwarder	PPPoE	VLAN
Ethernet	Bridge 802.1	IPSec
Multicast	RTP Relay	NAT/SPI

Voice design kit

Ethernet	IP/UDP	Voice API
DSP Processing (G.711, G.729, EC G.168, Tone gen/Det, FTP, MPI)		
RTP/RTCP		TDM

Legend:
- Open source software
- Freescale software binaries
- Freescale software source code
- Third-party software

View additional information for Layerscape 1024A Applications Solutions Kit (ASK) for High-Performance Vertically-Oriented Networking Applications.

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

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