

# QorIQ™ P2020 UTM/Security Appliance Solution

## Networking security solutions

Freescale's UTM and security appliance solution exemplifies our solutions-centric approach by bringing together all three elements needed for the development of a complete UTM security appliance: processors, software and an ecosystem of hardware and software partners, providing our customers a complete solution to deliver differentiated products to market. This solution brings together our QorIQ processor family, our VortiQa software optimized for performance delivered with the help of our hardware ODM partners for optimized performance at the low power levels and remove cost-effective bill of materials (BOM).

The Freescale QorIQ P2020-based UTM appliance enables ODMs and customers to develop a production-ready, BOM optimized, certified, off-the-shelf UTM appliance solution. It allows our customers to leverage high-performance multicore QorIQ silicon and

VortiQa software optimized for multicore for UTM security appliances.

Freescale UTM appliance solution has been adopted by lead ODMs who offer commercial off-the-shelf appliances. Our hardware and ODM partner ecosystem is intended to deliver extended support to our customers in hardware engineering, turn-key manufacturing and fulfillment, and pre-built hardware manufacturing, among other services and products. Off-the-shelf UTM appliances from major ODMs are FCC, UL and CE certified and ready to ship, enabling customers to focus on differentiated value-added services and leveraging the performance offered by multicore processors. Our solution provides customers with access to low-power, high-performance multicore processors that deliver improved margins with minimal integration and development costs.

### Key Benefits:

#### Accelerate Time to Revenue

Demonstrate time to market with fully integrated security and networking functionality that allows you to simply develop with no impact to schedule. Accelerate time to revenue by reaching new markets faster.

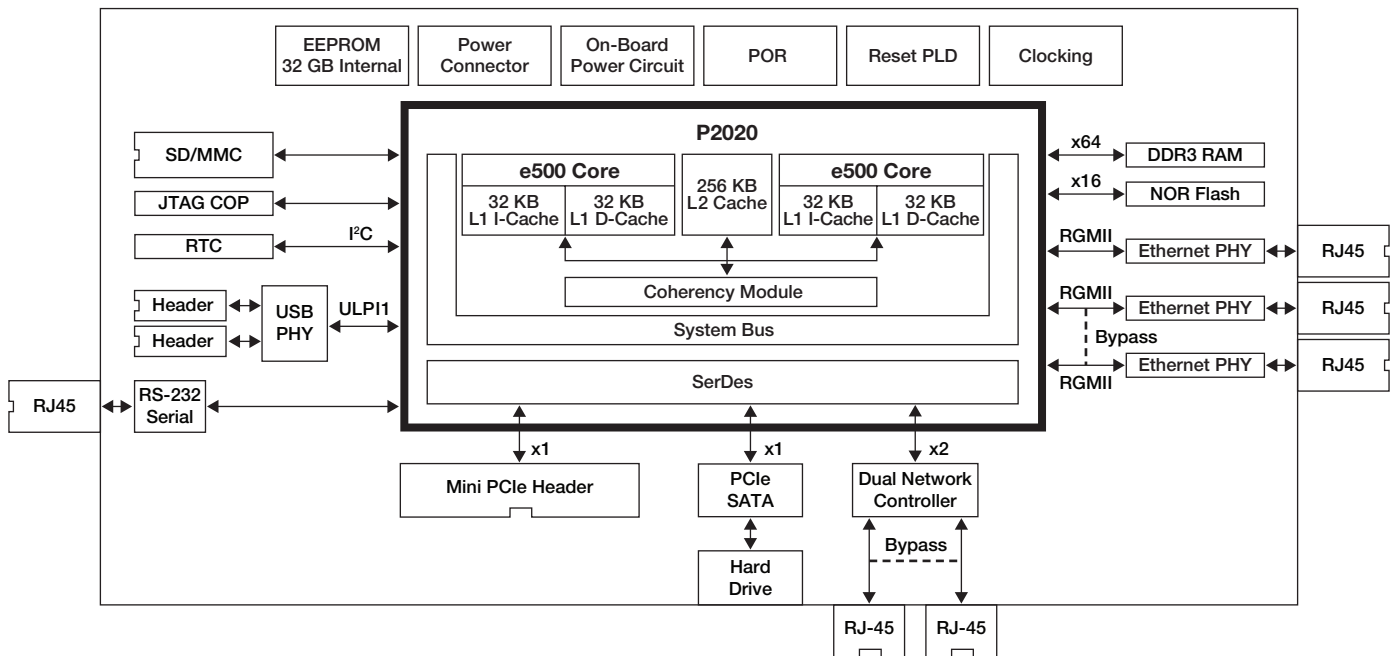
#### Bend the Cost-Performance Curve

Achieve multiple performance enhancements by leveraging our solutions-centric approach at similar price levels of current generation appliances. Tap into the expertise of Freescale's ecosystem partners to customize and optimize your solution.

#### Create an Extensive UTM Appliance Roadmap

Using our multicore QorIQ processors running VortiQa software, showcase scalable performance at industry leading performance to power ratios.

QorIQ™ P2020 UTM Security Appliance Block Diagram



## Target Applications

- Security appliances
- UTM appliances
- IPS/IDS appliances
- Content security appliances
- Secured routers
- VPN routers
- Secured switches
- Business gateways

## Features

- Freescale's high-performance QorIQ P2020 processor in 45 nm SOI technology
- VortiQa software for enterprise equipment optimized for multicore processors
- Integrated security engine: protocol support includes SNOW, ARC4, 3DES, AES, RSA/ECC, RNG, single-pass SSL/TLS, Kasumi
- Cost optimized bill of materials by hardware ODMs
- FCC, UL and CE certified—ready to ship
- Complete appliance portfolio from low to high end

## QorIQ™ P2020 UTM Security Appliance Specifications

<b>Processor</b>	QorIQ P2020 <ul style="list-style-type: none"><li>• 1 GHz/1.2 GHz e500 dual core</li><li>• 32 KB L1 instruction cache and 32 KB L1 data cache per core</li><li>• 512 KB L2 cache with ECC</li><li>• 36-bit physical addressing</li><li>• 4.9W typical power</li></ul>
<b>Memory</b>	<ul style="list-style-type: none"><li>• 2 GB to 4 GB (upgradeable) DDR3 64-bit SODIMM</li><li>• 32 MB on-board flash memory</li></ul>
<b>Ethernet</b>	Total of five Gigabit Ethernet ports <ul style="list-style-type: none"><li>• Two Gigabit Ethernet ports from PCI Express® dual Ethernet</li><li>• Three direct Gigabit Ethernet ports on board</li></ul>
<b>Ethernet Bypass</b>	Bypass between two Ethernet port pairs
<b>Storage</b>	<ul style="list-style-type: none"><li>• 160 GB SATA 2.5" HDD</li><li>• SD card reader on-board</li></ul>
<b>USB</b>	Two USB headers
<b>Mini PCI Express®</b>	One mini-PCI Express header
<b>Serial Port</b>	RJ45 connector (RJ45 to DB-9 connector included)
<b>Debug</b>	JTAG header
<b>LEDs</b>	Power, bypass, status, Ethernet link and activity
<b>RESET</b>	Reset Switch
<b>Power Supply</b>	100–240V 45W
<b>Enclosure</b>	Desktop and 1U form factors
<b>Operating Environment</b>	Temperature: 0° to 40°C Humidity: 10% to 90% RH
<b>Storage Environment</b>	Temperature: -20°C to +70°C (-4°F to 158°F) Humidity: 5% to 95% RH
<b>Regional Compliance</b>	US, Canada, Europe
<b>Certification</b>	FCC Class B/UL/CE
<b>Dimensions</b>	Desktop: 10.5 x 8.5 x 1.75 inches IU: 17.5 x 10.25 x 1.75 inches



**Learn More:** For more information about Freescale's UTM security appliance solutions, please visit [www.freescale.com/utm](http://www.freescale.com/utm).



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