



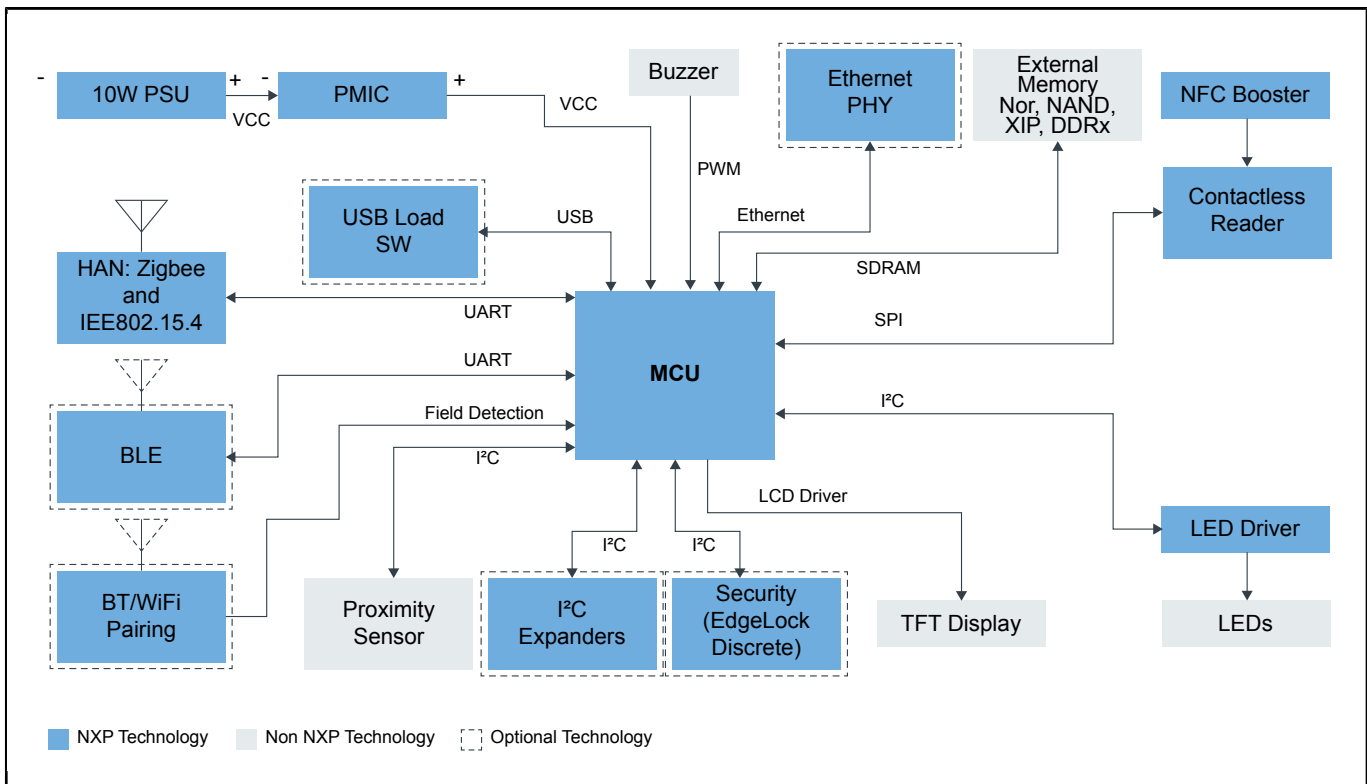
# エネルギー・ゲートウェイ

Last Updated: Dec 18, 2023

より優れたサービスと、よりスマートで合理化されたプロセスを実現するには、エネルギー・プロバイダは信頼性の高いリアルタイムのデータ・アクセスが必要です。NXP® 製品を使用すると、データ・コンセントレータや電力ゲートウェイは、さまざまなセンサやユーティリティ・メータからデータを収集し、中央のユーティリティ・サーバにアップロードして表示するために必要なインフラストラクチャを構築できます。エネルギー・ゲートウェイは、ユーティリティ・メータの日時データを中央ユーティリティ・サーバと同期させ、ユーザ認証および暗号化情報の安全なデータ転送を可能にする。

センサとの通信には、ZigBee、Sigfox、Bluetooth Low EnergyなどのRFテクノロジーが使用されます。

## Energy Gateway i.MX Block Diagram



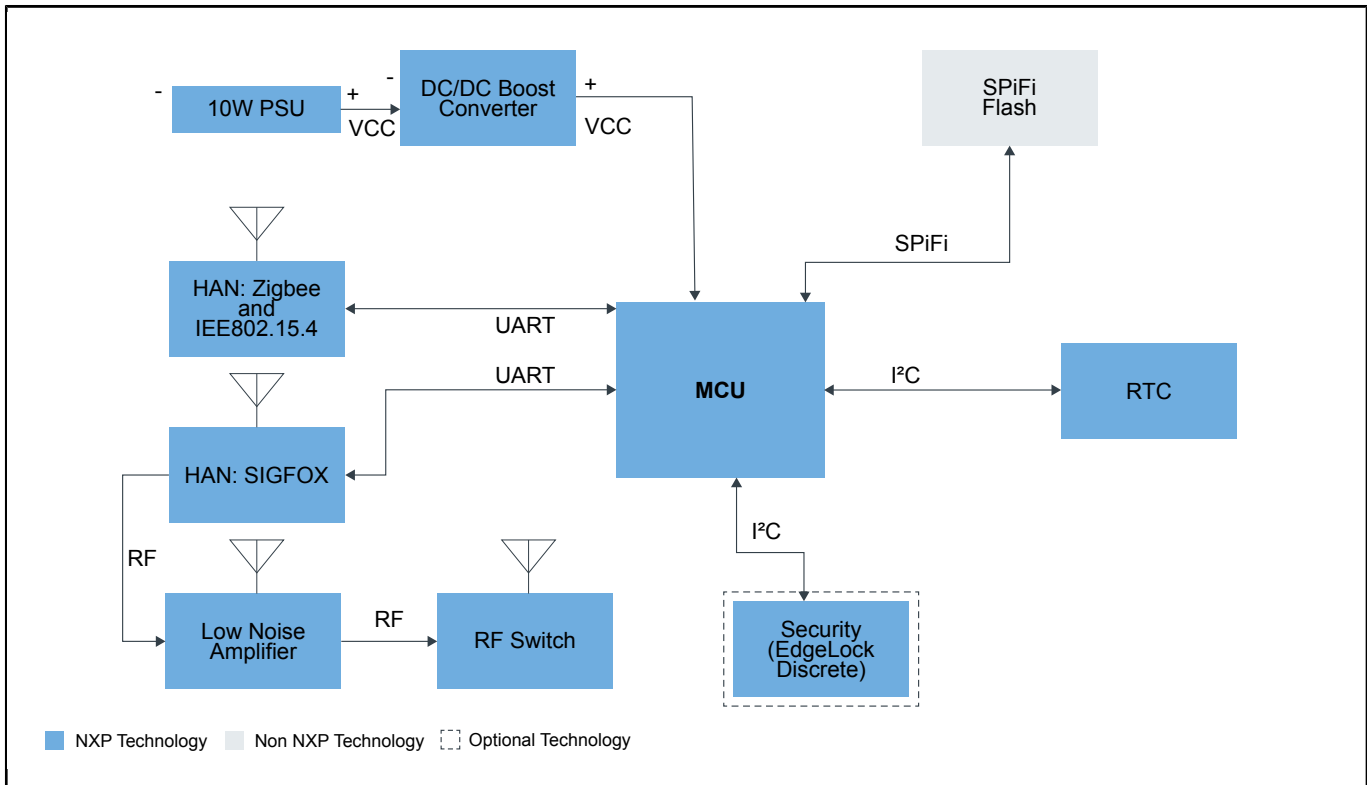
### Recommended Products for Energy Gateway i.MX

MCU

\* [i.MX6UL](#): i.MX 6UltraLite Processor - Low-Power, Secure, Arm® Cortex®-A7 Core

	<ul style="list-style-type: none"> <li>• <a href="#">i.MX6S</a>: i.MX 6Solo Processors – Single-Core, Multimedia, 3D Graphics, Arm® Cortex®-A9 Core</li> </ul>
Power Management	<ul style="list-style-type: none"> <li>• <a href="#">TEA1721DT</a>: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz</li> <li>• <a href="#">PF3001</a>: 10-Channel Configurable PMIC for i.MX6 and i.MX7 Application Processors</li> </ul>
Wireless	<ul style="list-style-type: none"> <li>• <a href="#">JN5169</a>: ZigBee and IEEE802.15.4 Wireless Microcontroller with 512 KB Flash, 32 KB RAM</li> <li>• <a href="#">NTAG213F_216F</a>: NTAG213F, NTAG216F: NFC Forum Type 2 Tag Compliant IC with 144/888 B User Memory and Field Detection</li> <li>• <a href="#">QN9080</a>: QN908x: Ultra-Low-Power Bluetooth Low Energy System on Chip Solution</li> <li>• <a href="#">IW416</a>: 2.4/5 GHzデュアルバンド1x1 Wi-Fi® 4 (802.11n) およびBluetooth® 5.2ソリューション</li> <li>• <a href="#">88W8977</a>: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution</li> </ul>
Drivers	<ul style="list-style-type: none"> <li>• <a href="#">NX5P3290UK</a>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <a href="#">PCA9550</a>: 2-Bit I²C-Bus LED Driver with Programmable Blink Rates</li> <li>• <a href="#">PCAL6408A</a>: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander</li> </ul>
NFC	<ul style="list-style-type: none"> <li>• <a href="#">PCA9410_9410A</a>: 3.0 MHz, 500 MA, DC-to-DC Boost Converter</li> <li>• <a href="#">PN5190</a>: 困難なRF環境にも対応する、決済および物理的アクセス制御向けNFCフロントエンド</li> </ul>
Drivers	<ul style="list-style-type: none"> <li>• <a href="#">NX5P3290UK</a>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <a href="#">PCAL9722</a>: Agile I/O機能搭載22ビットSPI I/Oエクспанダ</li> <li>• <a href="#">PCAL9714</a>: Agile I/O機能搭載14ビットSPI I/Oエクспанダ</li> <li>• <a href="#">PCA9550</a>: 2-Bit I²C-Bus LED Driver with Programmable Blink Rates</li> <li>• <a href="#">PCAL6408A</a>: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander</li> </ul>
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Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">TJA1101</a>: TJA1101B、IEEE 100BASE-T1準拠、車載用イーサネットPHYトランシーバ</li> </ul>
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock® SE050 : Plug &amp; Trustセキュア・エレメント・ファミリー - 柔軟性に優れた、IoT向けの高度なセキュリティ</li> </ul>

## Energy Gateway LPC Block Diagram

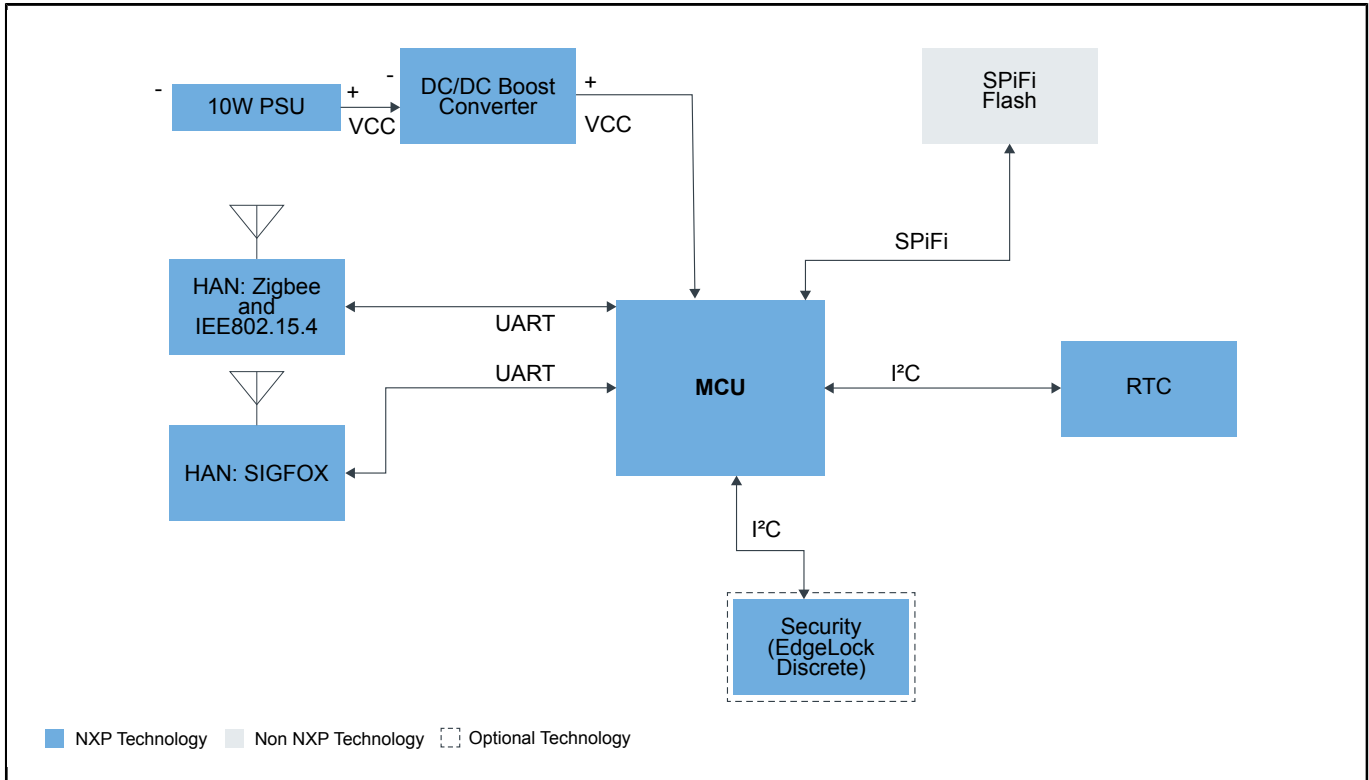


### Recommended Products for Energy Gateway LPC

MCU	<ul style="list-style-type: none"> <li>• <a href="#">LPC540XX</a>: Power-Efficient Microcontrollers (MCUs) with Advanced Peripherals Based on Arm® Cortex®-M4 Core</li> </ul>
Power Management	<ul style="list-style-type: none"> <li>• <a href="#">PCA9410_9410A</a>: 3.0 MHz, 500 MA, DC-to-DC Boost Converter</li> <li>• <a href="#">TEA1721DT</a>: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz</li> </ul>
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RTC	<ul style="list-style-type: none"> <li>• <a href="#">PCA2131</a>: Nano-Power Highly Accurate RTC with Integrated Quartz Crystal for Automotive Applications</li> </ul>

## Energy Gateway LPC Basic Block Diagram



### Recommended Products for Energy Gateway LPC Basic

MCU	<ul style="list-style-type: none"> <li>• <a href="#">LPC540XX</a>: Power-Efficient Microcontrollers (MCUs) with Advanced Peripherals Based on Arm® Cortex®-M4 Core</li> </ul>
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ENERGY-GATEWAY-BD3-BNDL2	<ul style="list-style-type: none"> <li>• <a href="#">PCA9410_9410A</a>: 3.0 MHz, 500 MA, DC-to-DC Boost Converter</li> <li>• <a href="#">TEA1721DT</a>: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz</li> </ul>
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**Note:** The information on this document is subject to change without notice.

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