Pixel Wireless Gateway 4G VoLTE Compatibility

🔲 Overview

This document outlines important information to ensure your device is 4G VoLTE ready before the shutdown of Australia's 3G network, in particular:

- Gateway Firmware Versions
- Steps to Confirm Firmware via SMS
- Firmware Upgrade Tools & Packs

It is recommended to update the firmware on all Wireless gateways depending on release version to incorporate the latest network provider changes offered by the Module Vendor through Telstra Certified firmware to ensure VoLTE interoperability between the device and network.

> ✅ Ensure your SIM has a VoLTE-capable communication plan before proceeding, confirm with your SIM provider.

> ℹ️ Read the 🔗 EM-4GE2 Fact Sheet before upgrading your EM-4GE2 Grey Box Gateway firmware.
>
> ⚠️ Firmware upgrade is applicable **ONLY** if your gateway is equipped with PTE-4G Cards. You can query your gateway via the following SMS commands to determine whether it is fitted with a PTE-3G or PTE-4G Card(s).
>
> ```
> Unlock to me 123
> ```
> ```
> Show your status
> ```

⭐ Gateway Firmware Versions

The following table provides compatible firmware releases across all models for Carrier VoLTE Support, Custom APN & Auto APN Support.

Firmware Versions	Carrier VoLTE Support			Custom APN (via SMS)	AutoAPN / Custom APN (via Webserver)
	Telstra	Vodafone	Optus		
EM-MG/FXS 1.0.2216.20 or earlier **ONLY** *Ensure your SIM supports APN telstra.internet*	✅	-	-	-	-
1.0.2236.xx or earlier	✅	✅	-	✅	-
1.0.2244.xx or greater	✅	✅	✅	✅	-
NEW 1.0.2434.xx or greater	✅	✅	✅	✅	✅

> NEW AutoAPN will automatically set the appropriate APN for the inserted SIM. To ensure your SIM is supported please scan the QR code for your gateway model, to access our Supported AutoAPN List by SIM Operator.

📲 Steps to Confirm Firmware via SMS

Use the following SMS commands to compile a list of devices requiring firmware updates across your Gateway Portfolio.

> 📝 ALL SMS commands in this guide are case-sensitive. Gateway will acknowledge your commands with an SMS response.

	SMS Command	Description
1	`Unlock to me <PIN>` **E.g** `Unlock to me 123`	Unlock the Gateway to Enable SMS Programming & Verification. Factory Default PIN: 123
2	`Show your firmware version`	Determine gateway firmware version

> 🪴 For gateways requiring a firmware update, please update your firmware to the latest version that supports AutoAPN. These releases do not require the additional steps to set a Custom APN if your SIM is listed on our AutoAPN by SIM Operator list.

⚠️ **IMPORTANT NOTICE**

> ⚠️ For earlier firmware versions that **DO NOT** support **AutoAPN** a 'Custom APN via SMS' must be set. This is mandatory for **ALL** network providers. Please note SMS updates post-3G shutdown will not be possible if they can't make a connection. Please see **Setting APN via SMS for 4G VoLTE Compatibility**

💻 Firmware Upgrade Tools & Packs

Model	Tools	Download Link
EM-MG/FXS	Pixel On-the-Go Programming Tool (No Laptop required)	For programmer enquiries contact service@pixeltechnologies.com.au
EM-4GE2 (Grey Box)	Laptop with Ethernet Port, Pixel Bootloader Software & Firmware DCF File	EM-4GE2 Firmware Download Pack
EM-4GE1/1L **EM-4GE2/1L** **EM-4GE2/4L**	Laptop with Ethernet Port, Pixel Bootloader Software & Firmware DCF File	Please see via product QR Code

> Due to the Global Chip Shortage Pixel were required to manufacture a small number of gateways, for models EM-4GE2/**x**L without pre-loaded Ethernet Interfaces. For these units an Ethernet PCI slot was designed in to accommodate a CB-ETH-PCI adapter module. For adapter enquires please contact service@pixeltechnologies.com.au

🔋 Battery Replacements

Pixel recommends replacing batteries on your gateway once every 3 years from its installation date.

Please contact sales@pixeltechnologies.com.au with your gateway model for a battery replacement quotation.