 Cambium Networks Cambium Networks, Inc. 3800 Golf Road Schaumburg, IL 60008, U.S.A.	Document Number	FSB 9079
	Revision	000v002
FIELD SERVICE BULLETIN GPS Synchronization	Application	Global
	Effective Date	02 January 2020
	Expiry Date	N/A

FIELD SERVICE BULLETIN

BULLETIN TYPE		SEVERITY RECOMMENDATION	
	Warranty Service		High – Perform immediately
X	Informational	X	Medium – Perform at next scheduled maintenance
	Customer Specific		Low – Perform when system exhibits symptoms


SUBJECT: Lost GPS Synchronization

MODEL / SYSTEM AFFECTED: uGPS receiver running firmware version AXN_5.1.1
cnPulse receiver running firmware version AXN_5.1.1
ePMP1000/2000/3000 Access Points with integrated GPS running firmware AXN_5.1.1

REASON FOR Bulletin:

This bulletin addresses a GPS synchronization issue that started around 13:00 CST on 12/31/2019.
This Field Service Bulletin address the recovery procedures and root cause of the issue.

Symptom	<p>Customers are reporting a loss of GPS Sync when:</p> <ol style="list-style-type: none"> 1. Using a uGPS receiver connected to a CMM5 Injector via the UGPS port. 2. Using a uGPS receiver directly attached to an Access Point's AUX port. 3. When using the internal GPS on a PMP450 or ePMP Access Points. <p>The loss of sync is causing radios with "AutoSync + Free Run" Enabled and "Free Run Before GPS Sync" Disabled to stop transmitting following a reboot. Radios configured for "AutoSync" only will cease to transmit immediately after sync is lost.</p> <p>Radios that have "AutoSync + Free Run" Enabled might experience interference from neighboring APs due to the loss of sync.</p>
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Current Status of Investigation	<p>The issue was caused by the GLONASS System Days Since Leap Year rollover that happens on every Leap Year at 00:00 Moscow Time. The GPS Chipset did not handle this rollover properly in firmware AXN_5.1.1 and it affects both UGPS and cnPulse devices with a GPS chip running this firmware. By now, it may have self-recovered, but if anything is lingering, a power cycle of the GPS device is required. This can be done via the AP if it is powered by the AP otherwise it will have to be done manually.</p>
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Recommendation/Resolution	<p>The current fix for a uGPS receiver connected to a CMM5 injector via the UGPS port is to either power cycle the CMM5 injector or unplug the uGPS receiver from the UGPS port and plug it back in again.</p> <p>For Access Points that have directly attached or internal GPS receivers, power cycling the Access Point will reset the internal GPS receiver.</p> <p>For units that have uGPS receivers powered via an external POE or PSU then the uGPS will need to be power cycled by removing power to the POE/PSU.</p>
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