

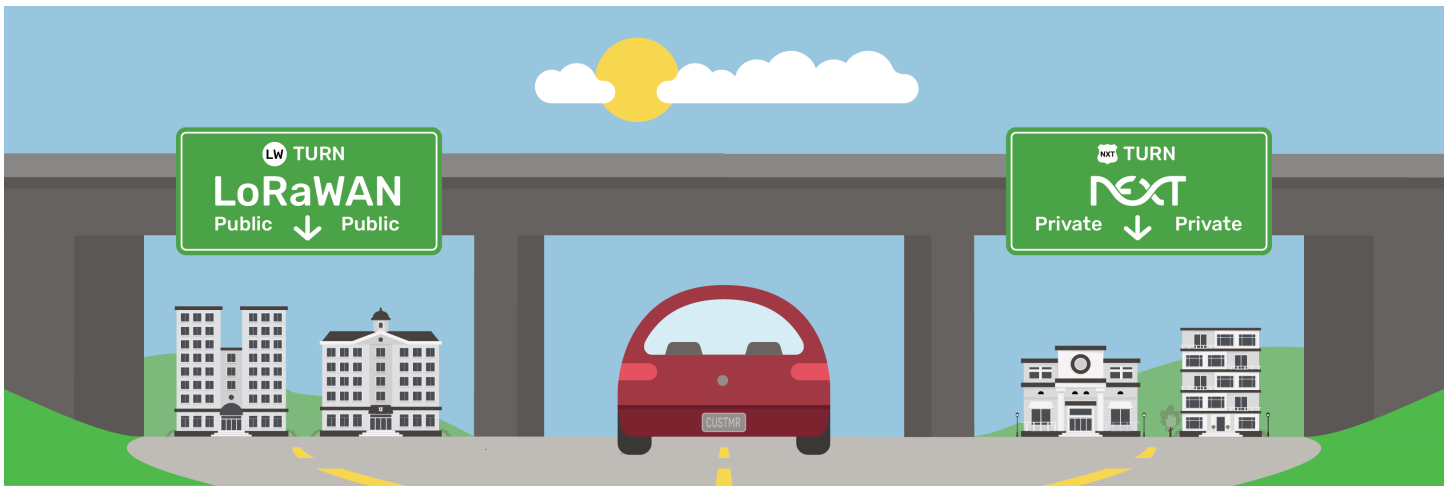


LoRa & LoRaWAN

The Real Story
Behind the Technology

www.nextmeters.com

The Real Story Behind LoRa & LoRaWAN



Clearing Up the Confusion

Over the past few years, LoRa and LoRaWAN have become buzzwords in the utility metering space. Salespeople promise powerful plug-and-play wireless systems. Billing companies and property managers are being told that LoRa is the better option.

But the reality is more complicated.

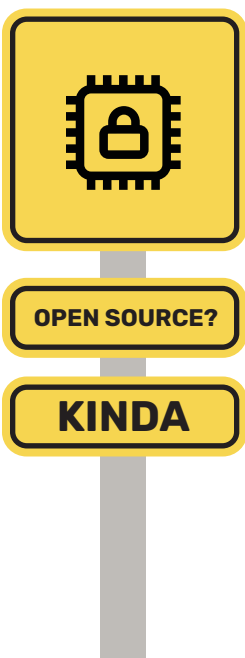
Let's separate fact from fiction. We're not here to knock the technology. LoRa has some useful strengths. But in the North American submetering market, it's being oversold and often misunderstood. Before you make a major infrastructure investment, we believe you deserve the full story.



Key Takeaways:

- ✓ LoRa and LoRaWAN offer some useful benefits, but many of the claims made in the North American market are misunderstood or misrepresented.
- ✓ LoRa is not truly open source. In fact, the core chip technology is proprietary and controlled by one company.
- ✓ Long-range claims come with tradeoffs, such as poor data speeds and security flaws.
- ✓ Many LoRa properties require multiple gateways because they can't yet support repeaters.
- ✓ Next Meters builds a fully integrated and backwards-compatible system designed specifically for North American properties.

Section 1: Is LoRa Really Open Source?



LoRa and LoRaWAN are open source? That's partially true. While some layers of the LoRaWAN protocol are open, the physical layer, the part that makes LoRa communication possible, is not. The chirp spread spectrum used in LoRa is owned and patented by a company called Semtech. That means every LoRa chip in the world is made using Semtech's proprietary technology.

So while it may feel like an open platform, you're locked into buying chips from a single vendor. Some companies claim a downside of Next Meters is its "proprietary" software but the truth is every LoRa-based system is built on proprietary technology too.

The difference? Next Meters designs and controls its entire system whereas sellers of LoRa technology rely on a third-party business for all innovation and reliability. Next Meters continues to demonstrate a commitment to compatibility, security, and support across every product we've ever made.



Protocol = **Open Source**



System = **Mixed Bag**



Microchips = **Closed**

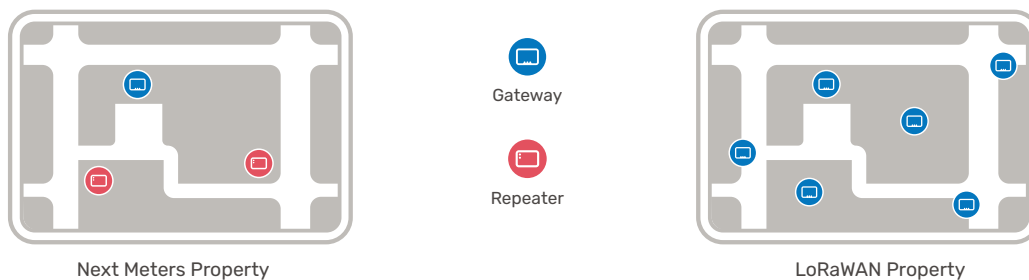
Section 2: The Truth About Range

Yes, LoRa can go long distances. But to get those extreme ranges, the data rate drops dramatically. That means the LoRa system can't support things like over-the-air updates. Why does that matter? The ability to update your devices remotely is a core part of keeping your systems secure and future compatible.



If a security vulnerability is discovered, systems running on low-speed LoRa connections won't be able to patch the problem. Instead, someone would have to physically go to every device and update it in person. That creates a real risk for large properties and unnecessary added expenses.

At Next Meters, every system is built to support firmware updates over the air, so your network stays secure and up to date without the hassle or added costs.



Section 3: The Misunderstood Repeater Claim



Some sales people may tell you, "You don't need repeaters with LoRa." What they might not tell you is the reason: LoRa systems can't yet support repeaters. LoRaWAN standard doesn't allow for traditional repeaters. When distances between transceivers and gateways are too far or obstacles are in the way, the only option is to add more gateways, which are far more expensive than repeaters.

LoRa has announced what they call "relays" to fill this gap. These are similar in concept to repeaters, but with one major limitation: they only allow a single relay hop between a device and a gateway. You cannot chain multiple relays together to extend range across large or complex properties.

This limitation leads to high infrastructure costs and difficult installations.

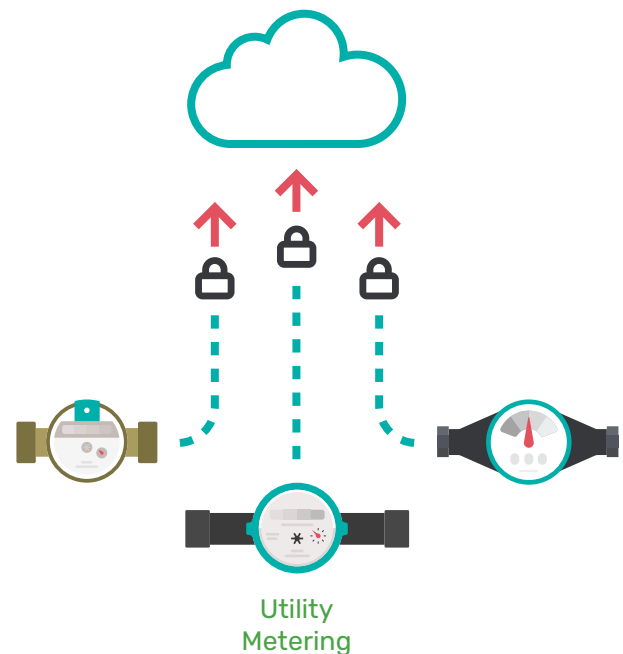
Next Meters does it differently. Our system supports multi-hop repeaters, meaning signals can be passed through several repeaters before reaching a gateway. This lets you cover more area using far fewer gateways and gives you flexibility that LoRa simply can't match. Plus, repeaters are more cost-effective than gateways, giving Next Meters customers significant savings.

Section 4: Locked Devices and Hidden Limits

Another thing to understand is how many LoRaWAN-based systems lock down your data. End devices are supposed to be able to talk with any LoRaWAN gateway nearby. But in practice, they're often configured to only send data to a single, vendor-owned server.

That means even though your device may technically be using a shared radio protocol, the actual control and communication are closed off. And because the chip is owned by Semtech, vendors using LoRaWAN don't have control over updates or long-term compatibility.

Next Meters, on the other hand, owns and manages both the software and the hardware. This allows us to give you a truly integrated system with complete transparency.



LoRaWAN Use Cases:



Section 5: Backwards Compatibility

LoRa is sometimes pitched as the "you'll never need to upgrade again" solution. But because most LoRaWAN meter vendors rely on chips and standards they don't control, these vendors can't promise long-term compatibility. If Semtech changes how the chip works, those systems become obsolete.

At Next Meters, we take a different approach. We're the only company that offers 100% backwards compatibility. Every product we've ever made works with every version of our platform. We're now on the third version of our protocol, and it still supports our earliest devices. Next Meters doesn't abandon legacy products, and we don't leave customers behind.

That's something no LoRa-based vendor can guarantee.

Always Backwards Compatible



What This Means for You

If you're a property manager or a billing company, all of this boils down to one question: What kind of system do you want to build your business on?

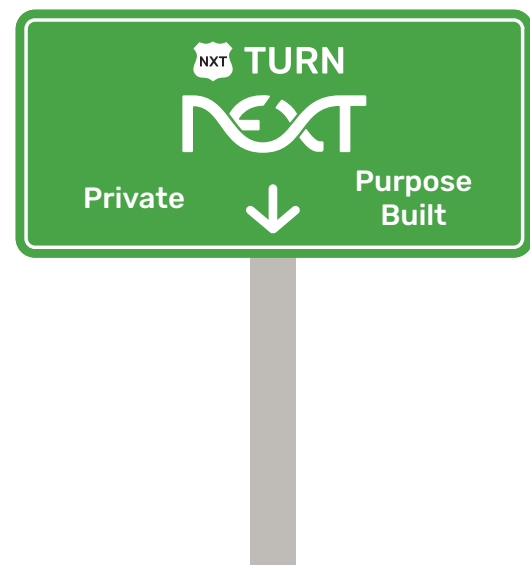
Here's a quick comparison:

| Feature | LoRaWAN Systems | Next Meters |
|--------------------------------|--|--|
| True open-source | ✗ Core chip is proprietary | ✗ We're transparent |
| Over-the-air updates | ✗ Can't support them at long distances | ✓ Standard in every product |
| Repeater support | ✗ One-hop limit with new relays | ✓ Multi-hop repeaters |
| Backwards compatibility | ✗ Depends on third-party chip vendor | ✓ Guaranteed across all product versions |
| Long-term support | ? Depends on Semtech | ✓ Fully managed in-house |

The Next Meters Difference

We don't chase hype. We build systems that work. Our goal is to give you reliable performance through high-quality systems that require less hardware to get the job done.





- ✓ Our systems are designed specifically for the North American market.
- ✓ Our repeaters reduce the number of gateways needed, saving money and simplifying installation.
- ✓ Our products are fully compliant, easily updated, and built to last.
- ✓ Our protocol is fully backwards compatible, no matter what version you're running.

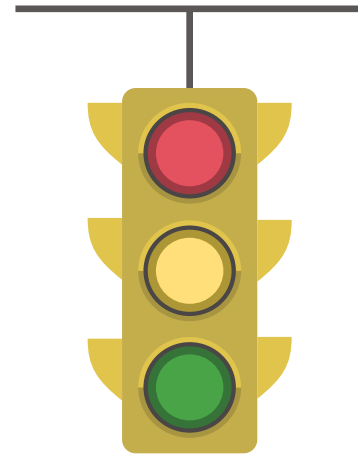


Final Thoughts

LoRa and LoRaWAN are not bad technologies. But they're not the magic solution they're sometimes made out to be, especially not for North American submetering projects.

Before you buy, take a step back and ask the right questions:

-  Who controls the system?
-  Can it be updated?
-  How much hardware do I really need?
-  What happens five years from now?



At Next Meters, we focus on real-world performance and long-term stability. Our systems are thoughtfully built for the environments you actually manage, so you can count on them to work when it matters most.

Reach out if you're interested in learning more.

www.nextmeters.com | sales@nextmeters.com | (877) 963-8377