*Everynet Recognized as the*

# 2021

## Entrepreneurial Company of the Year

North American
Low-Power Wide-Area Network Industry
*Excellence in Best Practices*

FROST & SULLIVAN

## Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Everynet excels in many of the criteria in the North American Low-Power Wide-Area Network space.

## AWARD CRITERIA

| Entrepreneurial Innovation | Customer Impact |
|---|---|
| Market Disruption | Price/Performance Value |
| Competitive Differentiation | Customer Purchase Experience |
| Market Gaps | Customer Ownership Experience |
| Leadership Focus | Customer Service Experience |
| Passionate Persistence | Brand Equity |

### *Market Disruption*

Frost & Sullivan forecasts that the Internet of Things (IoT) market will grow at a CAGR of 16.4% from 2020 and 2026 in terms of devices globally, growing from 26.46 billion in 2020 to 65.96 billion in 2026. By then IoT devices in service will represent roughly 8 connected IoT devices per human being. This growth comes after a significant impact of COVID-19 in 2020 and early 2021, and recovery will vary by industry and application. The choice for connecting things compels the analysis of a wide range of technologies and the selection of the most appropriate network for use cases. Whilst 5G is expected to be the choice for mission-critical applications, Low-Power Wide-Area Network (LPWAN) will gain terrain as a promising technology for massive IoT, due to its suitability for connecting devices with low power consumption, coverage of a wide area with fewer antennas, and cost efficiency in both hardware and connectivity services, turning many of the use cases viable, with positive return on investment (ROI). LPWAN has emerged as an efficient alternative for the IoT explosion.

LPWAN technologies differ from a variety of traits and they are not all suitable to meet the requirements for all IoT verticals and enterprise customers. There are two categories under which LPWAN protocols are grouped: while unlicensed LPWAN technologies operate in shared spectrum bands, LPWAN cellular technologies operate in licensed and dedicated spectrum[1]. Within unlicensed LPWAN technologies,

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[1] Frost and Sullivan, "Latin American LPWAN Industry, Forecast to 2023", February, 2019.

LoRaWAN®[2] has emerged as a leading option due to its large ecosystem and unique technical features, which include end-to-end security with two layers of cryptography, bi-directional communication, adaptive data rate configuration, among others. This technology, operates using open standards, in other words, although the communication protocol is standard to guarantee interoperability among devices, LoRaWAN® allows flexibility on commercial models to guarantee an extensive vendor community supporting applications.

Although COVID-19 gave rise to a turmoil in the global IoT market during 2020, at the same time, it gave a further boost to digital transformation in many of the verticals. According to a Frost & Sullivan survey with 3,284 IT Decision makers in the end of 2020, improving customer experience and satisfaction and improving operational efficiencies are the top 2 business goals after dealing with COVID-19 challenges, and IoT can help achieve results associated with these 2 goals directly. Consequently, LPWAN operators should approach enterprise customers to educate on the benefits and possibilities that the technology bring, such as scalability, reliability, and easy to deploy connectivity at an affordable price.

According to the same Frost & Sullivan survey, 55% of companies have deployed at least 1 IoT solution, and has a high level of priority in the enterprise spending planned for 2021 and 2022 for 41% of companies, being at top 2 in terms of priority among all technologies. Everynet, a LoRaWAN® operator, aware of this demand, is launching a national LoRaWAN® network across the United States in partnership with Crown Castle, the largest tower company in the US with more than 40,000 cell towers under management, in a 15-year contract. Everynet is inducing market disruption in the sense that it is leveraging an existing cell tower infrastructure that covers all relevant markets in the US with just an incremental cost to install antennas, rent the infrastructure and operate, and also in the sense that Everynet is implementing a neutral-host network using the most popular LPWAN technology globally, allowing for rapid growth through resellers and distributors such as mobile network operators (MNOs), mobile virtual network operators (MVNOs), application service providers (ASPs), managed service providers (MSPs) and internet service providers (ISPs) that partner with Everynet to form the ecosystem around LoRaWAN®. As partners don't have to incur in capital expenditures (CAPEX) in the network, there is an interesting incentive to partner with Everynet to complement the IoT offering in the case of MNOs and MVNOs, to add IoT to the connectivity portfolio in the case of ISPs, or to be a niche player in other cases.

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>
> *- Cecilia Perez, Analyst*

The US launch of Everynet includes rolling out the IoT network across 36 metropolitan areas and 100 logistics corridors – airports, seaports and cargo – in the country and is planned to go live until the end of

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[2] LoRaWAN® is a mark used under license from the LoRa Alliance®.

2021. The project will ensure LoRaWAN® wholesale customers have access not only to the network, but also to solutions, platforms and certified devices that can be used to serve different enterprise use cases.

**Everynet's first phase of the national network rollout is expected to go live until the end of 2021, covering 36 metropolitan areas**

For utilities, the availability of Everynet's network will serve the remote monitoring of devices and transmit data on water systems, substations, smart grid reclosers, transformers, liquefied petroleum gas (LPG) and residential and commercial metering.

On top of that, the network will be suitable for supply chain logistics by tracking and monitoring crucial assets, namely, pallets, containers and goods. Customers will be able to receive real-time data through the management of geo-location, cold-chain monitoring, humidity and shock, of the whole supply chain process including the movement, condition and arrival of assets. Another top use case for Everynet's network is smart infrastructure allowing the checking of air quality as well as the monitoring of buildings and infrastructure's status, like lighting, heating ventilation air conditioning (HVAC), water utilization and leak detection, and $CO_2$. Furthermore, the use of this network will be crucial for occupancy sensors and worker safety ensuring a safe return to work after the pandemic.

## Competitive Differentiation

Founded in 2014, Everynet is co-author of the LoRaWAN® specification and a founding member of the LoRa Alliance. The company builds ultra-low-cost, national LPWAN networks based on LoRaWAN® technology, enabling massive IoT all over the world. In simple words, the company offers national LoRaWAN® networks as a service at a low cost, with low risk, and quickest time to revenue.

LoRaWAN® success lies in the construction of a solid ecosystem where participants join efforts to develop a cost-efficient alternative for many use cases. By supporting an open standard ecosystem, Everynet

excels from its competitors by enabling the access of the IoT development community, enterprises looking for advantages by using the network, as well as resellers and distributors fostering business opportunities using Everynet network capabilities.  Together with its technology and ecosystem, Everynet builds public networks in countries and help customers meet their needs.

Unlike its competitors, Everynet offers an unrivalled business model, enabling its partners to connect devices to its IoT network in wholesale contracts with specified service level agreements (SLAs) and doesn't require them to invest in network infrastructure. In other LPWAN technologies there's a partnership model, in which operators pay royalties to resell the proprietary technology stack to their clients while at the same time they have to deploy the network infrastructure. Everynet's neutral-host model allows its partners to focus on serving customers using a shared physical infrastructure.

The wholesale business model implemented by Everynet should help LoRaWAN® scale as it removes complexity for service providers to adopt the technology, and they can focus on solving customer pain points and needs with off-the-shelf turnkey solutions to drive mass adoption or custom-built solutions to solve complex requirements.

### Market Gaps

Everynet addresses important market gaps, as mobile network operators using 4G and 5G technologies are not able to support many of the IoT use cases with the necessary cost efficiency or don't have the expertise or ecosystem mature enough in order to do it. By way of illustration, in the utilities segment there is a strong dominance of unlicensed LPWAN technologies over cellular IoT technologies. Moreover, there is a strong gap in terms of an IoT technology that can complement solutions and provide good connectivity in hard to reach areas while minimizing consumption.

Everynet's offering is suitable for these purposes as it presents a very interesting value proposition to address market gaps, generating real-time data from low cost sensors deployed in the field, and feeding it to big data cloud analytics systems. With this valuable data, business can generate new revenue streams, reduce costs and ensure compliance. Furthermore, using LoRaWAN® technology makes it even a more attractive market as it is forecasted to reach 308 million connections by 2023.

Everynet's partners are able to leverage hundreds of certified devices and a variety of solutions already commercialized to develop an accurate go-to-market strategy. The available turnkey solutions for end-users are packaged to work seamlessly and have exclusive attention to customer's local preferences that are targeted for the most compelling use cases such as utilities.

Another segment where Everynet technology is focused on is logistics. The company assists customers with a reliable tracking network by assigning sensors to assets that are moved to different locations thus preventing thefts and discouraging improper handling. A part from asset tracking, the company provides solutions aimed at tracking fleets and cargos during their whole journey. With the monitoring of the moving goods, customers are able to verify their location and status, lower risks of thefts and damages and increase efficiency in the supply chain. Smart city is another use case, which the technology of Everynet is addressing. Moreover, Everynet sensors also allow for the monitoring of safety systems, air quality monitoring and noise monitoring, and personnel compliance.

## Leadership Focus

Everynet is one of the leading LPWAN operators worldwide. Everynet's strategy to grow in the most prominent markets consists of delivering cost effective national networks in regions with a considerable potential for LPWAN use cases. United States has proven to be the most appealing market, not only by its population of 332 million, as of September 2021, according to the US Census Bureau, but also due to the high enterprise adoption of emerging technologies such as IoT. In addition, the announcement of a $1.2 trillion infrastructure investment by the U.S. Government in July-2021 opens a new window of opportunity for exponential growth of IoT (and LPWAN technologies). The bill aims at updating infrastructure quality by funding projects such as high-speed internet for citizens who can't access or can't afford the service, the replacement of lead pipes and the provision of clean drinking water, improvement of public and private transportation modals (airports, railways, roads, ports), electric vehicles infrastructure, , and more. The milestone of Everynet in rolling out a LoRaWAN® national network in the US in time to serve as an alternative to provide IoT connectivity to support the projects involved in the infrastructure modernization is considerable. Everynet can be one of the leaders in IoT connections in the coming years in the US, as long as it keeps its focus on building the ecosystem to seize all the opportunities the US market presents.

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In fact, the service provider KORE already signed an agreement with Everynet to resell IoT connectivity in the US using Everynet's network being rolled out. Everynet and KORE had a successful experience in Brazil working together since 2018 in a similar model, so KORE should leverage this experience and also the platforms and integrations implemented to quickly start serving customers in the US.

## Price Performance

Apart from offering an innovative value proposition with a rewarding neutral-host model, Everynet is a network provider for ultra-low cost connectivity made simple. The competitive price for connections depends on the volume hired by the wholesale customer, in terms of connections and messages exchanged.  However, although connectivity pricing is still not publicly available for the US, the expectation is that it follows the global standards, where LoRaWAN® is competitive among unlicensed technologies, and much cheaper than cellular technologies for the enterprise end-users.

Thanks to its business model, operators share physical infrastructure and can opt for an OPEX model instead of a CAPEX intensive model that prevail on traditional operators. In addition, adopting LoRaWAN® with Everynet enables customers to reduce total cost of ownership. In particular, all sorts of telecommunications service providers have the opportunity to generate new revenues streams with LoRaWAN® by using Everynet's neutral shared network infrastructure.

A major concern in the market is that while computational efficiency has improved over the years, a cellular IoT connection is still expensive for certain use cases and it requires a lot of energy consumption. High throughput connectivity is expensive due to the costs of network build, high-speed tower to internet backhaul, tower rent and spectrum licensing costs. With LoRaWAN® technology, Everynet played an active

role in designing an open standard able to tackle these obstacles. Everynet's platform allows customers to manage connectivity and choose the data rate in order to control expenses and also the level of battery consumption. Furthermore, Everynet's platform enables customers to gain access to data and insights at costs that are unprecedentedly low within the industry.

Finally, Everynet seeks to connect billions of sensors and enable thousands of applications that were previously not gaining traction due to cost constraints, such as, smart metering, predictive maintenance, and asset tracking.

### *Customer Service Experience*

Another competitive differentiation is Everynet's distinctive network service compared to its peers. The company stands out from its competitors by providing a differentiated technology designed to enable a neutral-host business model.

The key technology component is a unique Cloud Radio Access Network (Cloud RAN) that guarantees an optimal network performance by advanced spectrum resource optimization and resource-aware device traffic orchestration. Cloud RAN functionality is separated from the core LoRaWAN® Network Server, giving rise to mixed ownership of physical and virtual infrastructure. Apart from being extremely stable and redundant, Cloud RAN also provides the critical operational support systems to manage a fleet of gateway assets within a network deployment. Lastly, Everynet Cloud RAN features a patent-pending device geolocation technology.

Another component of Everynet service is a fully LoRaWAN®-compatible network server, which includes advanced network optimization algorithms, advanced data routing and device management capabilities and extremely stable and automatically scalable cloud solution. Everynet LoRaWAN® network server implements several advanced Adaptive Data Rate (ADR) algorithms. The ADR represents a key element of the LoRaWAN® specification and is designed to increase the overall efficiency of the network. Everynet ADR implementation adds further optimizations for Quality of Service (QoS), a per device option to trade spectral efficiency for probability of message delivery, also giving priority to critical devices; downlink capacity planning, vital for proper device control and Firmware-Over-The-Air updates; and advanced blind ADR for mobile devices. While LoRaWAN® ADR loop is slow for mobile devices, blind ADR allows predictive ADR to maximize probability of message delivery.

Everynet's platform also includes an application enablement with an Application Programming Interface (API) optimized for LoRaWAN® that provides extensive debugging and troubleshooting capabilities such as, deep device protocol stack introspection, and coverage monitoring. Everynet networks are supported and monitored by a fully staffed 24x365 Network Operation Centre.

In addition to having access to the platform, customers are offered network service through high-reliability LoRaWAN® gateways that have multiple redundancy blocks to maximize availability and be applied to harsh environments.

To sum up, the RAN server helps manage a fleet of gateway assets within a network deployment. In addition, the map interface helps managers to visualize coverage status and to highlight real-time issues. Furthermore, configuration tools are provided to manage the routing payload traffic between the

networks and subscribing LoRaWAN® Network Servers, with the possibility of segregating coverage zones. Beyond that, extensive monitoring data is routed from each gateway to the Network Operations Centers with summary reports presented through a single pane of glass interface.

## Conclusion

Everynet has entered the U.S. market with a proven and solid neutral-host business model and with a best-in-class platform architecture.  The partnership with Crown Castle, largest cell tower company in the US, allows for rapid time-to-market and roll out of the live LoRaWAN® network in the carefully selected 36 metropolitan areas and 100 logistics corridors. This allows Everynet to capture the opportunities while the LPWAN market is still in nascent stage. Its leadership focus on building a solid ecosystem and its deep understanding on how to position in the most attractive locations and use cases, with a hard to beat value proposition, should drive the company success in its entrepreneurial venture in the US.

With its strong overall performance, Everynet earns Frost & Sullivan's 2021 North American Entrepreneurial Company of the Year Award in the Low-Power Wide-Area Network industry.

# What You Need to Know about the Entrepreneurial Company of the Year Recognition

Frost & Sullivan's Entrepreneurial Company of the Year Award recognizes the best up-and-coming, potentially disruptive market participant.

## Best Practices Award Analysis

For the Entrepreneurial Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

### Entrepreneurial Innovation

**Market Disruption**: Innovative new solutions have a genuine potential to disrupt the market, render current solutions obsolete, and shake up competition

**Competitive Differentiation**: Strong competitive market differentiators created through a deep understanding of current and emerging competition

**Market Gaps**: Solution satisfies the needs and opportunities that exist between customers' desired outcomes and their current market solutions

**Leadership Focus**: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Passionate Persistence**: Tenacity enables the pursuit and achievement of seemingly insurmountable industry obstacles

### Customer Impact

**Price/Performance Value**: Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience**: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience**: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience**: Customer service is accessible, fast, stress-free, and high quality

**Brand Equity**: Customers perceive the brand positively and exhibit high brand loyalty

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- **ROI & Margin:** *Implementation Excellence*
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## The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

### Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)