



# Connectivity Selection Matrix

## EV Charging

In today's rapidly evolving digital landscape, choosing the right connectivity solution is critical to the success of any EV charging project. With a myriad of connectivity options available, the decision-making process can often feel daunting. To help business and technical leaders make informed technology choices, we partnered with industry analyst Leif-Olof Wallin to create the Connectivity Selection Matrix. This framework evaluates nine of the most promising cellular and non-cellular connectivity technologies against five key selection criteria, providing a clear comparison to align each option with specific project requirements.

	USE CASE REQUIREMENTS	NB-IoT	LTE-M	LTE Cat-1 bis	LTE Cat-1	LTE Cat 4+	5G RedCap	5G NR	NB-IoT/NTN	LoRaWAN®
Geographic location?	Single country, populated areas	●	●	●	●	●	●	●	●	●
	Global coverage, populated areas			●	●	●			●	
	Covering non-populated areas								●	
Moving?	Moving up to car/train speeds		●	●	●	●	●	●		●
Indoor?	Indoor	●	●	●	●	●	●	●		●
	Deep indoor or underground	●	●							●
Data rate?	10s of Kbits/s	●	●	●	●	●	●	●	●	●
	100s of Kbits/s		●	●	●	●	●	●		
	up to 1Mbit/s			●	●	●	●	●		
	4Mbit/s or higher					●	●	●		
Typical latency?	< 2 seconds	●	●	●	●	●	●	●	●	●
	< 400 ms	●	●	●	●	●	●	●	●	
	< 40 ms		●	●	●	●	●	●		
Other connectivity services?	SMS required		●	●	●	●	●	●		
	Voice communication required			●	●	●	●	●		
Operate on battery?	Operate on battery up to 1 year	●	●				●			●
	Operate on battery up to 10 year	●	●							●
Deployment start date?	Before 2026	●	●	●	●	●	○	●	●	●
Deployment lifetime?	Until 2035	●	●	●	●	●	●	●	●	●
	Until 2045	●	●				●	●	●	●
Communication device cost?	\$	●	●							●
	\$\$			●	●	●	●		●	
	\$\$\$						●	●		

Broadband Global & economic Meets criteria With limitations



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