

Compare Cellular Bearer Services for IoT

Talk to one of our experts on **0330 056 3300** or [email](#) for advice on your IoT connectivity needs



	LoRa	NB-IoT <small>(LTE Cat-M2)</small>	LTE-M <small>(LTE Cat-M1)</small>	4G <small>(LTE-Cat 1-6)</small>	5G <small>(LTE-Cat16)</small>
Global Standards Based	✗	✓	✓	✓	✓
Major MNO Support	✗	✓	✓	✓	✓
Typical Connection Speed <small>(Download / Upload)</small>	Up to 0.05 Mbps	0.07 Mbps/0.03 Mbps	Up to 1 Mbps	10-100Mbps/5-50Mbps	600 Mbps/120 Mbps
Coverage <small>(Decibel (dB) gain GSM)</small>	+5dB GSM <small>(Good for high density use)</small>	+20dB GSM <small>(Wide area & good subterranean penetration)</small>	+11dB GSM <small>(Wide area & good subterranean penetration)</small>	-4dB GSM	-28dB GSM
Connection Frequency	Sometimes connected	Sometimes connected	Frequently Connected	Always Connected	Always Connected
Mobility	Seamless connectivity within managed network	Handover between cells not supported	Seamless connectivity between cells	Seamless connectivity between cells	Seamless connectivity between cells
Response Time	Medium	Slow ~1 sec	Medium ~100ms	Fast ~40ms	Immediate ~1ms
Total Cost of Ownership	Deployment Specific	Low <small>(low module costs and long device lifecycle)</small>	Low <small>(low module costs and long device lifecycle)</small>	Med/High	High
Power Efficiency	Very High <small>(up to 10 year battery life)</small>	Very High <small>(up to 10 year battery life)</small>	High <small>(up to 7 year battery life)</small>	Typically mains powered <small>(Up to 1 year battery life)</small>	Typically mains powered <small>(Up to 1 year battery life)</small>
Power Saving Mode (PSM)	✓	✓	✓	✗	✗
Extended Sleep Cycle (eDRX)	✗	✓	✓	✗	✗
International Roaming	n/a	✓ <small>May be restricted by some networks</small>	✓ <small>May be restricted by some networks</small>	✓ <small>May be restricted by some networks</small>	✓ <small>May be restricted by some networks</small>
SMS	✗	✗	✓	✓	✓
Two-way Voice	✗	✗	✓	✓	✓