The LPWA (Low Power Wide Area) Networks Ecosystem: 2017 - 2030 - Opportunities, Challenges, Strategies, Industry Verticals & Forecasts

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Description:

Until recently, most M2M and IoT services have largely relied on licensed cellular, wireline and satellite networks for their wide area connectivity requirements. Cellular networks, in particular, have enjoyed significant success in the arena. However, for many low bandwidth IoT applications, traditional cellular networks are deemed too expensive due excessive power consumption and complex protocols that lower battery life. As a result, a number of LPWA (Low Power Wide Area) alternatives have emerged that specifically seek to address these concerns.

LPWA networks are optimized to provide wide area coverage with minimal power consumption. Typically reliant on unlicensed frequencies, LPWA devices have low data rates, long battery lives and can operate unattended for long periods of time.

Already prevalent in IoT applications such as smart metering, lighting control and parking management, LPWA networks are expected to make a significant contribution to the M2M and IoT ecosystem, with an estimated $27 Billion in service revenue by 2020.

The report comes with an associated Excel datasheet suite covering quantitative data from all numeric forecasts presented in the report. Topics Covered

The report covers the following topics:
- LPWA networks ecosystem
- Market drivers and barriers
- LPWA technologies, spectrum bands and key trends
- Assessment of competing cellular, satellite, wireline and short range networking technologies
- Vertical market applications, opportunities and deployment case studies
- Regulatory landscape and standardization
- Industry roadmap and value chain
- Profiles and strategies of over 100 leading ecosystem players
- Strategic recommendations for ecosystem players
- Market analysis and forecasts from 2017 till 2030

Forecast Segmentation
Connection and service revenue forecasts are provided for the following submarkets:

Technology Submarkets
- Proprietary LPWA Technologies
- NB-IoT (Narrowband Internet of Things)
- LTE Cat-M1 (eMTC/LTE-M)
- EC-GSM-IoT (Enhanced Coverage GSM for the Internet of Things)

Vertical Markets
- Agriculture
- Asset Management & Logistics
- Automotive & Transportation
- Consumer Applications & Home Automation
- Energy & Utilities
- Healthcare
- Intelligent Buildings & Infrastructure
- Public Safety, Security & Surveillance
- Retail & Vending
- Others

Regional Markets
- Asia Pacific
- Eastern Europe
- Middle East & Africa
Key Questions Answered
The report provides answers to the following key questions:
- How big is the LPWA networks opportunity?
- What trends, challenges and barriers are influencing its growth?
- How is the ecosystem evolving by segment and region?
- What will the market size be in 2020 and at what rate will it grow?
- Which regions and submarkets will see the highest percentage of growth?
- How are smart city initiatives driving LPWA network investments?
- What are the key performance characteristics of LPWA technologies such as Sigfox, LoRa, NB-IoT, LTE Cat-M1 and EC-GSM-IoT?
- How does regulation impact the adoption of LPWA networks?
- Do cellular LPWA networks pose a threat to proprietary LPWA technologies?
- Who are the key market players and what are their strategies?
- What strategies should LPWA technology providers, mobile operators, MVNOs, aggregators, IoT platform providers and other ecosystem players adopt to remain competitive?

Key Findings
The report has the following key findings:
- Already prevalent in IoT applications such as smart metering, lighting control and parking management, LPWA networks are expected to make a significant contribution to the M2M and IoT ecosystem, with an estimated $23 Billion in service revenue by 2020.
- At present, a majority of LPWA networks are based on proprietary technologies and operate in license-exempt spectrum primarily in sub-GHz bands.
- With the recent completion of the NB-IoT, LTE Cat-M1 and EC-GSM-IoT standards by the 3GPP, mobile operators are aggressively investing in software upgrades to build their own carrier-grade LPWA networks.
- By 2020, SNS Research estimates that more than 35% of all LPWA profile IoT devices will be served by NB-IoT, LTE Cat-M1 and EC-GSM-IoT networks.
- As of Q4’2016, SNS Research estimates the cost of a typical LPWA module to be $4-18, depending on the specific technology. As LPWA network deployments mature, we expect that the cost per module can drop down to as low as $1-2 in volume quantities.

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8. Altera Corporation
9. AM Telecom
10. AMBER Wireless
11. Archos
12. Arkessa
13. ARM Holdings
14. Arqiva
15. AT&T
16. AT&T Mobility
17. Atim
18. Atmel Corporation
19. Augtek
20. Bouygues Telecom
21. BT Group
22. Cellnex Telecom
23. CG-Wireless
24. Cisco Systems
25. Coronis Systems
26. Digi International
27. DT (Deutsche Telekom)
28. Du (Emirates Integrated Telecommunications Company)
29. EI Towers
30. Elster Group
31. Encore Networks
32. Endetec Homerider Systems
33. Enevo
34. Eolane
35. Ericsson
36. Etisalat Group
37. ETSI (European Telecommunications Standards Institute)
38. Eutelsat
39. FLASHNET
40. Gemalto
41. GSMA
42. Helium Systems
43. Hope RF (Hope Microelectronics)
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46. IEEE (Institute of Electrical and Electronics Engineers)
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116. Telefónica Group
117. Telensa
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