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Subject :IOT

Assignment Title :task 2

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Communication Protocol

	ZigBee	Bluetooth	z-wave	6lowpan
Topology	Mesh star point to point	Mesh point to point	Mesh star point to point	Mesh
Distance covered	30m	100m	100m	100m
Address range	16	3	8	64
Frequency	2.4 GHz	2.4 GHz	It depends on the country	1 and 2.4 GHz
Data transfer	250 KB	1MB	100KB	250KB
cost	Normal	High	Low	High
Power in watt	30mw	100mw	30 mw	210 mw
Licensing	Paid	Free	Paid	Free
Standard	IEEE 802.15.4	IEEE 802.15.1	IEEE 802.15.4	IEEE 802.15.4

Communication Networks

Name	Lora	Sigfox	NB-IOT	RPMA
From	France	France	USA	USA
Free use	no	no	yes	no
Cellular	no	no	yes	no
Range in KM	Urban 2-5 rural 15	Urban 3-10 rural 30 -50	Urban 2-5	Urban 1-3 rural 25-50
Power	High	low	High	Normal
Security	Normal	Normal	High	High
Price	Normal	Low	High	High
Devices use	Normal	Low	High	High
Licensing	No	No	Yes	No
Area of application	IBM, Semtech, Cisco, HP, Orange, Kerlink, Actility	STMicroelectronic, Huawei, E Texas Instruments, Qualcomm Atmel, Silicon Labs	Verizon, AT&T Nokia	Ingenu

References

smartcity (n.d.). How to Choose the Right Communication Protocol for a Building Automation System | Smart City. [online] Available at: <https://smartcity.press/the-right-communication-protocol/> [Accessed 5 Dec. 2022].

flespi.com. (n.d.). Top 7 technologies for IoT connectivity 2017. [online] Available at: <https://flespi.com/blog/top-7-technologies-for-iot-connectivity-2017> [Accessed 5 Dec. 2022].