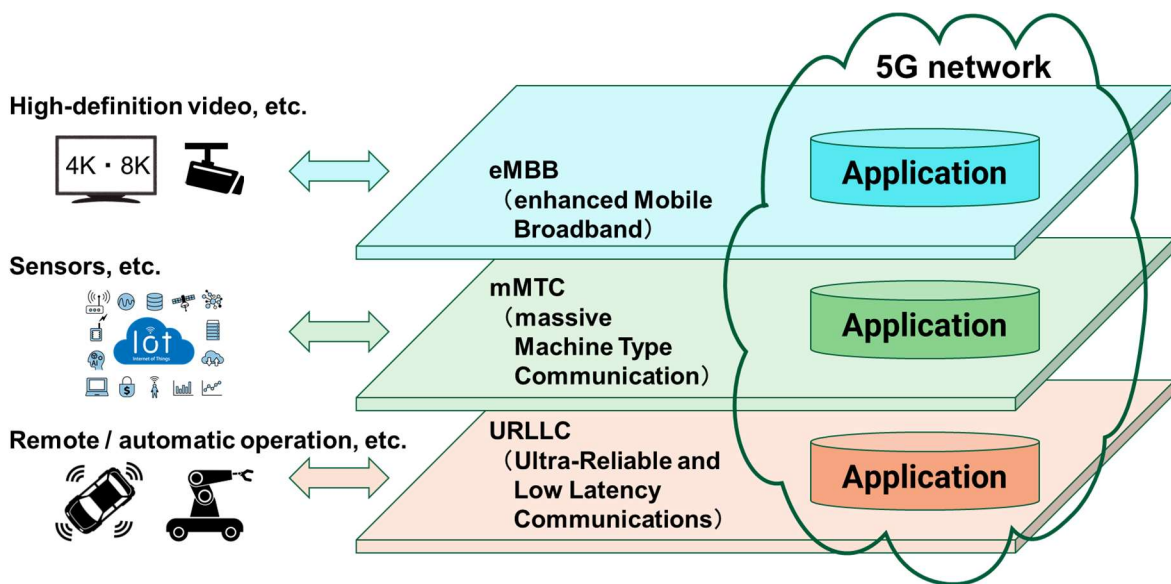


«Question»

Even with the adoption of 5G, it is expected that utilities will continue to adopt a mix of radio technologies for different purposes. Describe the differences, advantages, and disadvantages between 5G and other wireless radio technologies in the context of power utility use cases.

«Answer»

- The advantages of deploying 5G include the possibility of high-capacity, multi-terminal connections, and ultra-low latency communications, as well as network slicing, which divides communications with different requirements by bandwidth to allow for stable transmission.



Network slicing technology enables virtual cutting of both the core and wireless access networks into thin slices in order to separate traffic for each application or service with different requirements. For example, ultra high-speed communications, such as high-definition video, can be achieved by one slice, while another slice can realize ultra-low latency communications, such as automated car driving or robot remote control. By dynamically managing network functions and resources and flexibly modifying them, depending on the situation, network usage optimization becomes possible.

2. The advantage of 5G is that multiple wireless method configurations such as private LTE, Wi-Fi, and LPWA can be consolidated into 5G, thereby streamlining the network system and reducing costs. On the other hand, the disadvantage is that 5G-compatible receiving terminals will be required to extend coverage, so the number of base stations is expected to increase, resulting in higher costs. Therefore, more 5G-compatible terminals need to be released, while lowering the cost of base station equipment (e.g., with configurations using repeaters and reflectors).

