PRIVATE 5G VS POINT TO POINT WI-FI

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REVIEW OF TECHNOLOGIES

Private standalone 5G networks and point-to-point Wi-Fi serve different purposes and operate on different technological principles. Over the attached pages you will get some insight into some of the main advantages and differences.

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COVERAGE AND RANGE

- **Private Standalone 5G Network:** Private standalone 5G networks provide wide-area coverage, similar to traditional cellular networks. They can cover large geographic areas, ranging from small indoor environments to extensive outdoor deployments, depending on the infrastructure deployed.

- **Point-to-Point Wi-Fi:** Point-to-point Wi-Fi is designed for shorter-range communications between specific points. While it can achieve high data rates over short distances, typically up to a few kilometers with line-of-sight, its coverage is limited compared to cellular networks like 5G.

TECHNOLOGY

- **Private Standalone 5G Network:** Private standalone 5G networks operate on cellular technology, specifically utilizing the 5G standard. These networks consist of base stations, core network elements, and user equipment (UE) such as smartphones, IoT devices, and industrial equipment. They rely on licensed spectrum and offer advanced features such as network slicing, low latency, and high throughput.

- **Point-to-Point Wi-Fi:** Point-to-point Wi-Fi, on the other hand, operates on the IEEE 802.11 standard. It establishes direct wireless links between two or more devices or access points using unlicensed spectrum in the 2.4 GHz or 5 GHz frequency bands. Point-to-point Wi-Fi typically involves directional antennas to establish focused connections between specific points.

APPLICATION & USE CASES

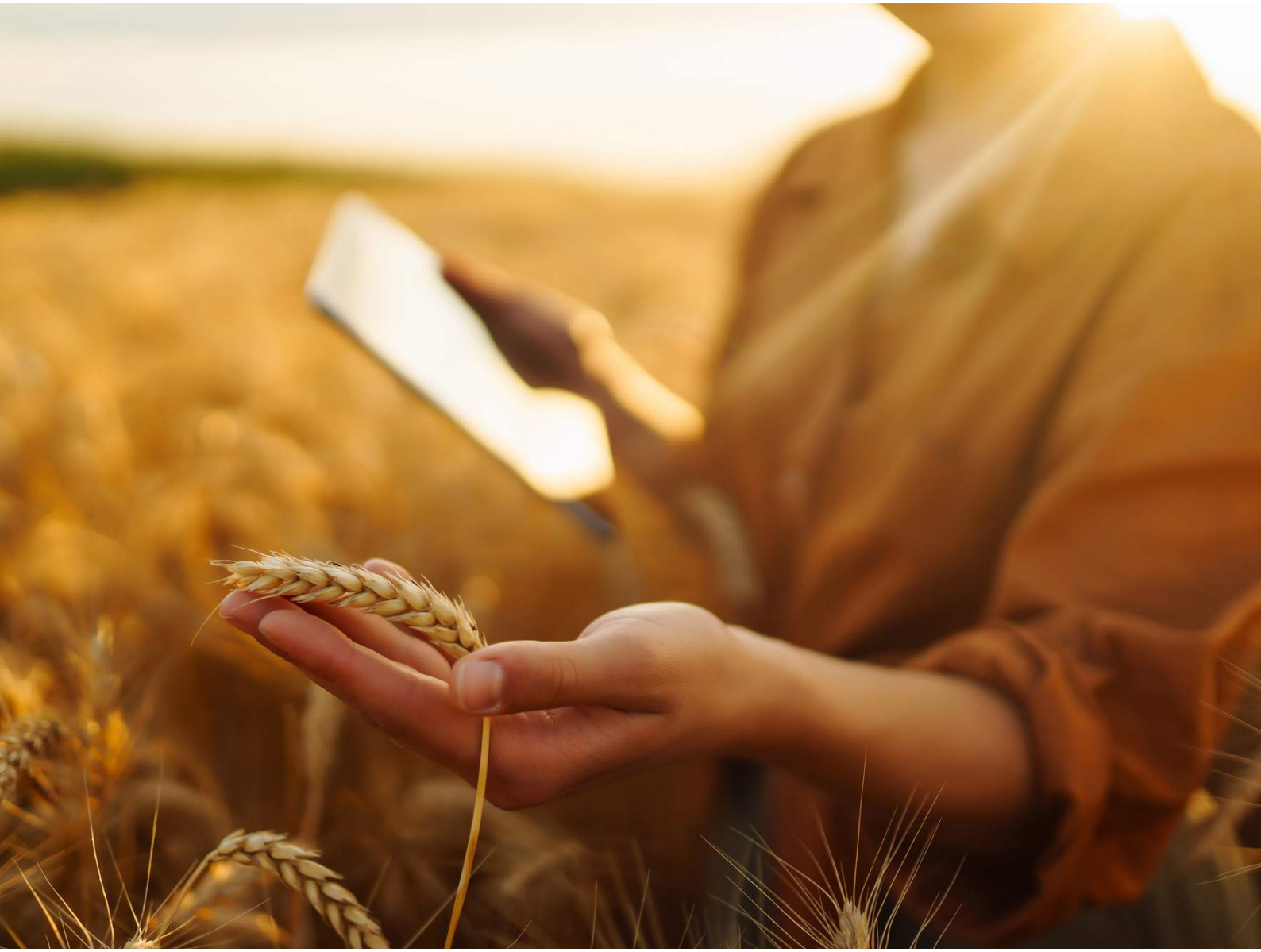
- **Private Standalone 5G Network:** Private standalone 5G networks are suitable for a wide range of use cases, including industrial automation, smart cities, smart manufacturing, Holiday park, healthcare, transportation, Marina, Agriculture and more. They can support mission-critical applications that require high reliability, low latency, and high throughput.

- **Point-to-Point Wi-Fi:** Point-to-point Wi-Fi is often used for specific applications such as building-to-building connectivity, extending network coverage to remote locations, or providing backhaul for wireless access points. It is commonly deployed in scenarios where running cables is impractical or expensive.

SECURITY & SPECTRUM

- **Private Standalone 5G Network:** Private standalone 5G networks offer robust security features, including encryption, authentication, and access control mechanisms, to protect data and communications. They operate on licensed spectrum, providing dedicated frequencies for enhanced reliability and interference mitigation.

- **Point-to-Point Wi-Fi:** Point-to-point Wi-Fi networks may offer security features such as WPA2 encryption and MAC address filtering, but they generally operate on unlicensed spectrum, which can be prone to interference from other devices operating in the same frequency band.



CONTACT US

If you are interested in exploring how Private Standalone 5G mobile networks could enhance the future readiness of your location or site, whether for long-term use or short-term events, feel free to reach out. We would be happy to provide assistance and support.

We are here to help you get connected.

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