Skysong Innovations

A unit of the Arizona State University Knowledge Enterprise

Networking System for Wireless Infrastructures to enable LTE Wi-Fi Coexistence

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Background

Increasing data demands in the cellular network market are driving the need for new technology to handle user needs. The current method service providers use for on-demand networking is Mobile Edge Computing (Cloud Services and IT Service Centers). Both of these alternatives offer networking resources based on a user's physical location and operator, which restricts performance and accessibility. Furthermore, both alternatives offer basic solutions, yet costs for operating these services are high and under-managed. As cellular data demands are expanding service providers are looking for new technology to reduce costs and increase scalability.

Invention Description

Researchers at Arizona State University have developed a system that allows cellular service providers to meet user demands while achieving desired flexibility and scalability. This system extends the capabilities of Mobile Edge Computing which offers limited resources to a user. To deliver high network demands data is broken down into smaller pieces and delivered to different networks in close range. Additionally, the system uses powerful tools that adapt to a user's data needs regardless of operator. This system connects wireless technology resources that are often underused by cellular service providers to bring down costs and increase service potential.

Potential Applications

- 5G Wireless Infrastructures
- Network Management
- Mobile Edge Computing Support

Benefits and Advantages

- **Enterprising** – System breaks down boundaries between wireless technologies
- **Smart** – System architecture delivers performance with minimal trade-offs
- **Unrestricted** – Faster on-demand data is available in more places
- **Efficient** – Clever data handling reduces operating costs
- **Versatile** – Approach offers powerful applications to different wireless networks