

JEJU ISLAND BRIDGES DIGITAL DIVIDE WITH ONE OF ASIA'S MOST ADVANCED SMART ISLAND INFRASTRUCTURES POWERED BY RUCKUS®



2.56 million public Wi-Fi® users¹



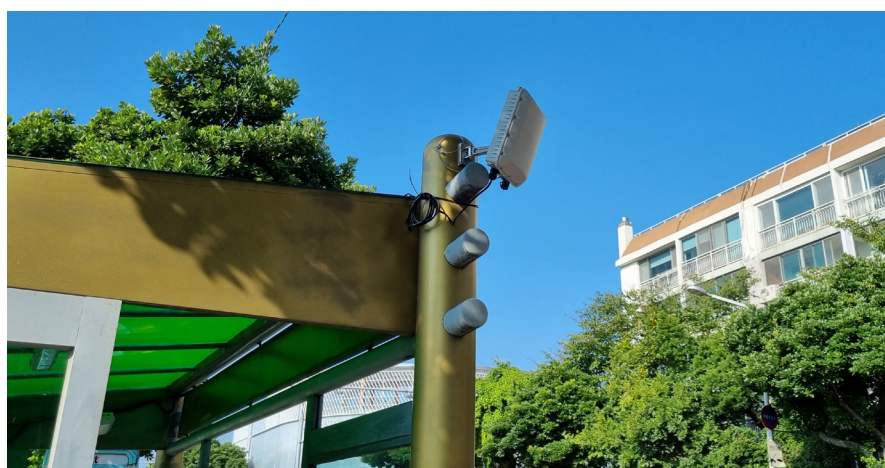
2,505 TB of data usage



87% user satisfaction with free Wi-Fi service



8 million+ connections by foreign users



Customer
Jeju Island

Location
South Korea

Building on Wi-Fi success

Jeju Special Self-Governing Province, one of South Korea's leading tourist destinations, sees more than 14 million annual visitors and is home to approximately 700,000 residents. With the goal of realizing digital welfare and establishing the foundation for a smart city, the province has been actively expanding its comprehensive public Wi-Fi infrastructure.

Jeju Province was seeking to reduce communication costs, bridge the digital divide, promote tourism, and advance its data-driven service offerings. To achieve these priorities, the local

government deployed free Wi-Fi networks across the island, including in government offices, buses, tourist attractions, parks, and medical facilities. The province was seeking to:

- Improve communication quality through the introduction of high-performance access points (APs) supporting Wi-Fi 6 and above
- Eliminate dead zones, providing high-speed and reliable coverage
- Ensure full integration and compatibility with existing systems
- Gain flexibility to accommodate diverse users, including tourists, residents, and between IoT devices

- Deploy a Wi-Fi infrastructure resistant to salt corrosion

Meeting essential requirements

Jeju Province was seeking a wireless solution that delivered not only superior performance, but manageability. The wireless APs would need to support remote management capabilities to allow centralized control without the need for on-site IT specialists. Remote management would also help ensure efficient maintenance and troubleshooting across the widely spread infrastructure. The solution would need to provide extensive,

¹ 24% increase over previous year



reliable wireless coverage throughout Jeju, delivering high-speed connectivity with robust security measures to prevent interference or unauthorized access from private wireless networks operating within the same facilities. It was essential that the network infrastructure provide the ability to logically separate and secure multiple user groups, including visitors, local residents, and IoT devices—offering each group a secure and isolated network environment.

The selected Wi-Fi technology would need to be future-ready, capable of flexibly adapting to changes in wireless standards and increasing data demands. It would also need to provide the processing capacity required to support high-volume video streaming services.

Finally, the wireless equipment would need to harmonize with Jeju's unique environment, featuring durable construction resistant to salt corrosion and other natural elements specific to the region, while maintaining a discreet, aesthetically pleasing appearance.

Enhancing capacity and performance

After considering its options, Jeju Province chose a comprehensive wireless connectivity solution from RUCKUS Networks. The solution includes:

- RUCKUS® T750, T670, and R670 indoor and outdoor APs, augmenting legacy equipment, for a total of more than 2,100 APs
- RUCKUS SmartZone™ Controller
- RUCKUS SmartCell® Insight (SCI)
- RUCKUS Virtual SmartZone vSZ™ (3)
- RUCKUS IoT Controller

The deployment of Wi-Fi 6-enabled outdoor access points has significantly improved network performance in Jeju, offering up to 2.8 times faster speeds and doubling the number of concurrent device connections, compared to legacy systems. This upgrade ensures that high-density user environments—such as tourist hotspots, parks, and public transit areas—can deliver a seamless and reliable internet experience even during peak usage.



Typhoon Shelter AP

To maintain consistent performance, the system incorporates machine learning (ML)-based automation and analytics. These advanced features enable real-time performance monitoring, proactive issue detection, and automated optimization of the wireless environment. These rich capabilities empower the network to continuously adapt to usage patterns and environmental conditions without manual intervention.

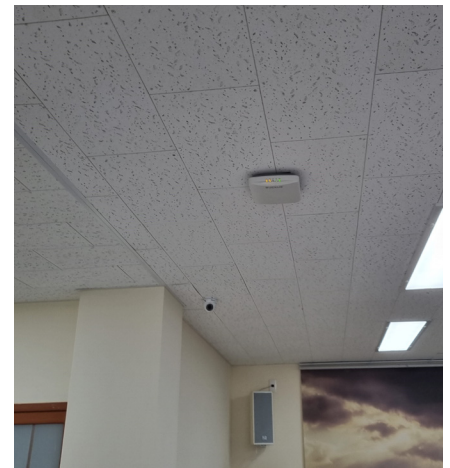
The RUCKUS platform also supports centralized management, allowing for unified monitoring, configuration, and maintenance of all deployed APs across the island. This centralized approach not only improves operational efficiency but also reduces the need for extensive on-site support, which is especially beneficial in remote or geographically challenging areas.

The hardware itself is engineered with robust durability and design to help ensure stable installation and operation in elevated and exposed areas, including iconic landmarks such as Seongsan Ilchulbong Peak and Hallasan Mountain. These high-altitude locations require equipment that can withstand strong winds, shifting temperatures, and difficult mounting conditions.

To meet these environmental demands, the access points are built to IP67 standards, offering high levels of protection from water and dust as well as resistance to salt, extreme temperatures, and humidity. This rugged design helps ensure stable and continuous network operation even under the harsh natural conditions of Jeju, which frequently experiences typhoons, sea fog, and high salinity due to its coastal and volcanic geography.

Toward a complete smart island ecosystem

The expanded Wi-Fi initiative has already delivered powerful outcomes for residents and visitors throughout Jeju. The solution currently serves 2.56 million public Wi-Fi users and 2,505 TB of data usage—an increase of 24% compared to the previous year. Surveys reflected 87% user satisfaction with the free Wi-Fi service, and 95% of the respondents agreed on the need for further expansion.



Village Hall AP

One of the core objectives of the public Wi-Fi initiative in Jeju is to bridge the digital divide by ensuring that residents in the remote and mountainous regions have access to the same high-quality internet connectivity as those in urban areas. With RUCKUS solution, Jeju has successfully extended stable Wi-Fi coverage to remote areas such as Hallasan summit, Witse Oreum, and Seongsan Ilchulbong. This effort supports digital inclusion and dramatically enhances equal opportunities for education, communication, and access to public services, regardless of geographic location.

Additionally, the initiative aims to enhance Jeju's tourism competitiveness by offering free, reliable Wi-Fi to visitors. Usage surveys reported 8 million connections by foreign users, enhancing convenience for visitors. This service not only improves the overall travel experience and convenience for tourists, but also encourages longer stays, greater engagement with local attractions, and positive word-of-mouth promotion. By meeting the digital expectations of international travelers, Jeju can strengthen its position as a world-class holiday destination.

Lastly, the deployment of public Wi-Fi forms a critical foundation for the development of a smart city ecosystem. By collecting and utilizing data from various public spaces and services, the local government can implement more efficient, responsive, and data-driven administrative functions. This digital infrastructure enables the advancement of smart urban services such as real-time transportation updates, environmental monitoring, and public safety enhancements, contributing to a more connected and sustainable "smart" city.

About RUCKUS Networks

RUCKUS Networks designs and builds truly purpose-driven network infrastructure that meets the strictest requirements of all kinds of enterprise environments. Together with our dedicated go-to-market partners, we enable customers to deliver exceptional network experiences, making RUCKUS Networks one of the most trusted brands in the business—a loyal companion ready to help get the job done whatever it takes. RUCKUS Networks is backed by the corporate resources of CommScope, which powers many of the world's most advanced networks.

www.ruckusnetworks.com

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