



AHANA UPGRADES NETWORK FOR  
A LEADING STEEL MANUFACTURER,  
WITH ARUBA AP 515 AND AP 510



Reliable and high-speed wireless connectivity is essential for efficient business operations. This case study explores the deployment of Aruba AP 515 and AP 510 wireless access points (APs) at the client's branches. The project aimed to address connectivity challenges, improve bandwidth, and manage user density to ensure seamless wireless access across various office areas.

### Client Profile:

Headquartered in Luxembourg, our client operates as a leading steel and mining company formed in 2006. They market steel products primarily in local markets and through a centralized marketing organization to customers in sectors including appliance, automotive, construction, engineering, and machinery.

### The Challenge:

Our client faced issues with its existing Wi-Fi infrastructure. The growing number of devices and the increasing demand for high-speed internet overwhelmed the network, leading to poor connectivity, slow speeds, and dead zones, especially during peak usage times. Also, frequent complaints from users highlighted the urgent need for a more robust and reliable wireless solution.

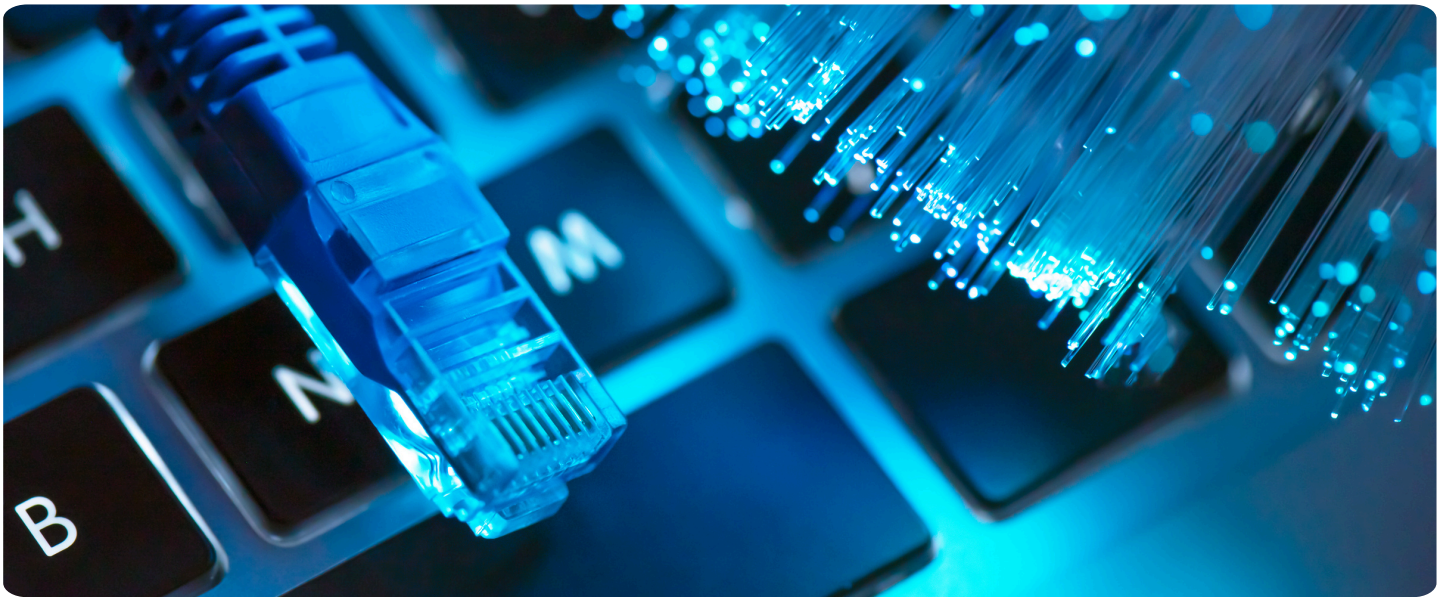
### Objectives:

- Improve overall Wi-Fi coverage and capacity.
- Ensure high-speed, reliable connectivity for employees.
- Support a variety of devices including smartphones, tablets, laptops, and IoT devices.
- Provide robust security features to protect sensitive data and prevent unauthorized access.

### The Approach:

Our team selected Aruba AP 515 and AP 510 due to their advanced features and ability to handle high-density environments. The key considerations included:

- **Wi-Fi 6 (802.11ax) Support:** This provided enhanced performance and efficiency, essential for a modern office setting.
- **High User Density:** The APs could support multiple simultaneous connections, which was essential given the high number of devices in use.
- **Seamless Roaming:** Ensured uninterrupted connectivity as users moved around the office, a key requirement for maintaining productivity.
- **Security Features:** Integrated WPA3, Enhanced Open, and Aruba ClearPass provided robust authentication and policy enforcement, critical for protecting sensitive data.



## Ahana's Solution:

### Deployment Strategy

The deployment strategy was meticulously planned to ensure a smooth transition and optimal performance:

- **Site Survey and Planning:** A thorough site survey was conducted to map out coverage gaps and identify high-density areas. This informed a detailed deployment plan with optimal AP placement to ensure comprehensive coverage and performance.
- **AP Installation:** Based on the site survey, Aruba AP 515 units were installed in high-density areas to handle the larger number of connections. Aruba AP 510 units were deployed in moderate-density areas where fewer connections were anticipated.
- **Network Configuration:** The access points were configured to operate on both 2.4 GHz and 5 GHz bands, balancing the load and enhancing performance. Network segmentation was implemented to improve security and manage traffic efficiently. Advanced security protocols were enabled to safeguard the network against unauthorized access and potential threats.
- **Testing and Optimization:** Following installation, thorough testing was conducted to verify performance and coverage. Network settings were fine-tuned based on real-time feedback and performance data to ensure optimal operation.

## The Impact:

The deployment of Aruba AP 515 and AP 510 brought improvements to our client's wireless network infrastructure:

- **Enhanced Coverage:** The new APs provided comprehensive coverage across the office, eliminating dead zones and ensuring consistent connectivity.
- **Increased Speed and Capacity:** There were significant improvements in both speed and the ability to handle more simultaneous connections, meeting the high demands of the office environment.
- **Seamless Roaming:** Users experienced uninterrupted connectivity when moving around the office, which enhanced productivity and user satisfaction.



### User Satisfaction

**Positive Feedback:** Users reported a marked improvement in their wireless experience, noting faster speeds and more reliable connections.

**Increased Productivity:** The reliable Wi-Fi enabled better access to online resources and collaboration tools, leading to enhanced productivity.

### Security and Management

**Robust Security:** The implementation of advanced security features protected against unauthorized access and cyber threats, ensuring the integrity of the network.

**Simplified Management:** Aruba's management tools streamlined network monitoring, troubleshooting, and policy enforcement, making the network easier to manage and maintain.

### Conclusion:

The deployment of Aruba AP 515 and AP 510 improved the wireless network infrastructure at ArcelorMittal, effectively addressing the previous connectivity issues. The project highlighted the importance of thorough planning, robust technology, and continuous optimization in achieving successful network deployments. This initiative not only enhanced connectivity but also contributed to increased productivity and user satisfaction, demonstrating the role of reliable wireless infrastructure in modern business operations.

### About Ahana Systems and Solutions:

Ahana is a global IT service provider for Digital Transformation Services and Solutions. At Ahana, we specialize in providing cutting-edge solutions that help businesses in their digital transformation journey and empower them to harness the full potential of their data. Our dedicated team of experts is always ready to guide customers through every step of transformational expedition. With over 100+ clients across India, Europe, and USA, Ahana is one of the leading choices for 'Digital-first' organizations in a fast-paced scenario.

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