

Transforming the Digital Backbone of a Landmark Retail Destination

How Microsense enabled seamless connectivity and uninterrupted digital experiences across a large-scale retail destination.

Project Highlights



350+ Retailers
Connected



40 Wi-Fi Access
Points



5G DAS for 3
Operators



60-Day Implementation
Timeline



Executive Snapshot



Tenant Profile

Premium retail brands, restaurants, entertainment outlets, & service providers



Asset Type

Large-scale retail destination



Business Need

To establish a single, end-to-end digital connectivity infrastructure across the mall while eliminating the complexity of managing multiple vendors and ensuring reliable connectivity for retailers and shoppers.



Solution

A converged connectivity infrastructure comprising Distributed Antenna System Guest Wi-Fi, Retail Broadband, and Voice Services delivered through a single partner.



Key Results

1

Seamless mobile coverage with 99% uptime

2

Single point of accountability for all connectivity needs

3

Reliable connectivity for 350+ retailers

4

Faster and uninterrupted digital payments

5

Zero-downtime internet through dual last-mile redundancy

Background

The Connectivity Challenge

Modern malls are no longer just shopping destinations. They have evolved into experience hubs where shopping, dining, entertainment, and digital interactions come together. Large scale retail destinations attracts thousands of visitors daily and hosts over 350 retailers. In such a high-footfall environment, uninterrupted connectivity is critical for smooth operations and customer satisfaction. Every payment transaction, POS machine, mobile app interaction, and digital service relies on a robust network foundation. Any disruption directly impacts retailer operations and customer experience.

Key Pain Points



Mobile dead zones
across corridors, basements,
and retail units



UPI payment
failures and POS disruptions
affecting billing operations



Multiple vendors
managing different
connectivity requirements



Wi-Fi coverage
gaps in basement
areas



Unstable internet
connectivity for
retailers



Solution Approach

A Converged Digital Connectivity Infrastructure Designed for Retail

Following a detailed site survey, Microsense designed and implemented an integrated digital connectivity solution tailored for a large multi-floor retail environment. The solution combined mobile coverage, internet connectivity, and guest Wi-Fi under a single managed infrastructure.



Distributed Antenna System

A 5G-ready DAS network was deployed across corridors, retail stores, and basemen areas to eliminate mobile dead zones and provide seamless coverage for three major telecom operators.



Guest Wi-Fi Network

A mall-wide Wi-Fi network with 40 access points was deployed, offering visitors complimentary internet access for 30 minutes, with the option to upgrade to paid access thereafter.



Retail Broadband & Voice Services

Stable high-speed internet and voice connectivity were provided to more than 350 retailers across the mall.



Dual Last-Mile Redundancy

A dual last-mile architecture with automatic failover was implemented to ensure uninterrupted connectivity even if a primary link experienced downtime.



24x7 Network Monitoring

Continuous monitoring and support through Microsense's Network Operations Centre (NOC) ensured proactive issue resolution and consistent network performance.

Implementation Overview

Phase 1: Site Survey

Comprehensive assessment of retail spaces, corridors, basement parking areas, and common zones to identify coverage gaps and infrastructure requirements.

Phase 2: Network Design

Planning of DAS coverage, Wi-Fi access point placement, broadband connectivity, and redundancy architecture.

Phase 3: Infrastructure Deployment

Deployment of DAS, broadband services, guest Wi-Fi, and supporting network infrastructure across the property.

Phase 4: Testing & Optimization

Coverage validation, failover testing, and performance optimization before final rollout.



Results and Business Impact



Seamless Mobile Coverage

99% uptime across retail units, corridors, and basement areas ensured uninterrupted mobile connectivity and digital transactions.



Faster Checkout Experience

Reliable connectivity reduced payment failures and improved billing efficiency at retail counters.



Zero-Downtime Internet

Dual last-mile auto-failover maintained business continuity even during primary link disruptions.



Reliable Connectivity for Retailers

Over 350 retailers benefited from stable broadband and voice services supporting daily business operations.



Round-the-Clock Support

24x7 NOC monitoring enabled rapid issue resolution and proactive network management.



Future-Ready Infrastructure

The network was designed to scale with the mall's connectivity requirements over the next 20 years.



Key Takeaways



One Vendor, Complete Ownership

A single partner for DAS, Wi-Fi, broadband, and voice services simplified vendor management and accountability



Converged Infrastructure Delivers Better Outcomes

An integrated digital connectivity ecosystem provided higher reliability, scalability, and operational efficiency.



Night-Time Execution Ensured Zero Disruption

A carefully planned overnight deployment model enabled seamless implementation in a live retail environment.



Connectivity Directly Impacts Retail Performance

Reliable mobile and internet connectivity supports faster billing, fewer payment failures, improved customer experience, and stronger retailer satisfaction.



Conclusion

For modern retail destinations, digital connectivity is no longer a supporting utility. It is critical infrastructure that directly influences customer experience, retailer operations, and business performance. Microsense delivered a converged digital connectivity ecosystem combining DAS, Wi-Fi, broadband, and voice services into a single managed infrastructure. The result is a scalable, future-ready digital foundation that keeps retailers connected, transactions moving, and shoppers engaged.

Make Your Retail Destination Future-Ready

Connect with Microsense to explore integrated digital connectivity solutions designed for modern malls, commercial spaces, and large public venues.

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