



WHITEPAPER

# Intelligent Network Exchange Platform

A comprehensive guide to next-generation network sharing:  
matching service demand to underutilized capacity

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# EXECUTIVE SUMMARY

TEASOL is a next-generation network sharing platform that matches service demand to underutilized capacity. Acting as an intelligent broker between network operators, our platform enables Mobile Network Operators (MNOs), Mobile Virtual Network Operators (MVNOs), and private network providers to maximize efficiency, reduce costs, and create new revenue streams through seamless resource exchange. This whitepaper outlines our three core solutions, the technology behind our platform, and the measurable business impact for telecommunications stakeholders.

## ■ KEY HIGHLIGHTS

- Three integrated solutions: Network Sharing Exchange, Slice Exchange, and Neutral Host Sharing
- AI-powered matching engine for optimal resource allocation
- Real-time SLA monitoring with guaranteed performance tracking
- Automated operations reducing time-to-service from months to minutes

## Section 1

# Introduction

The telecommunications industry is undergoing a fundamental transformation. As 5G networks proliferate and demand for differentiated connectivity grows, operators face increasing pressure to maximize the efficiency of their infrastructure investments while meeting diverse service requirements.

Traditional approaches to network capacity management are no longer sufficient. Operators often find themselves with underutilized resources in some areas while facing capacity constraints in others. Meanwhile, MVNOs struggle to access flexible, quality-assured capacity, and venue operators seek cost-effective ways to provide multi-operator coverage.

TEASOL addresses these challenges through an intelligent network exchange platform that creates a dynamic marketplace for network resources. By connecting supply with demand in real-time, we enable all stakeholders to unlock new value from telecommunications infrastructure.

Section 2

# Core Solutions

TEASOL addresses the telecommunications market through three interconnected solutions, each designed to solve specific challenges in network resource management.

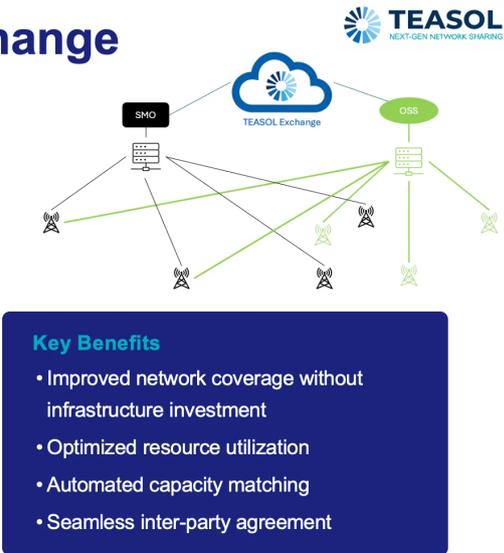
## 2.1 Network Sharing Exchange

The Network Sharing Exchange acts as an intelligent broker between Mobile Network Operators, enabling them to trade capacity in real-time. When one operator has underutilized resources and another faces peak demand, our platform facilitates seamless resource exchange, maximizing network efficiency across the industry.

This solution transforms what was traditionally a complex, contract-heavy process into a dynamic marketplace where capacity can be acquired and released based on actual demand patterns.

### Network Sharing Exchange

- 1. Analyze Demand**  
Identify coverage gaps, demand per region and capacity constraints based on the retrieved data from the mobile network.
- 2. Match Resources with Demand**  
Identify underutilized capacity from other providers in the same geographic areas.
- 3. Negotiate & Connect**  
Facilitate pricing agreements and configure connections between ecosystem parties.



- Key Benefits**
  - Improved network coverage without infrastructure investment
  - Optimized resource utilization
  - Automated capacity matching
  - Seamless inter-party agreement

## 2.2 Slice Exchange

The Slice Exchange is purpose-built for MVNO management, providing virtual operators with dynamic access to network slices complete with guaranteed SLA monitoring. This enables MVNOs to offer differentiated services while maintaining quality commitments to their customers.

By aggregating capacity from multiple MNOs, the Slice Exchange gives MVNOs unprecedented flexibility in how they source and manage network resources, enabling new business models and service offerings.

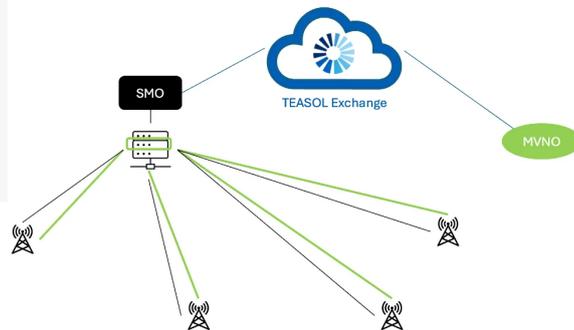
# Slice Exchange

## 1. Core Capabilities

- Protocol bridge between orchestration and OSS systems
- Network topology analysis and mapping
- Slice utilization and demand forecasting
- Real-time capacity monitoring
- Automated decision making
- SLA tracking and analytics

## 2. Key Advantages

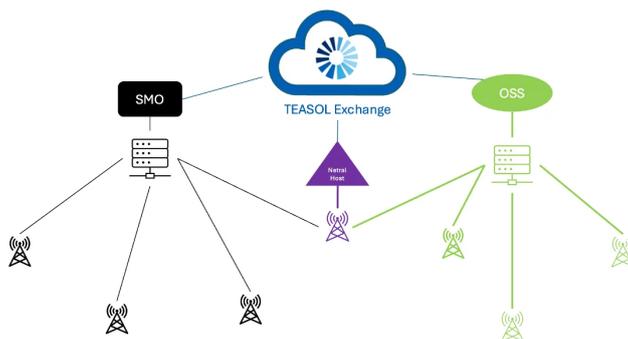
- Technology-agnostic platform
- Management system independent
- Scalable architecture
- Cloud-native deployment



## 2.3 Neutral Host Sharing

For venues, stadiums, enterprise campuses, and other environments requiring multi-operator coverage, our Neutral Host solution enables multiple operators to share a single infrastructure deployment. This dramatically reduces costs for operators while ensuring visitors and employees have access to their preferred network provider with guaranteed service levels.

# Neutral Host Sharing Exchange



### Automated Broker

Teasol Exchange connects MNOs, MVNOs, Private Networks and Neutral Host providers in a single, automated marketplace.

### Dynamic Resource Access

Instantly discover and lease Neutral Host infrastructure for on-demand coverage and capacity.

### Cost Optimization

Reduce CAPEX for MNOs while monetizing idle assets for Neutral Host providers.

# The Three-Step Process

Regardless of which solution fits your needs, TEASOL simplifies the complex world of network sharing into three intuitive steps that transform how operators manage and exchange network resources.

## 1 Analyze Demand

The first step involves comprehensive monitoring and analysis of network infrastructure. Our platform ingests data from both RAN and Core network elements to build a complete picture of network performance and capacity utilization.

- Real-time monitoring of network performance across all nodes and regions
- ML-powered demand forecasting that predicts usage patterns
- Identification of underutilized resources and coverage gaps
- Capacity mapping against current and projected demand
- Actionable insights delivered through intuitive dashboards

*Our data pipeline processes telemetry in real-time, storing time-series metrics for both immediate analysis and historical trending, enabling data-driven decision-making for capacity allocation.*

## 2 Match Resources

Once demand patterns are understood, our intelligent matching engine finds optimal connections between supply and demand across the network ecosystem.

- Smart matching considers location, technical compatibility, and timing
- SLA requirements and pricing preferences factored into every match
- Multiple providers can be aggregated to meet complex requirements
- Real-time availability ensures accurate resource allocation
- Streamlined agreement process reduces time-to-service

*The matching algorithm considers multiple variables to ensure optimal outcomes for all parties involved, maximizing value while maintaining guaranteed service quality levels.*

### 3 Automate Operations

The final step brings everything together through intelligent automation that eliminates traditional friction in network sharing agreements.

- Dynamic agreements generated automatically based on matched requirements
- Network configurations applied without manual intervention
- Continuous SLA monitoring ensures performance guarantees are met
- Automated billing and settlement between parties
- Real-time dashboards provide complete operational visibility

*This automation transforms what traditionally takes months of negotiation into a streamlined process, dramatically reducing time-to-service while maintaining full transparency for all parties.*

## Section 4

# Key Benefits

By implementing TEASOL's platform, operators can expect significant, measurable improvements across their business operations and financial performance.



## Operational Benefits

- Infrastructure cost reduction through intelligent capacity sharing and dynamic resource allocation
- Accelerated time-to-market for new services and coverage expansion
- New revenue streams from monetizing underutilized network resources
- Improved network efficiency with AI-optimized resource allocation
- Reduced environmental impact through shared infrastructure utilization

## Strategic Benefits

- Enter new markets without capital investment in infrastructure
- Offer differentiated services through flexible capacity access
- Build competitive advantage through operational efficiency
- Future-proof operations with scalable, cloud-native platform

## Section 5

# Target Audience

TEASOL's platform delivers value across the telecommunications ecosystem, with tailored benefits for each stakeholder type.

## Mobile Network Operators

Monetize underutilized capacity during off-peak hours, creating new revenue streams from existing infrastructure while reducing the need for capital investment.

## MVNOs

Access dynamic network slices from multiple providers with guaranteed SLA monitoring, enabling differentiated services and maintained quality commitments.

## Neutral Host Providers

Deploy shared infrastructure serving multiple operators simultaneously, reducing costs while ensuring access to all network providers.

## Section 6

# Conclusion

The telecommunications industry stands at an inflection point. As 5G enables new use cases and demand for differentiated connectivity grows, the traditional model of siloed network operations becomes increasingly unsustainable.

TEASOL's intelligent network exchange platform provides a path forward, enabling operators to unlock the full potential of their infrastructure investments while creating new business opportunities. By matching service demand to underutilized capacity, we help the entire ecosystem operate more efficiently, sustainably, and profitably.

Whether you're an MNO looking to monetize spare capacity, an MVNO seeking flexible resource access, or a venue operator planning multi-operator coverage, TEASOL provides the platform and expertise to transform your network operations.

### **Ready to Transform Your Network Operations?**

Contact us to learn how TEASOL can help you maximize efficiency and unlock new opportunities.

[Request a Demo](#)