

## AWARDS CASE STUDY: BEST WI-FI NETWORK TECHNOLOGY

# STL DWIFI - INNOVATIVE WIFI SERVICE MANAGEMENT PLATFORM TAILOR-MADE FOR DIGITIZING TELCOS

### INTRODUCTION

STL dWiFi - Innovative WiFi Service Management Platform Tailor-made for Digitizing Telcos. With the explosion in the IoT devices and rise in adoption of 5G, edge computing and cloud native network functions the need for speed, quality and monetization is non-negotiable. Telcos all across the globe are facing a complex situation of having to meet higher data consumption but with lesser resources. The situation calls for alternate solutions, which is precisely what STL offers with its dWiFi converged WiFi platform that seamlessly integrates with cellular core and offers a wide range of capabilities on top of it. dWiFi helps Telcos address critical need of customers today – always-best connectivity experience - along with multiple opportunities to monetize.

## DESCRIPTION OF THE CASE

*dWiFi – STL's converged WiFi platform for addressing data management challenges*

### Introduction – Data management challenges faced by Telcos


One of the key challenges for Telcos today is mobile data traffic growth. Growth in smart devices (smart phone and other network connected devices) is the leading driver for this and is estimated to lead to [12.3 billion](#) mobile connections by 2022. We are also witnessing IoT devices growing dramatically, it is estimated that there will be [41.6 billion](#) connected IoT devices, or "things" generating 79.4 zettabytes (ZB) of data by 2025. As we get more and more connected, customers are starting to demand always-best connectivity. Some of the most common demand includes - best connected user experience anytime, anywhere, ability to switch seamlessly between devices and connections, and improved performance for high-definition streaming apps. Cellular services have suffered from spotty connections, high spectrum costs and rising network infrastructure costs. Telcos, in order to meeting changing customer needs, are forced to look beyond cellular today. Augmenting cellular networks with WiFi networks has emerged as a potential solution to overcome the data tsunami and enhance user experience. But challenges like supporting different user scenarios like airports, in-flight, transit, public hotspot etc. with seamlessness, scale and monetization opportunities, still need to be overcome.


### dWiFi – A converged WiFi platform from STL

dWiFi from STL is a comprehensive and converged WiFi platform that helps telcos unlock new business models, implement innovative use cases and differentiate themselves in the market.


Thus precisely addressing the challenges Telcos are facing today.

dWiFi is a carrier grade WiFi platform that seamlessly integrates with the cellular core to deliver a comprehensive feature set.

 **Offloading** – with Device Event Monitoring, Real Time QoE Measurement, Rules and Actions on Policy, Policy on Device, Policy Pull cache, Evaluation and enforcement. Based on latest 3GPP release 12

 **WiFi calling and roaming** - Converged 3GPP AAA offers a smooth handover between trusted and un-trusted networks, Architecture supports dual authentication mode for both 3G/4G subscribers, towards HLR/HSS, Seamless integration with HSS, ePDG, PGW from leading NEP OEMs

 **AAA** - Single-platform for multiple networks with common policy and subscriber profile

 **Monetization opportunities** – Advertisements, Paid WiFi Plans and Vouchers, Loyalty Platform

- 🌀 **Experience** – Analytics to measure WiFi offload success ratio, Effectiveness of WiFi offload. Real time analytics from devices, Easy integration with roaming carrier partner networks and complete partner settlement features, Captive portal editor to build professional, responsive Captive Portals without coding

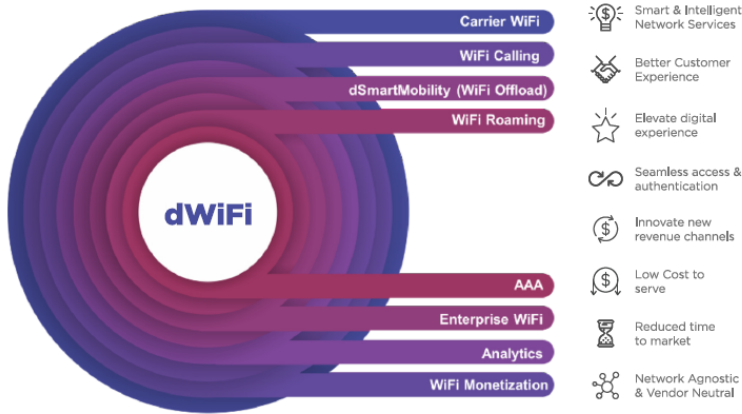
## SOLUTIONS

### dWiFi value proposition

dWiFi platform is DevOps enabled, Web-scale and comes with integrated analytics. It is designed to help Telcos to provide wide range of innovative offerings at speed and scale, create differentiated services across segments such as public, enterprise, retail, education and hospitality and generate new revenue streams.

- 🌀 dWiFi is available in **flexible deployment models** to meet different customer needs such as Stadium WiFi (implemented for a large annual sporting event in India), Public Transport (implemented for Dubai's public transport authority as a part of the Smart Dubai program), Public Hotspot (multiple implementations including one of India's largest telco providers), Smart offloading (for a large Telco in India impacting 40+Million customers)
- 🌀 **Competitive pricing models** - STL's extensive global WiFi experience is complemented not only by the breadth of our WiFi solution innovations but also our competitive pricing models which includes 1) Fixed Price Or 2) subscription based pricing based on number of concurrent sessions or number of subscribers or number of Access Points.
- 🌀 **Proven for robustness, capabilities and scale** – dWiFi is implemented at over 40 telco service provider globally.
- 🌀 Thus, with STL's dWiFi, operators can offer seamless user experience, compelling products, services and support as well as reduce churn. The dWiFi converged platform helps unlock new business models, implement innovative use cases and differentiate in the market. We are also updating the product to stay ahead of latest consumer needs, technological and standards changes. The product has been updated according to the WiFi 6 standards.
- 🌀 One stop solution for managing WiFi services for telcos which includes WiFi Offload, WiFi Calling, WiFi Roaming and WiFi Monetization
- 🌀 Most powerful AAA (along with support of Diameter and SCTP) available in the industry
- 🌀 Multifunctional Captive Portal Editor which allows you to instantly create Login pages through drag and drop widgets
- 🌀 Web Scale Based Architecture for zero touch deployments, auto scalability with support of virtualization (CNF and VNF)

### dWiFi current offerings



### Key Features

- Seamless Secure Access**  
Converged 3GPP AAA offers a smooth handover between trusted and un-trusted networks
- Best of Breed**  
Avoid vendor lock in, choice of best products, integrates with multiple mobile core vendors
- Service Differentiation**  
Supports roaming architecture dual authentication mode for both 3G/4G subscribers, towards HLR/HSS
- Proven Interoperability**  
Seamless integration with HSS, ePDG, PGW of leading NEP OEMs (Mavenir, Huawei, etc.)

## IMPACTS TO PEOPLE AND INDUSTRY

### Success Story

**Customer and customer situation** - A leading telecom operator in Dubai, was officially selected as the enabler for fulfilling the UAE's envisioned goal of Smart City and rolling out WiFi services at public places including malls, beaches, DIFC, Burj Khalifa, Metros and Trams, Dubai taxi etc.

**STL solution** - STL dWiFi solution enabled the operator to offer seamless WiFi connectivity to their subscribers across the entire length of public places and helped them to monetize the service through advertisements and location-based promotions. WiFi analytics dashboard helped them to get the better customer/business insights to plan better network and services.

### Challenges that STL faced (and mitigated)

- Effectively roll out WiFi across the country and establish WiFi as a base for smart city vision
- Offer seamless internet connectivity at high speed but at cheaper rate
- Monetize and generate ROI from their WiFi infrastructure
- Reduce CAPEX/OPEX
- Offer value added services to their subscribers for customer experience and improving NPS

### Results

- Wi-Fi Solution for Public Internet Access Provider (PIAP) deployed in less than 10 days

- Increased WiFi Access to subscribers at 165+ locations (highly dense and most popular locations) with 12000 Access Points installed across the city\
- 10K+ Taxis (RTA) in Dubai now offers free WiFi to the passengers for improving their journey experience. 1 million+ impressions/month for the ad campaigns
- Average 75K daily unique users availing the WiFi services offered by the operator leading to increased data consumption on an average 22TB/week.
- Played a major role in operator' Smart City Mission by offering connectivity on the go to the subscribers and devices by offering an enhanced service experience and increased monetization opportunity

## CONCLUSION

### Roadmap for WiFi 6

STL has a razor sharp focus on assisting our customers with adoption of 5G and the WiFi6/802.11ax. The roadmap for STL in WiFi6 domain is to ensure that we offer our customers end to end WiFi Stack. While most of the needed components are already existing, the aim is to ensure a thorough testing for those components, and bridging the solutions for Access Point, controller, and gateway. STL has a robust edge analytics software which will be integrated across the touch points to ensure that network dashboards are enriched with WiFi related data. Here is quick look at the overall Roadmap for WiFi stack

