

## AAA supporting more than 100 services for the biggest Montenegrin telco provider

### Customer

**Crnogorski Telekom** is the leading telecommunications operator based in Podgorica, Montenegro. It is the largest telecommunications company in Montenegro and provides fixed-line, mobile, IPTV, internet, ICT and cloud services. .

359 000+ mobile customers

107 000+ fixed line customers

Roaming services in 140+ countries

### Challenge

**Crnogorski Telekom** is the company where Logate initially developed its OpenProvider AAA platform, in 1998, in C language, to serve the needs of the dial-up and ADSL services at that time. As the services evolved so has the platform. In 2009, its internal architecture was completely changed with the introduction of Service Management Engine (SME) and Open Function, which simplified product configuration and runtime modification. In 2009, OpenProvider was already protocol and vendor agnostic. From the start, the platform was also designed to run in a virtual environment.

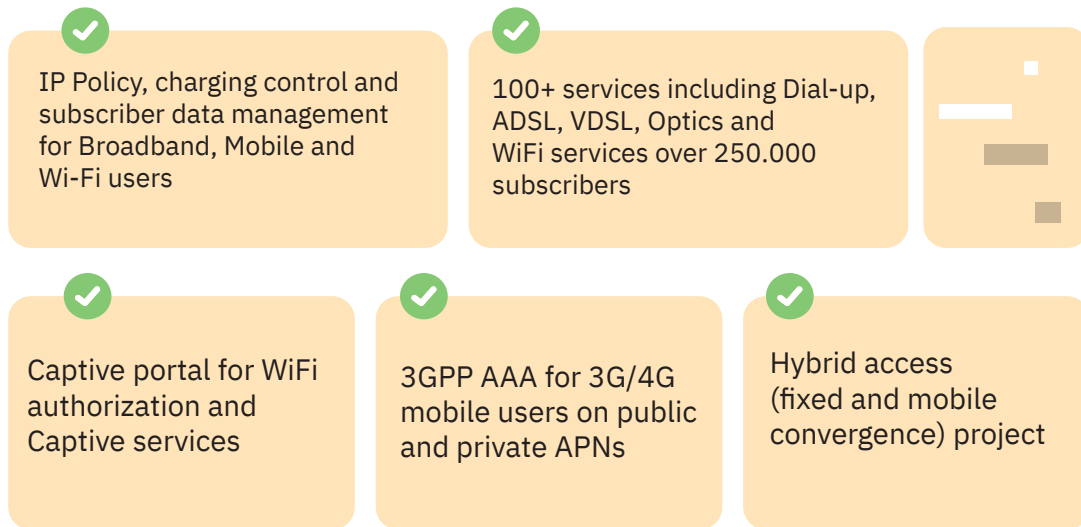
In 2012, the system was further upgraded by replacing the underlying RADIUS server with FreeRADIUS server for protocol related functions and OpenProvider Policing engine for implementing business and policy rules, subscriber and session management. In this version OpenProvider includes EAP with all subtypes integrated. This version also included Transparent Auto Login (TAL) functionality and extended RADIUS Proxy policing with Forwarding Authorization, Accounting, CoA and PoD packets.

Finally, the product was upgraded once more as vAAA version (VNF) that was developed in accordance with ISG NFV ETSI standards and 3GPP standards. Designed to be deployed on Telco Cloud environment (virtualized infrastructure) where TOSCA MANO orchestrator is present. It was released in 2017.



## OpenProvider and IP services for Crnogorski Telekom

Since the early days of Crnogorski Telekom in Montenegro, Logate developed OpenProvider AAA from scratch to meet the developing needs of the Montenegrin telecommunications market. Through **more than 10 years** of serving Crnogorski Telekom, Logate was able to deliver various complete solutions that included:



- IP Policy, charging control and subscriber data management for Broadband, Mobile and Wi-Fi users
- 100+ services including Dial-up, ADSL, VDSL, Optics and WiFi services over 250.000 subscribers
- Captive portal for WiFi authorization and Captive services
- 3GPP AAA for 3G/4G mobile users on public and private APNs
- Hybrid access (fixed and mobile convergence) project

Logate is still the main partner and vendor to Crnogorski Telekom in the domain of maintenance and improvements of the AAA infrastructure, helping the client to constantly bring innovative services to the market (e.g. VoWiFi).



### Testimonial

We've been using Logate OpenProvider for the past nine years and we are satisfied with its stability. We have a great cooperation with Logate regarding improvement and maintenance of the solution.

*Radovan Vukotić,  
Manager for Services and Platforms,  
Crnogorski Telekom*



### About us

**15**

years on the market

**20<sup>M</sup>**

Millions of subscribers on our AAA platform

**80<sup>+</sup>**

80+ years of collective experience