

# RECOMMENDATIONS FOR PROVIDING FREE STATE WiFi ON PUBLIC OPEN SPACES IN ACCORDANCE WITH GOVERNMENT'S WORK PROGRAMME (2020-2024) AND NOBP

## INTRODUCTION

Delivery of free internet connection via wireless access points that use WiFi network technology (**hereinafter: wireless access points**) in settlements' public open spaces where larger groups of people gather and have free time between activities in their daily schedule creates significant added value, given that it transforms people's free or transit time in productive, relaxing experience or opportunity to collect information.

Implementing and using these wireless access points may also boost development of a specific industry, such as tourism.

On the other hand, wireless access points may produce increased granularity of internet coverage in remote areas in the country.

The limited range of any wireless access point (100-150 meters in open spaces) is a guarantee that they will not be a threat to offers from commercial operators (particularly concerning mobile broadband access). What is more, wireless access points help promote user's interest in retail broadband access offers and services of other commercial operators.

## WIRELESS ACCESS POINTS IN MUNICIPALITIES

The most congested locations in municipality mostly have installed a large number of "commercial" WiFi access point provided by restaurants, cafés, hotels, airports, railway and bus stations etc.

Certain local self-governments have already recognized the benefit of providing free internet connection via wireless access points for citizens, and thus already have or plan to set free "municipal WiFi"<sup>1</sup> on their own initiative or in cooperation with operators.

However, it should be noted that not all local self-governments do not have the capacity and opportunity to provide free "municipal WiFi". This particularly concerns settlements located in so-called "white zones"<sup>2</sup> that usually have a smaller number of inhabitants and wider distance from cities.

## FREE STATE WiFi

Page 6 from the Work Programme of the Government of the Republic of North Macedonia 2020-2024<sup>3</sup>, inter alia, includes the following: *"In the field of tourism, the Government will provide an alternative and cultural tourism subsidizing system. The archeological sites will be fully developed and made available for visits by domestic and foreign tourists. We will enable nationwide use of free Wi-Fi by clicking on a link that will lead to the promotional site of municipalities, regions, points of entry into the country, rest areas, and gas stations"*.

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<sup>1</sup>planning, setting and operation is financed by the local self-government

<sup>2</sup>zone/area not covered by NGA access network (download speed over 30Mbps), whereby operators have no plans in place to provide such coverage in the following 3 years. White zones available on: <http://app.gdi.mk/NGAPokrivanje/>

<sup>3</sup><https://vlada.mk/sites/default/files/dokumenti/programa-na-vlada-agenda2020-2024.pdf>

On the other hand, with a view to make broadband access available to all citizens in the state, the National Operational Broadband Plan (NOBP) covers measures (which also include state aid) to secure network coverage of white zones, with a view to provide citizens access to broadband of the same quality and affordability available in areas in the country with developed competition.

**Free state WiFi should provide support in development of tourism and encourage utilization of broadband in white zones in the country.**

**Costs for delivery of free state WiFi are covered by funds from the Budget of the Republic of North Macedonia.**

## **DELIVERY OF FREE STATE WiFi**

Article 5 of the Law on Establishment of PE MB, stipulates that on the entire territory of the country PE MB should construct the National Transport Fiber Optic Network (NTON) that would be used to connect **locations of wireless access points for delivery of free state WiFi.**

Pursuant to item 2.1.2 under NOBP, construction and development of NTON should be based on feasibility study adopted by the Government.

The NTON Feasibility Study is prepared by PE MB in cooperation with NBCO and other institutions, and preparation thereof should take into account recommendations adopted by NBCO<sup>4</sup>, particularly those concerning installation of underground cable system financed with public funds, and utilization of existing cable system (owned by operators or by the state).

Prior to preparing NTON Feasibility Study, PE MB should secure a platform for mapping the list of locations<sup>5</sup>. Location lists are prepared by PE MB in cooperation with NBCO<sup>6</sup>, local self-governments, planning regions and ZELS (Association of Local Self-Government Units).

Cooperation with local self-governments in establishing locations is of crucial importance, having in mind that the local self-governments have the most insight into state-of-affairs in settlements, citizens' needs, tourist visits etc., but also for mutual coordination to prevent replication of existing or planned free "municipal WiFi".

## **FREE STATE WiFi HOTSPOTS**

Free state WiFi should be delivered in public open spaces:

- A. **only in settlements defined as "white zones"**, particularly in white zone settlements that are still not covered (or are only partially covered) by 4G mobile network signal, those being the following types of locations: within proximity of bus/railway stations, parks, public squares and/or other public open spaces where people gather;
- B. **in tourist destinations and attractions across the country's territory**, pursuant to the National Tourism Strategy of the Republic of North Macedonia 2016-2021<sup>7</sup>, in public open spaces at the entrance in the

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<sup>4</sup> [http://bco.mioa.gov.mk/?page\\_id=35](http://bco.mioa.gov.mk/?page_id=35)

<sup>5</sup> Pursuant to Item 1.9. under NOBP

<sup>6</sup> This is also NBCO's law-stipulated obligation, pursuant to Article 71-a under the Law on Electronic Communications

country, at stops and gas stations, particularly those located on the main corridors pursuant to the Agreement on Establishment of Transport Community on the Basic and Comprehensive Road Network in the country.

When choosing locations, the following should be taken into account:

- whether the local self-government has set or anticipates to set free “municipal WiFi” near the locations. If free “municipal WiFi” is set or planned to be set, free state WiFi should not be installed;
- the possibility to use existing underground cable system or existing fiber optic networks (owned by public or private entities),
- the possibility to utilize free optic fibers from fiber optic cable installed by PE MB to free state WiFi hotspots for the needs of mobile operators for future installation of small 5G base stations,
- whether ICT project is in place or is planned for the following 2 years, which anticipates network connectivity and is financed by public funds;
- construction, conditions, location in which WiFi broadcasting equipment would be installed etc.

Free state WiFi in white zone that does not feature locations for promotion of tourism should be available in one public open space. If the white zone has a higher number of inhabitants, free state WiFi should be available in two public open spaces.

PE MB chooses the locations and defines the number thereof, in cooperation with NBCO pursuant to criteria/recommendations set forth under this document, and in consultation with the Ministry of Information Society and Administration, local self-governments and institutions in charge of tourism development. In that, public meeting may be held with local self-governments and interested operators with a view to present the project.

Upon proposal of the minister in charge of electronic communications, the Government of the Republic of North Macedonia issues approval on the number and choice of locations.

## **DEFINING TECHNICAL SPECIFICATIONS OF WIRELESS STATE WiFi ACCESS POINTS**

By connecting NTON network nodes with free state WiFi hotspots, NBCO, in cooperation with MISA, PE MB and the local self-government, should set forth the following **technical specifications of wireless access points**:

- WiFi standards and power standards,
- Measures to secure protection against cyber incidents,
- Guaranteed minimum speed, guaranteed number of users that would be simultaneously served, time limit for fair use, availability of wireless access point (see below),
- Installation of equipment, needed physical protection and characteristics thereof, equipment warranty etc.

If a Digital Agency is established, it should be involved in the process of defining technical specifications of wireless access points.

By means of public procurement, PE MB should **choose an operator and sign a Contract for free state WiFi delivery pursuant to defined technical specifications**. Said Contract should, inter alia, anticipate installment of

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<sup>7</sup><http://www.economy.gov.mk/doc/2712>

active/passive equipment for the purposes of delivering free state WiFi, maintenance thereof and delivery of internet access to all citizens within range of the wireless access point.

In cooperation with NBCO, PE MB shall notify the Government of the Republic of North Macedonia about the selection of operator per municipality.

**If it is technically and economically feasible for the Budget of the Republic of North Macedonia, NBCO may recommend wider centralization, whereby one (or several) operator(s) would deliver free state WiFi for several municipalities, one or more regions.**

## **CONTRACT ON DELIVERY OF FREE STATE WiFi**

Contracts between PE MB and operators should be signed for periods not exceeding 5 years, whereby they should be published on PE MB's designated website.

Contracts with operators should, inter alia, include:

- Delivery of services for the contracting period, in accordance with defined technical specifications of wireless access points,
- Obligation and time period for changing certain technical specifications of wireless access points (if needed),
- Obligation to install visible notice board with information on availability of free state WiFi, operator providing the service, technical specifications of wireless access point, contact and manner of reporting defects or non-compliance with technical specifications etc.
- Obligation to employ centralized monitoring of the operation of wireless access points,
- Obligation to create, set and upgrade promotional page, i.e. "landing page" (see below),
- Obligation to implement measures for protection against cyber incidents, in compliance with defined technical specifications of wireless access points,
- Internet services and contents that should be disabled pursuant to the Constitution and laws of RNM,
- Delivery of security and integrity of services, security of communications, personal data protection and respect of other fundamental human rights and freedoms should be guaranteed pursuant to the Constitution and laws of RNM,
- Deadline for defect removal (upon own initiative or upon receipt of electronic notice from citizen, municipality, PE MB etc.). For this, the operator should notify PE MB pursuant to the agreed manner and within a defined deadline,
- Obligation to keep register of notices received from the public in terms of operation of wireless access points,
- Obligation to maintain statistics and analysis on utilization of wireless access points (see below), as well as manner and deadline of lodging these data,
- Amount of annual service delivery fee etc.

The funds from the annual service delivery fee pursuant to signed contracts shall be secured from the Budget of the Republic of North Macedonia.

## **INTERNET SERVICES THAT SHOULD BE DELIVERED VIA FREE STATE WIFI**

According to latest data from the State Statistical Office (SSO)<sup>8</sup>, the following internet services are most frequently used in the country: social networks/media (e.g. Instagram, Facebook, LinkedIn, Twitter, YouTube, Snapchat, etc.), online communication platforms (VoIP/video calls, Instant Messages), and web information and search. These services should be available to use via the free state WiFi.

Pursuant to the Contract, the operator should ensure that promotional page, i.e. "landing page" appears prior to any action when a user accesses the free access point. Said landing page should cover the following in particular:

- Information about terms and conditions on utilization of free state WiFi, about the fact that utilization thereof for any illegal activities, cyber-attacks or similar actions are contrary to the law and the country shall assume the obligation to take action should such incidents occur (instructions for use),
- Promotional information about the municipality, region, locations of tourist destinations and attractions,
- Services offered by the local self-government and other useful information, with a view to encourage citizens to use broadband services, in particular digital Government/municipal services, so they would be able to exercise their rights in a streamlined, electronic manner.
- Link/banner redirecting to the National e-Services Portal ([www.uslugi.gov.mk](http://www.uslugi.gov.mk)).

The operator shall develop and consistently upgrade this promotional page pursuant to provisions set forth under the signed Contract, in cooperation with local self-governments, PE MB, institutions operating in the field of tourism etc.

## **GUARANTEED MINIMUM SPEED, GUARANTEED NUMBER OF USERS THAT WOULD BE SIMULTANEOUSLY SERVED, TIME LIMIT FOR FAIR USE AND AVAILABILITY OF WIRELESS ACCESS POINT**

To guarantee that the free state WiFi would deliver high quality user experience when used, it is necessary to guarantee minimum download/upload speed per user.

Moreover, the wireless access point should have the capacity to simultaneously provide wireless internet access with guaranteed minimum speed to a guaranteed number of end users.

Certain limits should be set forth for using free state WiFi, such as time limit for free use that may also include restricted usage period between connections per user<sup>9</sup>.

Availability of free access points for delivery of free state WiFi should be in compliance with defined service quality level (Service Level Agreement) set forth under the Contract signed between PE MB and operators.

## **STATISTICS AND ANALYSIS ON FREE STATE WIFI USE**

With a view to assess the quality of the service provided by the operator, to determine justification of certain wireless access point, i.e. operation thereof, offered services, portion of the population that use it etc., the operator

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<sup>8</sup><http://www.stat.gov.mk/PrikaziSoopstenie.aspx?rbrtxt=77>

<sup>9</sup>Users register with their personal data, e.g. their mobile telephone number or username, but the data are anonymous pursuant to relevant statement on protection of the privacy of personal data related to that service

should regularly process data gathered from users' access to wireless access points, for statistics and analysis purposes.

In that, personal data protection and other fundamental human rights and freedoms should be guaranteed pursuant to the Constitution and the laws of RNM.

Pursuant to contract provisions, the operator should deliver quarterly reports covering processing data to PE MB, NBCO and the municipality.

These data should be covered under the annual report with which PE MB informs the Government of RNM about free stateWiFi delivery.

Should data covering a period over 6 months demonstrate justification for change of certain previously defined technical specifications of wireless access points, PE MB, in cooperation with NBCO, shall set forth necessary changes and will deliver a request to the operator to employ said changes. In that, the operator may be consulted about change proposals. The operator should employ said changes within the time period stipulated under the Contract.

Should the requested change impose additional fiscal implications to the Budget of RNM, PE MB should request prior approval thereto from the Government.

## **WIRELESS ACCESS POINTS REGISTER**

PE MB shall keep a Register of all wireless access points used to deliver free stateWiFi. Said Register shall list information on specific technical specifications of each wireless access points.

On its designated website, PE MB shall publish and upgrade the Register with visual display of wireless access point locations.

PE MB should continuously monitor operation of all wireless access points, as well as inform the operator after received notice from citizen or local self-government related to operation thereof.

On its designated website, PE MB should provide an opportunity for citizens to express their views related to operation of the wireless access points.

PE MB shall annually inform the Government of the Republic of North Macedonia about delivery of free stateWiFi.

## **ANTICIPATED OPERATION PERIOD**

Pursuant to NBCO Report dated March 2020, 70.06% of citizens have used mobile broadband. Given the anticipated marked development (particularly 5G), new technologies (e.g. eSIM), reaching national broadband targets set forth under NOBP<sup>10</sup>, and the anticipated start of EU accession negotiations, the need to deliver free state WiFi in certain municipalities should be revised after 2029.

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<sup>10</sup>By 2029, fixed network "white zones" should not exist and every person should have the opportunity to access the internet via 5G with minimum internet access speed of at least 100 Mbps