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Next Generation Access and Investment Issues

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- **to show in a comprehensive manner all the investment issues related to the Next Generation Access in Croatia**

- **What are the possible models for financing NGA?**
- **What costs are part of CAPEX?**
- **What are the investment issues regarding NGA?**

- investment made by the former monopolists (incumbent);
- investment by the government / public sector - state and / or local governments and local (regional) governments;
- investments by some operators in the private sector - the operators and / or companies that operate in the market share through the newly founded company, or some other form of cooperation to invest in next-generation access network;
- investment by the public-private sector - state and / or local governments and local (regional) governments, together with one or more of the entities involved in the construction of a new generation access network.



Capital expenditures (hereinafter CAPEX)



- item which is paid at the beginning of the investment, during the upgrade and expansion – that is the unexpired expense, which usually matures in the form of annual depreciation costs, and as such is included in cost of service.
- will depend upon the possible financial type of investment for possible investors and their recognition through financial statement in profit and loss account as a part of cost of provided services which will match with the revenues from provided services for the same period.

- The costs of implementation;
- The cost of investment in active equipment in the central office;
- Cost of materials

Typical costs

- Investing in a part of the access node;
- Investing in the network;
- Investing in a home installation.

Parts of the network



Possible cost optimization is possible through several effects



- Availability of DTI - through the application of new solutions;
- The possibility of installing air optical network (poles, fronts);
- Using the infrastructure of other "utility" operator (water, gas, ducts);
- Optimization of network topology and the position coupler in the network;
- Engaging clients in the preparatory work;
- Order in advance / mass of initiatives related to the connection for the initial development;
- Reuse copper network cabling within the MDU's, for example, completion of FTTB networks with VDSL DSLAM-infection;
Allow final users to pay for equipment or how to rent it or buy it that way;
- Enabled leased lines.



- The concept of network access (cost per user);
- Market size;
- Interest of users for demanding broadband services (the demand);
- Utilization of already built infrastructure;
- Topology and architecture of the network (reducing the number of nodes);
- Construction techniques - the use of new technology which optimizes the cost of investments (micro tubes, micro-cables).

- will consider possible directions for future investment in infrastructure taking into account the current level of infrastructure development in Croatia, considering national specificities such as population density, geographical characteristics (large number of islands and rural areas), market opportunities to adopt new services, access for financing investment in NGN networks;
- But also what will be the impact on Croatian economy (to see some numbers.....)

- The issue of NGA investment is important for the:
 - Potential investors
 - Regulator
 - Society

- total costs and profitability but also benefits of investment in NGA infrastructure include numbered key issues related to the development of NGA networks on the Croatian territory.



Thank you!