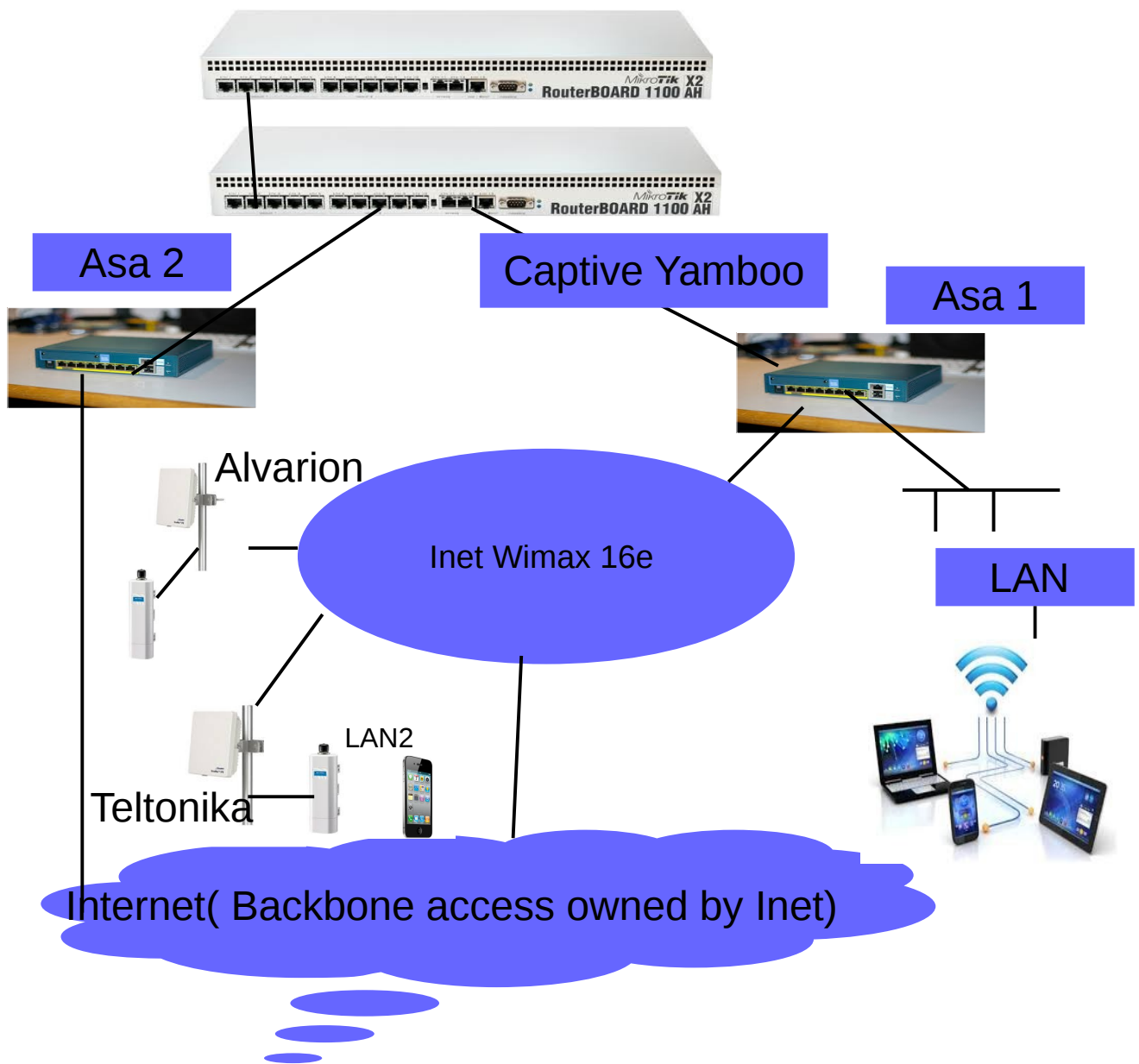


The 2 CPEs access mode scenarios: Bridge and IP-CS



We had different project phases in Kinshasa.

Phase 1: Test the Basic Internet solution on a local LAN

Via local LAN made of ASA1, as shown in this figure. We set the configuration you known with the Same IP plan, attached also here. The ASA1 provide IPs to the end users. Users can ping 10.0.0.1. The ASA2 is a gateway connected to the Internet independently to the 16e Network. All users are sent to the captive page Yamboo to authenticate before accessing the Internet. It works nicely.

PATH: LAN1-->ASA1-->Mikrotik -->DHCP -->Captive Yamboo -->AAA-->Captive Yamboo--->ASA2 -->Internet

Pls: Correct me I may me wrong

Phase 2: Test the Basic Internet solution connected to the Wimax core

The final goal is to launch the Yamboo service to the Market, not stop it into the Lab LAN. We need to use the Inet Alvarion Wimax backbone to extend our service. For this we have 2 scenarios:

Scenario 1: Alvarion CPE using the bridge mode

In this scenario Inet made a special VPN to our service. In this service he routes all the CPE traffic to our Basic Internet Core in Kinshasa, that means Mikrotik 1 and Mikrotik.

It is the ASA1 that received the traffic from iNet Wimax Core, same way than the local LAN traffic. In reality using this backbone we get the VPN Wimax traffic as our local LAN traffic to be Handled by the BI core.

The VPN use same mask and DNS, or compatible to the local. I can give details of this LAN coming from Wimax. From the Wifi attached to the Alvarion CPE you can ping the 10.0.0.1 as well the local DNS. Here all users are sent to the Internet same way as the local LAN, through the Yamboo captive page. Note: The controller use on this Wimax network is ALEPO who makes the AAA for all devices accessing the Wimax core.

This solution is working tremendously nice, and we are working with it now to launch the service. The disadvantage is that the CPE is expensive 300\$.

PATH: CPE Alvarion --> 16 e Wimax Core ---->ASA1-->Mikrotik -->DHCP -->Captive Yamboo -->AAA-->Captive Yamboo-->ASA2 -->Internet

Scenario 2: Teltonika CPE using IP-CS mode

When using Teltonika as well Greepack from GEMTEK, you can not configure those on bridge on The iNet Alvarion Wimax network. It simply dont work. But it works easily on IP-CS mode using Automatically NAT. How can we bypass this? As the BI dont accept the NAT.

Therefore I suggested to connect the CPE With a Mikrotik router on remote so that this remote mikrotik gives the dynamic IP. If possible Make also the captive page local on this local remote router. So to say copy or duplicate more or less the BI core into the small Mikrotik. Is this possible? Probably yes.....How? If this work, we will probably use the ASA2 as Internet gateway and use the same link of signaling to reach AAA, and will bypass the local Mikrotik core and ASA1, BI local Core, actually NAS. Where the VPN go from where to where I really dont care. Only it works.

The small Mikrotik is still using directly the AAA service from Oslo. Or alternatively we can connect it to the local Mikrotik NAS and then the test of AAA functionalities are done on the centralized way. The solution will be easier with local AAA in both cases.

PATH: LAN2-Wifi -->Mikrotic Remote --> DHCP ---->Local captive Yamboo -->AAA -->local Captive Yamboo -->ASA2 -->Internet

This solution, due to its low price 100\$ will be addressed to the residential. This is a huge Market segment. But it will come later on. Regarding the concern of taking out the AP and connect a PC, this problem can be solved commercially. But we can also monitor through Alepo, And develop a small application, no big issue.