ALPHA

Johannes Gilger, Florian Weingarten

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Adaptive and Lightweight Protocol
for Hop-By-Hop Authentication

Summary

What we did since last meeting

- made next semester's hiwi's life easier
- thought about `ipqueue` filter for routers
- started implementing those thoughts :-) (about 500 lines of C so far)
- tried to find a routing solution for OS X
- tried to run `iptables` on nokia

Problems

- OS X community doesn't know anything (helpful to us)
- `ipfw` is strange
- `iptables` on Maemo is simple in principle, hard in practice

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The ipqueue filter for routers

(Wanted) features

- Observe complete Alpha traffic [Done]
- Distinguish different streams [Done]
- Drop invalid packets (i.e. use crypto-stuff)
- The code should be quite small and **as fast as possible**

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- None so far, but it takes some time :-)

TODO for later

- Do some performance analysis (with all of our four vm's)
- Try to run on OpenWRT (should work, this is essentially the screamer filter)

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Getting Alpha to run on the Nokia (i.e. Maemo)

What Alpha needs to run

- TUN/TAP support (modular)
- IP Netfilter MARK target (modular)
- IP Advanced router (builtin)
- IP Multiple tables (builtin)

What works - what does not

- Alpha compiles on scratchbox, runs on Nokia (essential)
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Final goals

What we want to achieve before we consider our project a „success“

- alphafilter should work reliable [should be no problem]
- alpha should run on Nokia [could be a problem]
- Docu should be very good (trac, source code, ...) [working on it]

Next friday, we want to ...

- ... tell you, that alphafilter is working
- ... show you a live demonstration of alpha and alphafilter

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