

OLSR-NG Project

Evolution of a mesh net project

Summary

1.Goals

2.Problems with bugfixes

3.Today

4.The future

Goals

At the begin of OLSR-NG:

OLSRd scales up to ~200 nodes

Goals

At the begin of OLSR-NG:

OLSRd scales up to ~200 nodes

Goal of OLSR-NG:

OLSRd should scale up to 10000 nodes

Bugfixes (1)

Bugfixes are good...
but sometimes they can kill a network !

Bugfixes (2)

OLSR.org had a bad timer/scheduler implementation (events off by up to factor 2).

Bugfixes (2)

OLSR.org had a bad timer/scheduler implementation (events off by up to factor 2).

fixed scheduler
=> timing problems

Bugfixes (3)

OLSR.org did sometimes forget to cleanup it's topology database...

Bugfixes (3)

OLSR.org did sometimes forget to
cleanup it's topology database...

which was hiding bad timer settings
in the network !

Bugfixes (4)

Conclusion:

Fixing a bug can cause other problems,
even on layer 8 !

Today

- scales up to > 1000 nodes
- nearly complete code rewrite
 - scheduler
 - dijkstra
 - data structures
- routing metric plugins

The future (1)

Development tree with

- more cleanups and improvements
- memory manager with valgrind support
- config parser
- logging system
-

The future (2)

Prototypes for...

- “fixed IP” routing
- linklayer metrics
- on demand TC retransmissions
- new telnet/http server core

The future (3)

Plans for the next years...

- OLSRv2 (ip compression)
- ipip/ipsec tunnels to gateways
- routing loop detector/resolver

Conclusion

There is still a lot of work to do...