JAWS – Deployment Support for Ad-Hoc Networks

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It is hard to deploy beyond 10-20 nodes today

You cannot see what is going on inside the network

- setups typically involve lot’s of cables for direct node access
- debugging and monitoring messages interfere with operation
- connection not possible to all nodes
- coordinated methods and tools for deployment are missing today

JAWS enables direct wireless access to every node

Demo Scenario

BTnodes form a spontaneous multihop tree network
- distributed, robust and self-healing

Targets are attached to BTnodes
- via serial ports
- different targets possible, e.g. GPS, Motes, BTnodes, Lego Mindstorms...

Hosts can connect to Targets using Virtual Connections
- Virtual Connections based on ATM virtual circuits
- Hosts can attach at any BTnode in the network
- remote control and monitoring of multiple Targets

Target remote control on the BTnodes
- configuring serial tunnels to Host (baudrate, handshake)
- custom Target control (reset, firmware update)
- status monitoring and logging