Mesh Networks Alliance (MNA)

Date: 2005-07-20

Joint ComNets – Philips proposal
Proposal H:9

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Some animations may not be displayed correctly in PDF format.

Please see http://802wirelessworld.com for the original version in PowerPoint format.

Scalability

- Single channel, single radio
- Multi channel, single radio
- Multi channel, multi radio

Performance right from the first radio on

Combination

- Contention Free Period (CFP)
- Beacon frames
- Transmission Opportunity (TXOP)

Combines well known 802.11 technology

Coexistence

- **Dedicated resources**
  - Mesh traffic → Contention Free Period
  - Station traffic → Contention Period

Reliability for backbone

Compatibility for BSS

Compatibility

- **Seamless 802.11 integration**
- **Stations work in Contention Period (CP)**
  - DCF, EDCA, HCCA …

Fully compatible with 802.11-1999

Efficiency

- Spatial frequency reuse
- Interference aware
- Economical channel usage

Highly efficient with limited available channels

Security

- Light weight key distribution
- Flexible
- Scalable

Provides secure keys for 802.11i

Play without plug

- **No plug and play → Play immediately!**

Easy technology
Auto-configuration

Future

- **Ready for 802.11n**
  - Frame Aggregation
  - 40MHz channels
- **PHY independent**
  - DSSS, FHSS, OFDM, MIMO …
- **Radio agnostic**

Ready for the next decade

Mesh Networks Alliance

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Designed for efficiency
Any comments welcome
Open for compromise