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# Ad-Hoc IP Autoconfiguration Solution Space Analysis

draft-bernardos-autoconf-solution-space-00

70th IETF, Vancouver – December 2007

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# Outline

- Goals
- Issues of MANET autoconf solutions
- IP autoconf solution space analysis
- Next Steps

# Goals

- Analyse the solution space of IP autoconf
- Describe the issues of IP autoconf

# Issues of MANET autoconf solutions

- Additional signalling overhead
- Increased protocol complexity and processing load
- Scalability
- Security considerations
- Convergence time
- Routing protocol dependency
- IP address space assignment efficiency

# IP autoconf solution space analysis (1)

- Which entities are involved?
  - MANET Routers (distributed approach)
  - MANET Routers and Border Routers
  - MANET Routers and distributed servers
  - MANET Routers and centralised server(s) (centralised approach)
- What type of IP delegation: addresses or prefixes?
- How are IP addresses obtained?

# IP autoconf solution space analysis (2)

- How is IP address uniqueness guaranteed?
  - How is address uniqueness detection performed?
  - When address uniqueness detection is performed: pre-service and/or in-service?
  - How are address conflicts resolved?
- How is signalling performed?
- Are existing protocols modified?
- What are the security considerations?

# Next Steps

- Comments are very welcome
- Refine and complete the solution space analysis