

# Evaluation Considerations for IP Autoconfiguration Mechanisms in MANETs

draft-bernardos-autoconf-evaluation-considerations-01

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# Outline

- Draft History
- Objectives
- Introduction
- Evaluation Considerations

# Draft History

- **IETF 69th in Chicago (July 2007)**
  - Discussions on the possible guidelines and useful evaluation considerations for the IP autoconf mechanisms
  - Request to progress the evaluation considerations in a separate draft
- **August 2007**
  - Evaluation Considerations for IP Autoconfiguration Mechanisms in MANETs  
(draft-bernardos-autoconf-evaluation-considerations-00)
- **October 2007**
  - Evaluation Considerations for IP Autoconfiguration Mechanisms in MANETs  
(draft-bernardos-autoconf-evaluation-considerations-01): Revised version

# Objectives

- This draft discusses some evaluation considerations for IP autoconfiguration mechanisms in MANETs
  - Giving a useful reference for the solutions' space
  - Presenting guidelines for solution developers during mechanisms' design and implementers in the choice of the autoconf mechanism
- The evaluation considerations developed in this draft refer to the previous study
  - Draft-clausen-autoconf-criteria-00 (July 2005): an analysis of several evaluation criteria for MANET autoconf mechanisms is done

# Introduction

- This draft presents a number of evaluation considerations for IP autoconfiguration mechanisms, illustrating some key features and highlighting some important behaviours for these mechanisms
- The evaluation considerations presented in this draft are generally classified according to a number of characteristics
  - Node/network characteristics
  - Nodes' behaviour characteristics
  - Functional characteristics
  - Performance characteristics
  - Usability characteristics

# Evaluation Considerations 1/3

- Node/Network Characteristics
  - MANET Scenarios
  - Mobility Type
  
- Functional Characteristics
  - Address Uniqueness
  - Merging Support
  - Partitioning Support
  - Prefix delegation support

# Evaluation Considerations 2/3

- Performance Characteristics
  - Protocol Overhead
  - Robustness
  - Convergence Time
  - Scalability
  - Address Space Utilisation
  
- Nodes' Behaviour Characteristics
  - Distributed/Centralised approach
  - Trust and Security

# Evaluation Considerations 3/3

- Architectural Characteristics
  - Integration with standard IPv6 nodes
  - Gateway involvement
  
- Usability Characteristics
  - Routing Protocol Dependency

# Next Step

- Soliciting comments
- Discussing the possibility of accepting this draft as a WG item