Project Proposal "MANET"

Location Aided DYMO

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What is MANET?

IEEE 802.11b, Capacity up to 11 Mbps
DYMO

• Dynamic MANET On Demand Routing protocol.
• Successor of AODV
• Acts as Pro-active and Reactive Protocol
• Extends AODV with Source route path accumulation feature of DSR
How DYMO works?

- Carol
- Dave
- Alice
- Bob
• To make node learning in DYMO more efficient

• We plan to achieve this by incorporating Location Aiding feature in DYMO via GPSstix

• Hence our module has the name „Location Aided DYMO“
Project Overview

- Enhancing the node learning process in DYMO routing protocol.
- Increasing efficiency of DYMO protocol by making it location dependent.
Gumstix & GPSstix

• Setting up usb net
• Cross compilation
• Communication between Gumstix
• Analysis of generated log files in mobile and static scenarios
• Setting up test bed in both scenarios
• Yet to learn about GPSstix
Procedure

Phases

• Implementation
• Evaluation
• Improvisation
Proposed Models

1 Mobile

2 Mobile

3 Mobile

Mobile Node

Static Node

Static communication

Mobile communication
Implementation Phase

- Porting DYMO protocol code to Gumstix
- Realizing DYMO on the proposed models
- Detect cases where node learning process is difficult
- In the above scenario, implement a new packet header design
Evaluation Phase

- Apply the newly developed module to all of the proposed models
- Following parameters can be evaluated: TTL, Delay, Overheads
- Expected output can be evaluated in each case
- Further comparison with existing protocols can be made
- Checking accuracy of GPSstix information
Improvisation Phase

- Improving weaknesses we encounter in evaluation Phase.

- Extension of network topology by incorporating more nodes
## Schedule

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time</th>
<th>Date</th>
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<tbody>
<tr>
<td>Implementation Phase</td>
<td>4 Weeks</td>
<td>18/02/08</td>
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<tr>
<td>Evaluation Phase</td>
<td>2 Weeks</td>
<td>07/03/08</td>
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<tr>
<td>Improvisation Phase</td>
<td>1 Week</td>
<td>14/03/08</td>
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<tr>
<td>Team Project</td>
<td>5 weeks</td>
<td>30/04/08</td>
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• By making route discovery location dependent, we are enhancing the efficiency of the node learning process.

• By this Routing Protocol is more efficient
THANK YOU for your attention