

# ITRAINONLINE MMTK

## *Trainers' notes: Linux Based Infrastructure*

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<b>Introduction</b>	An overview of the different roles in a network that can be filled with a Linux computer. Brief run-throughs of configuration and example software packages for each role.
<b>Timing/duration</b>	<ul style="list-style-type: none"><li>• Presentation: 2 - 2½ hours presentation to give an overview (slides + handout)</li><li>• Hands-on: ½ day (2-4 hours) depending on trainee experience level</li></ul>
<b>Content outline and main topics covered</b>	<ul style="list-style-type: none"><li>• Intro to wireless on Linux</li><li>• Intro to scenarios<ul style="list-style-type: none"><li>• Scenario 1: Masquerading AP</li><li>• Scenario 2: Transparent Bridge AP</li><li>• Scenario 3: Central Firewall/Gateway</li></ul></li></ul>
<b>Target audience</b>	Network administrators. This unit makes most sense to people with existing experience as network administrators, and with basic background knowledge of wireless networking. It can only be considered introductory insofar as it gives an overview of available free software solutions that are useful when deploying wireless networks.
<b>Prerequisite skills/knowledge</b>	<ul style="list-style-type: none"><li>• Basic understanding of Linux, including Command-line interface</li><li>• Understanding of how to install wireless drivers under Linux equivalent to unit "Wireless Clients with Linux"</li><li>• Basic understanding of networking equivalent to the module "Advanced Networking"</li></ul>
<b>Unit objectives/expected outcomes</b>	By the end of this session participants will <ul style="list-style-type: none"><li>• Be aware of different roles of Linux computers in a (wireless) network</li><li>• Be able to set up basic wireless infrastructure running Linux</li></ul>
<b>Pre-workshop activities</b>	
<b>Notes on using exercises</b>	If there is time, get participants to follow the steps listed under the various scenarios.
<b>Resources included with unit</b>	<ul style="list-style-type: none"><li>• Trainers' notes</li><li>• Handout</li></ul>

	<ul style="list-style-type: none"> <li>• Slides (short intro to the handout)</li> <li>• List of additional resources</li> <li>• Workshop evaluation form (for trainees)</li> <li>• Materials evaluation form (for trainers)</li> <li>• Copyright statement</li> </ul>
<b>Additional trainer resources</b>	See <a href="http://del.icio.us/tkrag/WisplnABox">http://del.icio.us/tkrag/WisplnABox</a> for list of links
<b>Equipment needed</b>	<p>For each group of ideally 3-4 people:</p> <ul style="list-style-type: none"> <li>• One simple x86-based computer with either 2 wireless interfaces or 1 wireless and 1 wired. These could be laptops, desktops or single-boards, such as Soekris boxes (or Metrix access points).</li> <li>• For exercise 2: <ul style="list-style-type: none"> <li>• One Linksys WRT54G and computers which can be used to flash them with custom firmware.</li> <li>• Custom firmware for the Linksys WRT54G, OpenWRT is recommended.</li> </ul> </li> </ul>
<b>Comments</b>	The slides can serve as an introduction to the handout.