

```

<?php require_once "lib.php"; title("All LANforge CLI Cookbooks");
require_once "cookbookparser.php";
require_once "javascript_hdr.php";
$volume = get_volume("cli");
?>
  <meta name="robots" content="noindex,nofollow" />
  <meta name="description" content="All chapters of the LANforge-CLI Network cookbook covering: <?php echo $volume->topics ?>." />
  <link rel="stylesheet" type="text/css" href="cookbook.css" />
  <script type="text/javascript">
    document.candela = {
      'imgpath'   : 'html/images/cb_images'
    };
  </script>
</head>
<body>
<?php
require_once "header.php";
require_once "menu.php";
?>
<div id="contentDiv">
<h1 class="big_heading">LANforge Scripting Cookbook</h1>

<p>The LANforge Scripting Cookbook provides a series of detailed examples of how to
craft testing scripts for unattended/automated operation. Each example
intends to give the reader a runnable test script and a better understanding of how to
use the LANforge Scripting.</p>

<h2>Places to Run CLI Commands</h2>
<p>You do not need to operate scripts directly from the LANforge server, and this allows you to code scripts in your
preferred text editing environment. Likewise, you do not need to run a copy of LANforge Server on your desktop.
Scripts will create a plain-text connection to the LANforger server you specify.</p>



<dl>
<dt>Windows Desktop</dt>
<dd>You can install a copy of the LANforge Server on your windows desktop (without a license) so that you have access
to the Perl scripting libraries. Edit scripts and run them from your <tt>C:\Program Files\LANforge-Server\scripts</tt>
directory.</dd>

<dt>Linux Desktop</dt>
<dd>You can copy the LANforge scripts folder directly from your LANforge server to your Documents directory with scp.</dd>

<dt>SSH or VNC connection to LANforge Server</dt>
<dd>Using <em>vncviewer</em>, <em>rdesktop</em> or <em>ssh</em> are all fine options to connect to the
LANforge server to write and operate scripts. The LANforge server comes with a basic Linux desktop and you can use emacs,
vim, pluma, or gedit text editors installed by default. When editing scripts on the LANforge server itself, be careful
to back up your work before you upgrade LANforge. The LANforge install process will over-write scripts of the same
name in the scripts directory.</dd>
</dl>

<h2 class="big_heading">Requirements for Scripts</h2>
<p>Your desktop (or other computer) running CLI scripts needs to have a reliable (wired) connection to the management
port of your LANforge server. If you are engaging in long running tests, you might consider running the scripts from
the LANforge manager itself if your desktop machine needs to be powered off.</p>

<dl>
  <dt>Script Libraries</dt>
  <dd>CLI scripts are written using Perl. They require the libraries in <tt>/home/lanforge/scripts/LANforge</tt>
    Users may write scripts in other programming languages, such as python, but in that case, they will
    not be able to take direct advantage of the Perl scripts included in LANforge.
  </dd>

  <dt>On Windows</dt>
  <dd>
    LANforge is more fully featured on Linux, but basic support exists on Windows as well.

    <p>You can run CLI scripts from any Windows desktop as long as you have Perl installed.
    You can use <a href="http://www.activestate.com/activeperl/downloads" target="_blank">ActiveState Perl</a>
    or <a href="http://cygwin.org/" target="_blank">Perl from the Cygwin project</a>.
    We also highly suggest installing <a href="http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html"
    target="_blank">PuTTY ssh client</a>
    to access your LANforge server.</p></dd>

  <dt>On Linux/OS X</dt>
  <dd>Most Linux distributions come with and ssh client and Perl already installed.</dd>

```

<dt>LANforge Server Requirements</dt>

<dd>The following examples will create test scenarios that work on LANforge Linux systems running the LANforge software with the LANforge kernel and a sufficient license. If you are running LANforge server using another Linux kernel, you may not be able to operate some of the examples. (Features like Armageddon, operation of WiFi-AC radios, and WanLinks all require drivers included only in Candela provided kernels.)</dd></dl>

<p>Please contact us at <a href="mailto:support@candelatech.com"> support@candelatech.com</a> if you have any questions.</p>

<a name="fire"></a>

<h2 class="big\_heading">Before Starting LANforge-CLI Traffic Generation</h2>

<P>Before attempting the examples below, ensure that you have successfully followed these software installation guides:</p>

<ul class='blue'>

<li><a href="lfgui\_install.php" target='\_new'> LANforge-GUI Installation</a></li>

<li><a href="lfserver\_install.php" target='\_new'> LANforge Server Installation</a></li>

</ul>

<P>It is also recommended that you back up your current running LANforge Server database so that you may safely return to your current operating state.</p>

For instance:

<pre>

```
su - root
cd /home/lanforge
tar -cvzf my_db_backup.tar.gz DB
</pre>
```

<h2 class="big\_heading">LANforge-CLI Detailed Cookbook Examples</h2>

<ol>

<?php

```
$volume = new cli_toc();
foreach ( $volume->bookmap as $file => $entry ) {
    $aliases = array_reverse( explode( ',', $entry[0] ));
    $alias = str_replace( ' ', '+', trim($aliases[0]));
    $chap = str::fmt("<li> <a href={0}cookbook.php?vol=cli&book=$alias{0}>{1}</a></li>{N}", $entry[1]);
    echo "$chap";
}
?>
```

</ol>

<?php

```
foreach( $volume->bookmap as $file => $entry ) {
    $book= get_cookbook($file);
    if (isset($book)) {
        $book->build_steps();
        $book->print_chapter();
    }
    else {
        error_log("fire_cb: failed to build $file");
    }
}
echo "</div>";
```

</div>

</div>

require\_once "footer.php";

js::printIncludes("3p/");

<?>

<script type="text/javascript" src="cookbook.js"></script>

</BODY>

</HTML>