



## **LAN-Cell 3 Guest Hotspot Example**

### **Technote LCTN3018**

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## This Technote applies to LAN-Cell models:

### LAN-Cell 3:

LC3-52U w/ Firmware v5.4.0 or later

## Document Revision History:

Date	Comments
May 6, 2014	First release

## Introduction

The Guest Hotspot feature allows the LAN-Cell 3 to provide Wi-Fi access to guest wireless devices. This feature segregates the guest devices into their own subnet (like the Guest LAN feature), but also automatically redirects Wi-Fi users to a “splash” page and prevents them from accessing the Internet until they “login” to the hotspot and optionally agree to a Terms of Use.

Deployment examples may include:

- Public transit vehicles (buses, trains, etc.)
- Internet cafés, hotel & resort Wi-Fi systems
- Temporary hotspots at events, etc.

This Technote provides an example of configuring the LAN-Cell 3's Guest Hotspot feature to create a customized solution for a municipal bus on-board hotspot. Please consult the *LAN-Cell 3 User's Guide* for more information. This Technote is for illustration purposes only.

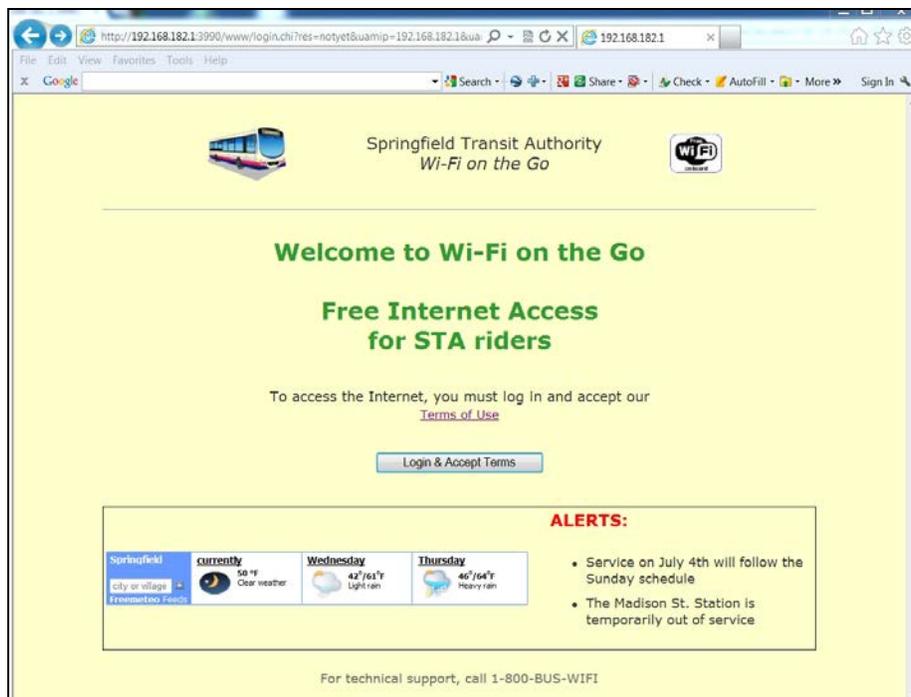


Figure 1: Example Guest Hotspot Splash Screen

## Usage Notes

- To use the Guest Hotspot feature, SSID2 must be enabled and not hidden; Security Mode and Guest LAN should be disabled.
- By default, Hotspot traffic will be forwarded to any available WAN interface. To force Hotspot traffic to use only a specific WAN interface, add the Hotspot subnet to the **Security>IP Access Control** list as "allow" for the desired WAN and "deny" for the other WAN interface.
- This example was created using the Proxicast LAN-Cell 3 firmware version 5.4.0.
- The full contents of each Guest Hotspot field needed to reproduce the example pages are included in a text file attached to this TechNote.

## Guest Hotspot Configuration

**WARNING:** A bug in Internet Explorer v9 and earlier causes IE to render any HTML entered into the Guest Hotspot fields in the router's GUI instead of displaying the raw HTML tags. Use IE10+ or a different browser to edit the Guest Hotspot page.

The example Splash screen created in this TechNote demonstrates a number of useful features for creating a truly customized look-and-feel for your environment. These include:

- Overriding the default CSS styles for built-in elements
- Incorporating inline HTML tags
- Displaying external content including graphic files
- Displaying dynamic content using AJAX
- Permitting access to a limited number of web sites without user login

Select the **Wireless (Wi-Fi)** menu, then the **Guest Hotspot** option (Figure 2). Select the Enable radio button to unlock the fields on the screen.

The screenshot shows the 'Wireless (Wi-Fi) - Hotspot' configuration interface. At the top, the title 'Wireless (Wi-Fi) - Hotspot' is displayed in a blue font. Below the title is a dark grey header with the text 'Hotspot Setting'. The main configuration area has a light orange background and contains the following fields:

- Hotspot:** A radio button group with 'Enable' selected (indicated by a red arrow) and 'Disable' unselected.
- Wireless SSID:** A text field containing 'Proxicast02'.
- IP Address:** A text field containing '192.168.182.1'.
- Subnet Mask:** A text field containing '255.255.255.0' with a dropdown arrow on the right.
- Authentication Mode:** A dropdown menu with 'Splash Page' selected.

**Figure 2: Enabling the Guest Hotspot Feature**

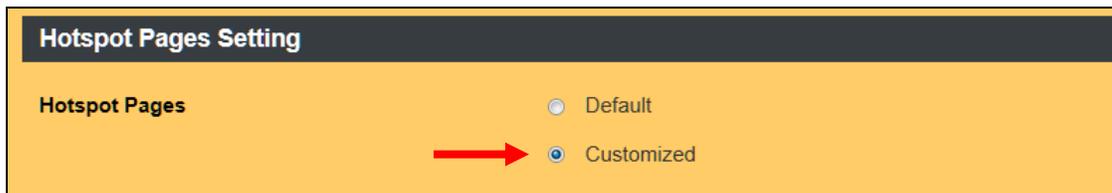
The Wireless SSID shown is SSID #2 as configured on the **Wireless > Basic** screen. You may adjust the IP Address and Subnet used by the Guest Hotspot to meet your requirements. The LAN-Cell 3 will be assigned the address entered into this field; the Guest Hotspot's DHCP Server will assign addresses beginning with the next highest IP address.

If you leave all of the remaining fields at their default settings, the LAN-Cell 3 will generate a splash page as shown in Figure 3.



**Figure 3: Default Guest Hotspot Splash Screen**

For our example, we will override the defaults and define a set of customized content for the Splash page. As shown in Figure 4, enable the Customized option to unlock the content fields.



**Figure 4: Customizing the Hotspot Splash Screen**

The Splash screen consists of a number of predefined HTML DIV sections which hold the content and styling for various portions of the web page. The available DIV ID's are:

```
<div id="header">
<div id="body">
<div id="welcome">
<div id="tos_message">
<div id="login-form">
<div id="login-button">
<div id="advertisement">
<div id="footer">
```

The “header”, “body” and “footer” DIV ID's are repeated on the Terms of Use and Success pages.

In addition, you may insert arbitrary HTML text between the <HEAD> tags of the Splash screen to define CSS styles, JavaScript functions, or to reference any external CSS or JS files.

The values each of the customized fields on our example Splash screen are shown below. The full text of these fields is included in the text document attached to this TechNote.

**TIP:** If your are pasting text from a word processor, be sure to eliminate any extended ASCII characters such as “smart quotes” or copyright/trademark symbols and replace them with their HTML equivalent tags.

<b>Web Page Title</b>	STA Free HotSpot
<b>Hotspot Page HEAD Elements</b>	<pre> &lt;style&gt; #welcome { color: #339933; font-size: 200%; font-weight: bold;}  td { font-size:110%;}  body{ background:#FFFFCC;}  #header{ font-size: 125%; font-weight: bold; line-height: 20px;}  #tos_message{ font-size: 150%;}  #footer { font-size: 110%;}  #ad_table{ border-collapse: collapse; border: 1px solid black; vertical-align: top;} &lt;/style&gt; </pre>
<b>Header Content</b>	<pre> &lt;table width="70%" border=0&gt; &lt;tr&gt;&lt;td style="text-align: center"&gt; &lt;img src="http://www.proxicast.com/demo/bus3d-100x100.png"&gt;&lt;/td&gt; &lt;td style="text-align: center"&gt;Springfield Transit Authority&lt;br /&gt;&lt;i&gt;Wi-Fi on the Go&lt;/i&gt;&lt;/td&gt; &lt;td style="text-align: center"&gt;&lt;img src="http://www.proxicast.com/demo/free_wifi_on_board_61x46.jpg"&gt;&lt;/td&gt; &lt;/tr&gt;&lt;/table&gt; </pre>
<b>Welcome Message</b>	<pre> &lt;hr&gt;&lt;br /&gt;&lt;span style="line-height: 130%"&gt; Welcome to Wi-Fi on the Go&lt;br /&gt;&lt;br /&gt; Free Internet Access&lt;br /&gt;for STA riders&lt;/span&gt; </pre>
<b>Terms of Use Message</b>	<pre> &lt;p&gt;&lt;br /&gt;To access the Internet, you must log in and accept our </pre>
<b>Advertisement Content</b>	<pre> &lt;p&gt;&lt;br /&gt;&lt;table width="100%" id="ad_table"&gt; &lt;tr&gt;&lt;td width="468px"&gt; &lt;script&gt; clfrm="18";gid="592143_20140423_045240"; &lt;/script&gt; </pre>

	<pre>&lt;script src="http://www.freemeteo.com/templates/default/HTfeeds.js" type="text/javascript"&gt;&lt;/script&gt;&lt;/td&gt; &lt;td&gt;&amp;nbsp;&lt;/td&gt; &lt;td&gt;&lt;b&gt;&lt;font color="red"&gt;ALERTS:&lt;/font&gt;&lt;/b&gt; &lt;ul&gt;&lt;li&gt;Service on July 4th will follow the Sunday schedule&lt;/li&gt; &lt;li&gt;The Madison St. Station is temporarily out of service&lt;/li&gt; &lt;/ul&gt;&lt;/td&gt;&lt;/tr&gt;&lt;/table&gt;</pre>
<b>Footer Content</b>	For technical support, call 1-800-BUS-WIFI

Because the example Splash page references content stored on external servers, we must give the user's web browser permission to access these URLs before the Splash screen is drawn. To do this, enter the URLs into the "White List URL" field (Figure 5).



Figure 5: White List URLs

In the example, we give the user access the [www.freemeteo.com](http://www.freemeteo.com) web site so that the current weather will display on the Splash page via the HTFeeds.js JavaScript file. The user will also be able to check the weather at any other location or view the [www.freemeteo.com](http://www.freemeteo.com) web site (but not follow any links from that web site to other sites).

Likewise, we must allow access to [www.proxycast.com](http://www.proxycast.com) to retrieve the necessary graphic images.

The customized Splash screen is shown in Figure 6.

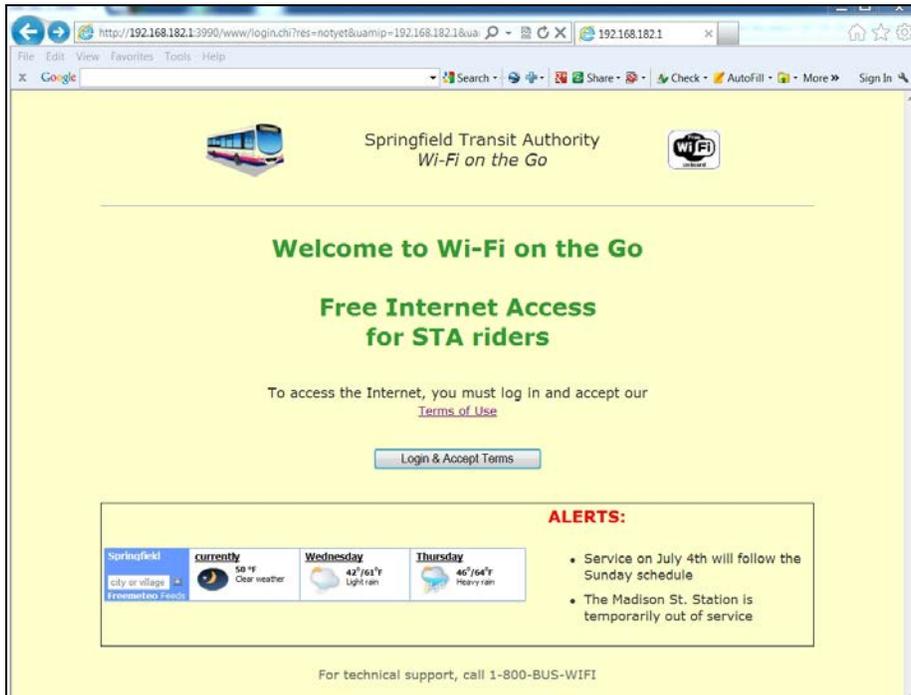


Figure 6: Customized Guest Hotspot Splash Screen

We also wish to enable the Terms of Use feature of the Splash page. The Terms of Use field is where you can enter any specific conditions that the user is accepting by accessing the Internet via the Guest Hotspot. Enable the Terms of Use option and enter the full text of your terms into the text field. This field can contain HTML tags to format the text.

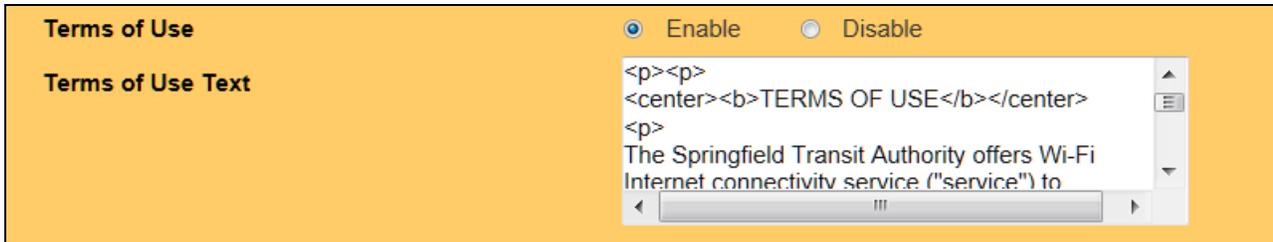


Figure 7: Terms of Use Fields

The resulting Terms of Use web page will include the Splash Page Header and Footer elements and appear similar to the screen shown in Figure 8..

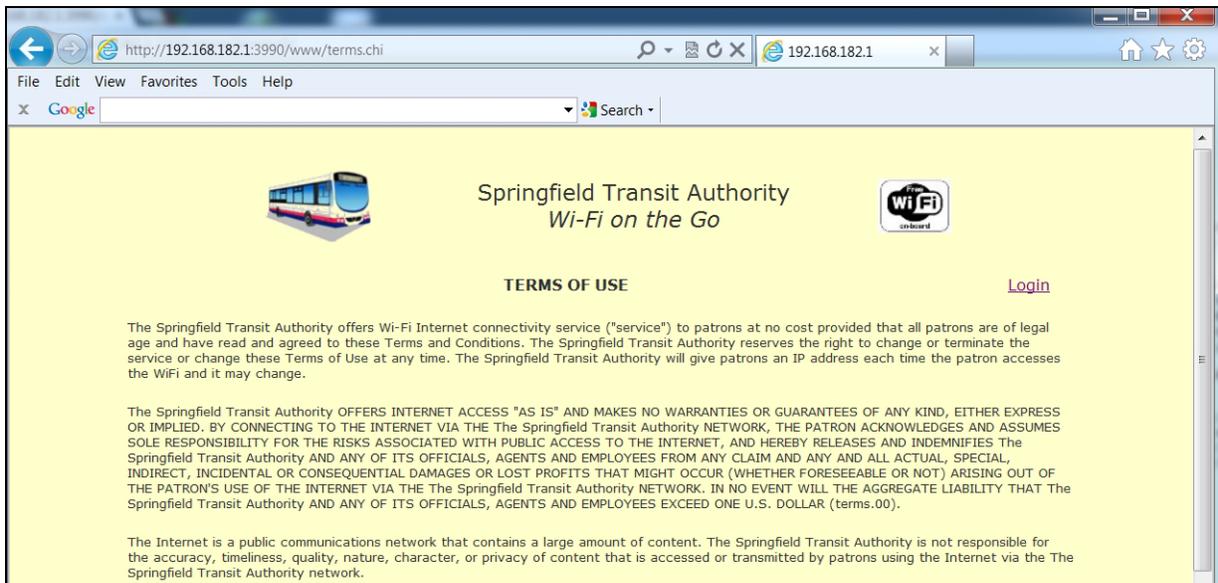


Figure 8: Customized Terms of Use Screen

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