

## How to configure WebMux in OOP(DSR) mode for Microsoft LCS servers

To not make big changes to the network, Out-of-path (OOP) mode – also called Direct Server Response (DSR) mode is desired. In OOP mode, the incoming traffic from clients sent to the farm address, WebMux then forwards those client requests to the proper LCS server. If WebMux detected any LCS server down, it will only send client to the available LCS server, so that the communication will not be interrupted. Since OOP mode has WebMux in the same internal network address range, there is no need to change the IP address settings of LCS servers.

To minimize the impact of the addition of WebMux and secondary of LCS servers, it is recommended to work with the WebMux and newly added LCS server first. Once that is working fine, then add the original LCS server to the LCS farm, so that they are load balanced. There are three main steps to take for this configuration: 1) Using pushbutton to configure WebMux for OOP mode; 2) Using browser to configure farms and server; 3) Configure LCS servers to join the farm.

We assume you already have FQDN for the LCS server running. If you are doing a fresh installation, you will need to configure each FARM address with FQDN in your LDAP server or your DNS server and populated to all the potential users' computer. In this document, we use LCSPool.PREY.BIRDS.NET as FQDN, which is mapped at IP address 10.51.32.231. You can replace the FQDN with your LCSPool and your internal IP address defined for the LCSPool in your LDAP/DNS servers.

1) Configure WebMux basic settings using pushbuttons

First power on WebMux, please allow a minute or two before it boot up into operation. Do not keep flip the power switch, which could cause damage to the WebMux. It is recommended using browser interface to shutdown the WebMux, if needed.

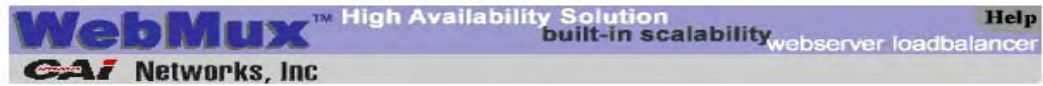
WebMux will come up with version number, then instruction flying on the LCD display. The instruction is to tell you hold check mark key to start configuration. You will be prompt for the following questions:

WebMux's host name without domain	<input type="text" value="S2098_test"/>
WebMux's domain name	<input type="text"/>
dispatch method	<input type="text" value="OOP (out of path)"/>
Router LAN gateway IP address	<input type="text"/>
WebMux's server LAN IP address	<input type="text"/>
WebMux's server LAN network mask	<input type="text"/>
Remake password file with default passwords?	<input type="text"/>
WebMux administration HTTP port	<input type="text"/>
WebMux administration HTTPS port	<input type="text"/>
Is this WebMux a primary (or solo) WebMux?	<input type="text"/>
Is this WebMux running solo without a secondary?	<input type="text"/>
Server LAN gateway IP address on WebMux (not same as server LAN IP address above!) (required for NAT. optional for OOP. use 0.0.0.0 to omit)	<input type="text"/>
Reinitialize configuration with admin entries only? (destroys existing configuration!)	<input type="text"/>
Reboot immediately after submitting this form?	<input type="text"/>
Submit when satisfied or cancel and log out.	<input type="button" value="_submit"/>

Once those questions are answered and submitted, WebMux will reboot into OOP mode.

2) Configure LCS farm and servers on WebMux

First, add farm for TCP port 5060:



**add farm**

The services tcp, udp and ip (both of tcp and udp) are generic. Bad server detection is less rigorous for such services. A blank port number (default) means to use the default well-known port for the specified service. For the generic services, a port number of 0, \*, or all denotes the wild specification of all ports. The wild port specification is not allowed for other services.

IP address	<input type="text" value="10"/>	<input type="text" value="51"/>	<input type="text" value="32"/>	<input type="text" value="231"/>
label	<input type="text"/>		port number	<input type="text" value="5060"/>
service	<input type="text" value="generic (TCP)"/>			
scheduling method	<input type="text" value="weighted round robin - persistent"/>			
SSL termination	<input type="text" value="(none)"/>	SSL port	<input type="text"/>	
block non-SSL access to farm	<input type="text" value="NO"/>			
tag SSL-terminated HTTP requests	<input type="text" value="NO"/>			

**Confirm** **Cancel**

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Then, click on the farm, select the button “add Addr & Port” to add TCP port 5061 using MAP feature of WebMux:

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built-in scalability webservers loadbalancer  
**CAI Networks, Inc**

**add IP address/port**  
**farm: 10.51.32.231:5060**

IP address	<input type="text" value="10"/>	<input type="text" value="51"/>	<input type="text" value="32"/>	<input type="text" value="231"/>
label	<input type="text"/>		port number	<input type="text" value="5061"/>
service	generic (TCP) ▾			
SSL termination	<input type="text" value="(none)"/> ▾	SSL port	<input type="text"/>	
block non-SSL access to farm	<input type="text" value="NO"/> ▾			
tag SSL-terminated HTTP requests	<input type="text" value="NO"/> ▾			

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Then click on the first line of the farm, and then select the “Add Server” button to add the LCS servers. First add server 1:

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built-in scalability webservers loadbalancer  
**CAI Networks, Inc**

**add server**  
**farm: 10.51.32.231:5060**

IP address	<input type="text" value="10"/>	<input type="text" value="51"/>	<input type="text" value="32"/>	<input type="text" value="227"/>
label	<input type="text"/>		port number	<input type="text" value="same"/>
weight	<input type="text" value="1"/>			
run state	<input type="text" value="ACTIVE"/> ▾			

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And then add server two into the farm:



**add server**  
**farm: 10.51.32.231:5060**

IP address	<input type="text" value="10"/>	<input type="text" value="51"/>	<input type="text" value="231"/>	<input type="text" value="241"/>
label	<input type="text"/>		port number	<input type="text" value="same"/>
weight	<input type="text" value="1"/>			
run state	<input type="text" value="ACTIVE"/>			

**Confirm**   **Cancel**

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3) Configure LCS servers to work in the LCS farm.

First, add loopback adapter to each LCS server:

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\osinstaller.PREY>ipconfig /all

Windows IP Configuration

Host Name . . . . . : lcspool2
Primary Dns Suffix . . . . . : prey.birds.net
Node Type . . . . . : Unknown
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : birds.net
                                   prey.birds.net
                                   eng.sc.rohm.com

Ethernet adapter Local Area Connection 2:

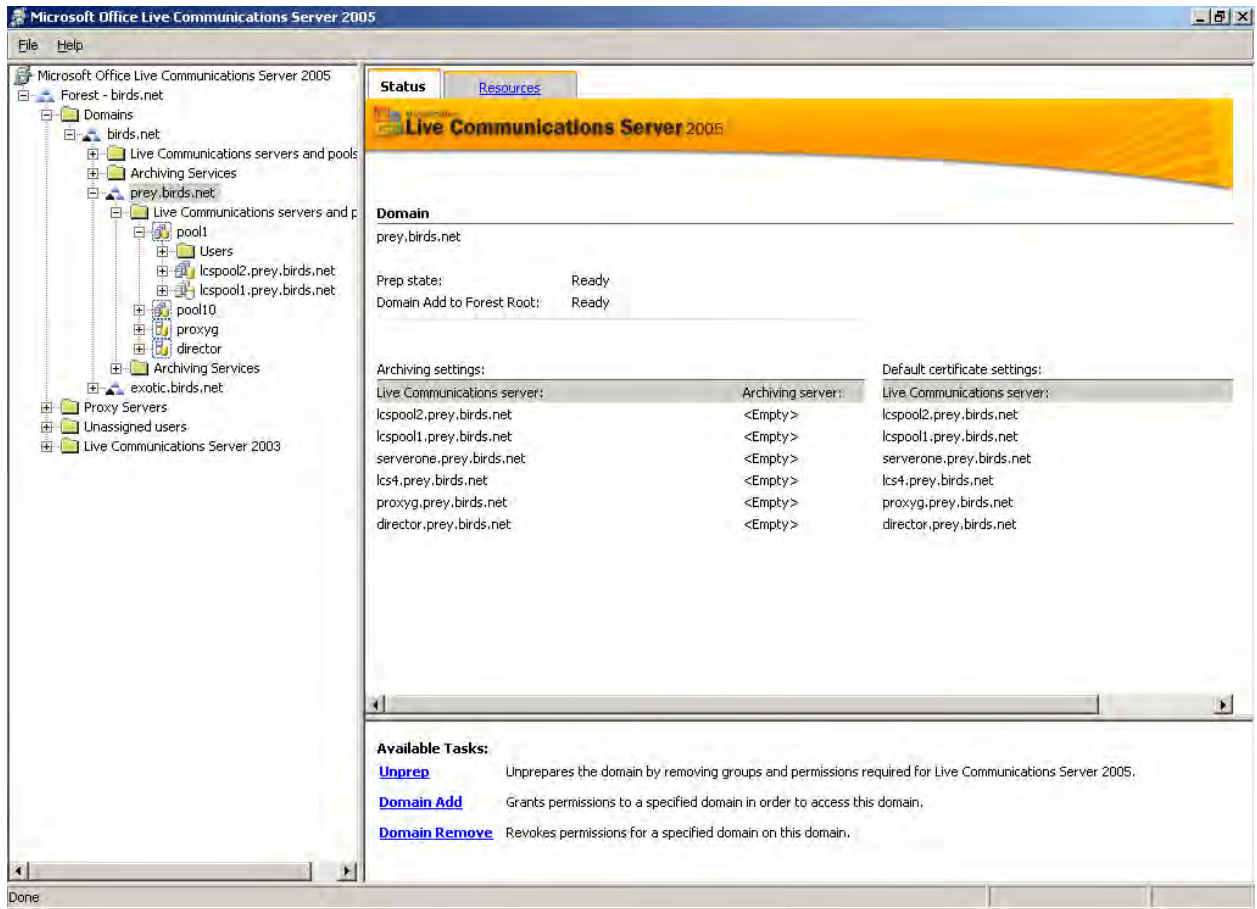
   Connection-specific DNS Suffix  . : 
   Description . . . . . : Microsoft Loopback Adapter
   Physical Address. . . . . : 02-00-4C-4F-4F-50
   DHCP Enabled. . . . . : No
   IP Address. . . . . : 10.51.32.231
   Subnet Mask . . . . . : 255.255.255.0
   Default Gateway . . . . . :

Ethernet adapter Local Area Connection:

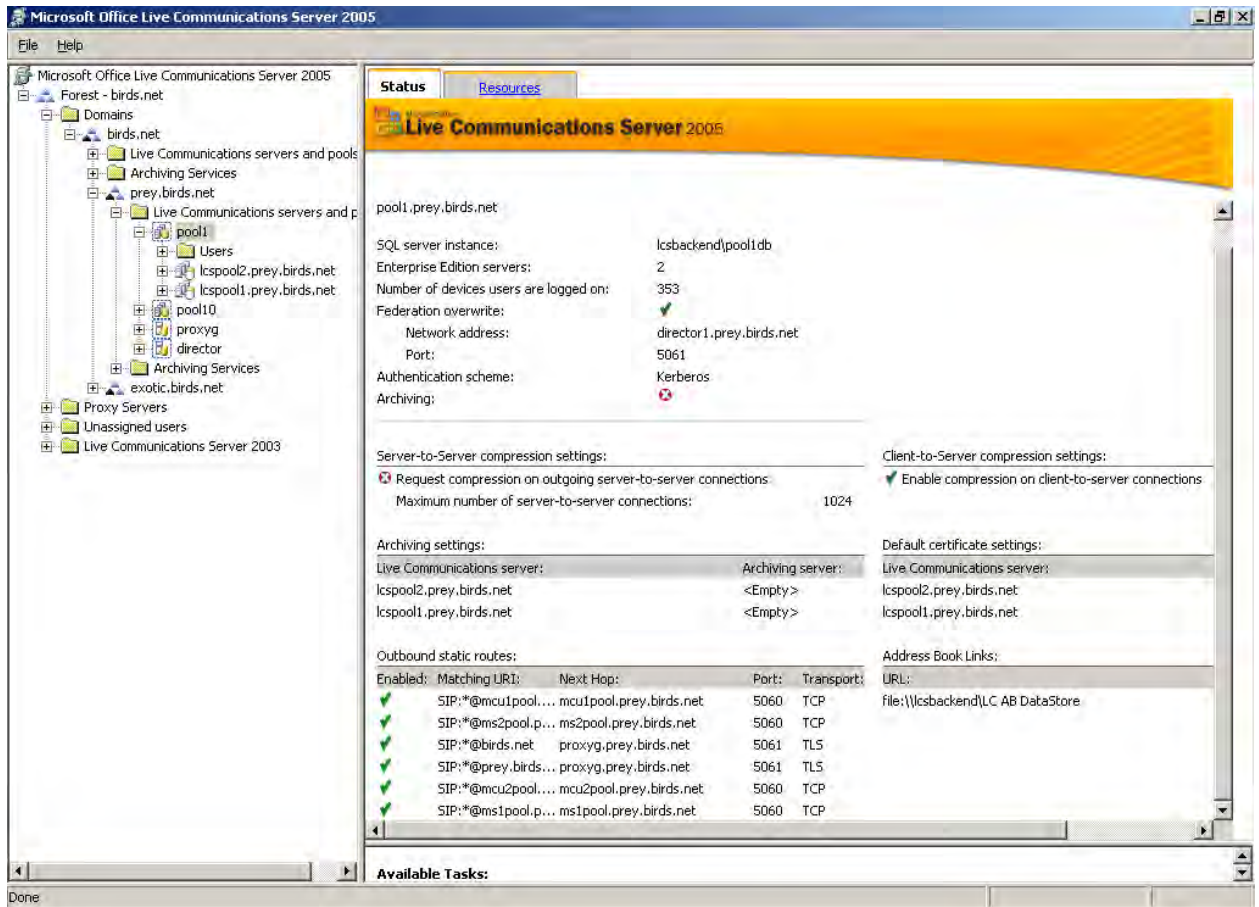
   Connection-specific DNS Suffix  . : prey.birds.net
   Description . . . . . : Intel(R) PRO/1000 MT Server Connection
   Physical Address. . . . . : 00-11-43-10-AE-2B
   DHCP Enabled. . . . . : No
   IP Address. . . . . : 10.51.32.241
   Subnet Mask . . . . . : 255.255.255.0
   Default Gateway . . . . . : 10.51.32.1
   DNS Servers . . . . . : 10.51.32.210

C:\Documents and Settings\osinstaller.PREY>
```

In LCS configuration, first configure the subdomain for LCS:

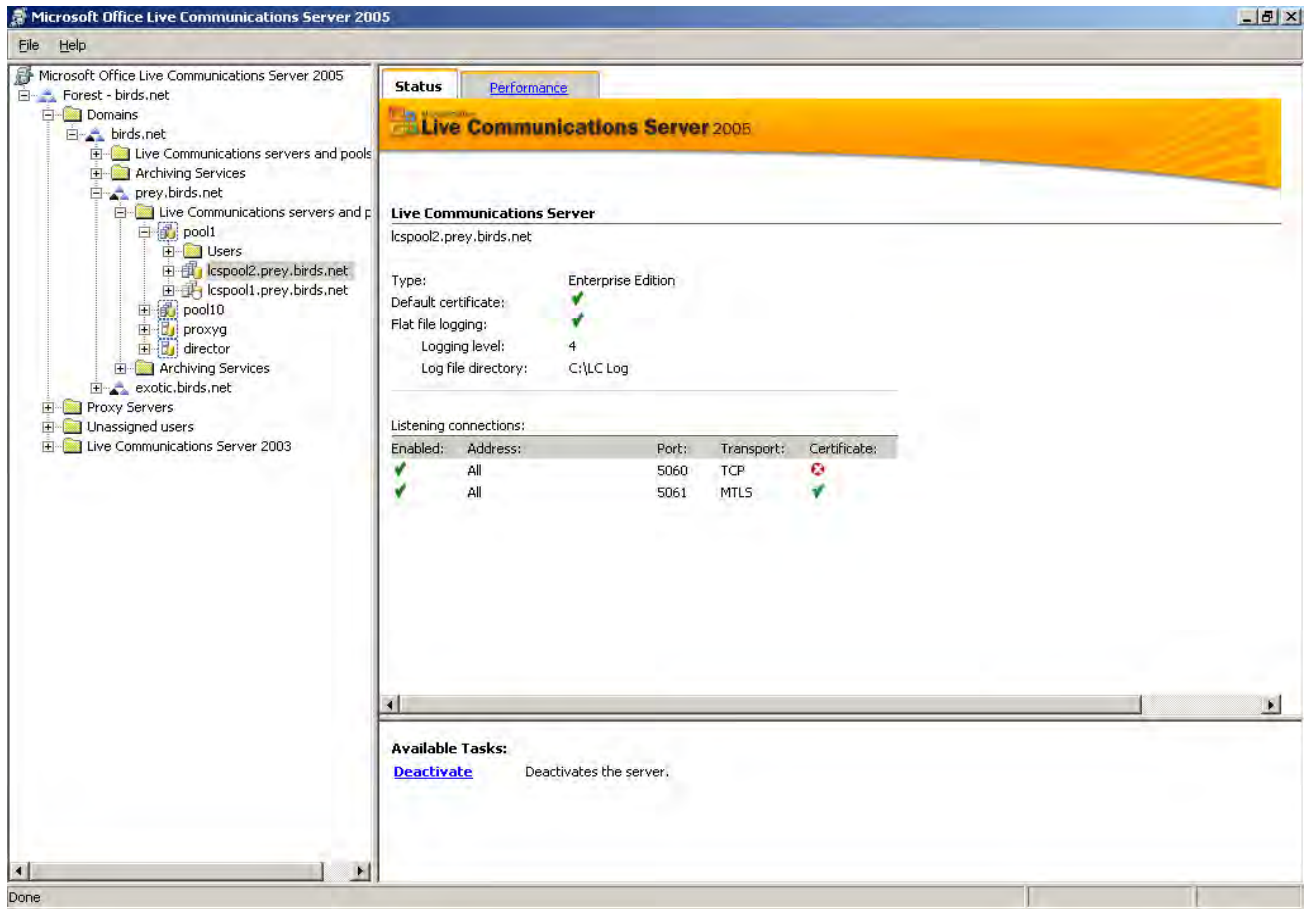


Then configure the LCS Pool:





Then add LCS server one



You are done! Congratulations, you have configured LCS working with WebMux in OOP mode.