



# DEPLOYMENT GUIDE

# DEPLOYING THE BIG-IP LTM SYSTEM WITH ADOBE INDESIGN SERVER

Version: 1.0

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# Deploying the BIG-IP LTM system with Adobe InDesign Server

Welcome to the F5 - Adobe® InDesign® Server Deployment Guide. This guide provides step-by-step procedures for configuring the BIG-IP LTM system with Adobe InDesign Server CS3 and CS4.

Adobe InDesign Server provides newspapers, creative companies, large corporations, retail shops, printers, educational institutions and others with a way to automate their print workflows. InDesign Server is essentially Adobe InDesign without the user-interface; it has an identical code base to its non-Server version. This "headless" installation allows users to process documents programmatically in order to automate the publication workflow. Adobe InDesign Server is very similar to an API for InDesign.

Because of the mission-critical aspects of production workflows, it is essential to install and configure Adobe InDesign Server with F5 for a configuration that provides for security, high availability and TCP optimization.

## Prerequisites and configuration notes

All of the procedures in this Deployment Guide are performed on the BIG-IP system. The following are prerequisites for this solution:

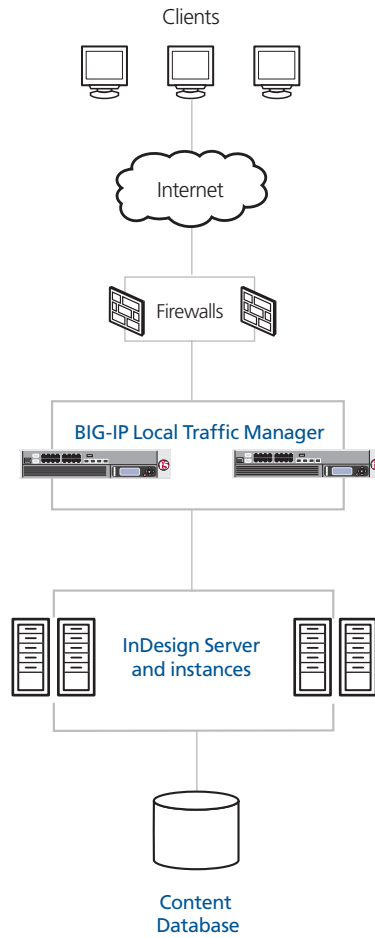
- ◆ The Adobe InDesign Server should be installed, licensed and running. This deployment guide was tested using InDesign Server CS3 and CS4. The InDesign server can be run on Windows or Macintosh (Intel based).
- ◆ The BIG-IP LTM must be running version 9.0 or later. We strongly recommend version 9.4 or later. This guide was tested using BIG-IP LTM version 9.4.5.
- ◆ We assume that the BIG-IP LTM is on the network, and has already been initially configured.

Product Tested	Version Tested
BIG-IP Local Traffic Manager (LTM)	9.4.5
Adobe InDesign Server	CS3 and CS4

## Configuration example

In this Deployment Guide, the BIG-IP system is optimally configured to direct traffic to the InDesign Servers. Figure 1 shows a logical configuration example with a redundant pair of BIG-IP LTM devices in front of a group of Adobe InDesign servers. The BIG-IP LTM provides advanced health monitoring and intelligent, optimized traffic direction.

Adobe provides the option of running multiple InDesign Server processes on each host for added scalability. In addition to having multiple servers for high availability, multiple instances may also be started for added scalability. BIG-IP LTM can monitor and direct traffic to all of these instances and servers.



*Figure 1 Logical configuration example*

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## Starting the InDesign server

In this section, we startup the InDesign Servers. If you need more information, refer to the Adobe documentation.

An example of how to start an instance of InDesign Server using SOAP on Windows or Macintosh would be, from a command line:

```
InDesignServer -port 8888
```

If you wanted a second instance, the command would be in a new terminal window:

```
InDesignServer -port 8889
```

Adobe's rule of thumb for multiple instances is to run no more than one plus the total number of processors on the server. For example, if the server has two processors with two cores each, the maximum number of InDesign Server instances you would want to run is five. As always, memory is a consideration as well and the number of instances should be weighed against total available memory as well.

## Configuring the BIG-IP LTM system

In this section, we configure the BIG-IP LTM system for the InDesign servers. This section is broken up into the following sections:

- *Creating the health monitor*, following
- *Creating the load balancing pool*, on page 4
- *Creating profiles*, on page 6
- *Creating the virtual server*, on page 9

### Creating the health monitor

For the InDesign devices, we create an advanced HTTP health monitor. This monitor uses specific Send and Receive strings to ensure the devices are not only up, but responding properly.

#### To configure a HTTP health monitor

1. On the Main tab, expand **Local Traffic**, and then click **Monitors**. The Monitors screen opens.
2. Click the **Create** button. The New Monitor screen opens.
3. In the **Name** box, type a name for the Monitor. In our example, we type **indesign-http**.
4. From the **Type** list, select **http**.
5. In the Configuration section, in the **Interval** and **Timeout** boxes, type an Interval and Timeout. We recommend at least a 1:3 +1 ratio between the interval and the timeout. In our example, we use an **Interval of 30** and a **Timeout of 91**.
6. In the Send String box, type the following:  
`GET /service?wsdl HTTP/1.0`
7. In the Receive String box, type the following:  
`service.wsdl`
8. Click the **Finished** button.  
The new monitor is added to the Monitor list.

*Figure 2 Configuring the HTTP health monitor*

## Creating the load balancing pool

The next step is to define a load balancing pool for the InDesign Servers. A BIG-IP LTM pool is a set of devices grouped together to receive traffic according to a load balancing method. This pool uses the monitor you just created.

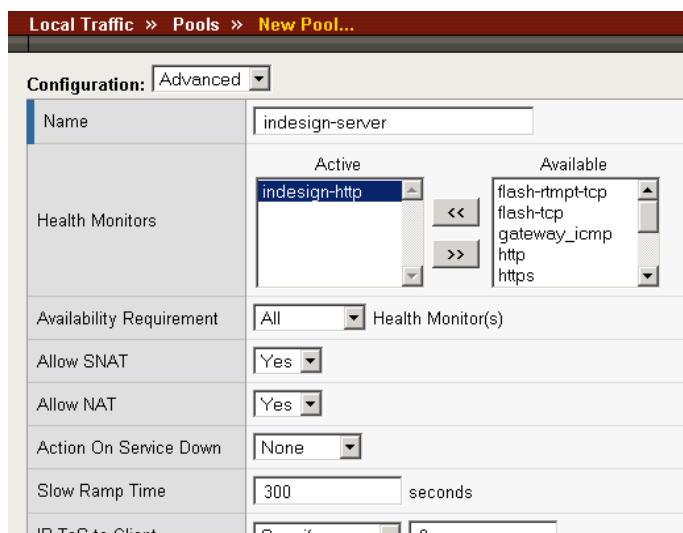
### ◆ Tip

*If you chose to run multiple InDesign Server processes on each physical server to maximize server utilization, you would add the same IP address in Step 10, but in Step 11, use a new port number, for example, port 8889.*

### To create the InDesign Server pool

1. On the Main tab, expand **Local Traffic**, and then click **Pools**.  
The Pool screen opens.
2. In the upper right portion of the screen, click the **Create** button.  
The New Pool screen opens.
3. From the **Configuration** list, select **Advanced**.
4. In the **Name** box, type a name for your pool.  
In our example, we use **indesign-server**.

5. In the **Health Monitors** section, select the name of the monitor you created in the *Creating the health monitor* section, and click the Add (<<) button. In our example, we select **indesign-http**.
6. In the **Slow Ramp Time** box, type **300**. For this pool, we use the Least Connections load balancing method. We set the Ramp Time in order to ensure that if a pool member becomes available after maintenance or a new member is added, the Least Connections load balancing algorithm does not send all new connections to that member (a newly available member will always have the least number of connections).



**Figure 3** *Creating a Pool*

7. From the **Load Balancing Method** list, choose your preferred load balancing method (different load balancing methods may yield optimal results for a particular network). In our example, we select **Least Connections (member)**.
8. In this pool, we leave the Priority Group Activation **Disabled**.
9. In the New Members section, make sure the **New Address** option button is selected.
10. In the **Address** box, add the first InDesign server to the pool. In our example, we type **10.132.81.110**.
11. In the **Service Port** box, type the appropriate port for your InDesign devices. In our example, we type **8888**. This port is dependent on how you initially configured your InDesign Servers. Remember, if you have multiple InDesign Server instances on the same box, you can use the same IP address, but a different port. See the Tip at the beginning on this section.
12. Click the **Add** button to add the member to the list.

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13. Repeat steps 10-12 for each server you want to add to the pool. In our example, we repeat these steps twice for the remaining servers, **10.132.81.111** and **112**.
  14. Click the **Finished** button (see Figure 4).

The screenshot shows a dialog box titled "Resources" with the following fields and controls:

- Load Balancing Method:** A dropdown menu set to "Least Connections (member)".
- Priority Group Activation:** A dropdown menu set to "Disabled".
- New Members:** A section containing:
  - Radio buttons for "New Address" (selected) and "Node List".
  - Address:** A text input field containing "10.132.81.112".
  - Service Port:** A text input field containing "8888" and a "Select..." dropdown menu.
  - An "Add" button.
  - A list box containing three entries: "R:1 P:1 10.132.81.110 :8888", "R:1 P:1 10.132.81.111 :8888", and "R:1 P:1 10.132.81.112 :8888".
  - "Edit" and "Delete" buttons.

At the bottom of the dialog are "Cancel", "Repeat", and "Finished" buttons.

*Figure 4* Configuring the InDesign Server pool resources

## Creating profiles

BIG-IP version 9.0 and later use profiles. A *profile* is an object that contains user-configurable settings for controlling the behavior of a particular type of network traffic, such as HTTP connections. Using profiles enhances your control over managing network traffic, and makes traffic-management tasks easier and more efficient.

Although it is possible to use the default profiles, we strongly recommend you create new profiles based on the default parent profiles, even if you do not change any of the settings initially. Creating new profiles allows you to easily modify the profile settings specific to this deployment, and ensures you do not accidentally overwrite the default profile.

### ◆ Note

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*Note that we do not use a Persistence Profile, as InDesign Server is a stateless device.*

## Creating an HTTP profile

Creating an HTTP profile for InDesign Server is optional. InDesign content is primarily SOAP/XML, but uploads of text are possible, which will benefit from compression. If you use this profile, **all** communication needs to be wrapped in HTTP. If this is not possible in your configuration, **do not** create or use an HTTP profile for InDesign Server.

### To create a new HTTP profile

1. On the Main tab, expand **Local Traffic**, and then click **Profiles**. The HTTP Profiles screen opens.
2. In the upper right portion of the screen, click the **Create** button. The New HTTP Profile screen opens.
3. In the **Name** box, type a name for this profile. In our example, we type **indesign-http**.
4. From the **Parent Profile** list, select **http-wan-optimized-compression**.
5. Modify any of the other settings as applicable for your network. In our example, we leave the settings at their default levels.
6. Click the **Finished** button.

## Creating the TCP profiles

The next profiles we create are the TCP profiles. If most of the Adobe InDesign users are accessing the portal via a Local Area Network, we recommend using the **tcp-lan-optimized** (for server-side TCP connections) parent profile. If the majority of the Portal users are accessing the system from remote or home offices, we recommend using an additional TCP profile, called **tcp-wan-optimized** (for client side TCP connections). In our example, we leave these profiles at their default levels; you can configure any of the options as applicable for your network.

### ◆ Tip

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*If you are using a version of BIG-IP LTM previous to v9.4, the **Configuration Guide for BIG-IP Local Traffic Management** for version 9.4 (available on AskF5) shows the configuration differences between the base TCP profile and the optimized profile types. Use the Configuration Guide to manually configure the optimization settings.*

### Creating the WAN optimized TCP profile

First we configure the WAN optimized profile. Remember, if most users are accessing the portal via the LAN, use the base TCP profile instead of this WAN optimized profile.

### To create a new TCP WAN optimized profile

1. On the Main tab, expand **Local Traffic**, and then click **Profiles**. The HTTP Profiles screen opens.
2. On the Menu bar, from the **Protocol** menu, click **tcp**.
3. In the upper right portion of the screen, click the **Create** button. The New TCP Profile screen opens.
4. In the **Name** box, type a name for this profile. In our example, we type **indesign-tcp-wan**.

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5. From the **Parent Profile** list, select **tcp-wan-optimized**.
  6. Modify any of the settings as applicable for your network. In our example, we leave the settings at their default levels.
  7. Click the **Finished** button.

### *Creating the LAN optimized TCP profile*

Now we configure the LAN optimized profile. If you have already created a simple TCP profile, based off the default TCP profile (and not the WAN optimized profile above), you do not need to create another TCP profile, continue with the next procedure.

#### **To create a new TCP profile**

1. On the Main tab, expand **Local Traffic**, and then click **Profiles**. The HTTP Profiles screen opens.
2. On the Menu bar, from the **Protocol** menu, click **tcp**.
3. In the upper right portion of the screen, click the **Create** button. The New TCP Profile screen opens.
4. In the **Name** box, type a name for this profile. In our example, we type **indesign-tcp-lan**.
5. From the **Parent Profile** list, select **tcp-lan-optimized** if you are using BIG-IP LTM version 9.4 or later; otherwise select **tcp**.
6. Modify any of the settings as applicable for your network. In our example, we leave the settings at their default levels.
7. Click the **Finished** button.

### **Creating the OneConnect profile**

The final profile we create is a OneConnect profile. With OneConnect enabled, client requests can utilize existing, server-side connections, thus reducing the number of server-side connections that a server must open to service those requests. This can provide significant performance improvements for InDesign Server implementations. For more information on OneConnect, see the BIG-IP LTM documentation.

In our example, we leave all the options at their default settings. You can configure these options as appropriate for your network.

#### **To create a new OneConnect profile**

1. On the Main tab, expand **Local Traffic**, and then click **Profiles**. The HTTP Profiles screen opens.
2. On the Menu bar, from the **Other** menu, click **OneConnect**. The Persistence Profiles screen opens.
3. In the upper right portion of the screen, click the **Create** button. The New HTTP Profile screen opens.

4. In the **Name** box, type a name for this profile. In our example, we type **indesign-oneconnect**.
5. From the **Parent Profile** list, ensure that **oneconnect** is selected.
6. Modify any of the other settings as applicable for your network. In our example, we leave the settings at their default levels.
7. Click the **Finished** button.

## Creating the virtual server

Next, we configure a virtual server that uses the profiles and pool you created in the preceding procedures.

In the following procedure, Service Port 80 is our recommendation for the InDesign Server virtual server. This provides for the most likely compatibility with common network designs. This is only a recommendation, you can change the port to fit your network architecture.

### To create the virtual server

1. On the Main tab, expand **Local Traffic**, and then click **Virtual Servers**.  
The Virtual Servers screen opens.
2. In the upper right portion of the screen, click the **Create** button.  
The New Virtual Server screen opens.
3. In the **Name** box, type a name for this virtual server. In our example, we type **indesign-server**.
4. In the **Destination** section, click the **Host** button.
5. In the **Address** box, type the IP address of this virtual server. In our example, we use **10.133.39.51**.
6. In the **Service Port** box, type the appropriate port for your configuration. In our example, we type **80**. This is just an example, the port for your configuration may be different.

General Properties	
Name	indesign-server
Destination	Type: <input checked="" type="radio"/> Host <input type="radio"/> Network Address: 10.133.39.51
Service Port	80 HTTP
State	Enabled

*Figure 5* Creating the new virtual server

7. From the Configuration list, select **Advanced**.  
The Advanced configuration options appear.
8. Leave the **Type** and **Protocol** lists at their default settings:  
**Standard** and **TCP**.
9. From the **Protocol Profile (Client)** list, select the name of the profile you created in the *Creating the WAN optimized TCP profile* section. In our example, we select **indesign-tcp-wan**.
10. From the **Protocol Profile (Server)** list, select the name of the profile you created in the *Creating the LAN optimized TCP profile* section. In our example, we select **indesign-tcp-lan**.
11. From the OneConnect Profile list, select the profile you created in *Creating the OneConnect profile*. In our example, we select **indesign oneconnect**.
12. If you created an HTTP profile (see *Creating an HTTP profile*), select the HTTP profile you created. This step is optional.

Configuration:	Advanced
Type	Standard
Protocol	TCP
Protocol Profile (Client)	indesign-tcp-wan
Protocol Profile (Server)	indesign-tcp-lan
OneConnect Profile	Indesign-oneconnect
HTTP Profile	None

**Figure 6** Selecting the profiles for the virtual server

13. In the Resources section, from the **Default Pool** list, select the pool you created in the *Creating the load balancing pool* section. In our example, we select **indesign-pool**.

	Enabled	Available
iRules		

Up    Down

Default Pool: +    indesign-server

Default Persistence Profile: None

Fallback Persistence Profile: None

Cancel    Repeat    Finished

**Figure 7** Resources section of the virtual server page

14. Click the **Finished** button.

This completes the BIG-IP LTM configuration.