

# Deploying the Shape SPDT iApp Template in the F5® BIG-IP® System

Shape SPDT iApp Template Version 2.0.0

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## Objective

This document is for F5 technical support staff specializing in Shape Passive Defense Tool (SPDT) deployment, to enable use of the security features of the BIG-IP together with SPDT.

## Prerequisites

Before deploying or upgrading the Shape SPDT iApp template in the BIG-IP, you should ensure the following:

1. Your BIG-IP version is 12.1.0 or later, with the LTM Module provisioned and licensed.
2. You have backed up the BIG-IP configuration as described here: [Backing up your BIG-IP system configuration](#).
3. Your virtual server must have an HTTP profile attached to it.

## How to deploy the Shape SPDT iApp template in the BIG-IP

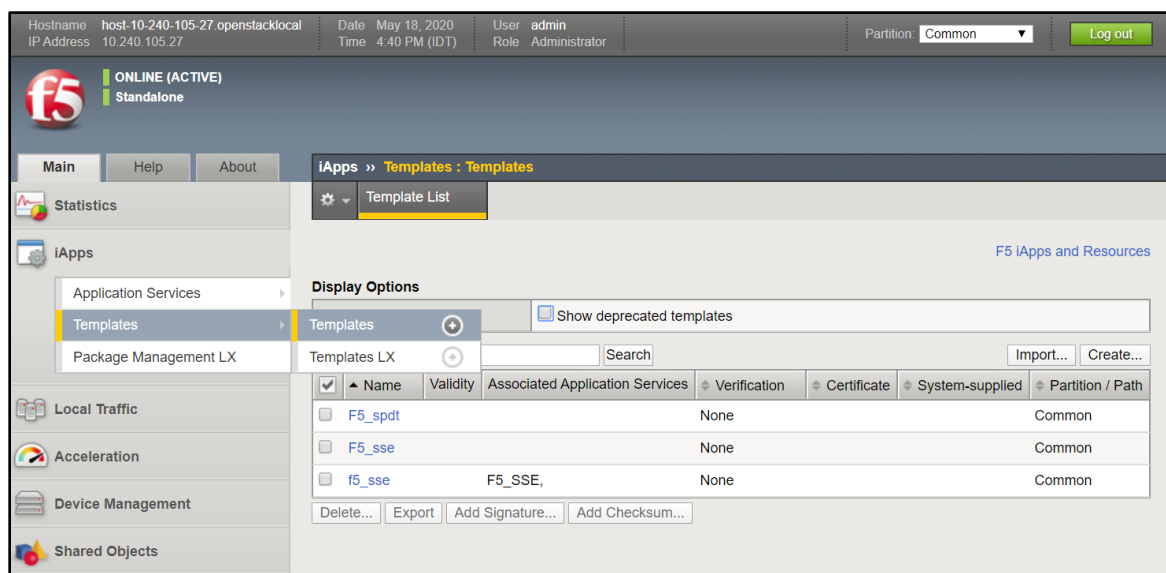
You deploy the Shape SPDT iApp template in the BIG-IP in two stages:

1. Import the Shape SPDT iApp template that you received from F5 to the BIG-IP.
2. Create the iApp in the BIG-IP, based on the template you imported.

The steps for performing these two stages are described below.

### Import the template to the BIG-IP

1. In the Main tab in the BIG-IP, go to **iApps>Templates>Templates**.

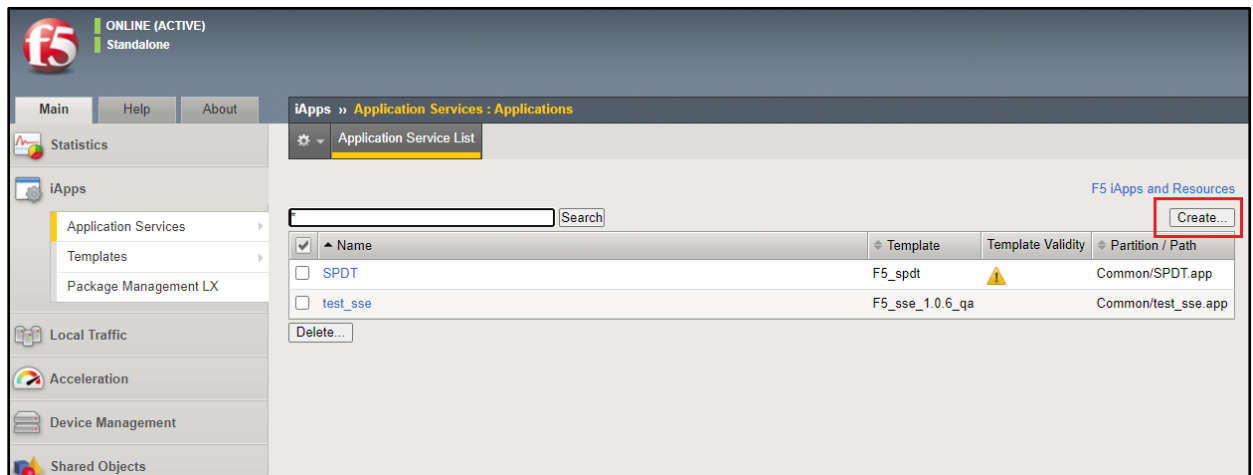


2. Click **Import**.
3. Click Choose File.
4. Select the template file provided to you from F5.
5. Click the check box next to Overwrite Existing Templates.
6. Click **Upload**.

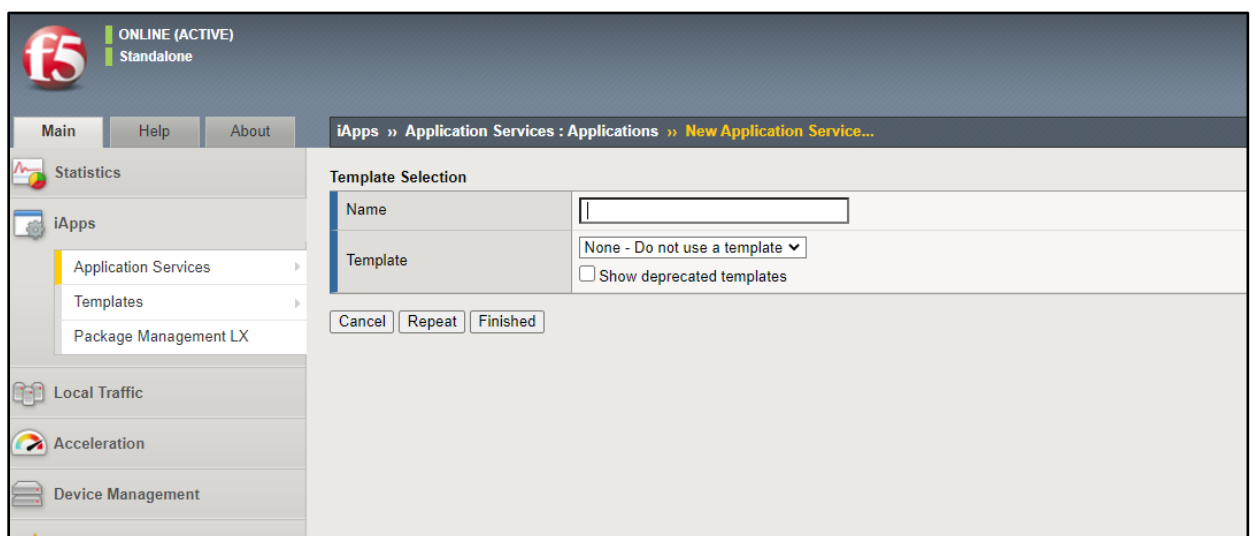
The Shape SPDT iApp template is now displayed in the list of templates.

## Create the iApp in the BIG-IP

1. In the Main tab in the BIG-IP, go to iApps>Application Services>Applications.
2. Click **Create**.



The New Application Service screen appears.



3. Assign a name to the iApp.

- From the Template list, select the template that you imported.

The Shape SPDT iApp template configuration settings appear.

iApps » Application Services : Applications » New Application Service...	
Template Selection: Basic	
Name	<input type="text"/>
Template	F5.spdt
<input type="checkbox"/> Show deprecated templates	
Welcome to the iApp template for SPDT	
Introduction	Configure the BIG-IP to work with SPDT. For detailed information and configuration, see the deployment guide <a href="https://github.com/F5Networks/shape-iapp/blob/SPDT-__TAG__/_How%20to%20deploy%20a%20SPDT%20iApp%20in%20the%20BIG-IP%2C%20__TAG___.pdf">https://github.com/F5Networks/shape-iapp/blob/SPDT-__TAG__/_How%20to%20deploy%20a%20SPDT%20iApp%20in%20the%20BIG-IP%2C%20__TAG___.pdf</a>
Check For Updates	Check for new versions of this template on the F5 Official iApp Github repository: <a href="https://github.com/F5Networks/shape-iapp/releases">https://github.com/F5Networks/shape-iapp/releases</a>
Template Version:	CHANGE_ME
General	
Clean Before Deletion	No
Kill Switch	No
SPDT Settings	
Operation Mode	Log
Deployment Mode	Cloud
Tenant ID	<input type="text"/>
SPDT Pool Member (either IP or FQDN)	<input type="text"/>
Add Health Check	No
Virtual Server Configuration	
Note	Your virtual server must have an HTTP profile attached to it.
Application Virtual Server	<div> <div>Selected</div> <div>Options</div> <div> <input type="text"/> </div> <div> <input type="button" value="Left"/> <input type="button" value="Right"/> </div> <div> <input type="text"/> </div> </div>
Advanced Features	
Client IP Source	Source IP

- In the SPDT settings section:

- Operation Mode:** Choose **Clone** to copy all HTTP requests from the virtual server to the SPDT pool. Choose **Log** to log the HTTP requests from the virtual server to the server you choose in the pool configuration, using the High-Speed Log (HSL) protocol.
- If Operation Mode = Log, the following settings are displayed:
  - Deployment Mode:** Choose **On Premise** to send logs to an on-premise SPDT instance without TLS. Choose **Cloud** to send logs to a SPDT instance in the cloud with TLS.
 

**Note:** When Deployment Mode = **Cloud**, the iApp dynamically creates a server-side SSL profile for the HSL pool.
  - Tenant ID:** Enter the Tenant ID provided to you from F5 support.

- SPDT Pool Member: Add here the IP or FQDN for the pool member of the SPDT/HSL server.

**Note:** A subnet range cannot be used.

- Add Health Check: Choose whether to perform a health check on the pool members. If Operation Mode = **Clone**, the ICMP Health Check is performed in intervals of 45 seconds. If Operation Mode = **Log**, the TCP Health Check is performed in intervals of 5 seconds.

6. In the Virtual Server Configuration section:

- Application Virtual Server: Select the virtual server of your application. Once the virtual server is selected, all traffic that goes through this virtual server is cloned or logged to the SPDT system.

**Note:** The virtual server you select here must have an HTTP profile attached to it. If you select a virtual server that does not have an HTTP profile attached to it, you will not be able to complete iApp configuration.

7. In the Advanced Features section:

- Client IP Source: Select one of the following options as the source for the client IP address that will be logged to SPDT.

**Note:** This setting is not displayed if Operation Mode = **Clone**.

- Source IP: The iApp will use the actual source IP in the HTTP request.
- X-Forwarded-For: The iApp will take the client IP address from the X-Forwarded-For header.
- True-Client-IP: The iApp will take the client IP address from the True-Client-IP header.
- Custom Header: The iApp will take the client IP address from the header you provide in Source IP Header Name.
- Rewrite XFF header with Connecting IP: Select **Yes** to add an XFF header to HTTP requests.

**Note:** This setting is not displayed if Operation Mode = **Log**.

- Encrypting Virtual Server IP: This IP is used for internal routing when the virtual server is configured with a server-side SSL profile. This must be a non-routable IP.

**Note:** This setting is not displayed if Deployment Mode = **On Premise**.

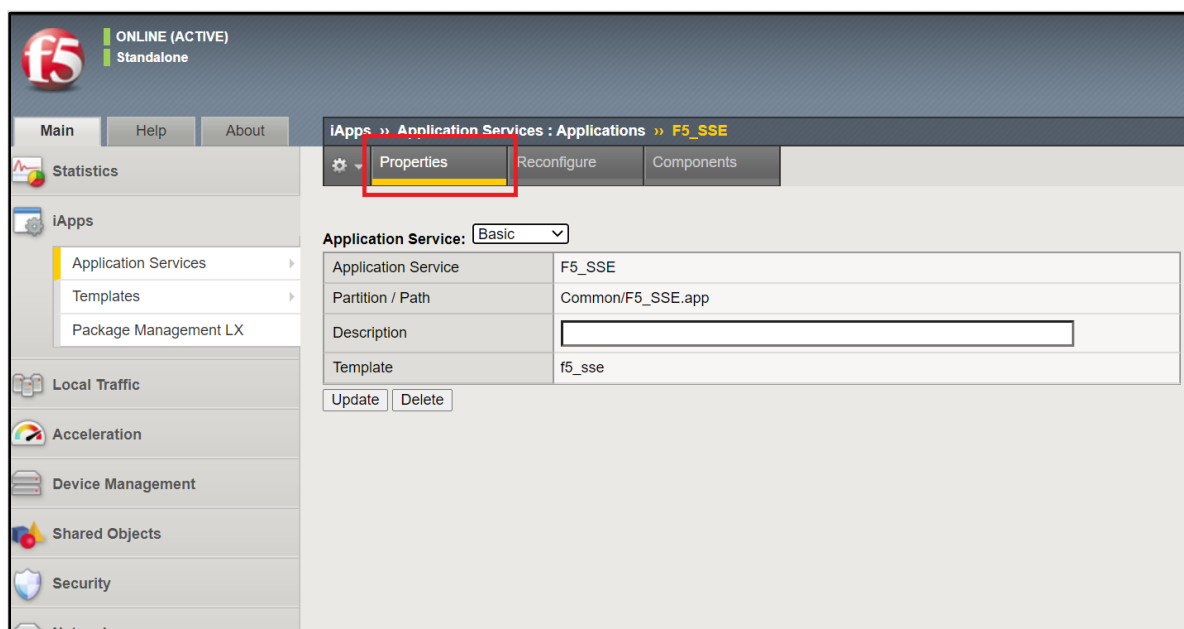
8. Click **Finished**.

## Disabling Strict Updates

After you initially create the iApp in the BIG-IP, by default the iApp is created so that you cannot make any configuration changes to the components of the iApp, such as iRules, pool members, and pool nodes.

You can change this default setting so that you can make changes to the iApp's components as follows:

1. In the Main tab in the BIG-IP, go to **iApps>Application Services>Applications**.
2. In the iApp list, click on the iApp.
3. Click on the **Properties** tab.



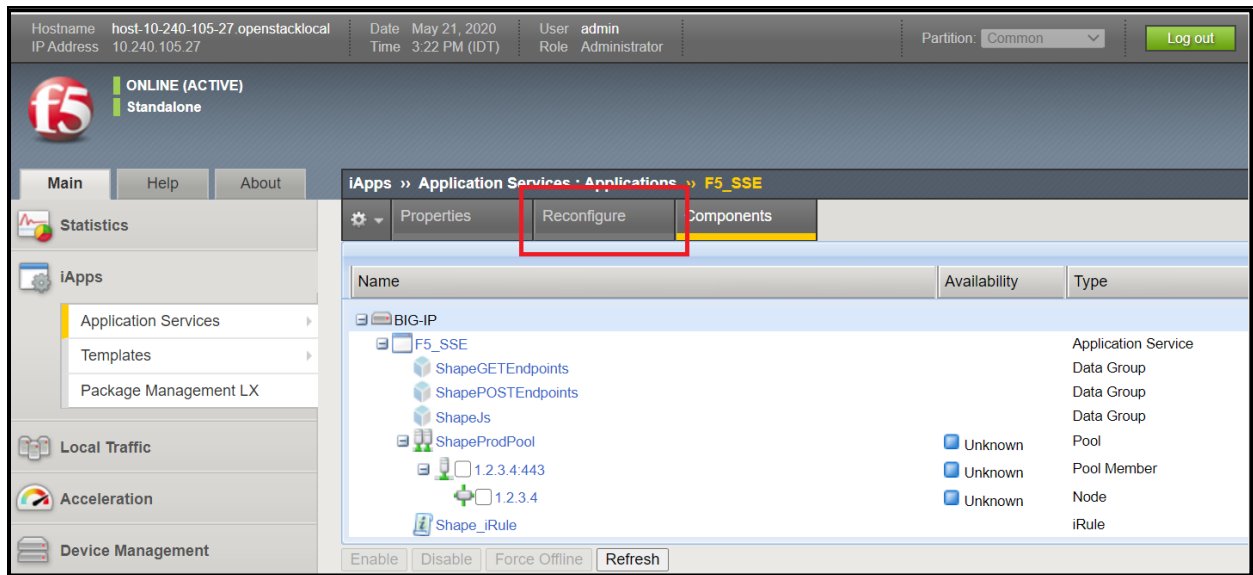
4. At Application Service, select **Advanced**.
5. For Strict Updates, remove the check in the check box.
6. Click **Update**.

## How to upgrade an iApp with a new template

If you have an existing iApp and want to upgrade it with a new template, follow these instructions:

1. Import the new template to the BIG-IP, as explained in [Import the template to the BIG-IP](#).
2. In the Main tab in the BIG-IP, go to iApps>Application Services>Applications.
3. In the iApp list, click on the iApp that you want to upgrade.

- Click on the **Reconfigure** tab (see below).



- Click **Change**, next to the Template setting.
- From the drop-down template list, select the new template that you imported.
- Configure the iApp according to the instructions in [Create the iApp in the BIG-IP](#).
- Click **Finished**.

## How to disable an iApp

You can disable an iApp so that it is not currently active, but not permanently deleted. When disabling an iApp, its configuration is maintained and when you re-activate it all configuration settings are intact. When the iApp is disabled, HTTP requests are sent to the web application's server directly without any logs or cloning data.

To disable an iApp:

- In the Main tab in the BIG-IP, go to **iApps>Application Services>Applications**.
- In the iApp list, click on the iApp that you want to disable.
- Click on the **Reconfigure** tab.
- In the General section, at Activate Kill-Switch select **Yes**.
- Click **Finished**.



## How to delete an SPDT iApp

To delete an SPDT iApp:

1. In the Main tab in the BIG-IP, go to iApps>Application Services>Applications.
2. In the iApp list, click on the iApp that you want to upgrade.
3. Click on the **Reconfigure** tab.
4. In the General section, at Clean Before Deletion select **Yes**.
5. Click Finished.
6. Go to iApps>Application Services>Applications.
7. In the list of iApps, select the check box next to iApp you are deleting.
8. Click **Delete**.
9. In the Confirm Delete screen, click **Delete** again.

## Troubleshooting

1. If you receive the following error message when you click **Finish** to complete iApp configuration:

**01071912:3: HTTP\_REQUEST event in rule (/Common/target\_ssl\_vip) requires an associated HTTP or FASTHTTP profile on the virtual-server.**

This is because you have selected a virtual server that does not have an HTTP profile attached to it.

To fix this problem, do the following:

- a. In the Main tab in the BIG-IP, go to Local Traffic>Virtual Servers>Virtual Server List.
- b. From the list of virtual servers, select the virtual server that you want your iApp to run on.
- c. In the Configuration section, for HTTP Profile (Client), select **http**.
- d. Click **Update**.
- e. Return to the iApp configuration, select your virtual server, and complete iApp configuration.

2. If you receive the following error message when you click **Finish** to complete iApp configuration:

**01070333:3: Virtual Server /Common/<IAPP\_NAME>\_ssl\_vs illegally shares destination address, source address, service port, ip-protocol, and vlan with Virtual Server /Common/<IAPP\_NAME>\_ssl\_vs.**

You need to change the Encrypting Virtual Server IP.

## Legal Notices

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