Progress®
Kemp® LoadMaster®

Deployment Guide Ivanti Appsense

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Introduction

Ivanti provides organizations with control of service delivery, management process, visibility of services, and infrastructure. Ivanti User Workspace Manager manages and simplifies deployment of desktops and administration, reducing IT costs and securing endpoints.

Related Links

For details, see the following topics:

- Document Purpose
- Intended Audience

Document Purpose

This deployment guide provides instructions on how to configure the LoadMaster to load balance Ivanti services. This guide should only be used as a reference for the load balancing configuration of Ivanti because each environment is unique and may have different requirements.

Intended Audience

Anyone interested in configuring the LoadMaster to load balance Ivanti User Workspace Manager (AppSense) services.

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Template

Progress Kemp has developed a template containing our recommended settings for this workload. You can install this template to help create Virtual Services (VSs) because it automatically populates the settings. You can use the template to easily create the required VSs with the recommended settings. For some workloads, additional manual steps may be required such as assigning a certificate or applying port following. These steps are covered in the document, if needed.

You can remove templates after use and this will not affect deployed services. If needed, you can make changes to any of the VS settings after using the template.

Note: You cannot install the Ivanti template on a LoadMaster when software FIPS mode is enabled. Instead, you must manually configure the Virtual Services. You must select ciphers that are appropriate for FIPS mode.

Download released templates from the following page: LoadMaster Templates.

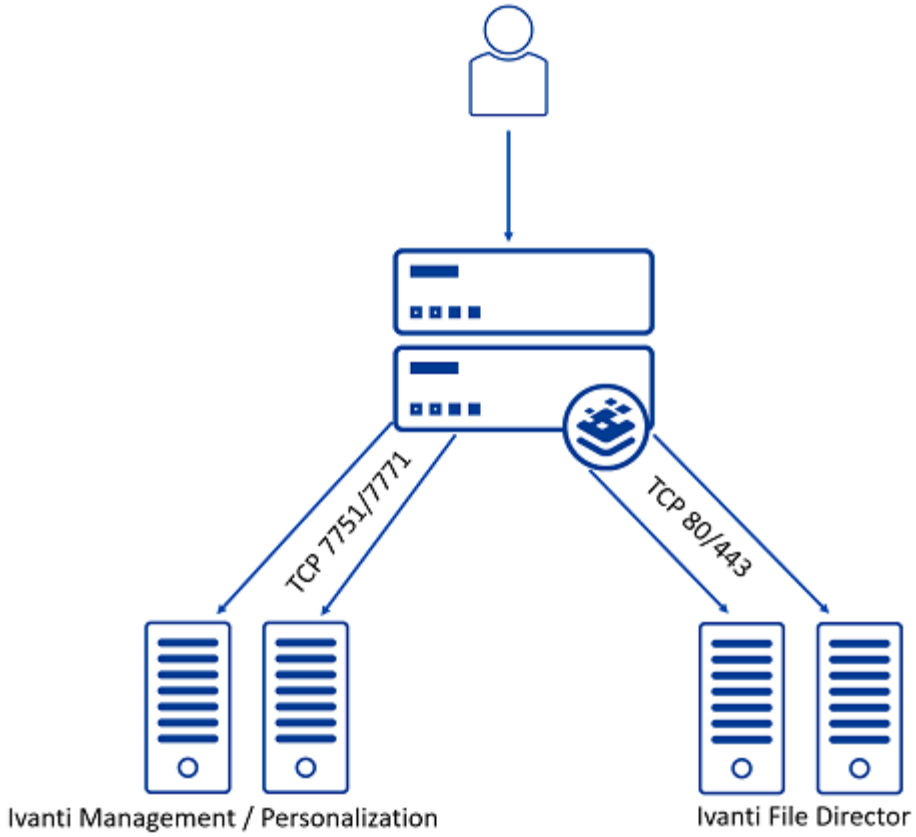
For more information and steps on how to import and use templates, refer to the Virtual Services and Templates, Feature Description.

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Ivanti User Workspace Manager (AppSense)

Ivanti User Workspace Manager simplifies the deployment of desktops providing a consistent, secure, and personalized user experience. The key features of Ivanti User Workspace Manager are:

- User personalization
- Desktop configuration
- File Sync
- Migration


TCP 7751/7771
TCP 80/443
Ivanti Management / Personalization
Ivanti File Director

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LoadMaster Global Settings

Before setting up the Virtual Services, the following global settings should be configured to support the workload.

Related Links

For details, see the following topics:

- Enable Subnet Originating Requests Globally
- Health Check Interval

Enable Subnet Originating Requests Globally

It is best practice to enable the **Subnet Originating Requests** option globally.

In a one-armed setup (where the Virtual Service and Real Servers are on the same network/subnet) **Subnet Originating Requests** is usually not needed. However, enabling **Subnet Originating Requests** should not affect the routing in a one-armed setup.

In a two-armed setup where the Virtual Service is on network/subnet A, for example, and the Real Servers are on network B, **Subnet Originating Requests** should be enabled on LoadMasters with firmware version 7.1-16 and above.



When **Subnet Originating Requests** is enabled, the Real Server sees traffic originating from 10.20.20.21 (LoadMaster eth1 address) and responds correctly in most scenarios.

With **Subnet Originating Requests** disabled, the Real Server sees traffic originating from 10.0.0.15 (LoadMaster Virtual Service address on **eth0**) and responds to **eth0** which could cause asymmetric routing.

When **Subnet Originating Requests** is enabled globally, it is automatically enabled on all Virtual Services. If the **Subnet Originating Requests** option is disabled globally, you can choose whether to enable **Subnet Originating Requests** on a per-Virtual Service basis.

To enable **Subnet Originating Requests** globally, follow the steps below:

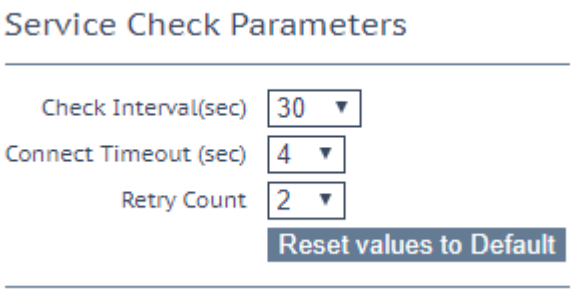
1. In the main menu of the LoadMaster User Interface (UI), go to **System Configuration > Miscellaneous Options > Network Options**.
2. Select the **Subnet Originating Requests** check box.

Health Check Interval

It is best practice to set the **Check Interval** to 30 seconds. This is to minimize the impact on the Management Center Server. This is a global setting and it may affect the health checking for other load-balanced services.

To update the check parameter interval, follow the steps below:

1. In the main menu of the LoadMaster Web User Interface (WUI), select **Rules & Checking > Check Parameters**.



2. Click the **Check Interval** drop-down arrow and select **30**.

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Ivanti Virtual Services

This step-by-step setup of VSs leverages the Progress Kemp application template for Ivanti.

The table in each section outlines the settings configured by the application template. You can use this information to manually configure VSs using the WUI or Application Programming Interface (API)/automation tools.

Related Links

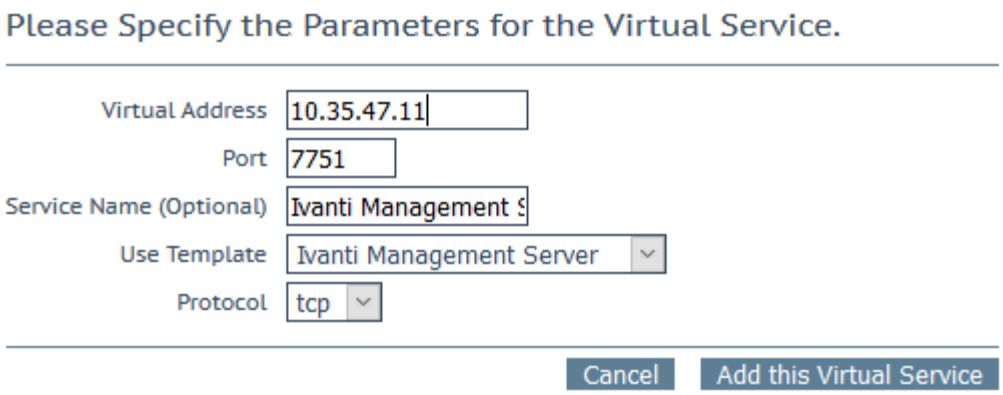
For details, see the following topics:

- Management Server
- Personalization Server
- File Director Offloaded
- File Director HTTPS

Management Server

The following are the steps involved and the recommended settings to configure the Ivanti Management Server using the application template.

1. In the main menu of the LoadMaster WUI, go to **Virtual Services > Add New**.



2. Type a valid **Virtual Address**.
3. Select the **Ivanti Management Server** template in the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.
5. Expand the **Real Servers** section.
6. Click **Add New**.
7. Enter the **Real Server Address**.
8. Confirm that **Port 7751** is entered.
9. Click **Add This Real Server**.

Management Server Application Template Settings (optional)

This table outlines the configuration options set using the Progress Kemp application template. These settings can be used if doing a manual configuration or leveraged with scripts and automation tools.

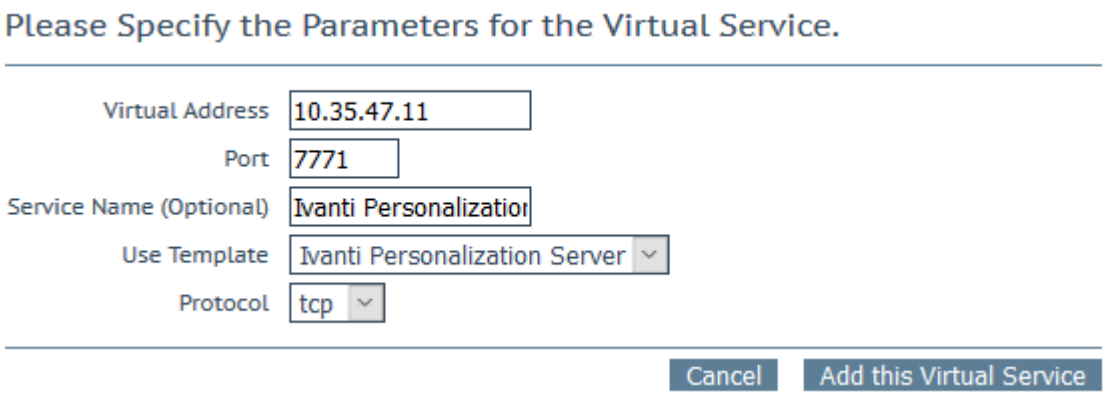
Option	Value
VS Port	7751
VS Protocol	tcp
Service Type	HTTP-HTTP/2-HTTPS
Subnet Originating Address	Enabled
Persistence Mode	Source IP Address
Persistence Timeout	2 Minutes

Option	Value
Scheduling Method	least connection
Real Server Check Method	HTTP Protocol
Checked Port	7751
HTTP Method	GET
Check URL	/ManagementServer/deployment/pingmonitor.aspx

Personalization Server

The following are the steps involved and the recommended settings to configure the Ivanti Personalization Server using the application template.

1. In the main menu of the LoadMaster WUI, go to **Virtual Services > Add New**.



2. Type a valid **Virtual Address**.
3. Select the **Ivanti Personalization Server** template in the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.
5. Expand the **Real Servers** section.
6. Click **Add New**.
7. Enter the **Real Server Address**.
8. Confirm that **Port 7771** is entered.
9. Click **Add This Real Server**.

Personalization Server Application Template Settings (optional)

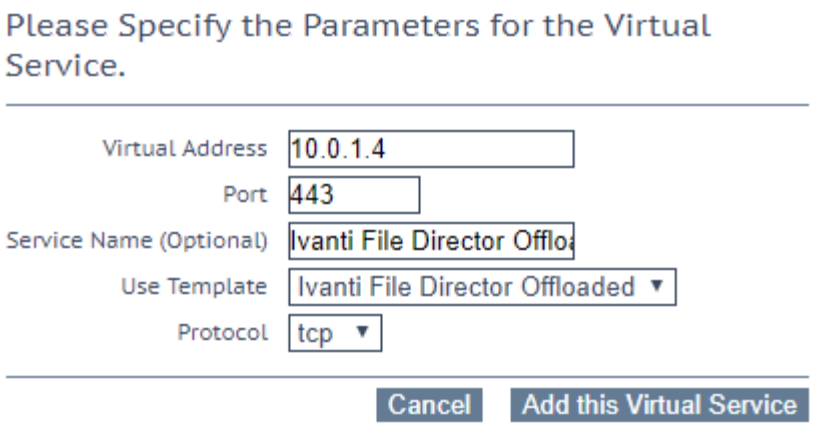
This table outlines the configuration options set using the Progress Kemp application template. These settings can be used if doing a manual configuration or leveraged with scripts and automation tools.

Option	Value
VS Port	7771
VS Protocol	tcp
Service Type	HTTP-HTTP/2-HTTPS
Subnet Originating Address	Enabled
Persistence Mode	Source IP Address
Persistence Timeout	2 Minutes
Scheduling Method	least connection
Real Server Check Method	HTTP Protocol
Checked Port	7771
HTTP Method	GET
Check URL	/PersonalizationServer/pingmonitor.aspx

File Director Offloaded

The following are the steps involved and the recommended settings to configure the Ivanti File Director Offloaded using the application template:

1. In the main menu of the LoadMaster WUI, go to **Virtual Services > Add New**.



2. Type a valid **Virtual Address**.
3. Select the **Ivanti File Director Offloaded** template in the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.
5. Expand the **SSL Properties** Section.
6. Select the certificate to use in the **Available Certificates** and click the “arrow” **>** to move it to **Assigned Certificates**.
7. Click **Set Certificate**.
8. Expand the **Real Servers** section.
9. Click **Add New**.
10. Enter the **Real Server Address**.
11. Confirm that **Port 80** is entered.
12. Click **Add This Real Server**.

File Director Offloaded Application Template Settings (optional)

This table outlines the configuration options set using the Progress Kemp application template. These settings can be used if doing a manual configuration or leveraged with automation tools.

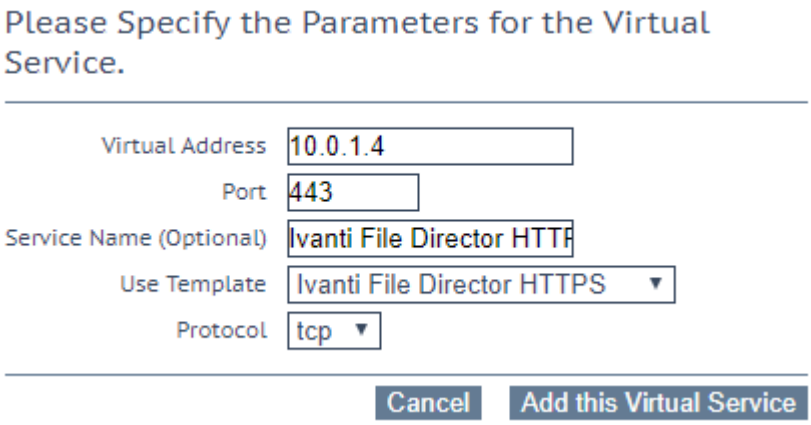
Option	Value
VS Port	443
VS Protocol	tcp
Service Type	HTTP-HTTP/2-HTTPS
Subnet Originating Address	Enabled
Scheduling Method	least connection
SSL Acceleration	Enabled
Cipher Set	Intermediate_compatibility

Option	Value
Real Server Check Method	HTTP Protocol
Checked Port	8001
HTTP Method	GET
Check URL	/status
Reply 200 Pattern	Success

File Director HTTPS

The following are the steps involved and the recommended settings to configure Ivanti File Director Reencrypt using the application template:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Virtual Services > Add New**.



2. Type a valid **Virtual Address**.
3. Select the **Ivanti File Director HTTPS** template in the **Use Template** drop-down list.
4. Click **Add this Virtual Service**.
5. Expand the **Real Servers** section.
6. Click **Add New**.
7. Enter the **Real Server Address**.
8. Confirm that **Port 443** is entered.
9. Click **Add This Real Server**.

File Director HTTPS Application Template Settings (optional)

This table outlines the configuration options set using the Progress Kemp application template. These settings can be used if doing a manual configuration or leveraged with automation tools.

Option	Value
VS Port	443
VS Protocol	tcp
Service Type	HTTP-HTTP/2-HTTPS
Subnet Originating Address	Enabled
Scheduling Method	least connection
Real Server Check Method	HTTP Protocol
Checked Port	8001
HTTP Method	GET
Check URL	/status
Reply 200 Pattern	Success

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Troubleshooting

Refer to the sections below for details on some common issues seen when load balancing the Ivanti AppSense workload.

Related Links

For details, see the following topics:

- Connections Rejected

Connections Rejected

When using a non-default TCP port or offloading for Ivanti AppSense services, you must ensure the Real Server port is correct. This is a common mistake when configuring the Real Servers when the VS port is different from the Real Server port.

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References

Some resources on Ivanti are listed below:

Ivanti User Workspace Manager

Useful, related documents are listed below:

SSL Accelerated Services, Feature Description

Web User Interface (WUI), Configuration Guide