Deployment Guide
DOCUMENT VERSION 1.0

Deploying the BIG-IP System with Oracle Hyperion Applications

Welcome to the F5 deployment guide for Oracle® Hyperion® applications with the BIG-IP system. This guide shows administrators how to configure the BIG-IP Local Traffic Manager (LTM) and WebAccelerator for directing traffic, ensuring application availability, improving performance and providing a flexible layer of security for Oracle Hyperion application deployments.

Why F5

The BIG-IP LTM provides high availability, load balancing, enhanced performance, simple scalability and high operational resiliency for the Oracle Hyperion Application deployment. In a Hyperion environment, the BIG-IP LTM provides intelligent traffic management and high availability by monitoring and managing connections to the Hyperion services.

In addition, the built-in performance optimization capabilities of the BIG-IP system provide faster operations to facilitate a better end-user experience. The BIG-IP system also keeps persistence records for connections to always be directed to the same server for a specified period of time, to ensure that the workflow in the Hyperion environment is fully preserved.

For more information on Oracle Hyperion, see
http://www.oracle.com/us/corporate/Acquisitions/hyperion/index.html#products

For more information on the F5 BIG-IP system, see *http://www.f5.com/products/big-ip/*

Products and versions

Product	Version
BIG-IP LTM	10.x (10.2.1 or later recommended)
Hyperion EnterpriseOne	9.0/8.98.4
Oracle WebLogic Server	10.3.2

Important: *Make sure you are using the most recent version of this deployment guide, available at http://www.f5.com/pdf/deployment-guides/oracle-hyperion-dg.pdf.*

Prerequisites and configuration notes

The following are general prerequisites and configuration notes for this guide:

➤ You must have administrative access to the BIG-IP web-based Configuration utility.

➤ If you are using the BIG-IP system to offload SSL, we assume you have already obtained an SSL certificate and key, and it is installed on the BIG-IP LTM system.

➤ You must have administrative access to the Hyperion services.

➤ If you are using WebAccelerator as a part of this deployment, we recommend you configure the WebAccelerator objects *before* configuring the BIG-IP LTM. Configuring the WebAccelerator first saves time, as you are not required to modify your BIG-IP LTM virtual server to use WebAccelerator. See *Configuring the WebAccelerator for Hyperion (optional) on page 8*.

Configuration example

In this deployment guide, we provide guidance on configuring the BIG-IP LTM for intelligent traffic management and high availability for Hyperion environments.

The following is a simple, logical diagram of our configuration. In our example, we will configure the BIG-IP LTM for 4 separate Hyperion services.

• Hyperion Planning Workspace

• Hyperion Financial Data Quality Management

• Hyperion Financial Management

• Hyperion Capital Asset Planning

You may not have all of these Hyperion services installed. Configure only the items that match your Hyperion Deployment. For more information on Hyperion, please see the appropriate Oracle documentation.
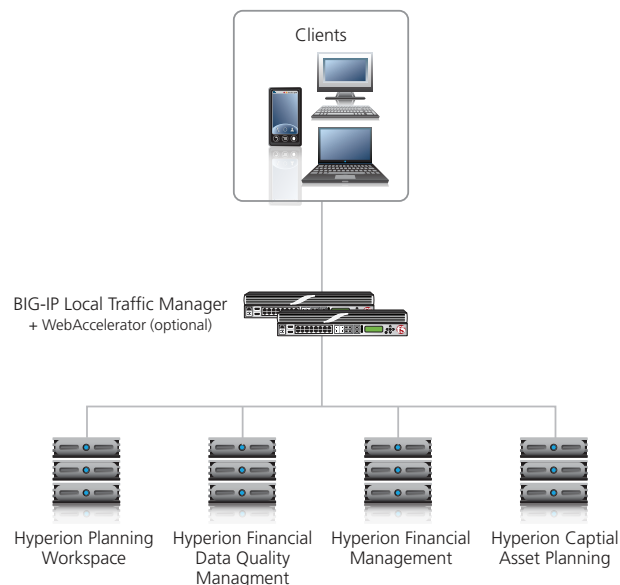

Figure 1: *Logical configuration example*

Preparation Worksheet

Before beginning the configuration, it is helpful to gather some information, such as IP addresses and certificate/key information. This worksheets contains the information that is helpful to have in advance. You might find it useful to print the table and then enter the information. We provide a blank worksheet, and then one completed with our examples.

➲ **Note:** *Although we show space for five pool members, you may have more or fewer members in your pool*

Hyperion application	IP Addresses	Pool Members	SSL Offload?
Planning Workspace	Virtual server IP address: Service Port:	Workspace Server IPs:Port 1: 2: 3: 4: 5:	Only required if offloading SSL onto the BIG-IP [1]. Certificate: Key:
Financial Data Quality Management (FDM)	Virtual server IP address: Service Port:	FDM Server IPs:Port 1: 2: 3: 4: 5:	Only required if offloading SSL onto the BIG-IP [1]. Certificate: Key:
Financial Management (HFM)	Virtual server IP address: Service Port:	HFM Server IPs:Port 1: 2: 3: 4: 5:	Only required if offloading SSL onto the BIG-IP [1]. Certificate: Key:
Capital Asset Planning	Virtual server IP address: Service Port:	Expense Planning Server IPs:Port 1: 2: 3: 4: 5:	Only required if offloading SSL onto the BIG-IP [1]. Certificate: Key:
WebAccelerator (optional)			
If you are using WebAccelerator, you need to know the FQDN of the host name for each of the Hyperion services on which you are enabling WebAccelerator: 1. 2. 3. 4.			

[1] If offloading SSL, you must have imported a valid certificate and key on to the BIG-IP system before beginning the configuration. See the Online help or product documentation for more information.

Configuring the BIG-IP system for Hyperion Planning Workspace

Use the following table for guidance on configuring the BIG-IP system for the Hyperion Workspace application. This table contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable. For specific instructions on configuring individual objects, see the online help or product manuals.

Give each object a unique name. We recommend using names that are prefaced by "Workspace-" such as *Workspace-monitor*.

BIG-IP object	Non-default settings/Notes	
Health Monitor (*Main tab-->Local Traffic -->Monitors*)	*Type*	HTTP
	Interval	60
	Timeout	181
Pool (*Main tab-->Local Traffic -->Pools*)	*Health monitor*	Add health monitor above
	Slow Ramp Time[1]	120
	Load Balancing Method	**Least Connections (member)** recommended
	Address	Hyperion Workspace server IP address
	Service Port	**80** (default) Repeat Address and Port for all members
Profiles (*Main tab-->Local Traffic -->Profiles*)	*HTTP* (*Profiles-->Services*)	Parent Profile	**http**
	TCP WAN (*Profiles-->Protocol*)	Parent Profile	**tcp-wan-optimized**
	TCP LAN (*Profiles-->Protocol*)	Parent Profile	**tcp-lan-optimized**
	Persistence (Cookie) (*Profiles-->Persistence*)	Persistence Type	**Cookie**
	Persistence (Source Address) (*Profiles-->Persistence*)	Persistence Type	**Source Address Affinity**
	Client SSL[2] (*Profiles-->SSL*)	Parent Profile	**clientssl**
		Certificate and Key	Select the Certificate and key you imported
	OneConnect (*Profiles-->Other*)	Parent Profile	**oneconnect**
Virtual Server (*Main tab-->Local Traffic -->Virtual Servers*)	*Destination Address*	IP address (clients use to access Hyperion Workspace via BIG-IP)
	Service Port	**80** if not offloading SSL, **443[2]** if offloading SSL
	Protocol Profile (Client)[1]	Select the TCP WAN profile you created above
	Protocol Profile (Server)[1]	Select the TCP LAN profile you created above
	OneConnect Profile	Select the OneConnect profile you created above
	HTTP Profile	Select the HTTP profile you created above
	SSL Profile (Client)[2]	Select the Client SSL profile you created above
	SNAT Pool	**Automap** (SNAT is recommended. If you expect more than 64,000 concurrent users, use a SNAT Pool[3] instead of Automap)
	HTTP Class Profiles[4]	Enable the HTTP Class you created for use with WebAccelerator[4]
	Default Pool	Select the pool you created above
	Default Persistence Profile	Select the **Cookie** persistence profile you created above
	Fallback Persistence Profile	Select the Source Address persistence profile you created above

[1] *You must select **Advanced** from the **Configuration** list for these options to appear.*
[2] *Optional, only necessary if offloading SSL onto the BIG-IP LTM*
[3] *For more information on SNAT Pools, see the BIG-IP documentation*
[4] *Optional, only necessary if you have already configured the WebAccelerator*

Configuring the BIG-IP system for Hyperion FDM

Use the following table for guidance on configuring the BIG-IP system for the Hyperion Financial Data Quality Management application. This table contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable. Give each object a unique name. We recommend using names that are prefaced by "FDM-" such as *FDM-monitor*.

BIG-IP object	Non-default settings/Notes		
Health Monitor (*Main tab-->Local Traffic -->Monitors*)	*Type*	HTTP	
	Interval	**60**	
	Timeout	**181**	
	Send String[1]	**GET /HyperionFDM/AuthorizedPages/LogonPage.aspx\r\n**	
	Receive String[1]	**__VIEWSTATE**	
Pool (*Main tab-->Local Traffic -->Pools*)	*Health monitor*	Add health monitor above	
	Slow Ramp Time[2]	**120**	
	Load Balancing Method	**Least Connections (member)** recommended	
	Address	Hyperion FDM server IP address	
	Service Port	**80** (default) Repeat Address and Port for all members	
Profiles (*Main tab-->Local Traffic -->Profiles*)	*HTTP* (*Profiles-->Services*)	Parent Profile	**http**
	TCP WAN (*Profiles-->Protocol*)	Parent Profile	**tcp-wan-optimized**
	TCP LAN (*Profiles-->Protocol*)	Parent Profile	**tcp-lan-optimized**
	Persistence (Cookie) (*Profiles-->Persistence*)	Persistence Type	**Cookie**
	Persistence (Source Address) (*Profiles-->Persistence*)	Persistence Type	**Source Address Affinity**
	Client SSL[3] (*Profiles-->SSL*)	Parent Profile	**clientssl**
		Certificate and Key	Select the Certificate and key you imported
	OneConnect (*Profiles-->Other*)	Parent Profile	**oneconnect**
Virtual Server (*Main tab-->Local Traffic -->Virtual Servers*)	*Destination Address*	IP address (clients use to access Hyperion FDM via BIG-IP)	
	Service Port	**80** if not offloading SSL, **443**[3] if offloading SSL	
	Protocol Profile (Client)[2]	Select the TCP WAN profile you created above	
	Protocol Profile (Server)[2]	Select the TCP LAN profile you created above	
	OneConnect Profile	Select the OneConnect profile you created above	
	HTTP Profile	Select the HTTP profile you created above	
	SSL Profile (Client)[3]	Select the Client SSL profile you created above	
	SNAT Pool	**Automap** (SNAT is recommended. If you expect more than 64,000 concurrent users, use a SNAT Pool[4] instead of Automap)	
	HTTP Class Profiles[5]	Enable the HTTP Class you created for use with WebAccelerator[5]	
	Default Pool	Select the pool you created above	
	Default Persistence Profile	Select the **Cookie** persistence profile you created above	
	Fallback Persistence Profile	Select the Source Address persistence profile you created above	

[1] Optional. Use these fields for more specific health monitoring
[2] You must select **Advanced** from the **Configuration** list for these options to appear.
[3] Optional, only necessary if offloading SSL onto the BIG-IP LTM
[4] For more information on SNAT Pools, see the BIG-IP documentation
[5] Optional, only necessary if using the WebAccelerator.

Configuring the BIG-IP system for Hyperion Financial Management

Use the following table for guidance on configuring the BIG-IP LTM for the Hyperion Financial Management (HFM) application. This table contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable. Give each object a unique name.

We recommend using names that are prefaced by "HFM-" such as *HFM-monitor*.

BIG-IP object	Non-default settings/Notes		
Health Monitor (*Main tab-->Local Traffic -->Monitors*)	*Type*	HTTP	
	Interval	60	
	Timeout	181	
Pool (*Main tab-->Local Traffic -->Pools*)	*Health monitor*	Add health monitor above	
	Slow Ramp Time[1]	120	
	Load Balancing Method	**Least Connections (member)** recommended	
	Address	Hyperion HFM server IP address	
	Service Port	**80** (default) Repeat Address and Port for all members	
Profiles (*Main tab-->Local Traffic -->Profiles*)	*HTTP* (*Profiles-->Services*)	Parent Profile	**http**
	TCP WAN (*Profiles-->Protocol*)	Parent Profile	**tcp-wan-optimized**
	TCP LAN (*Profiles-->Protocol*)	Parent Profile	**tcp-lan-optimized**
	Persistence (Cookie) (*Profiles-->Persistence*)	Persistence Type	**Cookie**
	Persistence (Source Address) (*Profiles-->Persistence*)	Persistence Type	**Source Address Affinity**
	Client SSL[3] (*Profiles-->SSL*)	Parent Profile	**clientssl**
		Certificate and Key	Select the Certificate and key you imported
	OneConnect (*Profiles-->Other*)	Parent Profile	**oneconnect**
Virtual Server (*Main tab-->Local Traffic -->Virtual Servers*)	*Destination Address*	IP address (clients use to access Hyperion Workspace via BIG-IP)	
	Service Port	**80** if not offloading SSL, **443[2]** if offloading SSL	
	Protocol Profile (Client)[1]	Select the TCP WAN profile you created above	
	Protocol Profile (Server)[1]	Select the TCP LAN profile you created above	
	OneConnect Profile	Select the OneConnect profile you created above	
	HTTP Profile	Select the HTTP profile you created above	
	SSL Profile (Client)[2]	Select the Client SSL profile you created above	
	SNAT Pool	**Automap** (SNAT is recommended. If you expect more than 64,000 concurrent users, use a SNAT Pool[3] instead of Automap)	
	HTTP Class Profiles[4]	Enable the HTTP Class you created for use with WebAccelerator[4]	
	Default Pool	Select the pool you created above	
	Default Persistence Profile	Select the **Cookie** persistence profile you created above	
	Fallback Persistence Profile	Select the Source Address persistence profile you created above	

[1] *You must select* **Advanced** *from the* **Configuration** *list for these options to appear.*
[2] *Optional, only necessary if offloading SSL onto the BIG-IP LTM*
[3] *For more information on SNAT Pools, see the BIG-IP documentation*
[4] *Optional, only necessary if you have already configured the WebAccelerator*

Configuring the BIG-IP for Hyperion Capital Asset Planning

Use the following table for guidance on configuring the BIG-IP system for the Hyperion Capital Asset Planning application. This table contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable. Give each object a unique name.

We recommend using names that are prefaced by "Asset_planning-" such as *Asset_planning-monitor*.

BIG-IP object	Non-default settings/Notes		
Health Monitor (*Main tab-->Local Traffic -->Monitors*)	*Type*	**HTTP**	
	Interval	**60**	
	Timeout	**181**	
Pool (*Main tab-->Local Traffic -->Pools*)	*Health monitor*	Add health monitor above	
	Slow Ramp Time[1]	**120**	
	Load Balancing Method	**Least Connections (member)** recommended	
	Address	Hyperion Expense Planning server IP address	
	Service Port	**80** (default) Repeat Address and Port for all members	
Profiles (*Main tab-->Local Traffic -->Profiles*)	*HTTP* (*Profiles-->Services*)	Parent Profile	**http**
	TCP WAN (*Profiles-->Protocol*)	Parent Profile	**tcp-wan-optimized**
	TCP LAN (*Profiles-->Protocol*)	Parent Profile	**tcp-lan-optimized**
	Persistence (Cookie) (*Profiles-->Persistence*)	Persistence Type	**Cookie**
	Persistence (Source Address) (*Profiles-->Persistence*)	Persistence Type	**Source Address Affinity**
	Client SSL[3] (*Profiles-->SSL*)	Parent Profile	clientssl
		Certificate and Key	Select the Certificate and key you imported
	OneConnect (*Profiles-->Other*)	Parent Profile	**oneconnect**
Virtual Server (*Main tab-->Local Traffic -->Virtual Servers*)	*Destination Address*	IP address (clients use to access Hyperion Capital Asset Planning via BIG-IP)	
	Service Port	**80** if not offloading SSL, **443**[2] if offloading SSL	
	Protocol Profile (Client)[1]	Select the TCP WAN profile you created above	
	Protocol Profile (Server)[1]	Select the TCP LAN profile you created above	
	OneConnect Profile	Select the OneConnect profile you created above	
	HTTP Profile	Select the HTTP profile you created above	
	SSL Profile (Client)[2]	Select the Client SSL profile you created above	
	SNAT Pool	**Automap** (SNAT is recommended. If you expect more than 64,000 concurrent users, use a SNAT Pool[3] instead of Automap)	
	HTTP Class Profiles[4]	Enable the HTTP Class you created for use with WebAccelerator[4]	
	Default Pool	Select the pool you created above	
	Default Persistence Profile	Select the **Cookie** persistence profile you created above	
	Fallback Persistence Profile	Select the Source Address persistence profile you created above	

[1] You must select **Advanced** from the **Configuration** list for these options to appear.
[2] Optional, only necessary if offloading SSL onto the BIG-IP LTM
[3] For more information on SNAT Pools, see the BIG-IP documentation
[4] Optional, only necessary if you have already configured the WebAccelerator

Configuring the WebAccelerator for Hyperion (optional)

You can use the BIG-IP WebAccelerator to help improve end user performance. The BIG-IP WebAccelerator is an advanced web application delivery solution that provides a series of intelligent technologies that overcome performance issues involving browsers, web application platforms, and WAN latency. For more information about WebAccelerator, see *http://www.f5.com/products/big-ip/webaccelerator.html*.

To use the WebAccelerator module, it must be licensed and provisioned on your BIG-IP system. Contact your F5 sales representative for more information.

We recommend configuring the WebAccelerator objects before configuring the LTM objects, as you will not have to reconfigure the BIG-IP virtual server. If you have already configured the BIG-IP LTM, see the procedure following the table for instructions on modifying the LTM virtual server(s).

WebAccelerator configuration table

Use the following table for guidance on configuring the WebAccelerator for the Hyperion services you are deploying. This table contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable for your implementation. The WebAccelerator device has a large number of other features and options for fine tuning performance gains, see the **Configuration Guide for the BIG-IP WebAccelerator System** for more information.

BIG-IP object	Non-default settings/Notes	
HTTP Class (*WebAccelerator-->Class Profiles*)	*Name*	Give the HTTP Class a unique name.
	Parent Profile	**httpclass**
	WebAccelerator	**Enabled**
WebAccelerator Application[2] (*Main tab-->WebAccelerator -->Applications*	*Application Name*	Give the Application a unique name. You can optionally type a description.
	Central Policy	**Hyperion Financial**
	Requested Host	Type the FQDN of the applicable host name. Click **Add Host** to add additional host names (in FQDN format) for each of the Hyperion services for which you want to use WebAccelerator. If you are using WebAccelerator for all Hyperion services in this guide, you would have 4 Requested Hosts.

Modifying the BIG-IP virtual servers if you configured BIG-IP LTM first
If you configured the BIG-IP LTM virtual servers as described in this guide before configuring the WebAccelerator objects in the preceding table, you need to modify each LTM virtual server to use the HTTP Class you just created.

To modify the virtual server to use the WebAccelerator-enabled HTTP Class

1. On the Main tab, expand **Local Traffic** and then click **Virtual Servers**.

2. From the list of virtual servers, click a virtual server you created for a Hyperion service.

3. On the Menu bar, click **Resources**.

4. In the HTTP Class Profiles section, click the **Manage** button.

5. From the Available box, select the HTTP Class profile you created and then click the Add (**<<**) button to move it to the **Enabled** box.

6. Click **Finished**.

7. Repeat this procedure for each of the Hyperion virtual servers on which you want to enable WebAccelerator.

This completes the configuration.

Next steps

Before sending traffic to the BIG-IP system, your DNS administrator may need to modify any DNS entries for this Hyperion implementation to point to the applicable BIG-IP virtual server address.

To provide feedback on this deployment guide or other F5 solution documents, contact us at *solutionsfeedback@f5.com.*

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