

BIG-IQ™ System: Licensing and Initial Setup

Version 4.2



Table of Contents

Legal Notices.....	5
Acknowledgments.....	7
Chapter 1: BIG-IQ System Introduction.....	13
Overview: BIG-IQ system.....	14
Additional resources and documentation for BIG-IQ systems.....	14
Chapter 2: BIG-IQ User Interface.....	15
About the BIG-IQ system user interface.....	16
Filtering for associated objects.....	16
Customizing panel order.....	16
Chapter 3: Licensing, Initial Configuration, and Upgrades.....	17
About licensing, initial configuration, and upgrades.....	18
License activation and initial configuration.....	18
Manual license activation and initial configuration.....	19
Changing the time zone for the BIG-IQ system.....	20
Upgrading a BIG-IQ system license.....	20
Chapter 4: Default User Accounts and Passwords.....	23
About default passwords for pre-defined users.....	24
Changing the default password for the administrator user.....	24
Changing the default password for the root user.....	24
Chapter 5: Additional Network Configuration Options.....	25
About additional network configuration options.....	26
Configuring an additional VLAN.....	26

Legal Notices

Publication Date

This document was published on December 20, 2013.

Publication Number

MAN-0497-00

Copyright

Copyright © 2013, F5 Networks, Inc. All rights reserved.

F5 Networks, Inc. (F5) believes the information it furnishes to be accurate and reliable. However, F5 assumes no responsibility for the use of this information, nor any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent, copyright, or other intellectual property right of F5 except as specifically described by applicable user licenses. F5 reserves the right to change specifications at any time without notice.

Trademarks

AAM, Access Policy Manager, Advanced Client Authentication, Advanced Firewall Manager, Advanced Routing, AFM, APM, Application Acceleration Manager, Application Security Manager, ARX, AskF5, ASM, BIG-IP, BIG-IQ, Cloud Extender, CloudFucious, Cloud Manager, Clustered Multiprocessing, CMP, COHESION, Data Manager, DevCentral, DevCentral [DESIGN], DNS Express, DSC, DSI, Edge Client, Edge Gateway, Edge Portal, ELEVATE, EM, Enterprise Manager, ENGAGE, F5, F5 [DESIGN], F5 Certified [DESIGN], F5 Networks, F5 SalesXchange [DESIGN], F5 Synthesis, f5 Synthesis, F5 Synthesis [DESIGN], F5 TechXchange [DESIGN], Fast Application Proxy, Fast Cache, FirePass, Global Traffic Manager, GTM, GUARDIAN, iApps, IBR, Intelligent Browser Referencing, Intelligent Compression, IPv6 Gateway, iControl, iHealth, iQuery, iRules, iRules OnDemand, iSession, L7 Rate Shaping, LC, Link Controller, Local Traffic Manager, LTM, LineRate, LineRate Systems [DESIGN], LROS, LTM, Message Security Manager, MSM, OneConnect, Packet Velocity, PEM, Policy Enforcement Manager, Protocol Security Manager, PSM, Real Traffic Policy Builder, SalesXchange, ScaleN, Signalling Delivery Controller, SDC, SSL Acceleration, software designed applications services, SDAC (except in Japan), StrongBox, SuperVIP, SYN Check, TCP Express, TDR, TechXchange, TMOS, TotALL, Traffic Management Operating System, Traffix Systems, Traffix Systems (DESIGN), Transparent Data Reduction, UNITY, VAULT, vCMP, VE F5 [DESIGN], Versafe, Versafe [DESIGN], VIPRION, Virtual Clustered Multiprocessing, WebSafe, and ZoneRunner, are trademarks or service marks of F5 Networks, Inc., in the U.S. and other countries, and may not be used without F5's express written consent.

All other product and company names herein may be trademarks of their respective owners.

Patents

This product may be protected by one or more patents indicated at:

<http://www.f5.com/about/guidelines-policies/patents>

Acknowledgments

This product includes software developed by Bill Paul.

This product includes software developed by Jonathan Stone.

This product includes software developed by Manuel Bouyer.

This product includes software developed by Paul Richards.

This product includes software developed by the NetBSD Foundation, Inc. and its contributors.

This product includes software developed by the Politecnico di Torino, and its contributors.

This product includes software developed by the Swedish Institute of Computer Science and its contributors.

This product includes software developed by the University of California, Berkeley and its contributors.

This product includes software developed by the Computer Systems Engineering Group at the Lawrence Berkeley Laboratory.

This product includes software developed by Christopher G. Demetriou for the NetBSD Project.

This product includes software developed by Adam Glass.

This product includes software developed by Christian E. Hopps.

This product includes software developed by Dean Huxley.

This product includes software developed by John Kohl.

This product includes software developed by Paul Kranenburg.

This product includes software developed by Terrence R. Lambert.

This product includes software developed by Philip A. Nelson.

This product includes software developed by Herb Peyerl.

This product includes software developed by Jochen Pohl for the NetBSD Project.

This product includes software developed by Chris Provenzano.

This product includes software developed by Theo de Raadt.

This product includes software developed by David Muir Sharnoff.

This product includes software developed by SigmaSoft, Th. Lockert.

This product includes software developed for the NetBSD Project by Jason R. Thorpe.

This product includes software developed by Jason R. Thorpe for And Communications, <http://www.and.com>.

This product includes software developed for the NetBSD Project by Frank Van der Linden.

This product includes software developed for the NetBSD Project by John M. Vinopal.

This product includes software developed by Christos Zoulas.

This product includes software developed by the University of Vermont and State Agricultural College and Garrett A. Wollman.

This product includes software developed by Balazs Scheidler (bazsi@balabit.hu), which is protected under the GNU Public License.

This product includes software developed by Niels Mueller (nisse@lysator.liu.se), which is protected under the GNU Public License.

Acknowledgments

In the following statement, *This software* refers to the Mitsumi CD-ROM driver: This software was developed by Holger Veit and Brian Moore for use with 386BSD and similar operating systems. *Similar operating systems* includes mainly non-profit oriented systems for research and education, including but not restricted to NetBSD, FreeBSD, Mach (by CMU).

This product includes software developed by the Apache Group for use in the Apache HTTP server project (<http://www.apache.org/>).

This product includes software licensed from Richard H. Porter under the GNU Library General Public License (© 1998, Red Hat Software), www.gnu.org/copyleft/lgpl.html.

This product includes the standard version of Perl software licensed under the Perl Artistic License (© 1997, 1998 Tom Christiansen and Nathan Torkington). All rights reserved. You may find the most current standard version of Perl at <http://www.perl.com>.

This product includes software developed by Jared Minch.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com).

This product contains software based on oprofile, which is protected under the GNU Public License.

This product includes RRDtool software developed by Tobi Oetiker (<http://www.rrdtool.com/index.html>) and licensed under the GNU General Public License.

This product contains software licensed from Dr. Brian Gladman under the GNU General Public License (GPL).

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>).

This product includes Hypersonic SQL.

This product contains software developed by the Regents of the University of California, Sun Microsystems, Inc., Scriptics Corporation, and others.

This product includes software developed by the Internet Software Consortium.

This product includes software developed by Nominum, Inc. (<http://www.nominum.com>).

This product contains software developed by Broadcom Corporation, which is protected under the GNU Public License.

This product contains software developed by MaxMind LLC, and is protected under the GNU Lesser General Public License, as published by the Free Software Foundation.

This product includes Intel QuickAssist kernel module, library, and headers software licensed under the GNU General Public License (GPL).

This product includes software developed by Oracle America, Inc. Copyright ©2012.

1. Java Technology Restrictions. Licensee shall not create, modify, change the behavior of, or authorize licensees of licensee to create, modify, or change the behavior of, classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun" or similar convention as specified by Oracle in any naming convention designation. In the event that Licensee creates an additional API(s) which: (a) extends the functionality of a Java Environment; and (b) is exposed to third party software developers for the purpose of developing additional software which invokes such additional API, Licensee must promptly publish broadly an accurate specification for such API for free use by all developer.
2. Trademarks and Logos. This License does not authorize an end user licensee to use any Oracle America, Inc. name, trademark, service mark, logo or icon. The end user licensee acknowledges that Oracle owns the Java trademark and all Java-related trademarks, logos and icon including the Coffee Cup and Duke ("Java Marks") and agrees to: (a) comply with the Java Trademark Guidelines at <http://www.oracle.com/html/3party.html>; (b) not do anything harmful to or inconsistent with Oracle's

rights in the Java Marks; and (c) assist Oracle in protecting those rights, including assigning to Oracle any rights acquired by Licensee in any Java Mark.

3. Source Code. Software may contain source code that, unless expressly licensed for other purposes, is provided solely for reference purposes pursuant to the terms of your license. Source code may not be redistributed unless expressly provided for in the terms of your license.
4. Third Party Code. Additional copyright notices and license terms applicable to portion of the Software are set forth in the THIRDPARTYLICENSEREADME.txt file.
5. Commercial Features. Use of the Commercial Features for any commercial or production purpose requires a separate license from Oracle. "Commercial Features" means those features identified in Table I-I (Commercial Features In Java SE Product Editions) of the Software documentation accessible at <http://www.oracle.com/technetwork/java/javase/documentation/index.html>.

This product includes software developed by members of the CentOS Project under the GNU Public License, copyright ©2004-2011 by the CentOS Project.

This product includes software developed by members of the OpenJDK Project under the GNU Public License Version 2, copyright ©2012 by Oracle Corporation.

This product includes software developed by The VMWare Guest Components Team under the GNU Public License Version 2, copyright ©1999-2011 by VMWare, Inc.

This product includes software developed by The Netty Project under the Apache Public License Version 2, copyright ©2008-2012 by The Netty Project.

This product includes software developed by Stephen Colebourne under the Apache Public License Version 2, copyright ©2001-2011 Joda.org.

This product includes software developed by the GlassFish Community under the GNU Public License Version 2 with classpath exception, copyright ©2012 Oracle Corporation.

This product includes software developed by the Mort Bay Consulting under the Apache Public License Version 2, copyright ©1995-2012 Mort Bay Consulting.

This product contains software developed by members of the Jackson Project under the GNU Lesser General Public License Version 2.1, ©2007 – 2012 by the Jackson Project”.

This product contains software developed by QOS.ch under the MIT License, ©2004 – 2011 by QOS.ch.

This product includes software licensed from Gerald Combs (gerald@wireshark.org) under the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or any later version. Copyright ©1998 Gerald Combs.

This product includes software developed by Thomas Williams and Colin Kelley. Copyright ©1986 - 1993, 1998, 2004, 2007

Permission to use, copy, and distribute this software and its documentation for any purpose with or without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. Permission to modify the software is granted, but not the right to distribute the complete modified source code. Modifications are to be distributed as patches to the released version. Permission to distribute binaries produced by compiling modified sources is granted, provided you

1. distribute the corresponding source modifications from the released version in the form of a patch file along with the binaries,
2. add special version identification to distinguish your version in addition to the base release version number,
3. provide your name and address as the primary contact for the support of your modified version, and
4. retain our contact information in regard to use of the base software.

Acknowledgments

Permission to distribute the released version of the source code along with corresponding source modifications in the form of a patch file is granted with same provisions 2 through 4 for binary distributions. This software is provided "as is" without express or implied warranty to the extent permitted by applicable law.

This product contains software developed by Google, Inc. Copyright ©2011 Google, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

This software incorporates JFreeChart, ©2000-2007 by Object Refinery Limited and Contributors, which is protected under the GNU Lesser General Public License (LGPL).

This product contains software developed by the Mojarrá project. Source code for the Mojarrá software may be obtained at <https://javaserverfaces.dev.java.net/>.

This product includes JZlib software, Copyright © 2000-2011 ymnk, JCraft, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes Apache Lucene software, distributed by the Apache Software Foundation under the Apache License, version 2.0.

This product includes Apache MINA software, distributed by the Apache Software Foundation under the Apache License, version 2.0.

This product includes OData4J software, distributed under the Apache License version 2.0.

This product includes software developed by the Visigoth Software Society (<http://www.visigoths.org/>).

This product includes software developed by Jeremy Ashkenas and DocumentCloud, and distributed under the MIT license. Copyright © 2010-2013 Jeremy Ashkenas, DocumentCloud.

This product includes software developed by Addy Osmani, and distributed under the MIT license. Copyright © 2012 Addy Osmani.

This product includes software developed by Charles Davison, and distributed under the MIT license. Copyright © 2013 Charles Davison.

This product includes software developed by The Dojo Foundation, and distributed under the MIT license. Copyright © 2010-2011, The Dojo Foundation.

This product includes google-gson software, distributed under the Apache License version 2.0. Copyright © 2008-2011 Google Inc.

This product includes Apache Ant software, distributed by the Apache Software Foundation under the Apache License, version 2.0.

This product includes isc-dhcp software. Copyright © 2004-2013 by Internet Systems Consortium, Inc. (“ISC”); Copyright © 1995-2003 by Internet Software Consortium.

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED “AS IS” AND ISC DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL ISC BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

This product includes jQuery Sparklines software, developed by Gareth Watts, and distributed under the new BSD license.

This product includes jsdiff software, developed by Chas Emerick, and distributed under the BSD license.

This product includes winston software, copyright © 2010, by Charlie Robbins.

This product includes Q software developed by Kristopher Michael Kowal, and distributed under the MIT license. Copyright © 2009-2013 Kristopher Michael Kowal.

This product includes SlickGrid software developed by Michael Liebman, and distributed under the MIT license.

Chapter

1

BIG-IQ System Introduction

- *Overview: BIG-IQ system*

Overview: BIG-IQ system

The BIG-IQ™ system is a tool that streamlines the management of F5 devices in your network. The functionality offered is dependent on your software license.

Cloud administrators use BIG-IQ Cloud to provide cloud tenants self-service access to shared computing resources such as networks, servers, storage, applications, and services. Cloud resources can be private or public, depending on the customer's requirements. Each tenant has restricted and dedicated access to cloud resources based on a specific user account or tenant role, ensuring that tenants have access only to their own resources. Cloud resources are easily expanded and reallocated as needed, providing flexible resource balancing.

Firewall managers use BIG-IQ Security to manage security firewalls for multiple devices from a central location. Firewall management includes discovering, editing, and deploying firewall configurations, as well as consolidating shared firewall objects. Once a firewall device is designated for central management, it is no longer managed locally unless there is an exceptional need.

Network administrators use BIG-IQ Device to interact with all of the managed F5 devices in their network. This centralized management includes the ability upgrade F5 devices, update configurations, and reallocate licenses as needed.

Additional resources and documentation for BIG-IQ systems

You can access all of the following BIG-IQ™ system documentation from the AskF5™ Knowledge Base located at <http://support.f5.com/>.

Document	Description
<i>BIG-IQ™ Virtual Edition Setup</i>	BIG-IQ Virtual Edition (VE) runs as a guest in a virtual environment using supported hypervisors. Each of these guides is specific to one of the hypervisor environments supported for the BIG-IQ system.
<i>BIG-IQ™ Systems: Licensing and Initial Configuration</i>	This guide provides the network administrator with basic BIG-IQ system concepts and describes the tasks required to license and set up the BIG-IQ system in their network.
<i>BIG-IQ™ Device: Device Management</i>	This guide provides details about how to deploy software images, licenses, and configurations to managed BIG-IP devices.
<i>BIG-IQ™ Cloud: Cloud Administration</i>	This guide contains information to help a cloud administrator manage cloud resources, devices, applications, and tenants (users).
<i>BIG-IQ Cloud: Tenant User Guide™</i>	This guide contains information to help tenants manage applications.
<i>BIG-IQ™ Security: Administration</i>	This guide contains information used to manage BIG-IP® firewalls, policies, rule lists (and other shared objects), and users.
<i>BIG-IQ™ ASM: Administration</i>	This guide contains information used to manage all policies in an enterprise by bringing under central management all the BIG-IP® devices where those policies reside.
Release notes	Release notes contain information about the current software release, including a list of associated documentation, a summary of new features, enhancements, fixes, known issues, and available workarounds.
Solutions and Tech Notes	Solutions are responses and resolutions to known issues. Tech Notes provide additional configuration instructions and how-to information.

Chapter 2

BIG-IQ User Interface

- *About the BIG-IQ system user interface* |

About the BIG-IQ system user interface

The BIG-IQ™ system interface is composed of panels. Each panel contains objects that correspond with a BIG-IQ system feature. Depending on the number of panels and the resolution of your screen, some panels are collapsed on either side of the screen. You can cursor over the collapsed panels to locate the one you want, and click the panel to open. To associate items from different panels, click on an object, and drag and drop it onto the object to which you want to associate it.

Filtering for associated objects

The BIG-IQ system helps you easily see an object's relationship to another object, even if the objects are in different panels.

1. In a panel, click the object on which you want to filter.
The selected object name displays in the Filter field, and the screen refreshes to display unassociated objects as unavailable.
2. To further filter the objects displayed, you can type one additional object in the Filter field, and click the **Apply** button.
3. To display only those objects associated with the object you selected, click the **Apply** button.
The screen refreshes and the objects previously displayed in a gray font do not appear. Only objects associated with the object you click display, and the object you selected displays below the Filter field.
4. To remove a filter, click the **x** icon next to the object that you want to remove, below the Filter field.

Customizing panel order

You can customize the BIG-IQ system interface by reordering the panels.

1. Click the header of a panel and drag it to a new location, then release the mouse button.
The panel displays in the new location.
2. Repeat step 1 until you are satisfied with the order of the panels.

Chapter 3

Licensing, Initial Configuration, and Upgrades

- *About licensing, initial configuration, and upgrades*
-

About licensing, initial configuration, and upgrades

BIG-IQ™ system runs as a virtual machine in specifically-supported hypervisors. After you set up your virtual environment, you can license or upgrade the BIG-IQ system. You initiate the license activation process with the base registration key.

The *base registration key* is a character string that the license server uses to verify the functionality that you are entitled to license. If the system has access to the internet, you select an option to automatically contact the F5 license server and activate the license. If the system is not connected to the internet, you can manually retrieve the activation key from a system that is connected to the internet, and transfer it to the BIG-IQ system.

License activation and initial configuration

You must have a base registration key to license the BIG-IQ™ system. If you do not have a base registration key, contact the F5 Networks sales group (<http://www.f5.com>).

If the BIG-IQ™ system is connected to the public internet, use this procedure to activate its license.

1. Using a browser on which you have configured the management interface, type the following URL syntax where `<management_IP_address>` is the address you specified for device management:
`https://<management_IP_address>`
 This is the IP address that the BIG-IQ system uses to communicate with its managed devices.
2. Log in to the BIG-IQ system with the default user name `admin` and password `admin`.
3. At the top of the screen, click **System** and **Overview**.
4. In the Setup panel, click the IP address of the BIG-IQ system.
 The panel expands to display additional properties.
5. In the **Base Registration Key** field, type or paste the BIG-IQ registration key.
6. In the **Add-on Keys** field, paste any additional license key you have.
7. For the **Activation Method** setting, select **Automatic**, and click the **Activate** button.
 The BIG-IQ system contacts the F5 Networks licensing server and displays the End User License Agreement (EULA).
8. To accept the EULA, click the **Accept** button.
 The screen refreshes and displays the license details.
9. Click **Properties**.
10. In the **Host Name** field, type a fully-qualified domain name (FQDN) for the system.
 The FQDN can consist of letters, numbers, as well as the characters underscore (`_`), dash (`-`), or period (`.`).
11. In the **Self IP Address** field, type the self IP address of your internal VLAN.
 The self IP address must be in Classless InterDomain Routing (CIDR) format. For example:
`10.10.10.10/24`
 This is the self IP address that managed devices use to communicate with the BIG-IQ system. This address is also referred to as the *discovery address*.
12. To add an additional self IP address, click the **+** sign, and in the new **Self IP Address** field that the system creates, edit the duplicated self IP address to reflect the additional self IP address that you want to add.
 Once you save this self IP address, you cannot change it.

13. Click **Services**.

14. In the **DNS Lookup Servers** field, type the IP address of your DNS server.

15. In the **DNS Search Domain** field, type the name of your search domain.

The DNS search domain list allows the BIG-IQ system to search for local domain lookups to resolve local host names.

16. In the **Time Servers** fields, type the IP addresses of your Network Time Protocol (NTP) servers.

17. Click the **Save** button to save your configuration.

Defining DNS and NTP servers for the BIG-IQ system

After you license the BIG-IQ™ system, you can specify the DNS and NTP servers.

Setting your DNS server and domain allows the BIG-IQ system to properly parse IP addresses. Defining the NTP server ensures the BIG-IQ system's clock is synchronized with Coordinated Universal Time (UTC).

1. Log in to the BIG-IQ system with the administrator user name and password.

2. Click **Services**.

3. In the **DNS Lookup Servers** field, type the IP address of your DNS server.

4. In the **DNS Search Domain** field, type the name of your search domain.

The DNS search domain list allows the BIG-IQ system to search for local domain lookups to resolve local host names.

5. In the **Time Servers** fields, type the IP addresses of your Network Time Protocol (NTP) servers.

6. Click the **Save** button to save your configuration.

Manual license activation and initial configuration

You must have a base registration key to license the BIG-IQ™ system. If you do not have a base registration key, contact the F5 Networks sales group (<http://www.f5.com>).

If the BIG-IQ™ system is not connected to the public internet, use this procedure to activate its license.

1. Using a browser on which you have configured the management interface, type the following URL syntax where `<management_IP_address>` is the address you specified for device management:

`https://<management_IP_address>`

This is the IP address that the BIG-IQ system uses to communicate with its managed devices.

2. Log in to the BIG-IQ system with the default user name `admin` and password `admin`.

3. At the top of the screen, click **System** and **Overview**.

4. In the Setup panel, click the IP address of the BIG-IQ system.

The panel expands to display additional properties.

5. In the **Base Registration Key** field, type or paste the BIG-IQ registration key.

6. In the **Add-on Keys** field, paste any additional license key you have.

7. For the **Activation** method setting, select **Manual** and click the **Activate** button.

The BIG-IQ system refreshes and displays the dossier in the **Dossier** field.

8. Copy the displayed dossier and transfer it to a system connected to the internet and navigate to the F5 Licensing Server at <https://activate.f5.com/license/>.

9. Copy the displayed dossier and transfer it to a system connected to the internet and navigate to the F5 Licensing Server at <https://activate.f5.com/license/>.

10. Paste the dossier into the **Enter your dossier** text box, or click the **Browse** button to locate it on the system, and click the **Next** button.
11. Copy or save the activation key and transfer it to the BIG-IQ system.
12. The End User License Agreement (EULA) displays.
When you click **Accept**, the screen refreshes to display the license details.
13. Click **Properties**.
14. In the **Host Name** field, type a fully-qualified domain name (FQDN) for the system.
The FQDN can consist of letters, numbers, as well as the characters underscore (_), dash (-), or period (.).
15. In the **Self IP Address** field, type the self IP address of your internal VLAN.
The self IP address must be in Classless InterDomain Routing (CIDR) format. For example:
10.10.10.10/24.
This is the self IP address that managed devices use to communicate with the BIG-IQ system. This address is also referred to as the *discovery address*.
16. To add an additional self IP address, click the + sign, and in the new **Self IP Address** field that the system creates, edit the duplicated self IP address to reflect the additional self IP address that you want to add.
Once you save this self IP address, you cannot change it.
17. Click **Services**.
18. In the **DNS Lookup Servers** field, type the IP address of your DNS server.
19. In the **DNS Search Domain** field, type the name of your search domain.
The DNS search domain list allows the BIG-IQ system to search for local domain lookups to resolve local host names.
20. In the **Time Servers** fields, type the IP addresses of your Network Time Protocol (NTP) servers.
21. Click the **Save** button to save your configuration.

Changing the time zone for the BIG-IQ system

You must have licensed the BIG-IQ™ system before you can modify the default time zone, if required.

The default time zone for the BIG-IQ system is Pacific Standard Time (PST). If you are in a time zone other than PST, you can change the time zone of the BIG-IQ system so that everything presented with a time stamp, including reports, displays with your local time.

1. Log in to the BIG-IQ command line as the root user.
2. View the time zone files by typing: `ls -laR /usr/share/zoneinfo`
3. Set the time zone using the following command syntax: `tmsh modify sys ntp timezone <timezone_filename>`
For example, `tmsh modify sys ntp timezone america/new_york`
4. To save the change, type `tmsh save / sys config`

Now everything displayed with a time stamp will reflect your local time.

Upgrading a BIG-IQ system license

Before you can upgrade the BIG-IQ system license, you must perform the following tasks:

- Reactivate your current license to ensure that you have a valid service check date.
- Download the `.iso` file for the upgrade from F5 Downloads to `/shared/images` on the BIG-IQ system. If you need to create this directory, use the exact name `/shared/images`.
- Using the management port, log in to the system and boot into an installation location other than the target for the installation.
- Locate the user configuration set (UCS) in the `/var/local/ucs` directory on the source installation location, and copy the UCS file to another system for safe keeping.

Use this procedure to upgrade a BIG-IQ license.

1. Log in to the BIG-IQ system with the administrator user name and password.
2. At the top of the screen, click **System > Overview**.
3. Select License screen and click the **Re-Activate** button.
The screen refreshes to display the activation keys.
4. Click the **Activate** button.
The BIG-IQ system license reactivates and the screen refreshes to display license details.
5. Log in to the command line with your root user name and password.
6. Type the following command where `<image name>` is the name of the `.iso` file you downloaded and `<volume name>` is the volume to which you want to install the file on the BIG-IQ system.
`tmsh install sys software image <image name> volume <volume name> reboot`
7. To transfer your current configuration (for all stored configuration data including self IP addresses, host names, devices discovered, and so forth) to the new license type: `# getdb liveinstall.saveConfig`.
If the setting is disabled, enable it by typing: `setdb liveinstall.saveConfig enable`
8. Log in to the BIG-IQ system with the administrator user name and password.
9. Navigate to the **Devices** panel.
Managed BIG-IP devices display a `Discovery Failed Message`.
10. Click the properties icon for each device and:
 - a) Type the device's administrator user name and password.
 - b) Click the **Save** button.

The BIG-IQ system rediscovers the device.

Chapter 4

Default User Accounts and Passwords

- *About default passwords for pre-defined users*
-

About default passwords for pre-defined users

When you initially license the BIG-IQ™ system, it creates the following administrative roles with a default password.

- admin
- root

Changing the default password for the administrator user

You must specify the management IP address settings for the BIG-IQ™ system to prompt the system automatically create the administrator user.

After you initially license and configure the BIG-IQ system, it is important to change the password for the administrator password user from the default password, `admin`.

1. Log in to the BIG-IQ system with the administrator user name and password.
2. At the top of the screen, click **System >Users**.
3. On the Users panel, click the properties gear for **Admin User**.
4. In the **Password** and **Confirm Password** fields, type a new password.
5. Click the **Add** button.

Changing the default password for the root user

You must specify the management IP address settings for the BIG-IQ™ system to prompt the system automatically create the root user.

After you initially license and configure the BIG-IQ system, it is important to change the password for the root user from the default password, `default`.

1. Log in to the BIG-IQ system with the administrator user name and password.
2. At the top of the screen, click **Users**.
3. On the Users panel, click the gear icon for the **root** user.
4. In the **Password** and **Confirm Password** fields, type a new password.
5. Click the **Save** button.

Chapter 5

Additional Network Configuration Options

- *About additional network configuration options*
-

About additional network configuration options

During the licensing and initial configuration procedures, you configure a single VLAN and associated self IP addresses. This is all the networking configuration required to start managing devices. However, if you find you need additional VLANs, the BIG-IQ™ system provides you with the ability to add them as required.

Configuring an additional VLAN

You must have licensed the BIG-IQ system before you can add a VLAN.

You have the option to configure an additional VLAN after you license and perform the initial configuration of the BIG-IQ system.

1. At the top of the screen, click **System > Networking**.
The Networking screen displays the VLANs and Self IPs panels.
2. To add a new VLAN, hover over the VLANs panel and click the + sign when it appears.
3. In the **Name** and **Description** fields, type a name and description to identify this new VLAN.
4. From the **Interface** list, select the port that you want this VLAN to use.

The *interface* is a physical or virtual port that you use to connect the BIG-IQ system to managed devices in your network.

5. Click the **Add** button to save this VLAN.
6. Hover on the Self IPs panel and click the + when it appears.
7. In the **Name** and **Address** fields, type the name and the self IP address.
8. From the **VLAN** list, select the VLAN to which you want to associate this self IP address.
9. In the **Description** field, type a description to identify this self IP address.
10. Click the **Add** button to save this self IP address.
11. If you want BIG-IQ Cloud to use this address for discovery, select the VLAN that you added and then click the **Set Discovery Address** button.

Index

A

admin, See administrator
 administrator user
 changing password for 24
 default password 24
 administrator user password
 changing 24

B

base registration key
 about 19
 BIG-IQ Cloud
 about 14
 finding documentation for 14
 BIG-IQ Device
 about 14
 finding documentation for 14
 BIG-IQ Security
 about 14
 finding documentation for 14
 BIG-IQ system
 about 14
 about licensing 18
 reordering panel 16

C

configuration
 initial setup 18–19
 configuration discovery address
 defined 18
 initial setup 18–19
 specified 18

D

discovery address
 viewing 26
 DNS server
 specifying for the BIG-IQ system 19
 documentation, finding 14
 dossier
 providing 18–19

F

filtering
 objects 16

G

guides, finding 14

I

interface
 configuring for a new VLAN 26
 defined 26

L

license
 activating automatically 18
 activating manually 19
 licensing
 BIG-IQ system 18–19

M

manuals, finding 14

N

network
 configuring additional VLAN 26
 incorporating BIG-IQ systems 18
 port 443 18
 networking
 advanced 26

O

objects
 finding associations 16

P

Pacific Standard Time zone
 default for the BIG-IQ system 19
 panels
 reordering 16
 password
 changing for administrator user 24
 changing for root user 24
 pre-defined users
 administrator
 root 24
 PST zone, See Pacific Standard Time zone

R

release notes, finding 14
 required port, for network communication 18
 root user
 changing password for 24
 default password 24
 root user password
 changing 24

Index

S

self IP addresses
adding [26](#)

T

time zone
changing for the BIG-IQ system [19](#)
default for the BIG-IQ system [19](#)
setting for BIG-IQ system [20](#)
specifying a DNS server for the BIG-IQ system [19](#)

U

user interface
customizing [16](#)
navigating [16](#)

V

VLAN
adding [26](#)