

**HYPERIC**

**All Systems Go.**

# Hyperic Operations IQ V1.2

## Installation and Administration Guide



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## Introduction

This document is a guide to installing and administering Hyperic Operations IQ.

- *Installation and Configuration* on page 2
- *Start, Stop, and Log On to Hyperic IQ* on page 13
- *Access Control Defaults and Options* on page 14
- *Configuration and Administration Procedures* on page 17

## Hyperic IQ Documentation

The table below lists Hyperic IQ documentation.

Document	Scope	Audience
<i>Hyperic Operations IQ Functional Overview</i>	IQ functionality and architecture topics.	Anyone who will use, support, or extend IQ.
<i>Hyperic Operations IQ Installation and Administration Guide</i> (this document)	Installation instructions, configuration defaults and options, instructions for administrative tasks.	IQ administrator.
<i>Hyperic Operations IQ Getting Started Guide</i>	Instructions for common tasks, samples of IQ reports.	IQ administrator. End users.
<i>Hyperic Operations IQ Ad Hoc Editor Guide</i>	Ad Hoc Editor reference; features and user interface for building ad hoc reports	End users.
<i>Hyperic Operations IQ Reference Guide</i>	Repository management, customizing and extending IQ.	IQ administrators. Developers who customize or extend IQ.

## Installation and Configuration

This section has instructions for installing and configuring Hyperic Operations IQ.

- *Installation Requirements*
- *Create Hyperic IQ Database* on page 3
- *Install Hyperic IQ* on page 4
- *Configure LDAP Authentication* on page 8

## Installation Requirements

Hyperic IQ 1.2 supports HQ Enterprise 4.1 and later.

Install IQ on a system that meets the requirements described in the following sections.

## Operating System

Hyperic IQ runs on the following operating systems:

- Linux
- UNIX
- Windows XP and later

## System Resources

This table defines minimum and recommended configurations for a full installation, including MySQL and an application server.

You may find that Hyperic IQ can run with less than the Minimum Recommended resources or require more than the Recommended resources. Your actual requirements will depend on system load, number of concurrent users, and volume of data.

Category	Installed Footprint	Minimum Recommended	Recommended
<b>Windows</b>			
Disk	~600MB	10 GB free	40 GB +
RAM		512 MB	1 GB +
CPU (class)		1 GHz (single Pentium)	1.5 GHz + (multi-core Pentium)
<b>Linux</b>			
Disk	~600MB	10 GB free	40 GB +
RAM		512 MB	1 GB +
CPU (class)		1 GHz (single Pentium)	1.5 GHz + (multi-core Pentium)

Category	Installed Footprint	Minimum Recommended	Recommended
<b>UNIX</b>			
Disk	~600 MB	10 GB free	40 GB +
RAM		512 MB	1 GB +

## HQ Database Requirements

To avoid any performance impact and resource contention in production HQ environments, Hyperic recommends that IQ runs against a replicated version of the HQ database.

For information about replicating the HQ database, see [Building a Metric Data Warehouse](#) in *HQ Installation and Configuration Guide*.

## IQ Database Requirements

Hyperic IQ supports the use of these databases for Hyperic IQ:

- PostgreSQL 8.3 or higher
  - Exception: Hyperic does not support the use of PostgreSQL running under Windows in production deployments.
- Oracle 10g or 11i
- MySQL 5.0.45 or higher

## Create Hyperic IQ Database

Before installing Hyperic IQ, create the database it will use. The following sections contain instructions for creating a the IQ database in MySQL, Oracle, and PostgreSQL.

### Configure IQ Database in MySQL

These instructions assume that MySQL has been installed and is running.

1. Log in to MySQL as root.
  - If you have defined a password for the root account, enter:  

```
mysql -u root -p
```
  - If you have not defined a password for the root account, enter:  

```
mysql --user=root mysql
```
2. At the mysql prompt, enter this command to create the IQ database:  

```
mysql>create database iq character set utf8;
```
3. Enter this command to create the "iq" database and the "iqdb" database user, replacing the string `password` with the password you wish to assign to the account:  

```
mysql>grant all on iq.* to iqdb@localhost identified by 'password';
```
4. Exit MySQL:  

```
mysql>exit
```

## Configure IQ Database in Oracle

These instructions assume that Oracle has been installed and is running.

1. Log in to Oracle as a system account.
2. Enter these commands to create the "iq" database and the "iqdb" database user, replacing the string password with the password you wish to assign to the account:

```
sqlplus /nolog
connect SYS/<sys-password>@ORCL as SYSDBA (Replace ORCL with your SID)
create user iqadmin identified by password;
grant connect, resource, dba to iqadmin;
exit
```

## Configure IQ Database in PostgreSQL

These instructions assume that PostgreSQL has been installed and is running. This create the "iqdb" user with no password and create the "iq" database setting "hqadmin" as the owner.

1. Log in to PostgreSQL as an admin account.
2. Enter these commands to create the "iq" database and the "iqdb" database user;

```
$ psql -U postgres
hqdb=# create user iqdb;
CREATE ROLE
create database iq with owner=hqadmin encoding='utf8';
CREATE DATABASE
hqdb=#
```

## Install Hyperic IQ

The following sections have instructions for installing Hyperic IQ.

### Before You Start

The instructions that follow assume that:

- The host where you will install Hyperic IQ has a JRE installed, and the JAVA\_HOME variable is defined.
- You have created the database to be used by IQ, and you know its hostname, and the username and password necessary to connect.
- You know the HQ database name, the hostname of the system where it runs, and the username and password necessary to connect to the database.

### Upgrade Considerations

If you have a previous version of Hyperic IQ, the installer will create a folder named **Pre-1.2 Reports** for the report directory structure and the reports contained in the previous version of IQ. Reports from previous versions of IQ may not work in IQ 1.2.

### For Windows Installations

If you are installing Hyperic IQ on Windows, use `setup.exe`, and refer to the Unix/Linux installation instructions in *Installation Procedure* on page 6. IQ installation dialogs are the same across platforms, except the Windows installer has options you can use to control whether or not IQ's Tomcat server runs as a Windows service. You can run `setup.exe` with these command options:

-i      this option will install Tomcat server as a Windows service

-r      this option will remove a previously installed Windows service

For example:

```
setup.exe -i
```

Note: "-i" and "-r" are mutually exclusive.

If you do not supply a flag option when running `setup.exe`, the installation dialog will prompt you to indicate whether you wish to install Tomcat as a Windows service, or remove the service if it already exists.



## Installation Procedure

Follow these steps to install Hyperic IQ on Linux, Unix, or Solaris.

1. Unpack the Hyperic IQ archive with `gtar`. For example:

```
/usr/sfw/bin/gtar -xvzf hyperic-iq-1.0.1-22.tgz
```

**You must use `gtar`.** Other utilities may truncate the names of files in the archive, and cause problems with some IQ features, such as ad hoc report creation.

The archive will be unpacked into a folder with the same name as the archive.

2. Invoke the installer in the folder where you unpacked the archive.

If you are installing IQ on Solaris, use `solaris-setup.sh`. On Linux or other Unix platforms, use `setup.sh`.

For example:

```
/hyperic-iq-n.n/setup.sh
```

For information on invoking the Windows installer, `setup.exe`, see *For Windows Installations* on page 4.

3. The installer prompts:

**Which database server are you using for IQ?**

1. **MySQL**
2. **Oracle**
3. **PostgreSQL**

Enter the number that corresponds to your database server.

4. The installer prompts:

**What is the hostname where the IQ database is running?**

Enter the hostname of the database server.

5. The installer prompts you to supply a database port number or accept the default:

**What is the port number of the [database type] database server on [hostname]?  
[3306]?**

Accept the default port number, or supply another port number, as necessary.

6. The installer prompts you to enter the IQ database name:

**What is the IQ database name (or SID for Oracle)?**

If you followed the instructions in the previous section precisely, the database name is `iq`.

7. The installer echos your host:port/database selections and ask you to confirm it.

**You entered "[hostname]:3306/iq". Is that correct?**

8. The installer prompts you to enter a name for the IQ database or select the default:

**What is the username to use to connect to the database configured for IQ?**

If you followed the instructions in the previous section precisely, the database user name is `iqdb`.

9. The installer prompts:

**What is the password for the "iqdb" user?**

Enter the password you configured for the IQ database user when creating the database, and enter it again, when prompted.

10. If there is no mail server on the host, the installer prompts:

**No local mail server was found. Do you want to configure a mail server to use for the IQ scheduler?  
(y/n)?**

If you enter "y", the installer prompts for the hostname and port of the mail server.

**Note:** If a mail server is found on the installation host, the installer will automatically configure IQ to use it. If you want to use a different mail server, or if the configured mail server requires authentication, you must edit the properties in `webapps/arc/WEB-INF/js.quartz.properties`.

11. If you enter "n", to the previous prompt, the installer responds:

**No mail server settings will be configured.  
If you change your mind later, you can modify the default values in  
/applications/IQ\_Home/webapps/arc/WEB-INF/js.quartz.properties.**

**In order to facilitate correct links in scheduled reports sent by email, the hostname for the server hosting the IQ web application must be correct.**

**What is the hostname or IP address of this box (the one being configured as the IQ server)?**

Supply the hostname of the system upon which you are installing the IQ server, and confirm the hostname when prompted.

12. The installer responds:

**In order to provide report links referencing your HQ instance correctly, we must know the hostname and port information for your HQ installation.**

**What is the hostname or IP address of your HQ Server?**

Enter the hostname of your HQ Server, and confirm it when prompted.

13. The installer prompts you to supply the HQ Server listen port

**What port is your HQ Server listening on?  
[7080]?**

Accept the default or enter another port number, as appropriate, and confirm your choice when prompted.

14. The installer prompts:

**Which database server are you using for HQ?**

- 1. MySQL**
- 2. Oracle**
- 3. PostgreSQL**

Enter the number that corresponds to your HQ database server.

15. The installer prompts:

**What is the hostname where the HQ database is running?**

Enter the hostname of the HQ database server.

16. The installer prompts you to supply a database port number or accept the default:

**What is the port number of the [database type] database server on [hostname]?  
[5432]?**

Specify the port upon which the HQ database listens. The default database port is 9432, so if your HQ database uses the default listen port, enter 9432.

17. The installer prompts you to enter the HQ database name:

**What is the HQ database name (or SID for Oracle)?**

Enter the database name. If your HQ database has the default name, `hqdb`, enter that. Otherwise enter the

name of you HQ database. Confirm you choice when prompted.

18. The installer prompts:

***What is the username to use to connect to the database configured for HQ?***

Enter the username configured in HQ for database connections, for example:

hqadmin

19. The installer prompts:

***What is the password for the "[username] user?***

Enter the password, and enter it again when prompted.

20. The installer presents a configuration summary, and prompts you to press any key to proceed with the installation.

21. If the installation is successful, the installer displays this message:

***IQ INSTALLATION COMPLETE***

If you are using the built-in authentication system to access your Hyperic HQ Server, you are ready to begin using IQ. Your users can login to IQ using the same credentials they use to access HQ. To start and access IQ, see the instructions in *Start, Stop, and Log On to Hyperic IQ* on page 13.

If you prefer to use an external authentication source, see *Configure an External Authentication Source (Optional)* on page 8.

## Configuration Files

IQ configuration settings, including the choices you make during the the installation procedure are stored in the following configuration files:

`IQ_Home/webapps/arc/META-INF/context.xml` contains connection information for the IQ database and the HQ database.

`IQ_Home/webapps/arc/WEB-INF/js.quartz.properties` contains IQ email properties.

`IQ_Home/install/config/base.properties` specifies the type of database server used by IQ and HQ.

`IQ_Home/install/mysql/js.jdbc-mysql.properties` contains MySQL-specific connection properties; used only if the IQ database is MySQL.

`IQ_Home/install/oracle/js.jdbc-oracle.properties` contains Oracle-specific connection properties; used only if the IQ database is Oracle.

`IQ_Home/install/postgresql/js.jdbc-postgresql.properties` contains PostgreSQL-specific connection properties; used only if the IQ database is PostgreSQL.

## Configure an External Authentication Source (Optional)

You may optionally configure an external authentication source. The following sections have instructions:

- *Configure LDAP Authentication* below
- *Configure Active Directory Authentication* on page 10

## Configure LDAP Authentication

This section has instructions on how to configure IQ to use LDAP as an authentication source. In this scenario, LDAP is used for user authentication and roles information is obtained from the HQ database.

Make the following changes to `IQ_Home/webapps/arc/WEB-INF/applicationContext-security.xml`

1. Enable LDAP as an authentication mechanism. Find the section defining the `authenticationManager` bean, and verify that the `ldapAuthenticationProvider` is not commented out. This is an example `authenticationManager` section.

```
<!-- ===== AUTHENTICATION ===== -->
<bean id="authenticationManager"
class="org.acegisecurity.providers.ProviderManager">
    <property name="providers">
        <list>
            <ref local="daoAuthenticationProvider"/>
            <ref local="anonymousAuthenticationProvider"/>
            <!-- <ref local="jaasAuthenticationProvider"/> -->
            <ref local="ldapAuthenticationProvider"/>
        </list>
    </property>
</bean>
```

2. Configure the location of the LDAP server, and whether to do searches as an anonymous user or a privileged user in the `initialDirContextFactory` bean.

```
<bean id="initialDirContextFactory" class="org.acegisecurity.ldap.DefaultInitial
DirContextFactory">
    <!-- Set to your LDAP server -->
    <constructor-arg value="ldap://localhost/dc=some-domain,dc=com"/>
    <!--
    You may not need the next properties if your LDAP server supports anonymous
    lookups These entries will do the initial search for the user as the Manager
    account.
    -->
    <property name="managerDn">managerDn<>value>cn=Manager,dc=some-domain,
        dc=com</value></property>
    <property name="managerPassword"><value>secret</value></property>
    <!-- -->
</bean>
```

3. Define, in the `userSearch` bean, how to search for an entry in the LDAP directory given the user name supplied during the login process. You may need to change the value of constructor argument 1 to be a different LDAP search string. The string "{0}" will be replaced by the name the user supplied during login.

```
<!--
For LDAP authentication
This bean is used to search for a user by their login name
-->
<bean id="userSearch"
class="org.acegisecurity.ldap.search.FilterBasedLdapUserSearch">
    <constructor-arg index="0">
        <value></value>
    </constructor-arg>
    <constructor-arg index="1">
        <!-- Filter by uid in inetOrgPerson. Good default for most configurations,
        but if your LDAP server is using a different attribute (cn is common)
        you need to change the filter so that we can find the user's DN from
        the name they use to log in to ARC
        -->
        <value>(uid={0})</value>
    </constructor-arg>
```

```

        <constructor-arg index="2">
            <ref local="initialDirContextFactory" />
        </constructor-arg>
        <property name="searchSubtree">
            <value>true</value>
        </property>
    </bean>
<!--

```

4. Configure how LDAP authentication works. This is simply a matter of telling the system to use the connections and search mechanism we just defined. We also need to tell it how to look up what roles a user has inside HQ and propagate that information into JasperServer. This is controlled via the `ldapAuthenticationProvider` bean.

```

<!--
For LDAP authentication
-->
<bean id="ldapAuthenticationProvider" class="org.acegisecurity.providers.ldap.
LdapAuthenticationProvider">
    <constructor-arg>
        <bean class="org.acegisecurity.providers.ldap.authenticator.Bind
Authenticator">
            <constructor-arg><ref local="initialDirContextFactory"/>
        </constructor-arg>
        <property name="userSearch"><ref local="userSearch"/></property>
    </bean>
    </constructor-arg>
    <constructor-arg>
        <!-- This configuration uses LDAP to authentication, and then pulls role
information out of the HQ database.
-->
        <bean class="com.hyperic.arc.auth.HqAuthorityGranter">
            <!-- Set to the JNDI name of your HQ database -->
            <property name="connectionName"><value>jdbc/HypericDS</value></property>
            <!-- The ldap attribute that contains the user's name in the HQ
database -->
            <property name="ldapLoginAttribute"><value>uid</value></property>
            <!-- Comment out the next three lines for use with JBoss -->
            <property name="namingFactory"><value></value></property>
            <property name="namingProviderURL"><value></value></property>
            <property name="namingFactoryURLPackages"><value></value></property>
        </bean>
    </constructor-arg>
</bean>

```

## Configure Active Directory Authentication

This section has instructions on how to configure IQ to use Active Directory as an authentication source. In this scenario, Active Directory is used for user authentication and roles information is obtained from the HQ database.

Make the following changes to `IQ_Home/webapps/arc/WEB-INF/applicationContext-security.xml`

1. Enable LDAP as an authentication mechanism. Find the section defining the `authenticationManager` bean, and verify that the `ldapAuthenticationProvider` is not commented out. This is an example `authenticationManager` section.

```

<!-- ===== AUTHENTICATION ===== -->
<bean id="authenticationManager"
class="org.acegisecurity.providers.ProviderManager">
  <property name="providers">
    <list>
      <ref local="daoAuthenticationProvider"/>
      <ref local="anonymousAuthenticationProvider"/>
      <!-- <ref local="jaasAuthenticationProvider"/> -->
      <ref local="ldapAuthenticationProvider"/>
    </list>
  </property>
</bean>

```

2. Configure the location of the Active Directory server, and whether to do searches as an anonymous user or a privileged user in the initialDirContextFactory bean.

```

<bean id="initialDirContextFactory" class="org.acegisecurity.ldap.DefaultInitial
DirContextFactory">
  <!-- Set to your LDAP server -->
  <constructor-arg value="ldap://FILL IN YOUR LDAPSERVER:389/" />
  \<!--
  You may not need the next properties if your LDAP server supports anonymous
  lookups These entries will do the initial search for the user as the Manager
  account.
  -->
  <property name="managerDn"><value>FILL IN A VALID USER - like
cn=Administrator,ou=department,dc=domain,dc=com</value></property>
</property>
  <property name="managerPassword"><value>FILL USER'S PASSWORD</value></property>
  <!-- -->
</bean>

```

3. Define, in the userSearch bean, how to search for an entry in the Active Directory directory given the user name supplied during the login process. You may need to change the value of constructor argument 1 to be a different LDAP search string. The string "{0}" will be replaced by the name the user supplied during login.

```

<!--
For LDAP authentication
This bean is used to search for a user by their login name
-->
<bean id="userSearch"
class="org.acegisecurity.ldap.search.FilterBasedLdapUserSearch">
  <constructor-arg index="0">
    <value>FILL IN SEARCH ROOT-like ou=department,dc=domain,dc=com</value>
  </constructor-arg>
  <constructor-arg index="1">
    <!-- Filter by sAMAccountName in inetOrgPerson. Good default for most
configurations,
but if your LDAP server is using a different attribute (cn is common)
you need to change the filter so that we can find the user's DN from
the name they use to log in to ARC
-->
    <value>(sAMAccountName={0})</value>
  </constructor-arg>
  <constructor-arg index="2">
    <ref local="initialDirContextFactory" />
  </constructor-arg>

```

```

    <property name="searchSubtree">
      <value>true</value>
    </property>
  </bean>
<!--

```

4. Configure how LDAP authentication works. This is simply a matter of telling the system to use the connections and search mechanism we just defined. We also need to tell it how to look up what roles a user has inside HQ and propagate that information into JasperServer. This is controlled via the `LdapAuthenticationProvider` bean.

```

<!--
For LDAP authentication
-->
<bean id="ldapAuthenticationProvider" class="org.acegisecurity.providers.ldap.
LdapAuthenticationProvider">
  <constructor-arg>
    <bean class="org.acegisecurity.providers.ldap.authenticator.Bind
Authenticator">
      <constructor-arg><ref local="initialDirContextFactory"/>
    </constructor-arg>
    <property name="userSearch"><ref local="userSearch"/></property>
    </bean>
  </constructor-arg>
  <constructor-arg>
    <!-- This configuration uses LDAP to authentication, and then pulls role
information out of the HQ database.
-->
    <bean class="com.hyperic.arc.auth.HqAuthorityGranter">
      <!-- Set to the JNDI name of your HQ database -->
      <property name="connectionName"><value>jdbc/HypericDS</value></property>
      <!-- The ldap attribute that contains the user's name in the HQ
database -->
      <property name="ldapLoginAttribute"><value>sAMAccountName</value>
    </property>
      <!-- Comment out the next three lines for use with JBoss -->
      <property name="namingFactory"><value></value></property>
      <property name="namingProviderURL"><value></value></property>
      <property name="namingFactoryURLPackages"><value></value></property>
    </bean>
  </constructor-arg>
</bean>

```

## Start, Stop, and Log On to Hyperic IQ

This section has instructions for starting, accessing, and shutting down Hyperic IQ.

- *Start Hyperic IQ*
- *Log in to Hyperic IQ*
- *Shut Down Hyperic IQ*

### Start Hyperic IQ

To start Hyperic IQ on Unix or Linux run this command:

```
/IQ_Home/bin/startup.sh
```

To start Hyperic IQ on Windows run this command:

```
\IQ_Home\bin\startup.bat
```

### Log in to Hyperic IQ

To log on to Hyperic IQ, point your browser to:

<http://hostname:9080>

where *hostname* identifies the IQ host.

### Shut Down Hyperic IQ

To shut down Hyperic IQ on Unix or Linux run this command:

```
/IQ_Home/bin/shutdown.sh
```

To shut down Hyperic IQ on Windows run this command:

```
\IQ_Home\bin\shutdown.bat
```



## Access Control Defaults and Options

This section describes:

- How Hyperic IQ controls access to data, reports, and functionality.
- IQ's out-of-the-box access control settings.
- Configuration options an IQ administrator can use to control access to IQ folders and reports.

It is assumed that the reader is familiar with HQ Enterprise administration features, include resource groups and role-based access control. For more information, see [Users and Role Administration](http://support.hyperic.com) in the HQ documentation site, at <http://support.hyperic.com>.

## Rules for User Login and Data Access Come from HQ

Hyperic IQ leverages the user accounts, resource groups, and roles defined in HQ Enterprise for:

- User credentials - Any user with an HQ account can log on to IQ using his or her HQ username and password.
- Controlling access to HQ resource data - IQ imports an HQ user's roles upon first login. When a user runs an IQ report, the results will include only the HQ data to which the user's HQ roles allow access.

### Take-away for the IQ administrator:

Before introducing Hyperic IQ to end users, review the configuration of HQ to ensure:

- Each user who will use IQ has an HQ Enterprise account, and HQ roles that grant access to appropriate HQ resources.
- Resource group definitions in Hyperic HQ are complete and up-to-date. Resources that aren't a member of a group that is assigned to at least one HQ role won't be included in IQ reports.

## Permissions to Folder and Reports are Defined in IQ

IQ controls access to folders and their contents at the role level. Users have roles, and each role has a particular level of permission to items in the folder tree. You can control access at the folder or file level. For simplicity, we refer to folder-level assignments here.

The access settings for a folder are inherited by its descendants. Inherited settings are overridden by explicitly assigned settings. For example, a permission granted at the root of the folder tree applies to everything below, except items that with an explicitly assigned setting. The permission levels are:

<b>No access</b>	A folder to which a role has "No access" is invisible to users with that role.
<b>Administer</b>	Unlimited access, similar to a Unix root account privilege. Allows read, edit, delete folders, reports, users, roles, messages, and scheduled report jobs.
<b>Read only</b>	Ability to see and run reports, but not to delete folders or reports, or save report versions or adhoc reports.
<b>Delete + Read</b>	Ability to run and delete reports.
<b>Write + Delete + Read</b>	Ability to run, edit, and delete reports, and to save report versions and Ad Hoc reports.

**Note:** If a user has two roles, one which gives one permission level to an item, and another that gives a different permission, the most permissive role is used.

The screenshot below of the Assign Permissions page shows the permission level each role has to the Administrative Reports folder.

**Assign Permissions by Role**  
by Role | by User

Permissions for: /Reports/Administrative\_Reports

Role Name	Permission Level
ROLE_USER	Read Only *
ROLE_ADMINISTRATOR	Administer *
ROLE_ANONYMOUS	No Access *
ROLE_ETL_ADMIN	No Access *
ROLE_PORTLET	No Access *
ROLE_RESOURCE_CREATOR_ROLE	No Access *
ROLE_Super_User_Role	No Access *
ROLE_DBA	No Access *
ROLE_Webmaster	No Access *
ROLE_RoleMessageTest	No Access *
ROLE_QA_NO_ALERTS	No Access *
ROLE_QA_NO_delete_and_Alerting	No Access *
ROLE_Sopera	No Access *
ROLE_QA_NO_Group	No Access *
ROLE_Guest_Role	No Access *
ROLE_hqdemo	No Access *
ROLE_QA_View_Only	No Access *
ROLE_Xen	No Access *
ROLE_auto_inventory	No Access *
ROLE_Customer_Support_West_Coast	No Access *

\* indicates inherited permission level

## IQ Has Roles Too

The Assign Permissions page above shows the roles in an IQ deployment. The roles at the top of the list are built in to IQ; the rest were import from HQ. Two of the IQ-internal roles provide default permissions out-of-the-box.

- **ROLE\_USER** - All IQ users automatically have this role.
- **ROLE\_ADMINISTRATOR** - The iqadmin user, created by the IQ installation procedure, has this role. The HQ administrator account, hqadmin, also has this role.
- **ROLE\_ANONYMOUS** - Not used. This role is analogous in purpose to the HQ "guest" account; for use in environments where anonymous access is allowed.
- **ROLE\_ETL\_ADMIN** - Not used, will be removed in a future IQ release.
- **ROLE\_REPORTER** - Not used, will be removed in a future IQ release.

## IQ's Out-of-the-Box Access Control

This section describes IQ users' the default permissions and access.

- Login access - Users with HQ accounts can log in to IQ using their HQ user names and passwords.
- HQ resource data access - Users who access IQ with their HQ credentials have access to the HQ resource groups associated with their HQ roles.
- IQ folder and report access -
  - IQ's built-in ROLE\_USER role has "Read Only" access to all IQ folders and their contents..
  - IQ's built-in ROLE\_ADMINISTRATOR role has "Administer" to all folders and their contents.

## Pre-Launch Access Control Options for the IQ Administrator

This section lists access control changes that you may want to implement prior to introducing Hyperic IQ to end users.

The out-of-the-box access control described in the previous section allows all users to run all reports, but is restrictive, as it does not allow regular (non-administrative) users to save report versions or ad hoc reports.

Depending on your planned use of IQ, the administer may wish to:

- **Create new folders.** Create one or more new folders where scheduled reports can be saved, and give ROLE\_USER the role Write + Delete + Read permission to the folder.
- **Enable saving.** Enable some or all users to save report versions. To enable all users to save report versions, change the ROLE\_USER permission for the Reports folder, or the specific report subfolders.
- **Hide irrelevant folders.** Change the permissions for ROLE\_USER to hide folders you don't want end users to. Typically, the only folder an end user needs to access is the Reports folder.

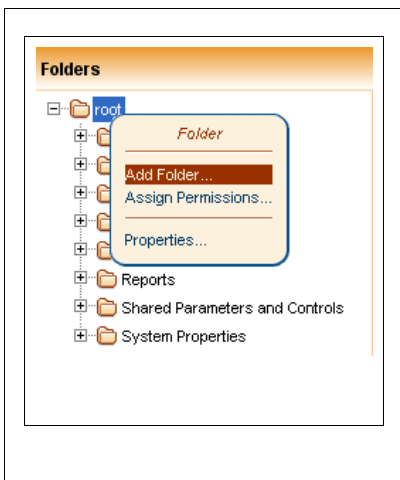
## Configuration and Administration Procedures

This section has instructions for configuring access control and other IQ administrative options.

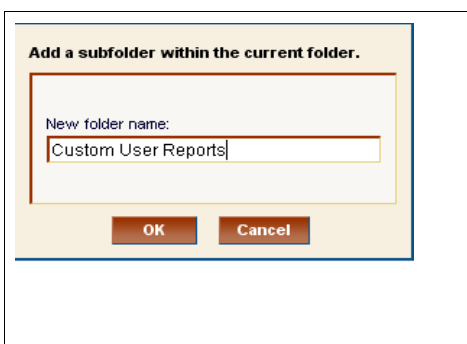
- *Create a New Folder*
- *Set Folder Permissions*
- *Move a Folder or Report*
- *Delete a Report or Folder*
- *Make IQ Charts Available to HQ Dashboard*

### Create a New Folder

1. Log on to Hyperic IQ as an administrator.
2. Choose **Admin Home** from the **Manage** tab.
3. Click **Repository** on the Manage page.
4. Right-click on the root folder and choose the **Add Folder...** option.




5. Enter a folder name and click **OK**.




The folder is created with the role:permission settings of its parent..

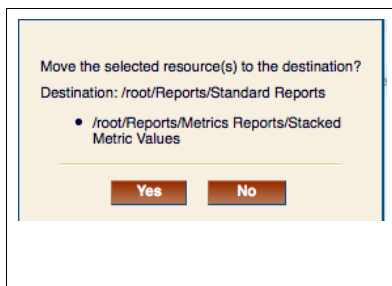
## Set Folder Permissions

1. Log on to Hyperic IQ as an administrator.
2. Select the folder whose permissions you want to define or change, and click .
- (You can also select the **Assign Permissions** command from a context menu.)
3. The Assign Permissions by Role page appears. (See screenshot on page 15.)
4. For each role for which you wish to set permissions, select the desired setting from the Permission Level pull-down list.

The permission level you assign to each role will be inherited by its descendants. You can override the inherited permissions as desired.


## Move a Folder or Report

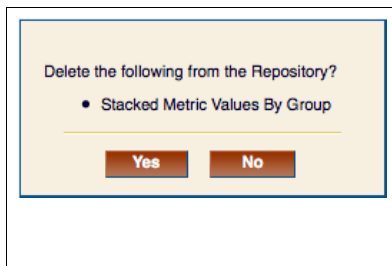
1. Log on to Hyperic IQ as an administrator.
2. Choose **Admin Home** from the **Manage** tab.
3. Click **Repository** on the Manage page.
4. Click on a folder in the tree, or in the case of report, place a check-mark next it in the right pane.
5. Click the **Move** icon .
6. Use the arrow that appears to drag the item to a new location in the folder tree.
7. A pop-up prompts you to confirm you wish to move the item.



8. Click **Yes** to move the item.


## Delete a Report or Folder

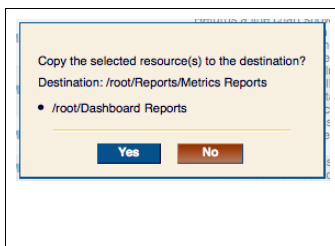
1. Log on to Hyperic IQ as an administrator.
2. Choose **Admin Home** from the **Manage** tab.
3. Click **Repository** on the Manage page.
4. Click on folder in the tree, or in the case of report, place a check-mark next it in the right pane.
5. Click the Delete icon , or display the context menu and select **Delete**.
6. A pop-up prompts you to confirm you wish to delete the item.



7. Click **Yes** to delete the item.

## Copy a Report or Folder

1. Log on to Hyperic IQ as an administrator.
2. Choose **Admin Home** from the **Manage** tab.
3. Click **Repository** on the Manage page.
4. Click on folder in the tree, or in the case of report, place a check-mark next it in the right pane.
5. Click the Copy icon  or display the context menu and select **Copy**.
9. Use the arrow that appears to select the desired location in the folder tree.
8. A pop-up prompts you to confirm you wish to copy the item.



9. Click **Yes** to copy the item.

## Make IQ Charts Available to HQ Dashboard

To allow HQ users to view IQ ad hoc charts in the HQ Dashboard, put a copy of the the report in IQ's Dashboard Reports folder. Reports in that folder will be available in the Dashboard's IQ Ad Hoc Chart Viewer Reports Viewer.

**Note:** The HQ Server must be configured to access IQ. This requires specifying the IQ URL in the "Server Configuration" section of the HQ Administration page.



## Tailoring Hyperic IQ

Options and procedures for tailoring and extending Hyperic IQ are provided in *Hyperic Operations IQ Reference Guide*.

### Turning off Headers and Footers for Export to Excel

To configure IQ to export reports to Excel without page headers and footers:

1. Open `WEB-INF/classes/jasperreports.properties`.
2. Uncomment the two lines that follow the "suppress page headers and footers when exporting XLS" line.
3. Restart IQ.