Quali



Ixia Shell 2G

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# Overview

A Shell implements integration of a device model, application or other technology with CloudShell. A shell consists of a data model that defines how the device and its properties are modeled in CloudShell, along with automation that enables interaction with the device via CloudShell.

## About Ixia Chassis Shell 2nd Generation

This 2nd generation Shell provides you with connectivity and management capabilities such as device structure discovery and power management for Ixia chassis.

## Standard version

The Ixia Chassis 2nd generation shell 2.0.0 is based on the Traffic Shell standard cloudshell\_traffic\_generator\_chassis\_standard\_1\_0\_2.yaml.

For detailed information about the Shell’s structure and attributes, see the Traffic Shell standard on [cloudshell-standards repository](https://github.com/QualiSystems/shell-traffic-standard) in GitHub.

## Supported OS

* Windows

## Requirements

* CloudShell version 7.1 and above

## Downloading the Shell

The Ixia Chassis Shell is available from the [Quali Developer Center](http://community.quali.com/spaces/12/index.html?__hstc=46213176.aaafbe5adb338215377a985e0c025079.1467146361756.1471392182746.1471395614692.11&__hssc=46213176.1.1471395614692&__hsfp=2437115919)[.](https://support.qualisystems.com/entries/87063688-Solution-Pack-Download-Center) Download the files into a temporary location on your local machine.

The Shell comprises:

|  |  |
| --- | --- |
| ixia\_chassis\_shell.zip | The Shell Package. |
| ixia\_chassis\_shell\_offline\_requirements.zip | Shell Python dependencies (**for offline installation only**) |
| Ixia Chassis Shell Doc.pdf | Documentation |

# Import and Configure the Shell

This section describes how to import, configure and modify the Ixia Chassis Shell.

## Importing the Shell into CloudShell

Use the following procedure to import the downloaded Shell:

**To import the Shell into CloudShell:**

1. Download the Shell from the [Quali Developer Center](http://community.quali.com/spaces/12/index.html?__hstc=46213176.aaafbe5adb338215377a985e0c025079.1467146361756.1471392182746.1471395614692.11&__hssc=46213176.1.1471395614692&__hsfp=2437115919)[.](https://support.qualisystems.com/entries/87063688-Solution-Pack-Download-Center)
2. Backup your database.
3. Log in to **CloudShell Portal** as administrator of the relevant domain.
4. In the **User** menu select **Import Package.**



5. Browse to the location of the downloaded Shell file, select the relevant .zip file and Click **Open**. Alternatively, drag the shell’s .zip file into CloudShell Portal.

## Offline installation of a Shell

**Note:** Offline installation instructions are relevant only if Cloudshell Execution Server has no access to PyPi. You can skip this section if your execution server has access to PyPi. *For additional information, see the online help topic on offline dependencies.*

The Shell uses a variety of Python packages. To work in offline mode perform the following steps:

1. Download the ixia\_chassis\_shell\_offline\_requirments.zip file (see *Downloading the Shell*).
2. Unzip it to a local repository. Make sure the execution server has access to this folder.
3. On the Execution Server machine, in the customer.configfile, add the following key:

|  |  |
| --- | --- |
| <add key="PythonOfflineRepositoryPath" value="repository | |
| full path"/> |  |

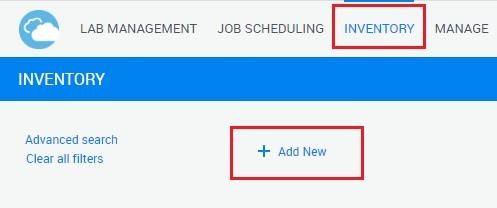
Make sure to update the value with the path to the repository containing the unzipped file.

1. Restart the Execution Server.

## Configuring a new device

Use the following procedure to load a device, which will use this Shell, into CloudShell:

1. In the CloudShell Portal, in the **Inventory** dashboard, click **Add New**.



1. From the list, select the **Ixia Chassis** Shell.
2. Enter the Ixia chassis Name and IP address.
3. Click **Create**.
4. In the **Resource** dialog box, enter the device’s settings, as following:
   1. If Ixia Chassis is Windows based and is accessible directly to the Execution Server then no need for additional settings.
   2. If Ixia Chassis is Linux based and is accessible directly to the Execution Server then enter the following settings:

Controller TCP Port: 8022 (Linux IxOS ssh port)

* 1. If Ixia Chassis is not directly accessible to the Execution Server than there must be IxTclServer serving as a proxy between the Execution Server and the chassis, enter the following settings:

Controller Address: address of the IxTclServer

Controller TCP Port: TCP port of IxTclServer (leave empty for default 4555 port)

1. Click **Start Discovery**.

This command discovers the device, fills in its attributes and creates the device’s structure in CloudShell (if such structure exists).

# Updating Python Dependencies for Shells

This section how to update your Python dependencies folder. This is required when you upgrade a Shell, driver that has new/updated dependencies. It applies to both online and offline dependencies.

## Updating offline Python dependencies

**To update offline Python dependencies:**

1. Download the latest Python dependencies package zip file locally.
2. Extract the zip file to the suitable offline package folder(s).
3. Restart any execution server that have a live instance of the relevant driver or script. This requires running the TestShell Execution Server's configuration wizard, as explained in the Configure the TestShell Execution Server topic of the CloudShell Suite Installation Guide - see the [CloudShell Docs & Training](http://www.quali.com/community/training/) page.

## Updating online Python dependencies

In online mode, the execution server automatically downloads and extracts the appropriate dependencies file to the online Python dependencies repository every time a new instance of the driver or script is created.

**To update online Python dependencies:**

* If there is a live instance of the Shell's driver or script, restart the execution server, as explained above. If an instance does not exist, the execution server will download the Python dependencies the next time a command of the driver or script runs.

# Typical workflow

Scenario 1 – Discover a new Device

See *Configuring a new device*.

# References

Additional technical documentation is available in the [Quali's Developer Center](http://community.quali.com/spaces/12/index.html?__hstc=46213176.aaafbe5adb338215377a985e0c025079.1467146361756.1471392182746.1471395614692.11&__hssc=46213176.1.1471395614692&__hsfp=2437115919)[.](https://support.qualisystems.com/entries/22858046-download-center)

For Quali discussion forums, click [here](http://community.quali.com/spaces/13/index.html?__hstc=46213176.aaafbe5adb338215377a985e0c025079.1467146361756.1471392182746.1471395614692.11&__hssc=46213176.1.1471395614692&__hsfp=2437115919)[.](https://support.qualisystems.com/)

# Release notes

**What’s new:**

* Set unknown port speed to zero.
* Support new card types.
* Show only active ports instead of all ports.

**Known issues:**

* Resource groups are not modeled. Resource groups are modeled as port with speed that represents to total speed of the group. The index of the representing port is the index of the active port of the group.