Rainbow Classroom
(Moodle Links Admin Guide)
Edition 1

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1   Document History

Edition	Date	Changes / Comments / Details
01	12/08/2021	Initial administration guide for the 'Rainbow Classroom Provisioning – Moodle Links' desktop application.

2   Introduction

2.1   Overview - The Product

Rainbow Classroom is a SaaS (Software as a Service) solution that offers powerful collaboration and learning tools for education and training institutes. It enhances and provides a deep integration with industry leading Learning Management Systems (LMS) that works via LTI (Learning Tools Interoperability) protocol.

Enhanced integration with LMS enables education institutes to leverage new collaboration methods without having to spend energy on changing their existing LMS solutions. Rainbow Classroom has a range of collaboration features for better management of classroom sessions. These features include:

- Centralised administration
- Dashboard for live and upcoming classroom sessions
- KPIs and attendance module
- School and teacher level classroom configuration controls
- Audio and video conferencing
- Screen-share for both students and teachers
- Course content sharing
- Classroom sessions recording
- Online and offline whiteboards
- Rooms for offline collaboration between students and breakout rooms for in-call collaboration
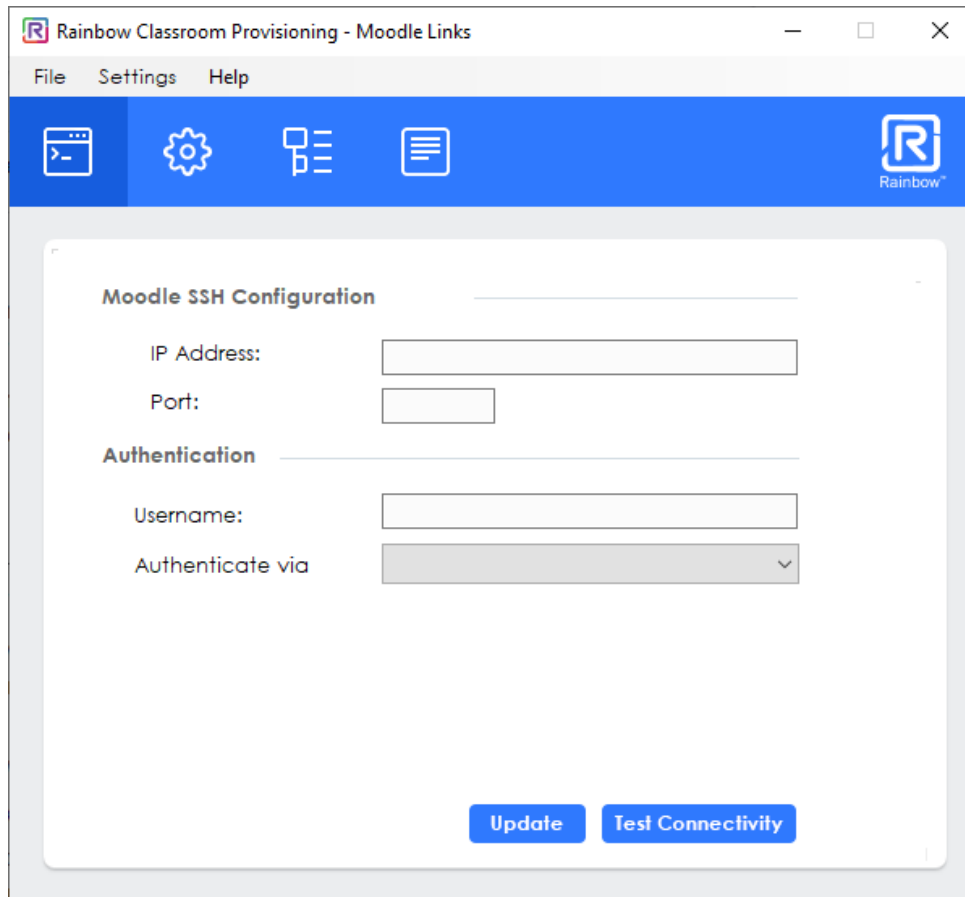
More information on the live classroom features that enrich the attendee experience can be found in the Rainbow Classroom user guide.

2.2   Overview - The Guide

This document explains the administrative steps of 'Rainbow Classroom Provisioning – Moodle Links' application. This guide expects the user to be an organisation admin who can setup access links of Rainbow Classroom and add them inside Moodle courses.
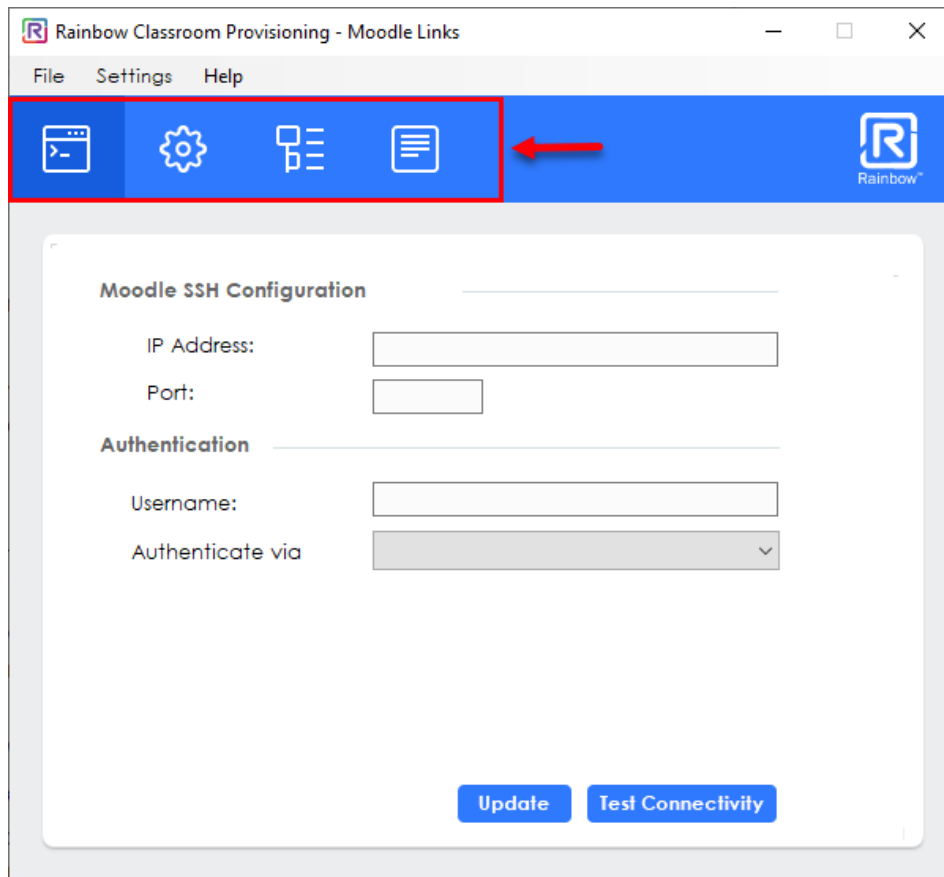
3   Start-up

Launch the 'Rainbow Classroom Provisioning - Moodle Links' application by clicking the shortcut icon ![R] on your desktop. This will open the application in your system and the resultant screen will be displayed, as shown below.

Screenshot- Rainbow Classroom Provisioning (Moodle Links) application

An application interface will appear that will allow you to navigate around the application using the top menu bar, as shown below.

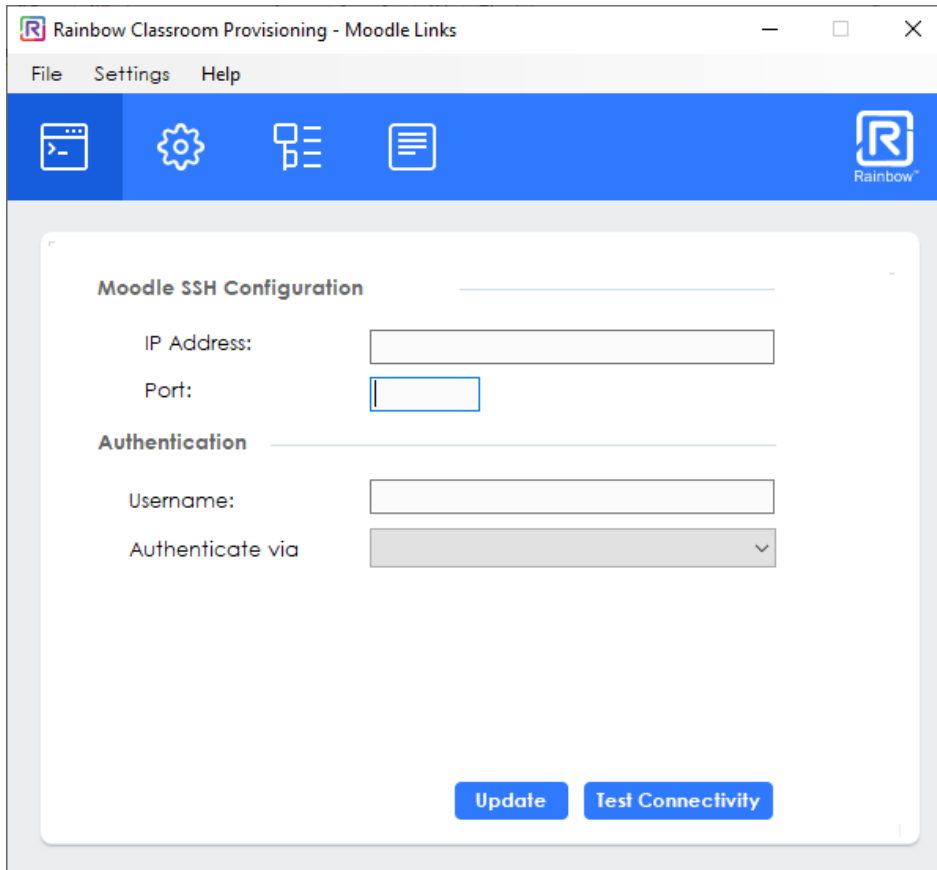Screenshot- Rainbow Classroom Provisioning (Moodle Links) application

For every click on the top menu bar, the main page on the application interface will change to the corresponding display. As an administrator, your task is to go through each link and setup the 'Rainbow Classroom Provisioning – Moodle Links' application according to your Moodle configurations.

- Moodle SSH Configuration
- Moodle Services Configuration
- Access Links Setup
- Application Traces

The sections below will take you through each section, one by one.

4   Moodle SSH Configuration

In order to setup Rainbow Classroom access links inside Moodle courses, a connection with Moodle using SSH protocol is required. This section facilities an administrator to provide SSH connectivity settings with Moodle. To initiate the connection with Moodle, you must give details on the **Moodle SSH Settings** screen. If the credentials are verified, the application will establish a secure connection. Once you open the application, the following is the resultant screen that will appear.

Screenshot- Moodle SSH configuration screen

To configure SSH settings, you need to provide the following information:

- **IP Address**

Enter the IP address or domain name of the Moodle server.

- **Port**

Enter the required port number of the SSH server.

- **Username**

Enter a valid username in the respective field.

- **Authenticate via**

Select the required authentication method from the dropdown menu. Following are the options available.

- o Password – Choose this option and it's respective field will be displayed below where you can provide password. An example is shown below.

- o Publickey – If you select this option, then the following fields will appear for detailed specifications.

Click on the **Client Key Manager** link to import a .pem file from your system. Once it's imported, you will see the respective file's information in **PublicKey** field, as shown below.

- o PublickKey+Password – If you select the last option, then the password and public key fields will appear to accommodate your detailed specifications, as shown below.
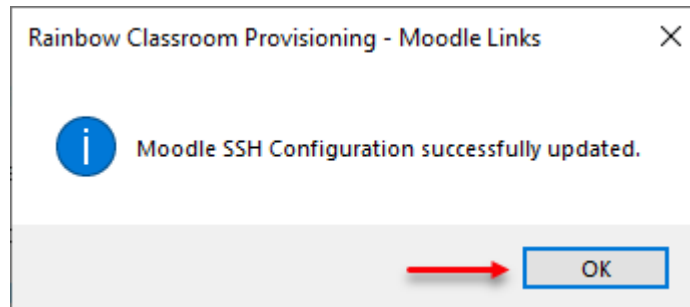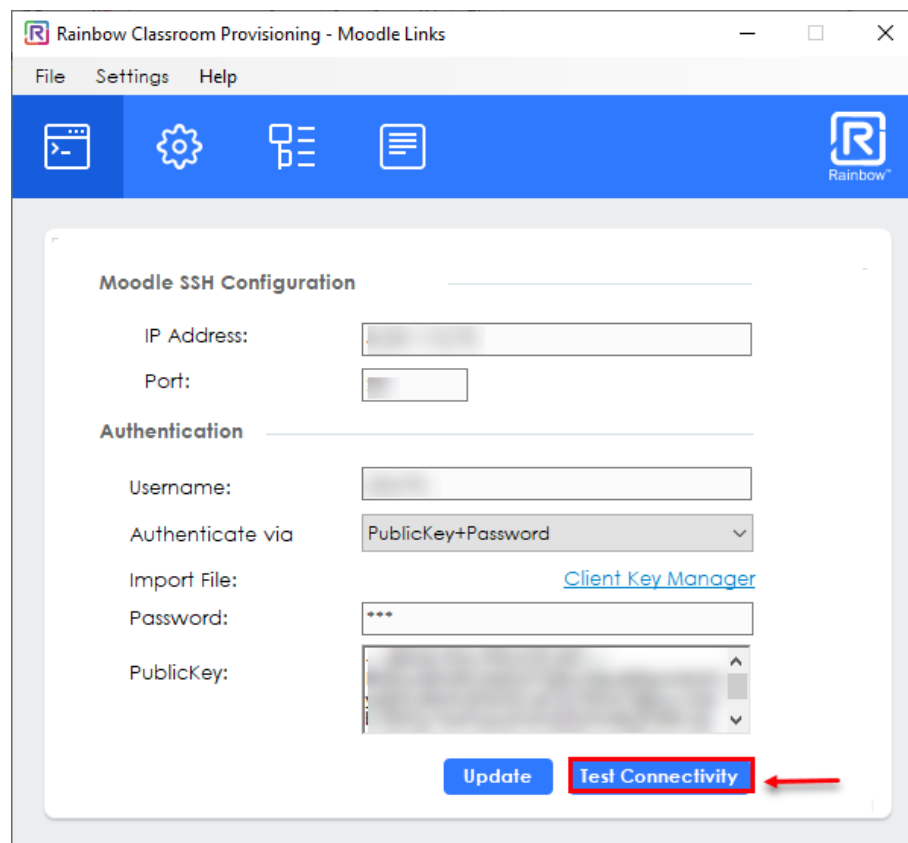
After completing these entries, click the **Update** button. You will be presented with the popup window, click **OK**, as shown below.
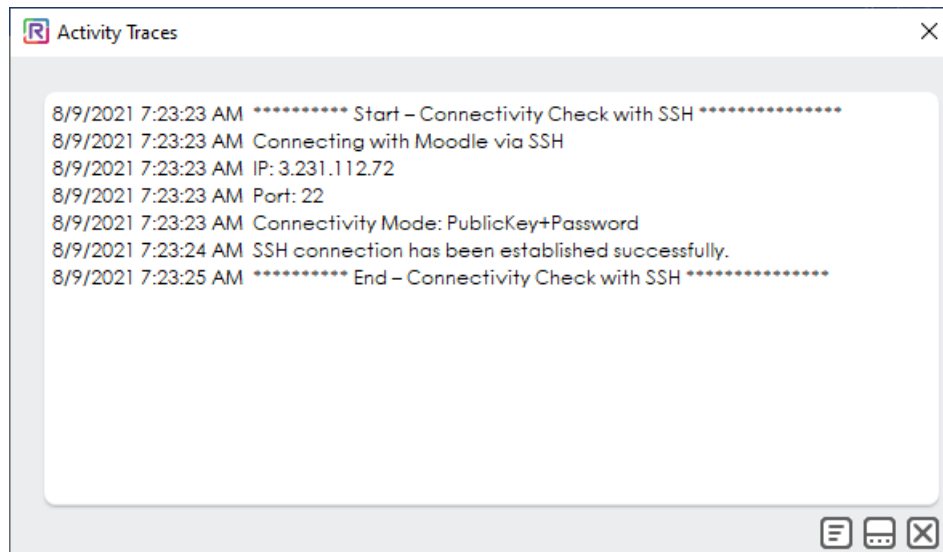

Screenshot- Message from webpage

4.1 Test Connectivity

It is advised to test your connectivity with Moodle after updating the SSH configuration. You can test the configured SSH settings by clicking the **Test Connectivity** button, as shown below.
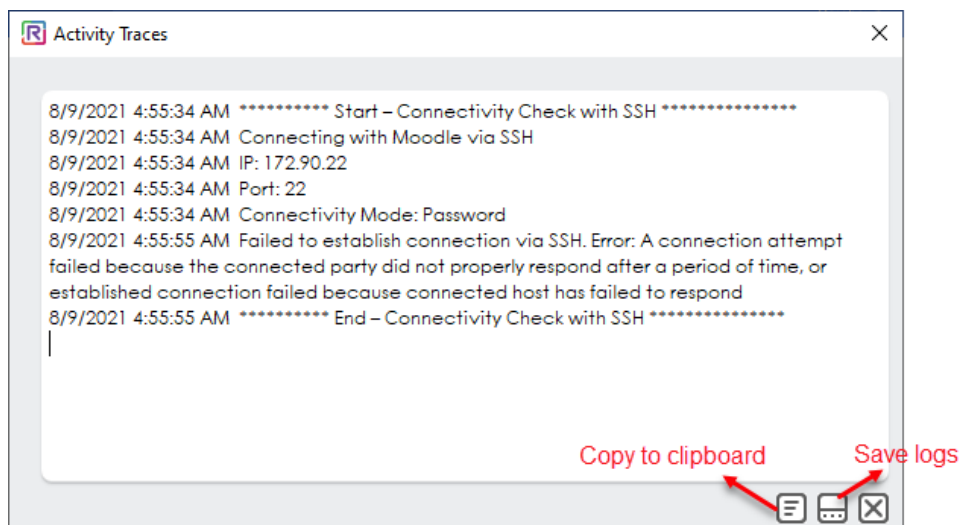

Screenshot- Moodle SSH configuration screen

The following activity traces screen will show you whether the connection was successful or not along with detailed traces that can assist you to diagnose the occurring issue if any.

Activity Traces   ✕

8/9/2021 7:23:23 AM ********** Start – Connectivity Check with SSH ****************
8/9/2021 7:23:23 AM Connecting with Moodle via SSH
8/9/2021 7:23:23 AM IP: 3.231.112.72
8/9/2021 7:23:23 AM Port: 22
8/9/2021 7:23:23 AM Connectivity Mode: PublicKey+Password
8/9/2021 7:23:24 AM SSH connection has been established successfully.
8/9/2021 7:23:25 AM ********** End – Connectivity Check with SSH ****************

Screenshot-Activity traces screen

Note: You can copy the activity logs to your clipboard or save them in your system via the options available at the bottom of the **Activity Traces** screen, as shown below.
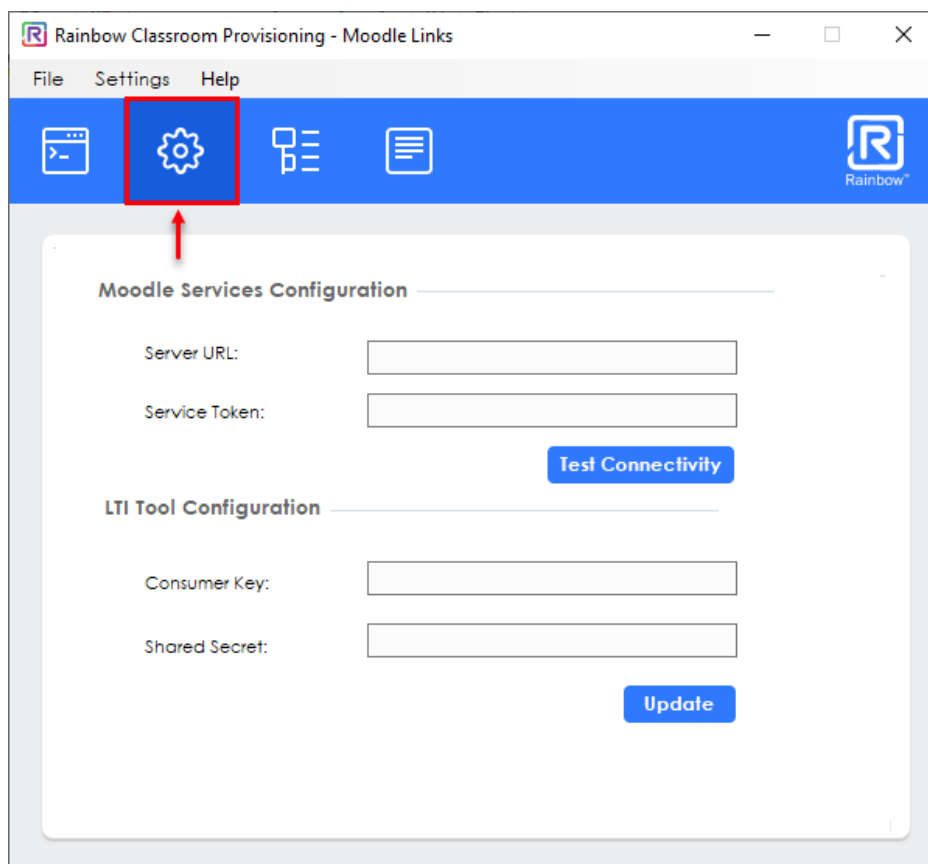

Activity Traces   ✕

8/9/2021 4:55:34 AM ********** Start – Connectivity Check with SSH ****************
8/9/2021 4:55:34 AM Connecting with Moodle via SSH
8/9/2021 4:55:34 AM IP: 172.90.22
8/9/2021 4:55:34 AM Port: 22
8/9/2021 4:55:34 AM Connectivity Mode: Password
8/9/2021 4:55:55 AM Failed to establish connection via SSH. Error: A connection attempt failed because the connected party did not properly respond after a period of time, or established connection failed because connected host has failed to respond
8/9/2021 4:55:55 AM ********** End – Connectivity Check with SSH ****************

Copy to clipboard   Save logs

Screenshot-Activity traces screen

5   Moodle Services Configuration

In order to fetch Moodle courses and configured LTI tool, a connection with Moodle using API services is required. This section facilities an administrator to provide API connectivity settings with Moodle.

To setup Moodle connectivity for API services, click on the **Moodle Services Configuration** ⚙ icon displayed on the top menu bar, as shown below.

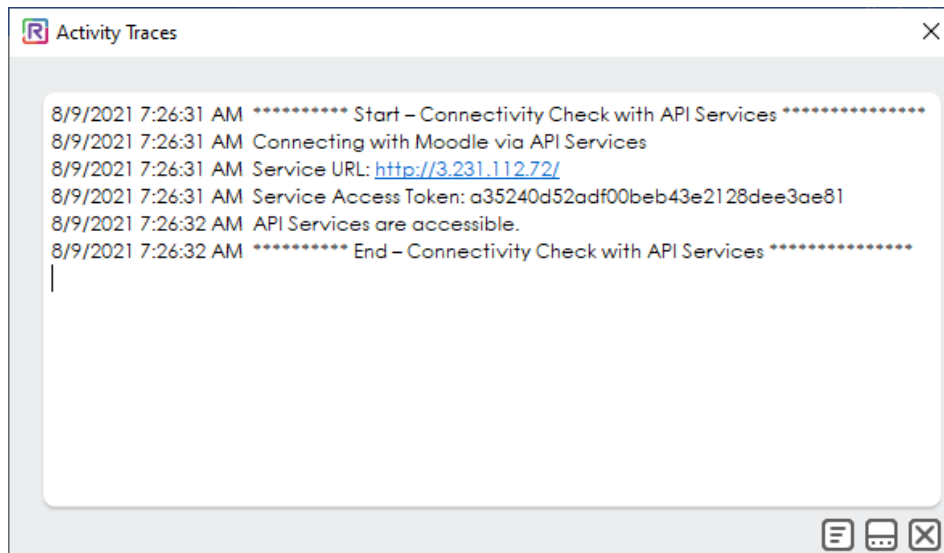Screenshot-Moodle Services Configuration screen

The above screen is divided into two different sections which include:

1. **Moodle Services Configuration**

    • **Server URL** – Enter the URL of the Moodle server.
    • **Service Token** – Enter the API access token which is generated in the Moodle account for the Moodle API integration with Rainbow Classroom.

    Note: Please refer to "Rainbow Classroom - Moodle Integration Guide" to find out more about Moodle access token.

Once you have provided the details, we recommend you to test the configured Moodle services settings by clicking **Test Connectivity** button displayed on the above screen. An activity traces screen will be displayed that will show you whether the connection was successful or not along with the detailed traces, as shown below.

Screenshot-Activity traces screen

2. LTI Tool Configuration

- **Consumer Key –** Enter the consumer key provided by Rainbow Classroom team.
- **Shared Secret –** Enter the shared secret provided by Rainbow Classroom team.
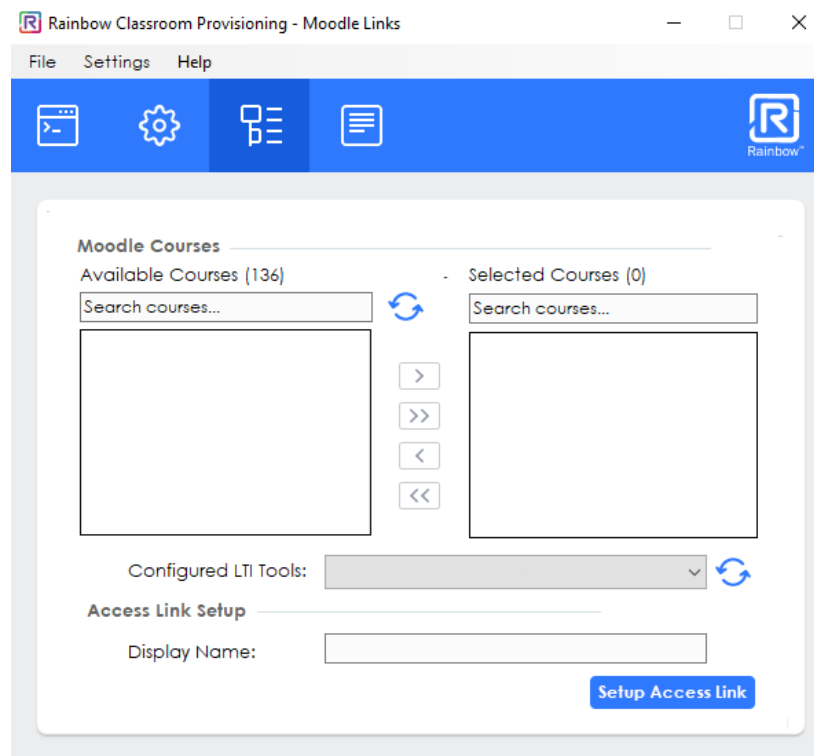
Once done with both sections, click the **Update** button in order to save your entries.

6   Access Links Setup

The organisation admin can add access links of Rainbow Classroom inside Moodle courses. On Moodle, these access links will be available right inside the courses screens for students, teachers and guests. Users who are already signed in to Moodle can simply click Rainbow Classroom access links and instantly jump to the respective Rainbow Classroom.

Once the LMS connectivity setup is done for Rainbow Classroom, all the Moodle courses as well as external apps that are created on Moodle will be available on the Access Links Setup screen. Click the **Access Links Setup** tab from the top menu bar and it's relevant page is displayed, as shown below.

Note: The external apps of Rainbow Classroom are created in Moodle account by an administrator. For more details of creating Rainbow Classroom as an external app, please see 'Rainbow Classroom - Moodle Integration Guide' document.
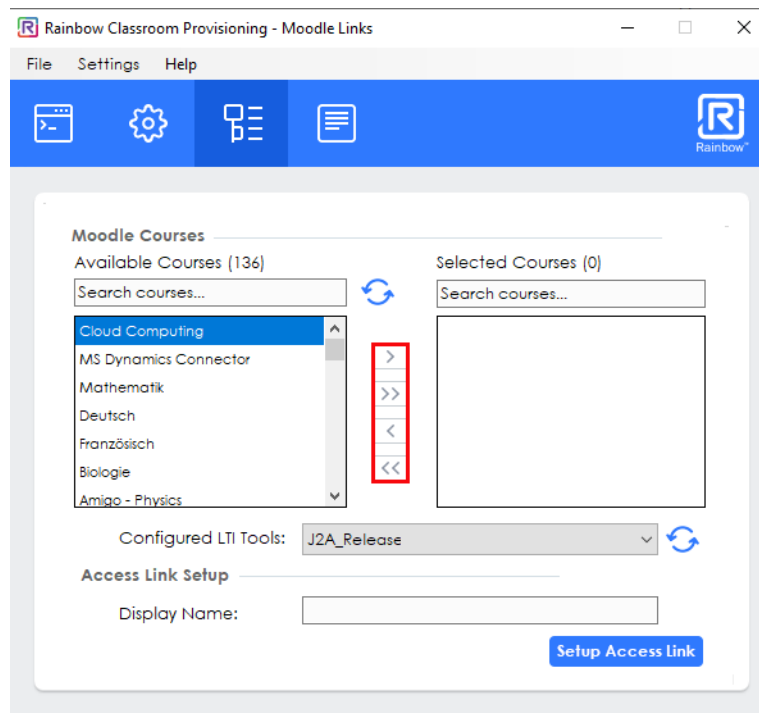

Screenshot-Access Link Setup screen

You have following options available on the above screen:

1.   Moodle Courses

To fetch details of all the available courses associated with the Moodle account, click icon displayed beside the respective option and all the available courses will be displayed on the above screen.

The 'Available Courses' box on the left displays all of the available Moodle courses. You can move the courses to the 'Selected Courses' box displayed on the right by first selecting the courses and then using the arrow buttons, as shown below.
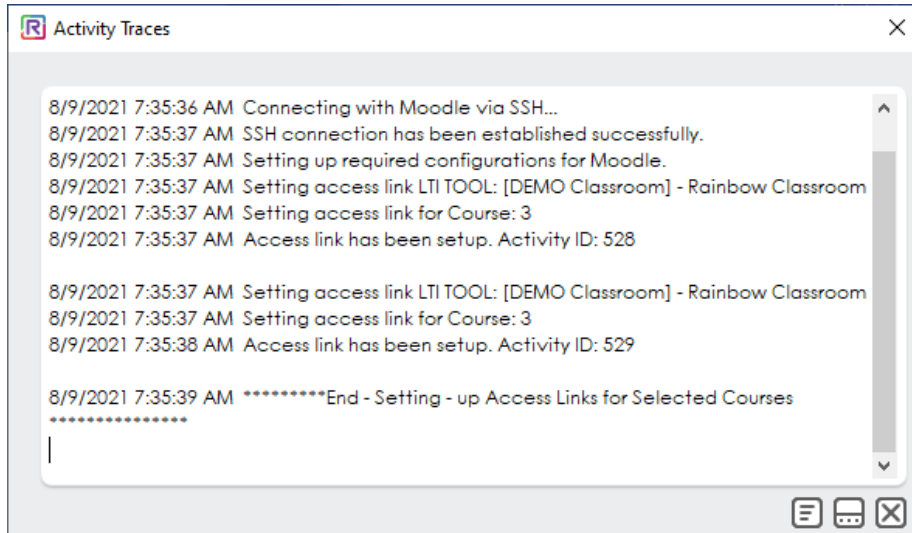

SCREENSHOT – Add Access Links

- **Configured LTI Tools:** To fetch information of all the configured LTI tools on Moodle, click icon displayed beside the respective option. Once done, you will be presented with all the available LTI tools in the respective dropdown. Please choose the required tool in order to add it to the selected LMS courses.

2. **Access Link Setup:**

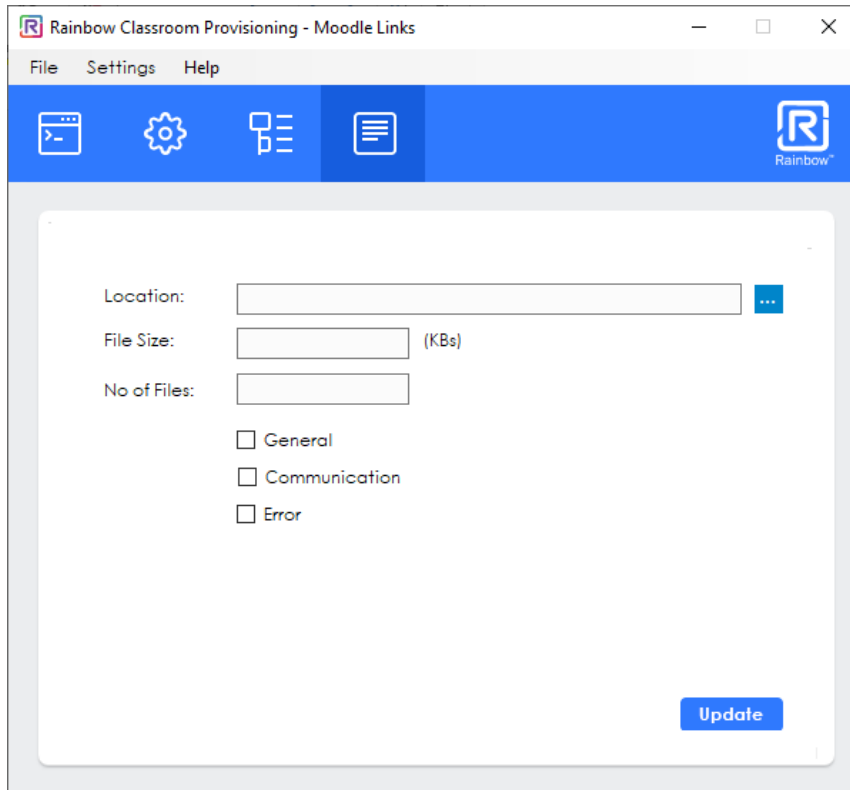- **Display Name:** Enter a suitable access link name in the respective field.

Once done with both sections, click **Setup Access Link** button and you will be presented with the activity traces screen that will show you the process status in terms of success or failure along with the required set of information, as shown below.

SCREENSHOT – Activity Traces

7 Application Traces

Here you can specify the technical information that will be generated and stored ready for support purposes. When you click **Application Traces** tab from the top menu bar, it displays the following screen.

Screenshot-Traces screen

Provide the following information on the above screen.

- **Location:** Refers to the location where system traces files are stored.
- **File Size:** Specifies the maximum size of a trace file. By default, the value is set to 8000KB,
- **No. of Files:** Specifies the number of trace files. By default, the value is set to 20.

Note: Logs will only be written at the provided traces path if it has proper rights to the directory.

Select the types of traces that you require from the following options.

- General
- Communication
- Error

Once done, click **Update** button.

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