



## PRODUCT SUPPORT PACK

### Moodle Integration

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#### PRODUCT AWARENESS

##### Product Vision & Mission

*Integration between PSiber and Moodle.*

*Allowing for minimal human capturing with employee's training, company courses and results in PSiber. minimizing errors and saving users time*

##### Product Introduction

*Sync occurs for the below 3 elements*

- *employees = users/students ,*
- *PSiber Courses = Courses in Moodle &*
- *Results are retrieved from Moodle to PSiber.*

##### Product Demo

*See Youtube link to webinar for when available.*

*User Guide <https://www.psiberworks.com/course/moodle-integration/>*

##### Development Phases



## Client Focus

Who will the product be aimed at:

- Generic integration

## Client Billing Structure

- Phase 1 - Dev Completed - will not be billed - base integration of employees to users, courses and completion tracking.
- Phase 2 - Not developed/spec yet - will include billable content - having an integration into ESS for employees to be able to view their available courses via ESS, Notifications via ESS of new courses, assessments and the option to enroll in courses via ESS
- Phase 3 - Not developed/spec yet - will include reporting on data retrieved from Moodle and detailed sync reports

## IMPLEMENTATION PREREQUISITES

### Document Templates, Policies & Forms

- Client must have their **own** Moodle instance. Hosted in their environment or via a 3rd party provider but publicly accessible so PSiber can access it via a secure URL.

### Agreements & Subscriptions

- Any agreement with the selected Moodle service provider
- **New clients.**
  - Hubble Studios -
    - Katharina Scholtz
    - [kat@hubblestudios.com](mailto:kat@hubblestudios.com)
  - Tel +27 (0) 21 276 0300 | Cell +27 (0) 82 372 2367
  - **Existing clients of Hubble**
    - +27 21 276 0300 ,
    - [info@hubblestudios.com](mailto:info@hubblestudios.com),
    - Office 3, First Floor, Powder Mill, 5 Sunrise Cir, Ndabeni, Cape Town
- Alternatively, users may choose to create, host and maintain their Moodle instances in house by downloading and installing it from
  - [moodle.org](http://moodle.org) or
  - downloading and installing it from <https://bitnami.com/stack/moodle>

### Hardware

- Own server for the Moodle application should the selected Moodle provider not provide one.

## SETUP & PARAMETERS

### System Setup / Parameter Settings

Note that the below assumes the user already has a Moodle instance available:

- *PSIber*
  - Moodle integration setup captured in *Company Setup & Maintenance > Company Setup > Third Party Setup > Moodle Setup* . User may choose to enable only specific payrolls.

Moodle

**Name**

 All Payrolls  Enabled

**URL** **Token**

**Pass Result** **Fail Result**

+

+

### Payrolls

<input type="checkbox"/>	Payroll <span style="float: right;">▲</span>
<input type="checkbox"/>	<input style="width: 90%; height: 25px;" type="text"/>
<input type="checkbox"/>	ABG Consulting
<input checked="" type="checkbox"/>	ADM Consulting
<input type="checkbox"/>	AGB Applicants
<input type="checkbox"/>	AGB Consulting
<input type="checkbox"/>	AMD Consulting
<input type="checkbox"/>	ASB 1 Consulting
<input type="checkbox"/>	ASB 2 Consulting
<input type="checkbox"/>	ASB 3 Consulting (Staff)
<input type="checkbox"/>	ASB 4 Consulting
<input type="checkbox"/>	Botswana

- - Users may choose to disable the Moodle integration
  - Once integration has been defined, PSIber will fetch the custom fields that are in Moodle for users and courses. Then allow users to match these custom fields back to PSIber elements.

Moodle User Custom fields		
Moodle Profile Field	Field Type	PSiber Match Field
Employment Type	Drop-down Menu	... Select Option
Employment Status	Drop-down Menu	Employment Status
Employee Name	Input	... Select Option
Enrolment Start Date	Input	... Select Option
Enrolment End Date	Input	... Select Option
Employee Number	Input	Employee Number
disability	Drop-down Menu	Disabled
Gender	Drop-down Menu	Gender
Payroll UIF Ref	Input	Payroll UIF Ref
Payroll SDL Ref	Input	Payroll SDL Ref

Items per page: 10

Page: 1 / 2

Moodle Course Custom fields		
Moodle Profile Field	Field Type	PSiber Match Field
Test Dates	Date	... Select Option
Unit Standard ID	Input	SAQA ID
SAQA Registered?	Checkbox	NQF Recognised
Pass Rate	Input	Min Pass Rate
Another test	Drop-down Menu	Course Level
NQF level	Drop-down Menu	NQF Level
Test text area	Input	... Select Option

- Moodle

- Create PSiber web service - Site Administration > Plugins > Web Services > External Services > External Service:

# Moodle

Dashboard / Site administration / Plugins / Web services / External services / External service

## External service

Name !

Short name

Enabled

Authorised users only ?

Can download files ! ?

Can upload files ! ?

Required capability ! ? **No required capability**

Show less...

- There are required fields in this form marked ! .




- Enable XML-RPC Protocol - Site Administration > Plugins > Web Services > Manage Protocols:

# Moodle

[Dashboard](#) / [Site administration](#) / [Plugins](#) / [Web services](#) / [Manage protocols](#)

## Manage protocols

Active web service protocols

Protocol	Version	Enable
REST protocol	2019052000	
SOAP protocol	2019052000	
XML-RPC protocol	2019052000	

For security reasons, only protocols that are in use should be enabled.

- 
- Add functions to the PSiber service - Site Administration > Plugins > Web Services > External Services > Functions

## Add functions to the service "psiber"

Function	Description	Required capabilities	Edit
auth_email_get_signup_settings	Get the signup required settings and profile fields.		Remove
core_competency_grade_competency	Grade a competency.	moodle/competency:competencygrade	Remove
core_completion_get_activities_completion_status	Return the activities completion status for a user in a course.		Remove
core_completion_get_course_completion_status	Returns course completion status.	report/completion:view	Remove
core_course_get_courses	Return course details	moodle/course:view, moodle/course:update, moodle/course:viewhiddencourses	Remove
core_course_get_enrolled_courses_by_timeline_classification	List of enrolled courses for the given timeline classification (past, inprogress, or future).		Remove
core_enrol_get_enrolled_users	Get enrolled users by course id.	moodle/user:viewdetails, moodle/user:viewhiddendetails, moodle/course:useremail, moodle/user:update, moodle/site:accessallgroups	Remove
core_enrol_get_users_courses	Get the list of courses where a user is enrolled in	moodle/course:viewparticipants	Remove
core_get_user_dates	Return formatted timestamps		Remove
core_user_create_users	Create users.	moodle/user:create	Remove
core_user_get_users	search for users matching the parameters	moodle/user:viewdetails, moodle/user:viewhiddendetails, moodle/course:useremail, moodle/user:update	Remove
core_user_get_users_by_field	Retrieve users' information for a specified unique field - If you want to do a user search, use core_user_get_users()	moodle/user:viewdetails, moodle/user:viewhiddendetails, moodle/course:useremail, moodle/user:update	Remove
core_user_get_user_preferences	Return user preferences.		Remove
core_user_update_users	Update users.	moodle/user:update	Remove
core_user_view_user_list	Simulates the web-interface view of user/index.php (triggering events),.	moodle/course:viewparticipants	Remove
core_webservice_get_site_info	Return some site info / user info / list web service functions		Remove
enrol_manual_enrol_users	Manual enrol users	enrol/manual:enrol	Remove
gradereport_overview_get_course_grades	Get the given user courses final grades		Remove
gradereport_user_get_grade_items	Returns the complete list of grade items for users in a course	gradereport/user:view	Remove

- Add functions
- Enable web services - Site Administration > Plugins > Web Services:

## Category: Administration / Plugins / Web services

### Overview

Allow an external system to control Moodle

The following steps help you to set up the Moodle web services to allow an external system to interact with Moodle. This includes setting up a token (security key) authentication method.

Step	Status	Description
1. <a href="#">Enable web services</a>	Yes	Web services must be enabled in Advanced features.

- Token issued - Site Administration > Plugins > Web Services > Manage Tokens > Add:

[Dashboard](#) / [Site administration](#) / [Plugins](#) / [Web services](#) / [Manage tokens](#)

## Manage tokens

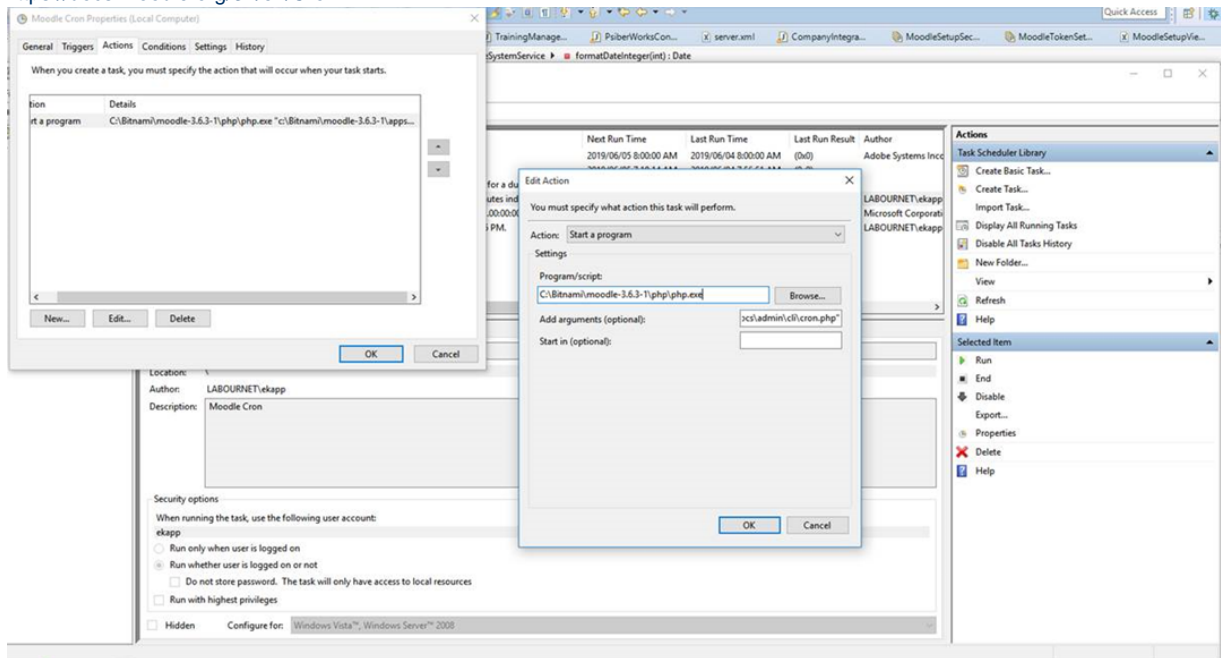
Any token can be deleted, though you can only view tokens that you created.

Token	First name / Surname	Service	IP restriction	Valid until	Creator	Operation
738075d46839eaad2fc52fee849cdb75	Admin User	psiber			Derrich Schleich	Delete

### Add

All web service protocols are disabled. The "Enable web services" setting can be found in Advanced features.

- Moodle Server CRON Windows task <https://docs.moodle.org/37/en/Cron>



- Disable Manual CRON - Site administration > Security > Site Security Settings:

Cron execution via command line only  Default: Yes  
cronclonly

Running the cron from a web browser can expose privileged information to anonymous users. Thus it is recommended to only run the cron from the command line or set a cron password for remote access.

## Compliance

- Some SETAs or industry specific authorities may have requirements. However, there are no validations that check these requirements in PSiber.
  - This is maintained by the user

## SYSTEM EXPECTED BEHAVIOUR

### System Behaviour

- **Mandatory fields:**
  - Name for integration - i.e. indicate this integration is for a specific group/type/business unit e.g. Driver Training
  - URL - Specify the public URL for the Moodle instance.
    - Moodle does not support Multi tenant like PSiber (Multiple companies on one instance) . So each integration/client MUST have their own moodle
  - Token - Issued by Moodle
  - Pass / Fail Result. PSiber has these as picklist items. Moodle simply returns if the user passes or fails. Therefore, they need to specify what, in their picklist , is a pass result and fail result
- Default field matches between platforms:

Group in PSiber	Field Name	Field Name PSiber	Field Type PSiber	Mandatory in PSiber?	Group in Moodle	Moodle Field Name	Moodle Field Type	Mandatory in Moodle?
<b>Employee</b>					<b>User</b>			
	Name	First Name	free text	Y		First Name	free text	Y
	Surname	Surname	free text	Y		Surname	free text	Y
	Employee Status		Static picklist not definable			Suspended	Flag/Checkbox	Y
<b>Courses</b>					<b>Courses and Categories</b>			
	Course Category	Course Category	User defined Picklist	Y		Course Category	free text	N
	Course Active/Inactive	Course Active/Inactive	Radio Button: Active or Inactive	Y		Course Visibility	Static picklist not definable	N
	Course Identifier	Course Code/Description	User defined Picklist	Y		Course ID	free text	N
	Course Start Date	Course Start Date	date	Y		Course Start Date	date-time	N
	Date of attempt	Date of attempt	date	Y		Date of sync	date-time	N
	Result	Result	User defined Picklist	Y		Result	boolean	N

## Points of Failure

Symptom	Possible Cause	Owner of problem
<b>Token invalid</b>	Expired	Moodle
	Not the correct Moodle URL	Moodle
<b>No data retrieved from Moodle</b>	Token invalid	Moodle
	URL not publicly accessible	Moodle/ IT
<b>No courses retrieved from Moodle</b>	No courses in Moodle	Moodle
	Token invalid	Moodle
	URL captured incorrectly	PSiber
	Moodle integration disabled	PSiber
<b>No Users created from PSiber to Moodle</b>	No employees in PSiber for selected company/payroll	PSiber

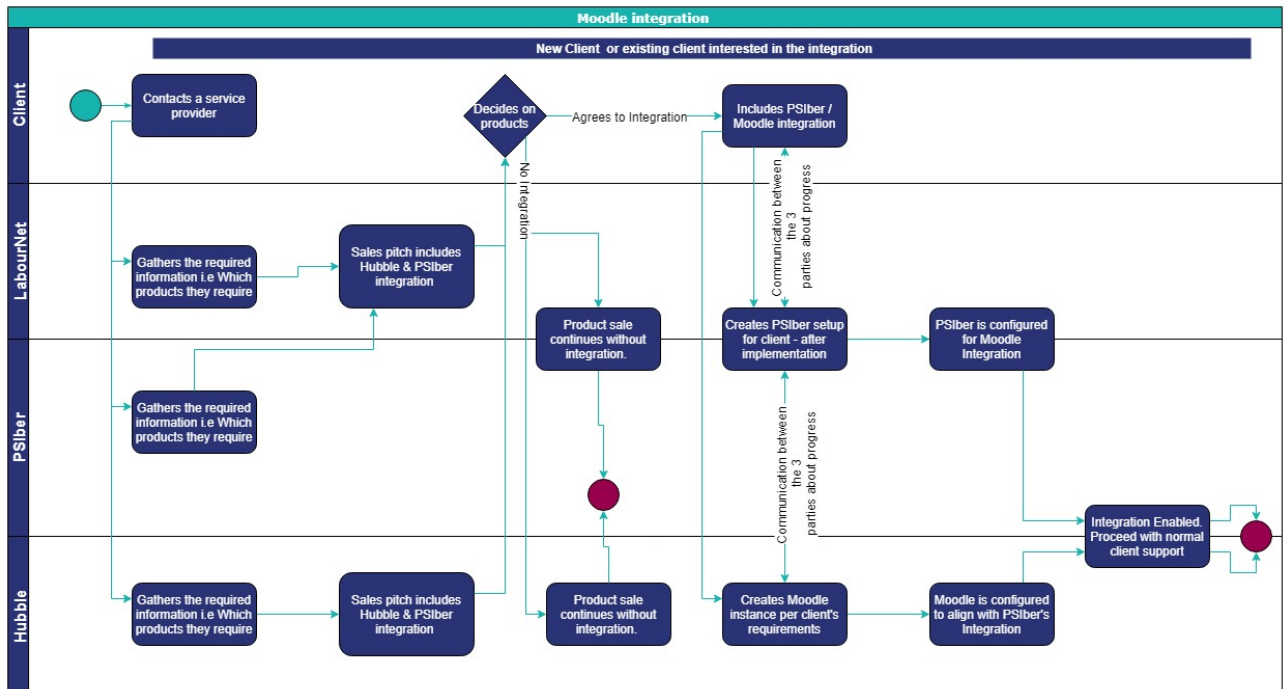


	Employees don't have email addresses or ID numbers  (Note that PSiber will then create pseudo email addresses <i>ID/Passport + EE number @ domain .com</i> - where domain is the PSiber instance)	PSiber
<b>No results retrieved from Moodle</b>	No CRON Windows task created to check these elements in Moodle	Moodle
	No completion parameters defined for the course	Moodle
<b>Course Completion criteria not defined error in PSiber</b>	Courses exist that don't have completion criteria	Moodle

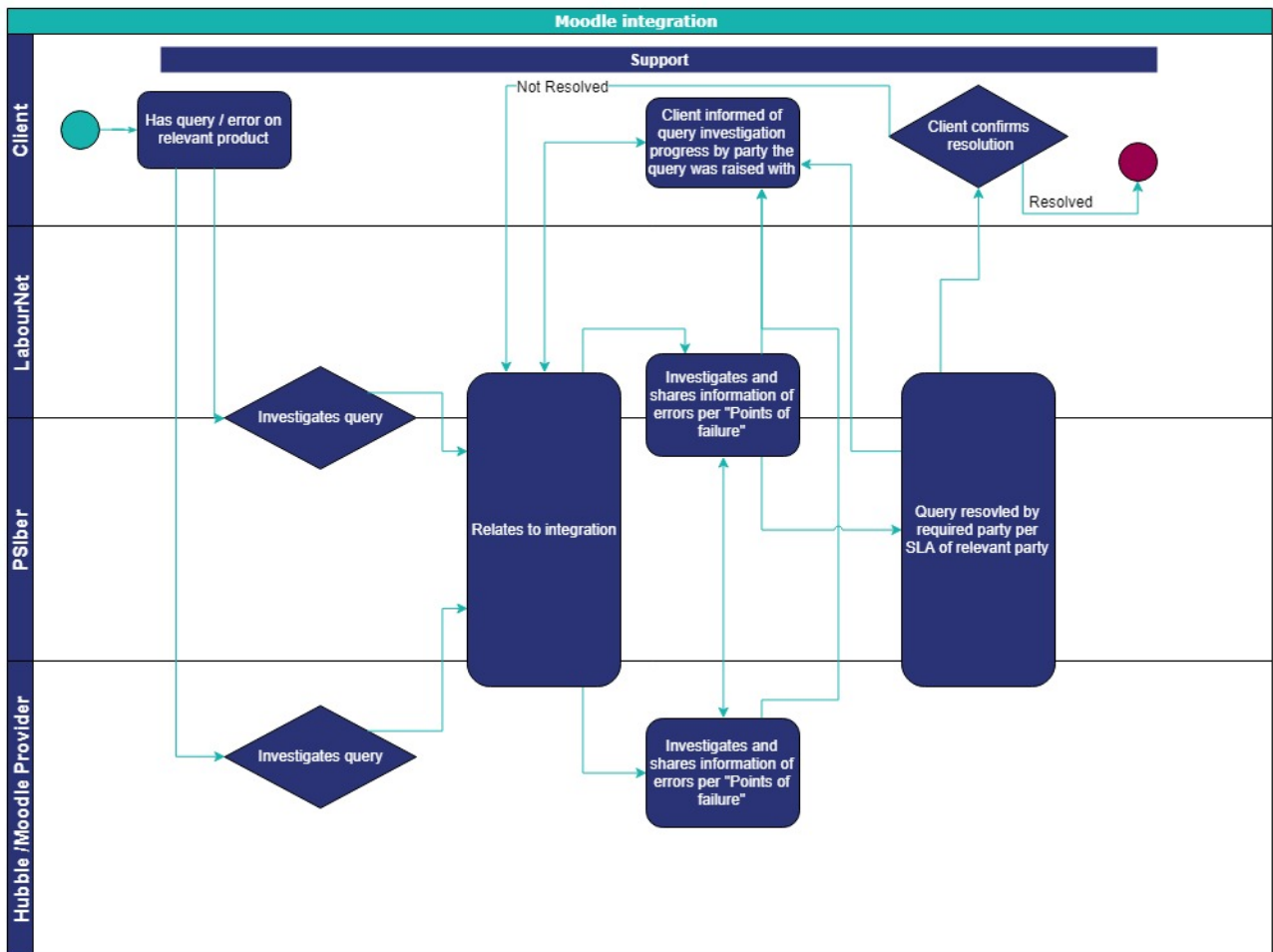
# AFTERCARE

## Service Level Agreements

- PSiber/LabourNet default SLA
- Clients may have a 3rd party provider that maintains their Moodle instance With Hubble this is at the provider's discretion, each client's SLA is structured according to their individual needs
- See below flow:
- New clients



- Support flow



## Escalation Paths

- Internal PSiber Support > QA > Dev/Product Owner
- External Client IT dpt > Moodle Provider/PSiber Support > Moodle / PSiber QA /Dev/Product Owner

## FAQ

- What syncs where?
  - PSiber employees are created as users in Moodle using their email addresses
    - Where an employee has no email address - they're created by combining ID/Passport + EE number @ domain .com . Where domain is the PSiber instance. Eg. A011455cc220@jhb.com
  - Moodle courses are pushed to PSiber. No course created in PSiber will appear in Moodle
  - Moodle results for users are sent to PSiber. No results manually captured in PSiber will appear in Moodle
- What are the passwords for users created by PSiber?
  - "P\$1berTraining", Moodle prompts users to change the password
- Where do I issue the token ?
  - Moodle > Site admin > Plugins > Web services > Manage Tokens
- What custom fields may I create in Moodle?
  - Anything that you need in Moodle, these may be included to retrieve data from PSiber - for Users
  - Course Custom fields are created to send information to PSiber such as NQF levels etc. that are not included in Moodle by default but may be required in PSiber
- Is there a limit to courses and users?
  - No, it will all depend on the user's ability to maintain these items
- How often is the data synced?
  - This is dependent on the instance . There is a line of code per instance that defines the timer. Default is 1 time per day. However, users may trigger the sync manually by pressing the "Synchronize" button on the Moodle integration screen in PSiber

## Client Welcome Letter

- A check could be put into place where clients enable their Moodle integration. PSiber then triggers an email to provide them with
  - User Guide Link

