BigBlueButton module

In the administration the virtual classroom BigBlueButton can be activated. This article describes the configuration of multiple BigBlueButton servers, load balancing and setting up system-wide room templates.

Instructions on how to configure individual online dates are described in the chapter Course Element BigBlueButton.

Table of contents

In the administration the tabs Server, Room templates, Online appointments and Calendar are available.

Server

The available BigBlueButton servers per OpenOlat instance are displayed here.

Configuration

- **Module "BigBlueButton":** Activation of the functionality
- **Activate for courses/groups:** Activate functionality for courses/groups
- **Online-Meetings without date:** Additional option to activate "permanent room reservations" in addition to online-meetings
- **Servers:** In the configuration the available BigBlueButton servers per OpenOlat instance are entered.

> ⚠️ **Online-Meetings without date**
>
> Online-Meetings without a date (permanent room reservations) are not visible in the calendar and count as booked at all times towards the limits of the room template.

Configuration	Servers	Room-templates	Online-meetings	Calendar

Configuration of BigBlueButton Web Conferencing service   ❓ Help

	BigBlueButton is an Open Source Web Conferencing System designed for learning. More information about BigBlueButton can be found on the BigBlueButton web page and the BigBlueButton GitHub repository

Module "BigBlueButton"	☑ Enabled
Activate for	☑ Courses
	☑ Groups
Online-Meetings without date	☐ Enabled

Servers

URL	Enabled	Edit	Delete
https://bbb01.frentix.com/bigbluebutton/	☑	Edit	Delete

[Add server]

Add BigBlueButton-Server

- **BigBlueButton API URL**: URL of the BBB-Server
- **Shared secret**: API Key of the BBB-Server
- **Capacity factor**: Server weighting in load balancing
- **Activate server**: Server is available for load balancing

		BigBlueButton API URL								

✳ BigBlueButton API URL

https://bigbluebutton.openolat.com/bigbluebutton/

✳ Shared secret

Capacity factor   1.0

A number between 1 and 100 (for example: 1.23)

Activate server   ☑ Enabled

[Cancel] [Save] [Check server connection]

Load balancing

The goal is to distribute the generated load of simultaneous online meetings to the available BigBlueButton server by considering a set of performance parameters (such as number of videos and number of participants in the meetings). OpenOlat has an integrated load-balancing for this purpose. At the initial start of the online-meeting (depending on the configuration by the moderator or the first participant) the server with the lowest load is selected for the meeting. The load is calculated from the different measurement factors and weights the result with the capacity factor. Using the filter above the list, the server key figures can be displayed over the entire BBB server or only the sessions of the current OpenOlat server.

> ⓘ **Capacity factor**
>
> The capacity factor is recorded with a value between 1 and 100 per server. The calculated number of users* on the server is multiplied by the capacity factor. In this way, a server with stronger performance (RAM/CPU/disk) adapts to a weaker one.
>
> *Weighting when counting users from high to low: video users, audio users, viewer*

Konfiguration	Server	Raumvorlagen	Online-Termine	Kalender

4 Einträge   ▼· ⚙

Alle OpenOlats
Dieses OpenOlat

URL	Kapazität	# Moderatoren	# Teilnehmer	# Listeners	# Voices	# Video	Max. Benutzer	# Recordings	# Br Rec	
https://bbb01.frentix.com/bigbluebutton/	6	28	61	20	26	3	578	3	0	13.5
https://bbb02.frentix.com/bigbluebutton/	4	1	7	0	7	1	16	1	0	4.2
https://bbb03.frentix.com/bigbluebutton/	4	2	2	0	2	2	4	1	0	2.5
https://bbb.frentix.com/bigbluebutton/	6	1	9	0	8	0	16	1	0	2.7

Room templates

The room templates are available for selection when creating a new online-meeting. Templates control the following characteristics:

- The available functions and standard settings in the online-meeting
- The number of possible simultaneous users per room
- Limits regarding duration and number of online rooms available

Configuration of a room template

- **Room name:** Name of the room template
- **Description:** Description of the room template (e.g. learning scenario, field of application)
- **Number of participants:** Maximum number of participants
- **Duration (minutes):** Maximum length of online-meeting
- **Enable room-template :** Activated room templates are available in courses/groups for new online appointments and can be chosen by course owners
- **Number of rooms:** Maximum number of concurrent rooms of the template

- **Open for external users:** A direct link is automatically generated for external users so that they can enter the BigBlueButton room without having to call OpenOlat first. The link is then displayed in the room configuration and can also be changed by the course owner or coach if necessary, as well as passed on to guests.
- **Room-template activated for <Role>:** Determines which roles can use the room template for new online-meetings. If the "Group member" option is activated, the template can also be used and further configured in OpenOlat groups.

✳ Room name	Classes
Description	
✳ Number of participants	30
Duration (minutes)	240
Enable room-template	☑
Number of rooms	20
Open for external users	☐
Room-template activated for	☐ Group user
	☑ Coach
	☑ Course owner
	☑ Author
	☑ Administrator

Default settings of the room template

Webcams only for moderators	○ Yes	● No
Disable participant microphone on join	○ Yes	● No
Allow moderators to activate the participants microphone	● Yes	○ No
Allow meeting recording	● Yes	○ No
Automatically start recording	○ Yes	● No
Allow to start / stop of recordings	● Yes	○ No
Allow breakout rooms	● Yes	○ No
Put participants into lock mode on join	● Yes	○ No
Prevent disabling of the automatic locking by the moderator	○ Yes	● No

Default settings for locked participants

For locked participants...

disable webcam	○ Yes	● No
disable microphone	○ Yes	● No
disable public chat	● Yes	○ No
disable private chat	○ Yes	● No
disable shared-notes	○ Yes	● No
disable participant list	○ Yes	● No
disable layout changes	○ Yes	● No

Online-Meetings

Overview of configured online-meetings with the possibility to switch directly to the course/group (context) and/or delete this online-meeting.

Servers	Room-templates	Online-meetings	Calendar

❓ Help

	✕	🔍 Search	89 Entries				🔻 ▾	⚙

☑ **Name** ▾	**Without date**	**Start date**	**End date**	**Room-template**	**Server**	**Context**	**# Recordings**	**Delete**
☐ Kickoff Meeting	☐	1/26/2021, 4:00 PM	1/26/2021, 5:00 PM	Cafe		Spielwiese Lernpfad	0	Delete
☐ Kickoff Meeting	☐	1/12/2021, 12:00 PM	1/12/2021, 1:00 PM	Cafe		Spielwiese Lernpfad	0	Delete

Calendar

Calendar overview of configured online-meetings to check times with high occupancy and graphically display overlaps. This gives you a quick overview of the scheduled synchronous meetings of the entire OpenOlat instance and, if necessary, you can quickly select an alternative date.

| < | > | Today | 🖶 | | **Jan 25 – 31, 2021** | | Month | Week | Day | 📅 Year |

W 4	Mon 1/25	Tue 1/26	Wed 1/27	Thu 1/28	Fri 1/29	Sat 1/30	Sun 1/31
all-day							
6am							
7am							
8am							
9am							
10am							
11am							
12pm			11:41am - 12:41pm Cafe				
1pm							
2pm							
3pm							
4pm		4:00pm - 5:00pm Cafe					
5pm			5:00pm - 6:00pm Meetings	5:00pm - 6:0 Meetings / 5:00pm - 6:0 Meetings			
6pm							