Installation on VirtualBox of Live:

Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts

1)

------ Creating the virtual machine ------

We start by making a virtual machine in VirtualBox.
Launch VirtualBox::

Clic on:  **Machine**  =>  **New**
...and enter the data:

Name = Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts (or it you decide)
Machine Folder = it is by default (or it you decide)
Type = Linux
Version = Ubuntu (64bit)

...press "Next".

Now we select the amount of memory for our virtual machine. Here they recommend 1024 MB, although you can increase it depending on your computer's physical hardware:
Let's start the steps to build the virtual hard disk:

We leave selected: "Create a virtual hard disk now"

…and press "Create".
In the next window we leave selected: “VDI (VirtualBox Disk Image)”

...and press "Next":

Now we will choose whether our virtual disk, which will occupy part of the physical hard disk, will be of size fixed or dynamic. Select "Fixed size" and press "Next":

In this window below we will choose the size of the virtual hard disk (which will occupy the same gigabytes in physical hard drive). Minimum 10 GB (depends on the size of your physical hard drive) i have 20GB place:

...once you've decided, press "Create". The virtual machine will begin to be created:

...and once completed, it will be displayed to the left of the window:
2) ------ Setting up our virtual machine ------

Let's move on to setting up our virtual machine. To do this, press the "Settings" button (from orange color that is located above-center of the window) and will show this other:
We can see that in the section "General" we have several tabs.

# In the tab called "Basic" find the data that we chose at the beginning (if you chose another name will also appear):

![Screenshot](image)

# In the tab called "Advanced" we have to change (capture below):

\[
\begin{align*}
\text{Shared Clipboard} & = \text{Bidirectional} \\
\text{Drag'nDrop} & = \text{Bidirectional}
\end{align*}
\]

...in "Snapshot Folder" will show the folder you chose at the beginning. The other tabs we leave them as they are:
# Click on the "System" section (left of the window) and it will display the "Motherboard" tab. In this tab is the memory you chose, "Base Memory," during the creation of the virtual machine at first. Leave the rest as it is at the picture bellow:

If in any of the different windows you would like to check any box, you can do so, more notice if "Invalid settings detected" appear at the bottom of the window. Because if so it means that the change is not valid. So leave it as it was.
# In the "Processor" tab you can choose how many processors you want to use in your virtual machine. This will depend on the processor of your physical computer. I put 3 to try. The rest can leave it as it is:

![Processor tab](image)

# In the "Acceleration" tab you can leave everything as it comes predetermined:
Now click on the "Display" section to the left of the window, and we stay in the tab "Screen". Here you can leave everything as it is or enable some box remembering to look at the bottom of the window in case the "Invalid settings detected" warning appears. It would mean that the change made by you is not valid. Mark “Enable 3D acceleration”:

Clic now on the "Storage" section (left of the window):
We will need to download a Gparted live iso to partition the virtual hard disk later. Let's download the file:

[link]

Once downloaded, we temporarily add it to the virtual machine. To do this click on the small blue disc called "Empty" (in the upper center of the window):

...and now click on the other small blue disc that sits on the top right of the window. A menu will open:
...click on "Choose Virtual Optical Disk File..." and go as far as you've downloaded the gparted-live-1.1.0-5-amd64.iso file. Select it and it will appear in the VirtualBox window:

# Click now on Audio (to left window) and select the two boxes Enable Audio Output and Enable Audio Input:
Clic on **Network** (to left window), and at **Attached to**: select **Bidge Adapter**, and at **Name**: select your nertwork tarjet:

![Network settings](image)

Press "**OK**" and all changes we have made will be saved.

3)

----- **Partition of virtual hard drive** -----  

So that our: **Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts.iso**

...can be installed in VirtualBox, it is necessary to partition the virtual hard disk in advance.

This is because the "Systemback" program, with which i made the Live Iso of OpenMeetings, does not contain partitioning option during live installation.

Launch the virtual machine that we have made and that temporarily contains the live iso Gparted. To do this click on the green arrow called "Start" (at the top):

(Remember, to out the mouse from the virtual machine press in keyboard: **Ctrl+Alt**)
...Gparted interface will appear:

...we click on the virtual screen, and press "Enter" to any proposal that Gparted asked us:
...until get to the next window:
Click on the virtual hard drive "unallocated" and click on the top left, on:

“Device”  ==>  “Create Partition Table...”

...press "Apply" on the window that opens:
Now let's do a partition. Click on "unallocated" again. Click on: "Partition" ==> "New" ... a window will open (below). Press the "Add" button:
...and now push where the red arrow points:

...ask if we are sure (below). Press "Apply":

...announce that have saved the changes. Please push **Close** button:

...and will show the final result of the partitioning:
The number of 20.00 GB will be different for each of you, depending on the number of gigs you have chosen for the virtual hard disk.

We exit Gparted. To do this, click on: "Gparted" (top-left) ===> "Quit"

...and will show the next window (below). Do double-click on the terminal:
...and it will open the same. We write on it "**sudo su**" and press "**Enter**":

```
user@debian:~ $ sudo su
root@debian:/home/user:~$
```
Now type "**poweroff**" and press "**Enter**" to turn off the virtual machine:

![Image of poweroff command output]

...and when asked press "**Enter**" again:

![Image of error message]

Please remove the live-medium, close the tray (if any) and press ENTER to continue...
4) Installing the Live iso OpenMeetings 7.2.0 in VirtualBox

We already have the partitioned virtual hard drive, now let's install the live iso:

Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts.iso

...in the virtual machine.

To do this we download the file:

Download Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts

We open the VirtualBox interface, we don't launch the virtual machine yet, and let's:

“Settings” (orange icon) ===> "Storage" press on small blue disk called "Empty" - click on the disk small blue to the right of “Optical Drive” … "IDE Secondary Master"… “Choose Virtual Optical Disk File...” go as far as you downloaded the file "Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts.iso", and select it:

Press "OK". and once the file is uploaded, we launch the virtual machine by pressing the arrow green called "Start":

[Image of VirtualBox interface with selected disk and file]
...and the live entry screen will appear:
Clic on the virtual screen, select with the keyboard the option: "Boot system installer", and press "Enter".
...and will take us to where to enter a username, password and hostname:
...choose your user name and so on to your liking. Then press "Next" and we will go to:

Click on the second line "/dev/sda1" and select as indicated below:

- **Mount point** = /
- **Format** = selected
- **Transfer user configuration and data files** = selected
- **Install GRUB 2 bootloader** = Auto

...and press the arrow (red) to save the changes we've made:
...press "Next" and it will take us to the beginning of the live installation on the virtual hard drive:
...press "Start" and the system installation will begin:
...until it is completed:

...press "OK" and this other window will appear:
press "Cancel" and the original live operating system desktop will appear:
Launch the terminal at the top left, next to the Firefox icon, and run the following commands:

```
sudo su  ...password: 123456
sudo /etc/init.d/stop_todo  ...so all servers will stop and the reboot will be faster.
sudo poweroff  ...to stop the operating system.
```

After this please push now on “Setting” orange button and go to push on:

“Storage” ==> little blue disc “Live OpenMeetings 7.2.0 on Ubuntu 20.04 lts” ==> IDE Secondary Master ==> Remove disk from Virtual Drive ...and press “OK” button:
5)  

------ Installation of Guest Additions ------

To take effect some of the changes we made, must install “Guest Additions”. With this we can copy files from-to real-virtual desktops, to have the necessary resolution for our monitor in full screen mode and so.

Press the orange button called “Settings” in the VirtualBox interface, selecting before our virtual machine, and go to:

Storage ==> Controller IDE ==> clic on Empty (blue disk) ==> and clic on the other blue disk that is to right of Optical Drive ==> Choose Virtual Optical Disk File
...and now please go where you have the file called **VboxGuestAdditions.iso**, normally can find it at the folder installation of VirtualBox (Oracle), or where you has download it. Then, select it and push **OK** to take effect the change and close the window.

Now run our virtual machine and when arrive to desktop the first thing to do is stop the servers:

```
sudo /etc/init.d/stop_todo
```

...and now we’ll see up left of the desktop an icon with form of white disk, called **Vbox_Gas…**. We do right clic on it and will show this menu:

...clic on **"Open With Autorun Prompt"** and will show the following window:
...push on “Run” button and will ask for password:

...we introduce it and will start the installation of Guest Additions:
Attention ´cause when finish will ask to press Return (Enter) to close the terminal. Reboot the machine to take effect the made installation:

```bash
sudo reboot
```

Once we are again at desktop, after reboot, you can select the virtual screen configuration going to: View ==> Virtual Screen ==> ...and here select your screen resolution:
The information about OpenMeetings users, passwords and any other server, can find it in a folder of the original live desktop, or can download it directly here:

Download servers, users and passwords of Live iso information

Remember, always when you access to the virtual desktop, any server will be running, you no need running them manually.

The live iso OpenMeetings 7.2.0 on Ubuntu 20.04 lts contains:

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OpenMeetings 7.2.0 (Web Video Conference Server)
Apache Web server
MariaDB (DataBase server)
Mail server (postfix, dovecot, MariaDB)(virtual users and domains)
Roundcube (Webmail)(with secure change mail user account password)
phpMyAdmin (MariaDB web administration)
Turn server
Kurento-Media-Server

And with this we conclude.

If you have any question, please expose it in the OpenMeetings forums:

https://openmeetings.apache.org/mailing-lists.html

Can download if you like, an OpenMeetings wallpaper for different devices such as: PC, Mac, Smartphone, iPhone and Tablet. Here is the download link:

OpenMeetings Wallpaper Download

Thank you.

Alvaro Bustos  (PMC and Committer at Apache OpenMeetings).