

MokaFive Player

Walkthrough :: Release 2



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Open Source Components

MokaFive Suite includes software components developed by open source organizations. A listing of, and links to the sources for, these components can be found at <http://opensource.moka5.com/v2>.

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2. Document Audience

This document is intended for:

- MokaFive Player “End-users” - Anyone who will be using the MokaFive Player to run LivePC images (this is the primary audience of this document)
- IT professionals who want to familiarize themselves with using the MokaFive Player as an end-user
- Support professionals who will be supporting MokaFive Player end-users

If you have little or no background in software virtualization, it is recommended that you read all sections of this document in order from start to finish. We promise, it won't be too painful.

3. Useful Concepts

Understanding the concepts below will greatly speed up your learning curve in using the MokaFive Player.

What is a LivePC image?

Think of a LivePC image as a virtual computer, complete with its desktop, applications, documents, files, etc.. A LivePC image manifests itself as a collection of files and folders on a computer. So it's all software, no hardware (hence the term virtual).

Host and guest machine

A LivePC image needs a physical computer in order to run. That computer is often called the "host" machine. The running LivePC image is called the "guest" machine.

For example, a common usage scenario in a corporate/enterprise environment will be running a LivePC image (the guest machine) on a laptop (the host machine). In other words, your company, instead of giving you a laptop for work, would provision you with a LivePC image that you can run on your personal laptop. You can even put a LivePC image on a USB device (such as a thumb drive), and run it from the device – meaning that you can use your LivePC image on many different host machines by just plugging in your USB device.

The advantage of using LivePC images

Your main advantage is that you will have a complete computing environment without needing an extra computer. And for your organization's IT department, the cost for provisioning and managing these virtual machines will be much lower than if dealing with physical ones. This is the future of computing!

What is a LivePC image subscription?

When your IT department provisions you with a LivePC image, they are essentially giving you the right to use the image. When you open the MokaFive Player and download the image for the very first time, a relationship is created between your LivePC image and your IT department's management tools. That relationship is called a "subscription".

A LivePC subscription essentially allows you to get system and application updates automatically - again a big saver in time and effort for you and your IT department.

What is the MokaFive Player and what is it for?



The MokaFive Player is an application that runs on a computer and allows you to download and run LivePC images.

In addition, the Player also takes care of keeping your LivePC images updated with the latest system and application updates that your IT department pushes out (requires an internet connection).

You can also think of the Player as a container and launcher of LivePC images, and using it is very similar to using a music Player (like iTunes) on your computer. Just as you may download a song and press the “play” button to listen it, in the MokaFive Player you download a LivePC image and press the “play” button to run the image, and then start using the virtual computing environment.

Speaking of buttons, let’s get acquainted now with the MokaFive Player’s interface.

4. The Player User Interface

NOTE: The screenshots in this document may look slightly different from what you will see.

First, familiarize yourself with the MokaFive Player's user interface and basic functions.

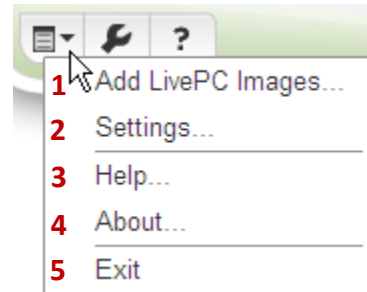
The main interface



1. **Header** - Contains the minimize and close application icons (which show up on the left-hand side on Mac OSX)
2. **LivePC panel** - Contains the controls and information relevant to a LivePC image that has been downloaded and loaded into the Player. If you add more LivePC images to the Player, you will add more tiles.
 - a. **LivePC menu** - Contains commands relevant to the LivePC image
 - b. **LivePC title** - The title/name of the LivePC image
 - c. **LivePC logo** - The logo of the LivePC image
 - d. **LivePC info** - Contains status and information on the LivePC image
 - e. **LivePC controls** - The Play (run image) and Pause (suspend image) buttons
3. **Footer** - Contains the main toolbar and the status area
 - a. **Main toolbar** - Contains buttons to open the Player's main menu, settings dialog, and help dialog
 - b. **Status area** - May show the following icons: Player update, offline mode, and encrypted mode

The main menu

1. **Add LivePC Images...** - Click to launch a web page where you can see all of the LivePC images made available to you by your IT administrator. You must be connected to the internet to see this web page.
2. **Settings...** - Click to see available settings for the Player.
 - a. **General Settings** – These options should be fairly self-explanatory
 - b. **Network Settings** – Your IT administrator may provide you with special instructions regarding these settings.
3. **Help...** - Click to open the help dialog, which describes some of the same content you see in this document
4. **About...** - Click to see information about the Player, including:
 - a. Your user and device name
 - b. Your organization's management server's URL (may be useful for troubleshooting)
 - c. Encryption status
 - d. Player version information
5. **Exit** – Click to close the Player



The icons in the status area



1. **Player update** - If this icon shows up, it means an update is available for the Player. If you are online, it will start downloading the update automatically and will prompt you to close the Player in order to apply the update.
2. **Offline mode** – If this icon shows up, it means either you are not connected to the internet, or the management server connection is not available at the moment. You can still run your LivePC images, but won't be getting updates that may be available.
***NOTE:** The amount of time you can work offline will be limited, and determined by your IT department.*
3. **Encrypted mode** – If this icon shows up, it means that your Player application is encrypted and any data passing through it is sent and received securely.

The LivePC menu

NOTE: Some of the menu items below may or may not be available to you, depending on the policies and capabilities set by your administrator.

1. **Display Mode at Startup** – Sets the initial display mode of the LivePC image
 - a. **Windowed:** The LivePC Image starts in a window
 - b. **Full Screen:** The LivePC Image starts in full-screen
 - c. **For windowed and full screen modes:**
Windows: Switch to your regular desktop by pressing 'Ctrl' + 'Alt'. Return to the LivePC by pressing 'Ctrl' + 'G'.
MacOS: 'Ctrl' + 'Command' + 'Return' to switch in and out of full screen.
 - d. **Merged Environment (Unity):** Merged environment mode lets you open your guest machine's applications inside your host environment.
 - e. **Full Screen Enforced (Kiosk):** The LivePC Image starts in full-screen and cannot be exited out of full-screen mode.
2. **Rejuvenate Now** – Only available if your LivePC image retains applications you install yourself – see section 8. Select this command if your LivePC image's system becomes unstable or corrupted and you wish to get back to a healthy system (your installed applications will be discarded however.)
3. **Power Off** – Powers off the LivePC virtual machine. This is equivalent to turning off the power on a running computer and is not the recommended normal shutdown method. Shutting down from within the running LivePC operating system is generally recommended.
4. **Delete** - Deletes the LivePC and all your documents saved with the LivePC
5. **Networking Mode** – Your IT administrator will set this option and normally you will not have to change it.
 - a. **NAT:** This is typically the default setting. It hides the LivePC image behind the host machine from a networking perspective.
 - b. **Bridged:** Exposes the LivePC image as its own machine alongside the host.
6. **Browse Documents Folder** - Opens a folder for sharing documents between the guest and host machines.



5. First-time Launch and Image Download

Your IT administrator has provisioned you with the Player, and you have just installed it, either on a laptop computer, or on a USB device. Player launches for the first time.

Naming your device and logging- in

The Player will then ask you to name your device:

A dialog box titled "Name your Device". It contains a text prompt: "Please enter a name for the device on which MokaFive Player is installed (examples: 'Anna's laptop', 'Work USB stick')." Below the text is a single-line text input field. At the bottom right are two buttons: "OK" and "Quit".

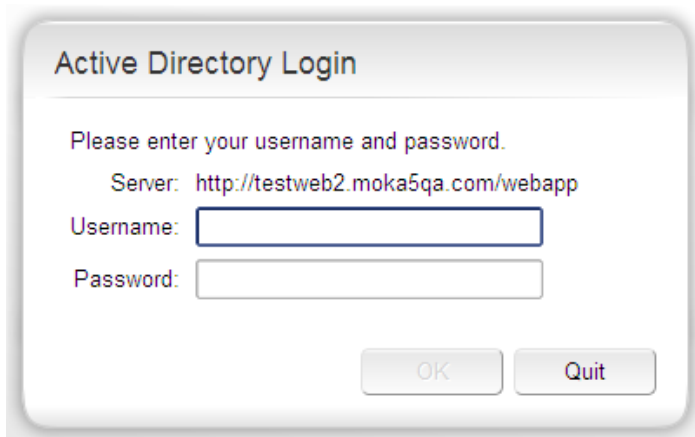
Name your Device

Please enter a name for the device on which MokaFive Player is installed (examples: "Anna's laptop", "Work USB stick").

OK Quit

This is primarily for support purposes in order to more easily identify your device, should you misplace it (a bit more relevant if you installed Player on a USB device).

Once you've named your device, you will be prompted to log in:

A dialog box titled "Active Directory Login". It contains a text prompt: "Please enter your username and password." Below this is the server address: "Server: http://testweb2.moka5qa.com/webapp". There are two input fields: "Username:" and "Password:". At the bottom right are two buttons: "OK" and "Quit".

Active Directory Login

Please enter your username and password.

Server: <http://testweb2.moka5qa.com/webapp>

Username:

Password:

OK Quit

Your IT administrator may have given you instructions for the username and password. In a typical enterprise environment, the username takes the following format:

domainname\username (**example:** acmedomain\awilliams)

For the password, use the password tied to your company/corporate account.

LivePC image initial download

After you log in, one of following scenarios will occur.

NOTE: For practical purposes, we'll assume that only one LivePC image has been provisioned to you initially by your IT department.

Scenario 1 - The LivePC image has been set to automatically download itself into your Player. Your IT administrator may have notified you of this, typically in an email.

If that is the case, **you don't need to do anything**. Just wait and the LivePC image will start downloading itself into your Player (this may happen immediately or within a few minutes).



Depending on the size of the LivePC image and your connection speed, downloading can take as little as five minutes and as much as an hour or more. For those longer downloads, you might start another task, or take a coffee break.

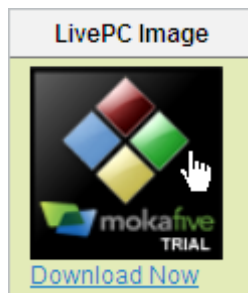
Scenario 2 - You will need to manually download a LivePC image into your Player. Your IT administrator should have notified you of this, typically in an email.

If that is the case, please continue on to the following section.

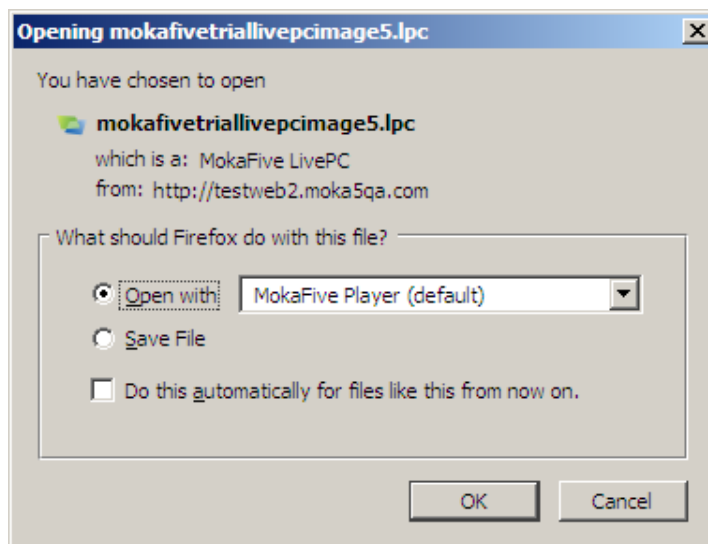
6. Downloading LivePC Images Manually

While your IT administrator can specify any number of LivePC images to automatically be downloaded into your Player, you can also manually download LivePC images into your Player. Follow these steps:

1. Select “Add LivePC Images...” from the main menu
2. An internet browser window will launch, and you will have to log in, using your same username and password
3. You are now logged into your **MokaFive Console**, where you will see the LivePC images made available to you by your IT administrator
4. Click the LivePC image’s logo or download link



5. You will then be asked to open or save a file:



Files ending with .lpc are **LivePC subscription files**. They only open in MokaFive Player (or Creator, for LivePC image authors) and essentially tell the Player/Creator to download a particular LivePC image.

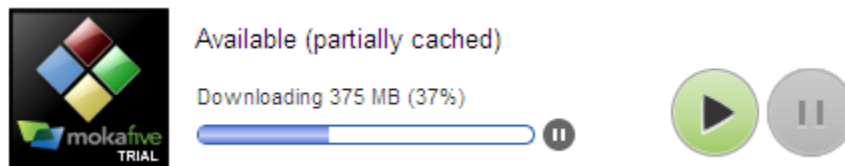
6. Choose to open it with the MokaFive Player, which will initiate the download

Saving LivePC subscription files

If you choose to save the .lpc file, you can do the following with it:

1. **Double-click on it** – This will just open the Player (if it isn't open yet) and attempt to download the associated LivePC image. If the image is already downloaded into the Player, nothing will happen.
2. **Drag and drop it onto the Player** – This will have the same behavior as double-clicking on the file.

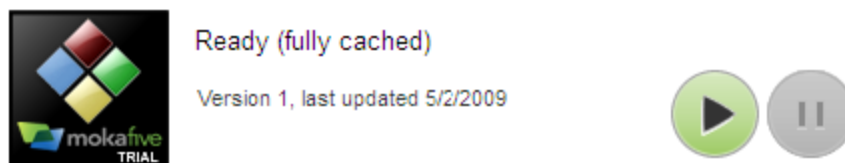
While downloading



One of the unique features of the MokaFive Player is that you can actually start running a LivePC image even before it has fully downloaded. Just click on the Play button to start running the image.

***Note:** Performance may be affected however, depending on your network connection speed.*

When fully downloaded



After the image has fully downloaded, it is ready to run with the best performance allowed by the host machine's capabilities (processor speed, memory, available disk space, etc...)

7. Using LivePC Images



Using a LivePC Image is easy. Click its Play button and the image will start running (note that the Play button will become disabled while an image is running.)



During startup of the image, you will first see the **VMware Player** being launched.



This occurs because the MokaFive Player uses the VMware Player to start the virtual computing environment.

The guest machine will then boot up, and you will soon start computing the same way you would use a normal computer.

NOTE: You may need to enter your username and password once again in order to log into the guest machine.



Display modes (VMware Player)

NOTE: Some or all of the options below may or may not be available to you, depending on the policies and capabilities set by your administrator.

The VMware Player offers the following display modes for the guest machine:

1. **Windowed:** Your guest machine is contained in a floating window
2. **Full Screen:** Your guest machine takes over the entire screen
3. **Keyboard shortcut commands**
 - a. **Windows:** Switch to your regular desktop (the host machine) by pressing 'Ctrl' + 'Alt', and return to the LivePC desktop by pressing 'Ctrl' + 'G'.
 - b. **MacOS:** Press 'Ctrl' + 'Command' + 'Return' to switch in/out of full screen.
4. **Merged Environment (Unity):** Merged environment mode lets you open your guest machine's applications inside your host environment, providing a more seamless user experience. You will have a second 'Start' menu of a different color giving you access to your guest machine's start menu, and applications from the guest machine opened on the host machine will be bordered with the same color as this secondary 'Start' button.
5. **Full Screen Enforced (Kiosk):** The guest machine starts in full-screen and cannot be exited out of full-screen mode. Only supported on Windows XP host machines

Suspending the guest machine



Click the Pause button to suspend the guest machine. Suspending is like hibernating on Windows XP. It takes a snapshot of the current state of your running machine, so you can get back to that exact state.



Ready (suspended)

Version 1, last updated 5/2/2009



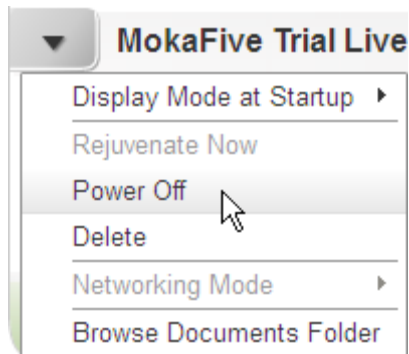
So if the host machine needs to be shut down for example, you can suspend the image, and the next time you open Player and press the play button to run the image, you'll get right back to the state you were in when you suspended.



TIP: You can also suspend by clicking the close button on the VMware window:



Powering off the guest machine



If your guest machine has crashed and/or is no longer responsive, you may need to power it off. Selecting this option is roughly equivalent to “pulling the plug” on a running machine.

NOTE: Powering off is not the recommended normal shutdown method. Shutting down normally from within the guest machine's operating system is recommended.

From within the guest machine

Within the guest machine if you:

1. **Shut down** – The guest machine will shut down normally and in the Player the LivePC image will show up as Ready:



Ready (fully cached)

Version 1, last updated 5/2/2009



2. **Standby/Sleep** – This will suspend the guest machine, but when you restart the image you may have to log in again.
3. **Hibernate (Windows)** – This will hibernate your guest machine, but it will not show up as suspended in your Player. In fact, it will appear as if you had shut down the machine. So when you press play again, the machine will appear to reboot from scratch and you will have to log in again. So the actual benefit of hibernating that you get on a physical machine isn't there when dealing with virtual machines.
NOTE: This is why Hibernation will probably not be enabled in your guest machine, and you may not even find the option available.
4. **Log off** – This will behave as expected and will not suspend or shut down the guest.
5. **Restart** – This will behave as expected and will not suspend or shut down the guest.



TIP: If you want to stand by/sleep, or hibernate, just suspend. It is a quick way to get back to your previously running state.

8. Personalizing a LivePC image

When you are working inside your guest machine (your running LivePC image), you may want to start personalizing a few things within your work environment such as:

1. Your desktop background and themes
2. Mouse settings and other system preferences
3. Screen resolution and other display properties
4. Default folder views
5. Shortcuts
6. Etc...



All of these changes will be preserved after shutdowns, when new updates to the LivePC image are applied, and after rejuvenation (see next section).

Applications

Applications are treated differently from the types of personalizations mentioned above. Your IT department has probably included applications as part of the LivePC image they have provisioned you, and these IT-administered applications will always be preserved, in all cases.

In addition to these applications, your IT department may or may not allow your LivePC image to “retain applications” that you install yourself (see the later section about policies.)

If “retain applications” is NOT enabled - Any application you install will **not** be preserved after shutdowns and new updates.

If “retain applications” is enabled - Any application you install will be preserved after shutdowns and new updates.

NOTE: After a rejuvenation (see Section 9), any application you have installed yourself will ***not*** be preserved, regardless of whether or not “retain applications” is enabled.

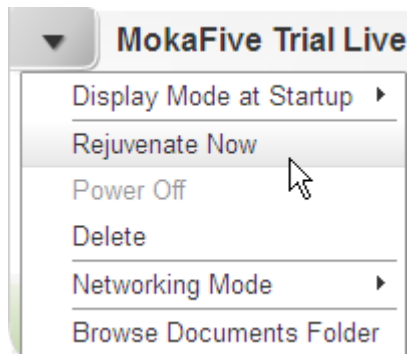
9. LivePC Image Rejuvenation

There may be times when your LivePC image's system gets corrupted, perhaps due to installing an application (knowingly or unknowingly in the case of malware and viruses), or modifying system files while troubleshooting a problem.

When this happens, you can take advantage of a feature we call “rejuvenation”, which essentially refreshes your system back to its last healthy and up-to-date state. What you will need to do will depend on whether “retain applications” was enabled or not by your IT administrator:

If “retain applications” is NOT enabled - Shut down from within the guest machine, or if your guest system is unresponsive, power off the image. The next time you start it, its system will be rejuvenated.

If “retain applications” is enabled - Shut down from within the guest machine, or if your guest system is unresponsive, power off the image. Then open the LivePC menu, and you will notice a “Rejuvenate Now” item there.



Select this item to rejuvenate your image. When you start the LivePC image again, its system will be refreshed and healthy.

NOTE: *You cannot rejuvenate a running or suspended image. It must first be shut down from within the guest machine, or powered off if the guest machine is frozen.*

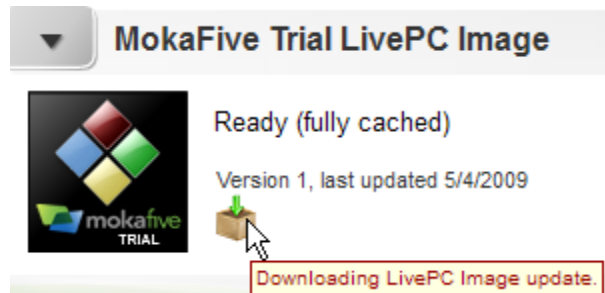
Impact of rejuvenation on personalizations you have made in the guest machine

Rejuvenation will remove any application you have installed yourself – however, it will retain all of your documents and system preferences (like shortcuts, desktop background, mouse settings, etc..).

10. LivePC Image Updates

Your IT department will periodically push out software updates to your LivePC images – typically these updates will upgrade your system, and sometimes new applications may be installed.

In the LivePC panel you will know about an available update when you see the update icon.



The update will download automatically. Once the update is fully downloaded:

1. **If the LivePC image is currently running** - Shut down from within the guest machine, and start the image again (press the Play button). This will apply the update.
2. **If the LivePC image is not running** - The update will be applied the next time you start the image.

NOTE: Resuming a suspended image will not apply the updates. You must shut down (not restart) from within the guest machine, and then restart the image from Player (press the play button).

11. Closing the Player



Click the Player's close button, or select "Exit" from the main menu.

NOTE: *If you leave any LivePC images running at that time, they will be automatically be powered off.*



TIP: The recommended method if you wish to close the Player and there is at least one running LivePC image, will be to first either suspend the image, or shut it down from within the guest machine's operating system.

12. Running the Player from a USB device



When you run the Player from a USB device, your experience will be slightly different.

Required components installation

Certain components (some from MokaFive, and some from VMware) may have to be installed on the host machine that you plugged your USB device into. You may be given a choice whether or not to leave these components installed on the host machine when you shut down the Player and un-plug the USB device.



TIP: Leaving the components installed on a host machine will save you considerable time if you plan on plugging your USB device into that same machine on a regular basis.

Un-plugging the USB device and proper shutdown of the Player



It is extremely important that you **do not un-plug the USB device** while Player is running as this may lead to an unstable system and data loss.

If you want to un-plug your device in the safest way possible, please follow these steps:

1. **Suspend** – Suspend any running LivePC images
2. **Close the Player** – Click the Player's close button, or select "Exit" from the main menu

NOTE: *If you leave any LivePC images running at that time, they will be automatically be powered off.*

3. **Safe un-plug** - To ensure that the un-plug is clean and causes no future problems with your LivePC images, follow the safe disconnect procedure for the host machine:

- a. **Windows:** Go to the 'Safely Remove Hardware' task icon in the lower right hand of the Windows desktop, left click on it and select the drive you want to unplug. You will then be informed it is safe to remove the device.



Alternatively you can click on the Windows 'Start', go to 'My Computer', and click on the MokaFive USB icon. After clicking on the icon there will be an option to 'Eject' the device:

Windows should notify you if it also thinks it is safe to unplug the device. At this point you can safely unplug the device.



- b. **Mac:** In the Finder window click the eject symbol beside the drive, drag the drive from your desktop to the trash can, or select the device icon in the Finder and choose 'Eject' from the 'File' menu.



If a LivePC is running and you accidentally un-plug the USB device

You will be prompted to re-plug the device back in and shut down properly. If you leave the device un-plugged and don't plug it back in immediately, your host system will become unstable and you should run a disk check utility on it before you run the image again.

13. Player Updates

Your IT department will also be pushing out updates to the MokaFive Player. When the updates are picked up by your Player, you will see the update icon on the bottom right of the Player application window:



The updates will download and you will be notified to close the Player for the updates to take effect the next time you launch it.

14. Policies from your IT Department

The capabilities and options of both your MokaFive Player and your LivePC images are actually controlled by your IT department. Policies are set – typically at the level of groups in your organization (for example, Sales, Support, Marketing, etc..) – and determine what those groups’ members can and cannot do with their Players and LivePC images.

The actual policies vary but typically have to do with security. For example, a LivePC policy may specify that your guest machine may not allow you to drag and drop files from the guest to the host, or vice-versa. Another example is you may not have the option to install your own applications inside the guest machine, and have them persist across shutdowns. An example of a Player policy is the amount of time you can work offline using the Player.

The policies may be bound by legal obligations of your organization, or may just be standard policies set by your IT department in order to maximize security. These policies can change at any time.

15. Special Cases

Below are descriptions of key situations you might encounter.

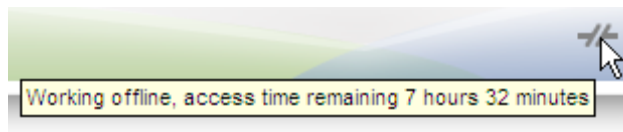
Offline mode

You can actually use a LivePC image without a connection to the internet if it has been fully downloaded. When offline, you will see the offline icon on the bottom right of the MokaFive Player application. Use the image as you normally would use it, but of course without an internet connection, you will not be getting any updates that may be available for it.



Offline access time limit

The amount of time you can work offline will be limited, and determined by your IT department.



Management server unavailable

If the link between your Player and your organization's management server (which manages updates to your Player and LivePC images) is broken, you will also see the offline icon – even if you are still connected to the internet. If this happens, it should only be temporary, and your IT department may notify you of the issue as well. If the problem doesn't get resolved after several hours and you do not hear from anyone, please contact your IT support department.

Revoked subscriptions and devices

In certain cases, your subscription may be revoked. For example, say you are a contractor for the company, and are done with your project. For security and legal reasons, the company's IT department may need to revoke your subscription – which essentially means you can no longer use the company's LivePC image (its play button will be disabled).

When this happens however, the data from the revoked LivePC image will be kept (unless the image is deleted from the Player), so that if you come back a few months later to work on another project, all the IT department has to do is un-revoke your subscription, and you are back up and running right away.

Device revocation

Your IT department may also opt to revoke the device onto which you installed the MokaFive Player (your laptop perhaps, or your USB thumb drive). If that is the case, any subscription you may have on that device (if you have more than one LivePC image loaded in your Player) will be automatically revoked.

Killed subscriptions and devices

In other cases, your subscription or device may be killed. For example, say you have the MokaFive Player installed on a USB thumb drive, and you lose the thumb drive. Although any LivePC image on the drive is already encrypted, as an extra security measure if the person who found the thumb drive was ever able to hack into the MokaFive Player (in order to get to the data inside your LivePC image perhaps), your IT administrator can “kill” any subscription that may be on that device, which will actually delete the corresponding LivePC image data as soon as the MokaFive Player is launched.

Device kill

In a case similar to the above, your IT department will probably want to kill the entire thumb drive as opposed to each individual subscription that may be on it, because it’s easier and makes the most sense from a management and security perspective.

In sum, killing a subscription or device is much like your credit card company cancelling a lost credit card. The lost card becomes unusable and the operation cannot be reversed.

16. Need Assistance?

If you run into trouble using MokaFive Player or your guest machine, please contact your IT support department, and they will assist you.