

Installation Guide

Configuring and Administering Kickle.

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1. ABOUT KICKLE

Kickle transforms any meeting room screen into a videoconferencing screen. If the screen is a touchscreen, it becomes interactive. Kickle includes a mini-PC, a high-definition video camera, and an omnidirectional tabletop microphone. Kickle fully supports and relies on Microsoft Skype for Business.

2. REQUIREMENTS AND COMPATIBILITY

Kickle was developed based on Microsoft Skype for Business APIs and is thus reliant on the Skype for Business infrastructure in place.

Kickle requirements include:

- An Exchange Room Mailbox account associated with a Windows account in order to handle how meetings should be accepted or refused.
- A Skype for Business account linked to the Windows account.
- The Autodiscover service should be activated on Exchange.
- Wired connection to the DHCP network for the first install.
- A screen with a HDMI connection.
- Ideally, a "CEC over HDMI" compatible screen.
- A "1366 x 768 pixels" minimal screen resolution.
- Protocols and ports requirements as described page 17.

Kickle is compatible with:

- All Skype for Business architectures (online, One-Premise, hosted).
- All Skype for Business Server 2013 architectures (online, One-Premise, hosted).
- All Exchange 2010 (individual-forest) or later (individual or multi-forest) architectures (online, One-Premise, hosted).

The following licenses are required for use with Kickle:

- Skype for Business client access license (CAL): CAL Skype for Business / Skype for business for On-Premise architectures or P2 for Skype for Business Online / Office 365.
- Kickle does not require an Exchange license (Room Mailboxes do not require a license).
- Kickle does not require a Windows IOT license (the Windows IOT license is dealt with by the Kickle Company directly).

3. CONFIGURING EXCHANGE ON-PREMISE AND SKYPE FOR BUSINESS ON-PREMISE accounts

This paragraph applies to **Exchange On-Premise** infrastructures only. If you are using an Exchange Online solution (Office 365), please skip to 4 Configuring Exchange Online and Skype for Business Online (Office 365) accounts.

3.1.STARTING EXCHANGE SHELL MANAGEMENT

Start Exchange Management Shell from your Exchange On-Premise server.

For more information, please refer to:

<https://technet.microsoft.com/en-us/library/bb123778%28v=exchg.150%29.aspx>.

3.2.CREATING AND CONFIGURING A ROOM EXCHANGE ON-PREMISE ACCOUNT

3.2.1.Using an existing Room Exchange account as On-Premise

If you are already using an Exchange Room Mailbox account for the Kickle room, you can follow the steps below. However, we recommend that you delete the account and then recreate it. To create a new Room Mailbox, please refer to 3.2.2.

You can create an Exchange Room Mailbox using Exchange Management Shell (PowerShell) or Exchange Management Console (EMC). The steps below are based on Exchange Management Shell (PowerShell).

To use an existing Exchange Room Mailbox (KICKLE01 in the example below), run the EMC cmdlet as follows:

```
Set-Mailbox -Name 'KICKLE01' -Alias 'KICKLE01' -Room -  
EnableRoomMailboxAccount $true -RoomMailboxPassword (ConvertTo-SecureString  
-String <password> -AsPlainText -Force)
```

3.2.2.Creating a **new** Exchange Room Mailbox

In the example below, an Active Directory account is created at the same time as the Room Mailbox. The RoomMailboxPassword field is the account's password.

To create a **new** Room Mailbox (KICKLE01 in the example below), run the following EMC cmdlet.

```
New-Mailbox -UserPrincipalName KICKLE01@mycompany.com -Alias KICKLE01 -Name  
"KICKLE01" -Room -EnableRoomMailboxAccount $true -RoomMailboxPassword  
(ConvertTo-SecureString -String <password> -AsPlainText -Force)
```

3.2.3.Configuring the Exchange Room Mailbox account

The cmdlet below will configure the Exchange account to accept or refuse meeting notifications automatically based on whether the room is available.

```
Set-CalendarProcessing -Identity KICKLE01 -AutomateProcessing AutoAccept -  
AddOrganizerToSubject $false -DeleteSubject $false -  
RemovePrivateProperty $false -DeleteAttachments $false
```

3.2.4. Configuring MailTip

The MailTip reminds the organizer that the room is equipped with a Kickle videoconferencing system. The user must click on the "Skype for Business Meeting" button if he or she wishes to use Kickle.

```
Set-Mailbox -Identity KICKLE01@mycompany.com -MailTip "This room is equipped with a Kickle videoconferencing system. Click on the Skype for Business Meeting button if you wish to use Kickle."
```

You can also use the following cmdlets to adapt the message according to the exact location of the room.

```
$Temp = Get-Mailbox KICKLE01@mycompany.com

$Temp.MailTipTranslations += "ES: Esta sala de reuniones tiene una solución Kickle"

Set-Mailbox -Identity KICKLE01@mycompany.com -MailTipTranslations $Temp.MailTipTranslations
```

3.2.5. Configuring the message received when a Kickle room is booked

You can configure the message that the meeting organizer will receive when booking the room by running the following cmdlet:

```
Set-CalendarProcessing -Identity KICKLE01@mycompany.com -AddAdditionalResponse $TRUE -AdditionalResponse "If the meeting has been refused, it is because the meeting room is not available at the time specified.<br><br>If the meeting is accepted, congratulations! You have planned your Kickle meeting successfully. <br><br>Do not forget that Kickle should not wait in the waiting room. To check, open the Kickle meeting and then click on Meeting Options. Check that not guest is waiting in the waiting room. Also check that Kickle is the organizer."
```

3.2.6. Activating the account

The previously created Room Mailbox account can be disabled in Active Directory. The account must be enabled so that Kickle may use Exchange Web Services.

You can check this in the Active Directory Users and Computers console. Also make sure that the password for the user is blank.

To enable the account, run the following cmdlet:

```
Set-ADAccountPassword -Identity KICKLE01

Enable-ADAccount -Identity KICKLE01
```

3.2.7. Allowing a person outside the company to schedule a meeting

If you wish to enable the use of Kickle in "Planned Meeting" mode by somebody who does not belong to the company, run the command below:

```
Set-CalendarProcessing Kickle01@mycompany.com -ProcessExternalMeetingMessages $true
```

Companies who want to use your Kickle must add your domain as a RemoteDomain. **The following commands must be executed on the Skype for Business infrastructure of your partner.**

```
New-RemoteDomain -DomainName mycompany.com -Name mycompany.com  
Set-RemoteDomain mycompany.com -TNEFEnabled $true
```

3.3. CONFIGURING SKYPE FOR BUSINESS ON-PREMISE ACCOUNTS

This paragraph applies to **Skype for Business On-Premise** infrastructures only. If you are using a Skype for Business Online (Office 365) solution, please skip to 4 Configuring Exchange Online and Skype for Business Online (Office 365) accounts.

Once you have configured the Room Mailbox accounts for use with Kickle, use Skype for Business Server Management Shell to enable the Skype for Business account using the cmdlet below.

```
Enable-CsMeetingRoom -SipAddress "sip:KICKLE01@mycompany.com" -  
domaincontroller DC-ND-001.company.com -RegistrarPool SKYPE FOR  
BUSINESSPool115.company.com -Identity LRS01
```

Note: Skype for Business Server Management Shell is automatically installed on each Standard Edition Server or frontend Enterprise Edition Skype for Business Server. For more information, please refer to: <https://technet.microsoft.com/fr-fr/library/gg398474.aspx>.

4. CONFIGURING EXCHANGE ONLINE AND SKYPE FOR BUSINESS ONLINE (OFFICE 365) ACCOUNTS

This paragraph applies to **Exchange Online and Skype for Business Online (Office 365) infrastructures only**. If you are using an Exchange On-Premise or Skype for Business On-Premise solution, please refer to 3 Configuring Exchange On-Premise .

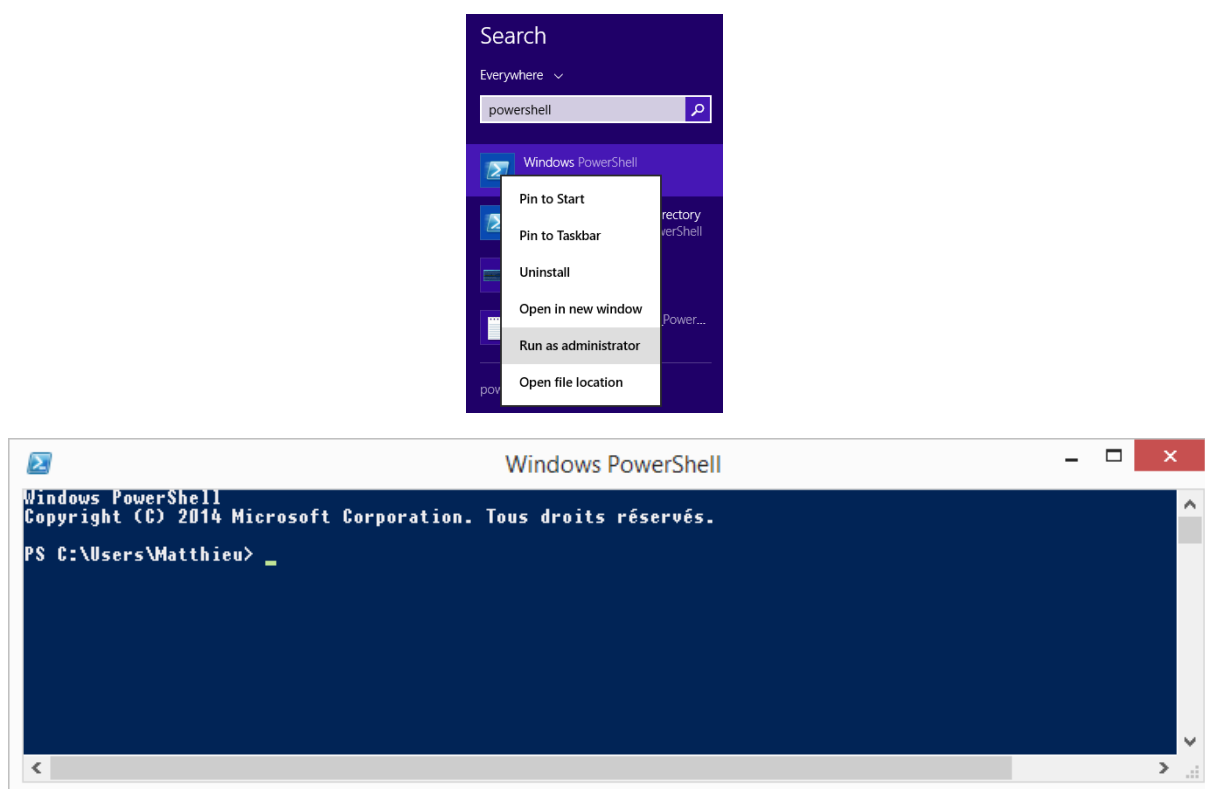
You must have sufficient rights to access your Office 365 using Exchange Remote PowerShell.

4.1. CREATING AND CONFIGURING A ROOM MAILBOX ACCOUNT FOR EXCHANGE ONLINE (OFFICE 365)

4.1.1. Starting PowerShell

The following commands are PowerShell commands. To launch PowerShell, simply search for PowerShell in the Search field in Windows 7 or Windows 8.

Start PowerShell with the option **Run as an administrator**.



For more information, please refer to the following TechNet article: <https://technet.microsoft.com/fr-fr/library/bb978526.aspx>.

4.1.2. Logging on to Exchange Online

To use an existing Room Mailbox account (KICKLE01 in the example below), run the PowerShell cmdlet below to log in to Exchange Online:

```
$UserCredential = Get-Credential
```

Enter an Exchange Online username / password with administrator privileges.

Then, run the cmdlet below to connect to your Exchange Online.

```
$Session = New-PSSession -ConfigurationName Microsoft.Exchange -  
ConnectionUri https://outlook.office365.com/powershell-liveid/ -Credential  
$UserCredential -Authentication Basic -AllowRedirection
```

Run the cmdlet below to import your session so you can run Exchange commands in your Exchange Online.

```
Import-PSSession $Session
```

4.1.3. Creating a **new** Exchange Room Mailbox

Follow the steps below to create a new Room Mailbox account for Kickle. To use an existing Room Mailbox account, you can skip to 4.1.4 Using an existing Room Mailbox account in Exchange Online (Office 365). However, we recommend that you create a new Room Mailbox account (delete the existing one then recreate it).

To create a **new** Room Mailbox account (KICKLE01 in the example below), run the cmdlet below:

```
$rm="KICKLE01@mycompany.com"  
  
$newpass='pass@word1 '  
  
New-Mailbox -MicrosoftOnlineServicesID $rm -room -Name "Kickle Room" -  
RoomMailboxPassword (ConvertTo-SecureString $newpass -AsPlainText -Force) -  
EnableRoomMailboxAccount $true
```

4.1.4. Using an **existing** Room Mailbox account in Exchange Online (Office 365)

If you are already using a Room Mailbox account for the Kickle room, you can follow the steps below. However, we recommend that you delete and then recreate the account.

To use an existing Exchange account (KICKLE01 in this example), execute the following cmdlet:

```
$rm="KICKLE01@mycompany.com"  
  
$newpass='pass@word1 '  
  
Set-Mailbox -MicrosoftOnlineServicesID $rm -room -Name "Kickle Room" -  
RoomMailboxPassword (ConvertTo-SecureString $newpass -AsPlainText -Force) -  
EnableRoomMailboxAccount $true
```

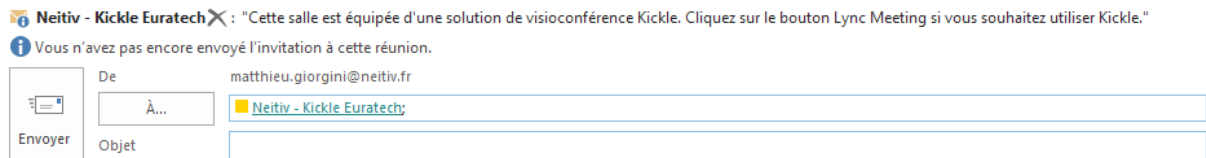

4.1.5. Configuring the Exchange Room Mailbox account

The cmdlet below will configure the Exchange Online account to accept or refuse meeting notifications automatically based on whether the room is available.

```
Set-CalendarProcessing -Identity $rm -AutomateProcessing AutoAccept -  
AddOrganizerToSubject $false -DeleteSubject $false -  
RemovePrivateProperty $false
```

4.1.6. Configuring MailTip

The MailTip reminds the organizer that the room is equipped with a Kickle videoconferencing system. The user must click on the "Skype for Business Meeting" button if he or she wishes to use Kickle.



```
Set-Mailbox -Identity $rm -MailTip "This room is equipped with a Kickle  
videoconferencing system. Click on the Skype for Business Meeting button if  
you wish to use Kickle."
```

You can also use the following cmdlets to adapt the message according to the exact location of the room.

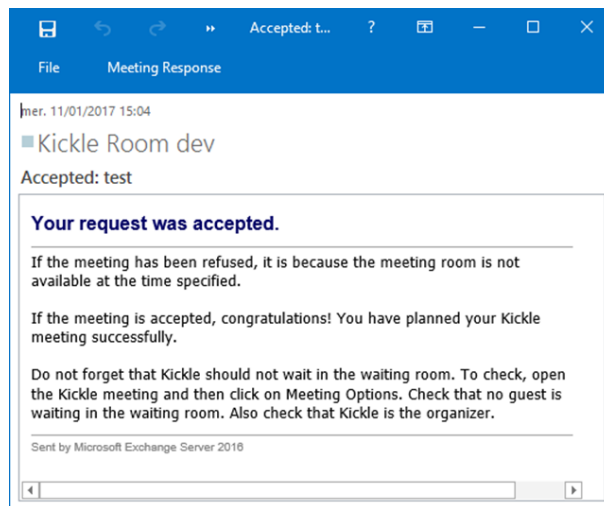
```
$Temp = Get-Mailbox $rm  
  
$Temp.MailTipTranslations += "ES: Esta sala de reuniones tiene una solución  
Kickle"  
  
Set-Mailbox -Identity $rm -MailTipTranslations $Temp.MailTipTranslations
```

4.1.7. Configuring the message received when a Kickle room is booked

You can configure the message that the meeting organizer will receive when booking the room by running the following cmdlet:

```
Set-CalendarProcessing -Identity $rm -AddAdditionalResponse $TRUE -  
AdditionalResponse "If the meeting has been refused, it is because the  
meeting room is not available at the time specified.<br><br>If the meeting  
is accepted, congratulations! You have planned your Kickle meeting  
successfully. <br><br>Do not forget that Kickle should not wait in the  
waiting room. To check, open the Kickle meeting and then click on Meeting  
Options. Check that no guest is waiting in the waiting room. Also check that  
Kickle is the organizer."
```

The message received by the organizer will be as follows:



4.1.8. Allowing a person outside the company to schedule a meeting

If you wish to enable the use of Kickle in "Planned Meeting" mode by somebody who does not belong to the company, run the command below:

```
Set-CalendarProcessing $rm -ProcessExternalMeetingMessages $true
```

Companies who want to use your Kickle must add your domain as a RemoteDomain. **The following commands must be executed on the Office 365 infrastructure of your partner.**

```
New-RemoteDomain -DomainName mycompany.com -Name mycompany.com
```

```
Set-RemoteDomain mycompany.com -TNEFEnabled $true
```

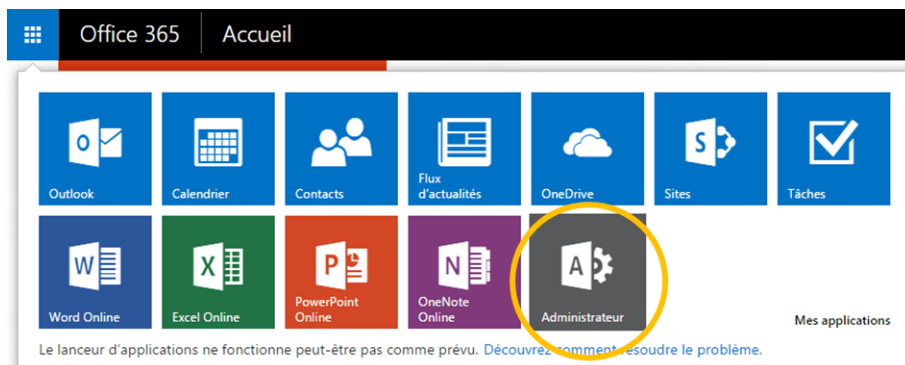
4.2. CREATING THE SKYPE FOR BUSINESS ONLINE (OFFICE 365) ACCOUNT

Once the Room Mailbox account for Exchange Online is created, it must be associated with a Skype for Business Online account.

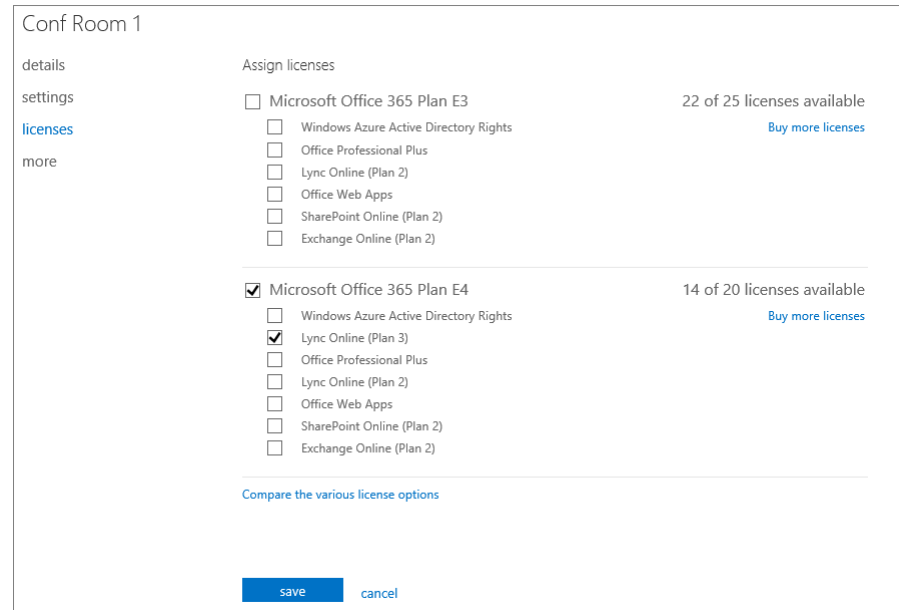
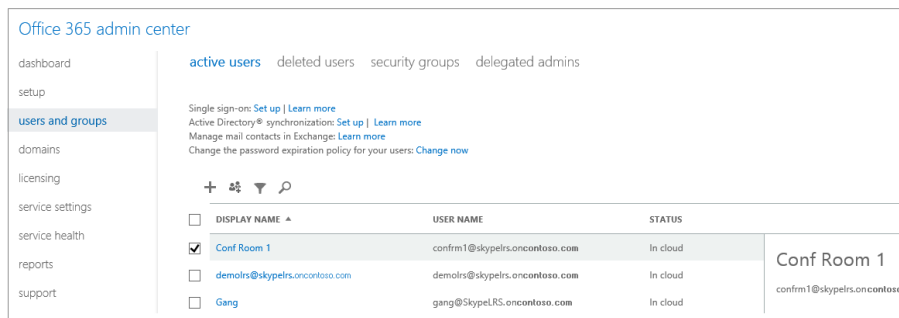
The steps below are the same for a new account or an existing account.

4.2.1. Assigning Skype for Business Online licenses

Log on to the Office 365 administration portal at <https://portal.office.com> and choose the "administrator" portal.



Then, assign the corresponding license (P2, P3 or E1, E3, E4 license)

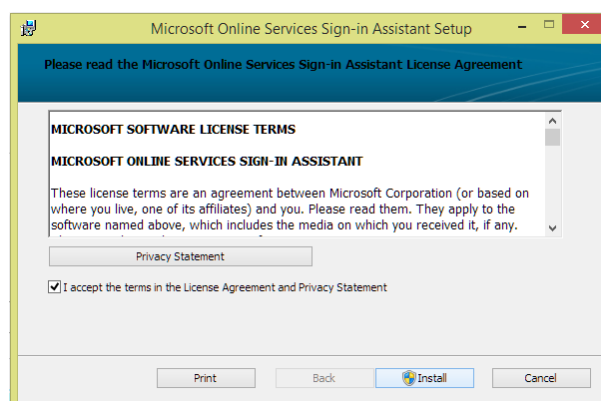


Once the license is assigned, check that the Skype for Business account works as intended by logging on to a Skype for Business client with this account.

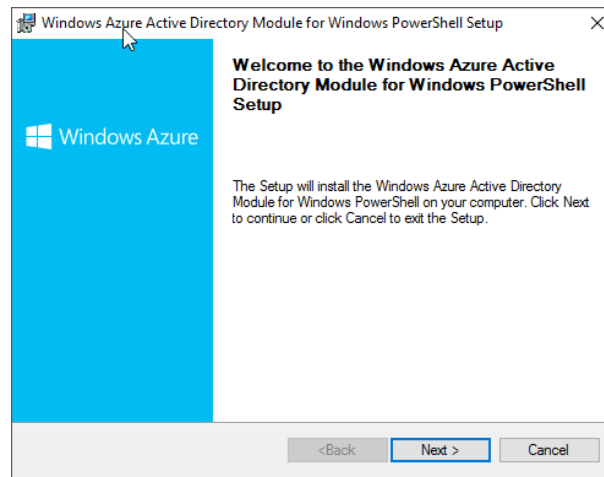
4.2.2. Update the password expiry policy

In Office 365, the default password expiry policy is 90 days. For Kickle however, it is imperative to change this to "Password Never Expires". Follow the following procedure step by step.

Install Microsoft Online Services Sign-In Assistant for IT Professionals RTW.

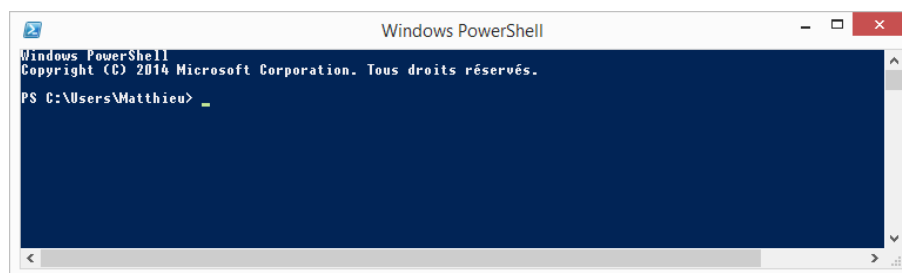
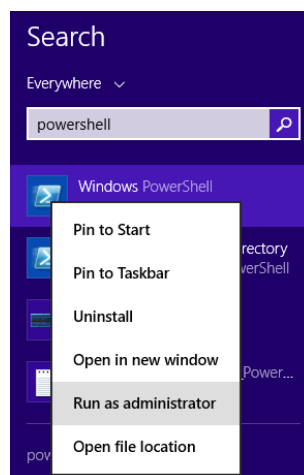


Finally, install Azure Active Directory Module for Windows PowerShell (64-bit version).



4.2.3.Launch PowerShell

Start PowerShell with the option "Run as an administrator".



For more information, please refer to the following TechNet article:

<https://technet.microsoft.com/fr-fr/library/bb978526.aspx>.

Run the following cmdlet :

```
Import-Module LyncOnlineConnector  
$cred=Get-Credential
```

Enter an Exchange Online username / password with administrator privileges.

```
$cssess=New-CsOnlineSession -Credential $cred  
Import-PSSession $cssess -AllowClobber
```

4.2.4.Password expiration Policy

Run the following cmdlet :

```
Connect-MsolService -Credential $cred
```

```
Set-MsolUser -UserPrincipalName KICKLE01@mycompany.com -PasswordNeverExpires $true
```

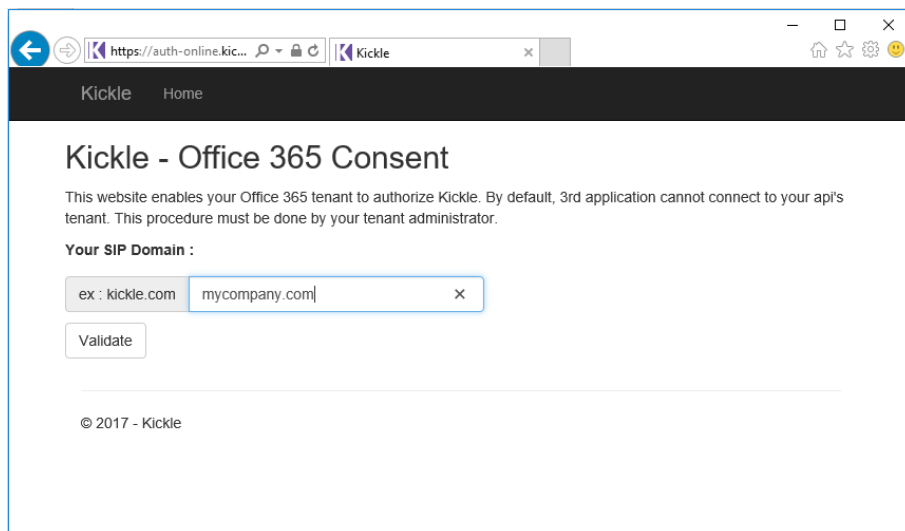
Refer to <http://technet.microsoft.com/en-us/library/dn362831.aspx> for more information.

4.3.OFFICE 365 CONSENT.

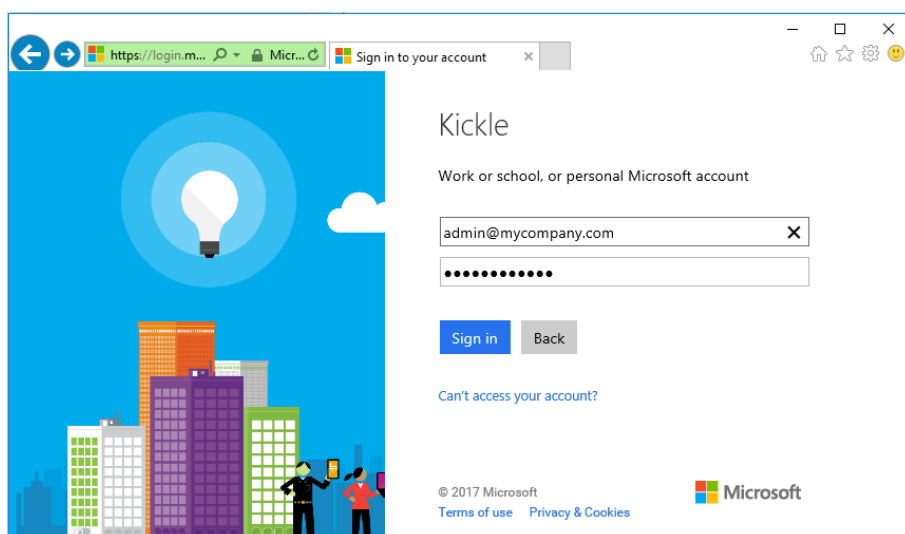
This paragraph applies to **Exchange Online and Skype for Business Online (Office 365) infrastructures only.**

Kickle use office 365 APIs. By default, 3rd applications are not authorized to authenticate to your office 365 tenant. The following procedure authorize Kickle to connect to your office 365 APIs.

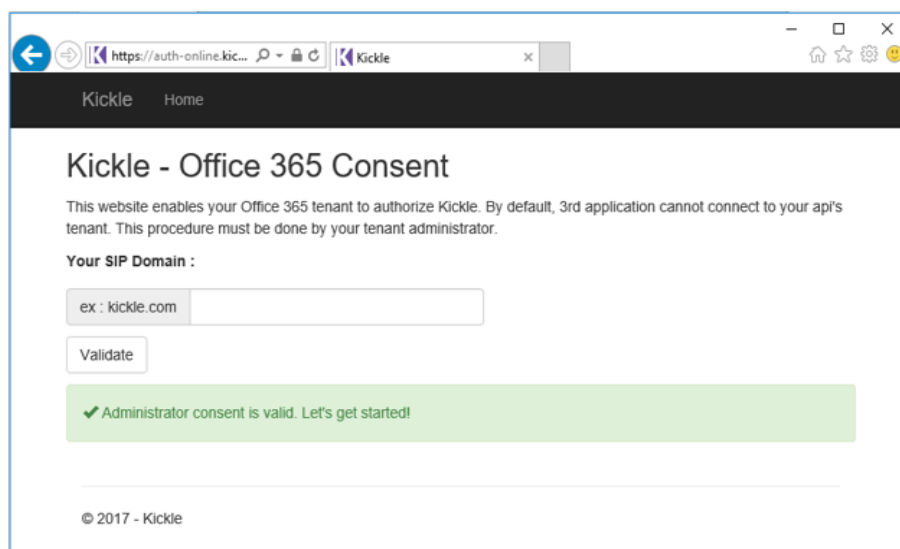
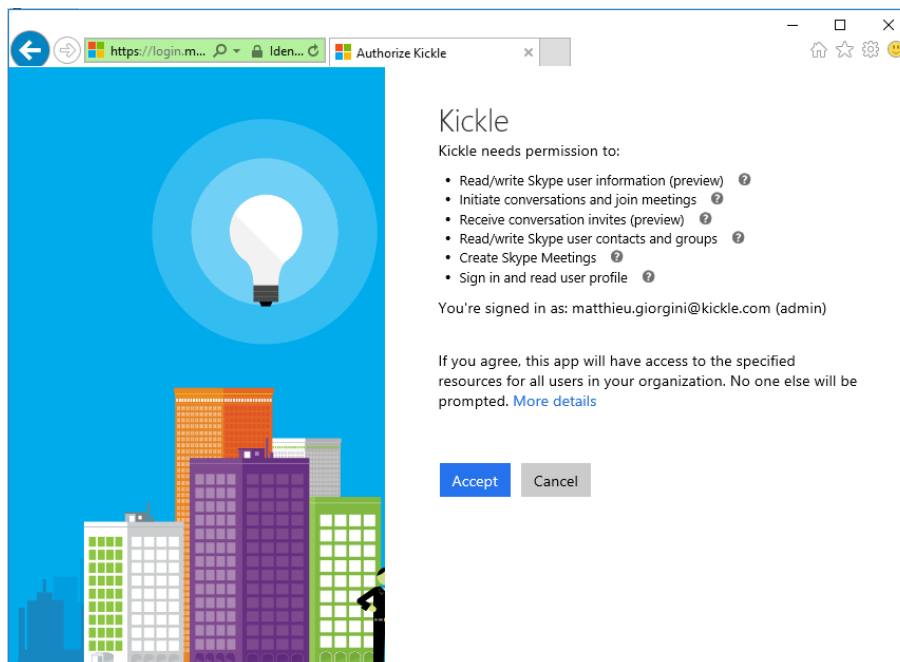
Go to <https://auth-online.kickle.com/> and fill your office 365 domain name.



Authenticate with an office 365 administrator account:



Click on “accept”:



5. CONFIGURING EXCHANGE ONLINE AND SKYPE FOR BUSINESS ON PREMISE (HYBRID)

This paragraph applies to **Exchange Online and Skype for Business On Premise infrastructures only**. If you are using another configuration, please refer to 3 Configuring Exchange On-Premise or 4 Configuring Exchange Online and Skype for Business Online (Office 365) accounts.

You must have sufficient rights to access your Office 365 using Exchange Remote PowerShell.

5.1.CREATING YOUR USER ACCOUNT

If you are using the directory synchronization feature, create your account on your local Active Directory and synchronize it with the cloud.

Sync Operation can be automatic (according to your configuration). You can force it by using the appropriate tools.

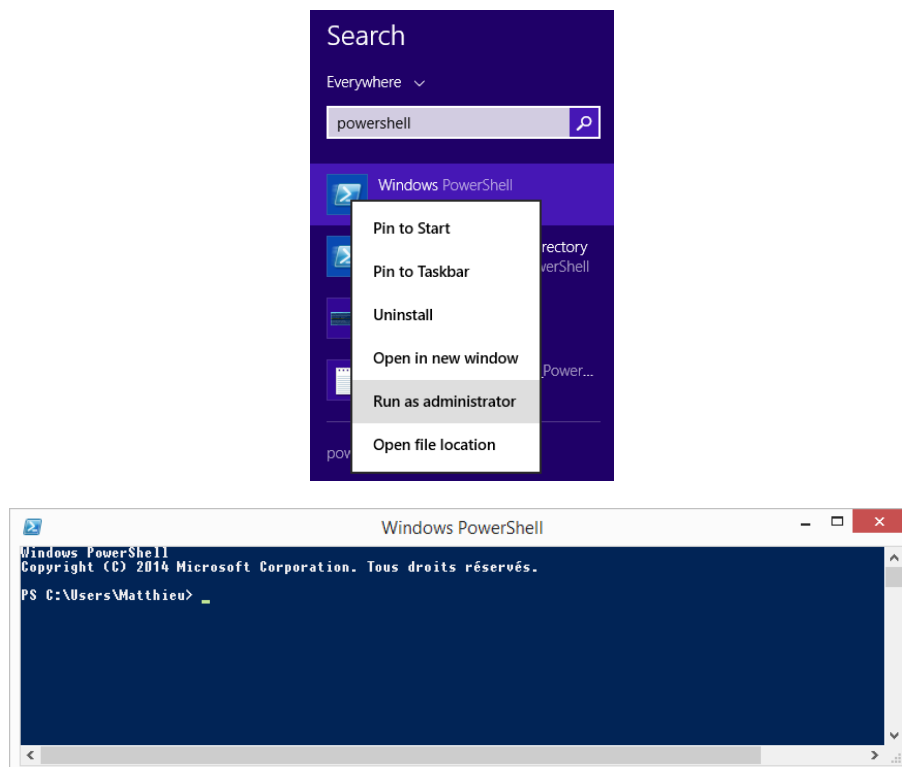
Once successfully synchronized with the cloud, enable the Exchange modality on this account

5.2.CREATING AND CONFIGURING A ROOM MAILBOX ACCOUNT FOR EXCHANGE ONLINE (OFFICE 365)

5.2.1.Starting PowerShell

The following commands are PowerShell commands. To launch PowerShell, simply search for PowerShell in the Search field in Windows 7 or Windows 8.

Start PowerShell with the option “Run as an administrator”.



For more information, please refer to the following TechNet article: <https://technet.microsoft.com/fr-fr/library/bb978526.aspx>.

5.2.2. Logging on to Exchange Online

To use an existing Room Mailbox account (KICKLE01 in the example below), run the PowerShell cmdlet below to log in to Exchange Online:

```
$UserCredential = Get-Credential
```

Enter an Exchange Online username / password with administrator privileges.

Then, run the cmdlet below to connect to your Exchange Online.

```
$Session = New-PSSession -ConfigurationName Microsoft.Exchange -  
ConnectionUri https://outlook.office365.com/powershell-liveid/ -Credential  
$UserCredential -Authentication Basic -AllowRedirection
```

Run the cmdlet below to import your session so you can run Exchange commands in your Exchange Online.

```
Import-PSSession $Session
```

5.2.3. Using an **existing** Room Mailbox account in Exchange Online (Office 365)

If you are already using a Room Mailbox account for the Kickle room, you can follow the steps below. However, we recommend that you delete and then recreate the account.

To use an existing Exchange account (KICKLE01 in this example), execute the following cmdlet:

```
$rm="KICKLE01@mycompany.com"  
  
$newpass='pass@word1'  
  
Set-Mailbox -MicrosoftOnlineServicesID $rm -room -Name "Kickle Room" -  
RoomMailboxPassword (ConvertTo-SecureString $newpass -AsPlainText -Force) -  
EnableRoomMailboxAccount $true
```

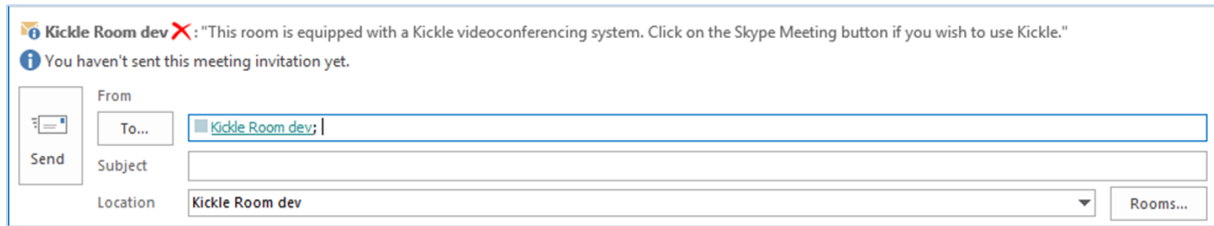
5.2.4. Configuring the Exchange Room Mailbox account

The cmdlet below will configure the Exchange Online account to accept or refuse meeting notifications automatically based on whether the room is available.

```
Set-CalendarProcessing -Identity $rm -AutomateProcessing AutoAccept -  
AddOrganizerToSubject $false -DeleteSubject $false -  
RemovePrivateProperty $false
```


5.2.5. Configuring MailTip

The MailTip reminds the organizer that the room is equipped with a Kickle videoconferencing system. The user must click on the “Skype for Business Meeting” button if he or she wishes to use Kickle.



```
Set-Mailbox -Identity $rm -MailTip "This room is equipped with a Kickle videoconferencing system. Click on the Skype for Business Meeting button if you wish to use Kickle."
```

You can also use the following cmdlets to adapt the message according to the exact location of the room.

```
$Temp = Get-Mailbox $rm  
  
$Temp.MailTipTranslations += "ES: Esta sala de reuniones tiene una solución Kickle"  
  
Set-Mailbox -Identity $rm -MailTipTranslations $Temp.MailTipTranslations
```

5.2.6. Configuring the message received when a Kickle room is booked

You can configure the message that the meeting organizer will receive when booking the room by running the following cmdlet:

```
Set-CalendarProcessing -Identity $rm -AddAdditionalResponse $TRUE -  
AdditionalResponse "If the meeting has been refused, it is because the  
meeting room is not available at the time specified.<br><br>If the meeting  
is accepted, congratulations! You have planned your Kickle meeting  
successfully. <br><br>Do not forget that Kickle should not wait in the  
waiting room. To check, open the Kickle meeting and then click on Meeting  
Options. Check that no guest is waiting in the waiting room. Also check that  
Kickle is the organizer."
```

5.2.7. Allowing a person outside the company to schedule a meeting

If you wish to enable the use of Kickle in "Planned Meeting" mode by somebody who does not belong to the company, run the command below:

```
Set-CalendarProcessing $rm -ProcessExternalMeetingMessages $true
```

Companies who want to use your Kickle must add your domain as a RemoteDomain. **The following commands must be executed on the Office 365 infrastructure of your partner.**

```
New-RemoteDomain -DomainName mycompany.com -Name mycompany.com  
Set-RemoteDomain mycompany.com -TNEFEnabled $true
```

5.3. SYNCHRONISATION

Once the Exchange modality has been added to the user, wait or force the synchronization between your local active directory and the cloud.

You can check the synchronization by looking the email properties in the DSA Console

5.4. CONFIGURING SKYPE FOR BUSINESS ON-PREMISE ACCOUNTS

Once you have configured the Room Mailbox account, use Skype for Business Server Management Shell to enable the Skype for Business account using the cmdlet below.

```
Enable-CsMeetingRoom -SipAddress "sip:KICKLE01@mycompany.com" -  
domaincontroller DC-ND-001.company.com -RegistrarPool SKYPE FOR  
BUSINESSPool115.company.com -Identity LRS01
```

Note: Skype for Business Server Management Shell is automatically installed on each Standard Edition Server or frontend Enterprise Edition Skype for Business Server. For more information, please refer to: <https://technet.microsoft.com/fr-fr/library/gg398474.aspx>.

6. NETWORK

6.1. SKYPE FOR BUSINESS ON PREMISE AND EXCHANGE ON PREMISE

The following table lists the protocol and port requirements for a Skype for Business On Premise and Exchange On Premise infrastructure.

(Note: These ports and protocols are the standards ports and protocols of a Skype for Business infrastructure).

Depuis	Vers	Service	Commentaires
Kickle	Infrastructure Skype for Business	443 (TCP (TLS))	Used for client-to-server SIP traffic for external user access.
Kickle	NA	443 (TCP (PSOM/TLS))	Used for external user access to web conferencing sessions.
Kickle	NA	443 (TCP (STUN/MSTURN))	Used for external user access to A/V sessions and media (TCP)
Kickle	NA	3478 (UDP (STUN/MSTURN))	Used for external user access to A/V sessions and media (UDP)
Kickle	Infrastructure Skype for Business	5061 (TCP (MTLS))	Used for client-to-server SIP traffic for external user access.
Kickle	Any	6891-6901 (TCP)	Used for file transfer between Skype for Business clients and previous clients (clients of Microsoft Office Communications Server 2007 R2, Microsoft Office Communications Server 2007, and Live Communications Server 2005).
Kickle	Any	1024-65535 * (TCP/UDP)	Audio port range (minimum of 20 ports required)
Kickle	Any	1024-65535 * (TCP/UDP)	Video port range (minimum of 20 ports required).
Kickle	Any	1024-65535 * (TCP/UDP)	Peer-to-peer file transfer (for conferencing file transfer, clients use PSOM).
Kickle	Any	1024-65535 * (TCP)	Application sharing.
Kickle	Infrastructure Skype for Business	443 (HTTPS)	Autodiscover Exchange
Kickle	any	80 (HTTP)	Quickassist
Kickle	any	443 (HTTPS)	Quickassist
Kickle	https://meetme.today/	443 (HTTPS)	Meetme.today
Kickle	https://update.kickleforskye.com	443 (HTTPS)	Update Kickle

For more information, please refer to the following TechNet article: <https://technet.microsoft.com/en-us/library/gg398833.aspx>.

6.2.SKYPE FOR BUSINESS ONLINE AND EXCHANGE ONLINE

The following table lists the protocol and port requirements for a Skype for Business Online and Exchange Online infrastructure:

Depuis	Vers	Service	Commentaires
Kickle (Ports TCP éphémères)	Office 365 for enterprises	443 (TCP)	SIP signaling
Kickle (Ports TCP éphémères)	Office 365 for enterprises	443 (TCP)	Persistent Shared Object Model (PSOM) connections web conferencing
Kickle (Ports TCP éphémères)	Office 365 for enterprises	443 (TCP)	HTTPS downloads
Kickle (TCP/UDP 50,000-50019)	Office 365 for enterprises	443 (TCP), 3478 (UDP), 50,000-59,999 (TCP/UDP)	Audio
Kickle (TCP/UDP 50,000-50019)	Office 365 for enterprises	443 (TCP), 3478 (UDP), 50,000-59,999 (TCP/UDP)	Video
Kickle (TCP/UDP 50,000-50019)	Office 365 for enterprises	443 (TCP), 50,000-59,999 (TCP)	Desktop sharing
Kickle	any	80 (HTTP)	Quickassist
Kickle	any	443 (HTTPS)	Quickassist
Kickle	https://meetme.today/	443 (HTTPS)	Meetme.today
Kickle	https://update.kickleforskye.com	443 (HTTPS)	Update Kickle

For more information, please refer to the following TechNet article: <https://technet.microsoft.com/en-us/library/hh852522.aspx>.

6.3.SKYPE FOR BUSINESS ON PREMISE AND EXCHANGE ONLINE

The following table lists the protocol and port requirements for a Skype for Business On Premise and Exchange On Premise infrastructure.

(Note: These ports and protocols are the standards ports and protocols of a Skype for Business infrastructure).

Depuis	Vers	Service	Commentaires
Kickle	Infrastructure Skype for Business	443 (TCP (TLS))	Used for client-to-server SIP traffic for external user access.
Kickle	NA	443 (TCP (PSOM/TLS))	Used for external user access to web conferencing sessions.
Kickle	NA	443 (TCP (STUN/MSTURN))	Used for external user access to A/V sessions and media (TCP)
Kickle	NA	3478 (UDP (STUN/MSTURN))	Used for external user access to A/V sessions and media (UDP)
Kickle	Infrastructure Skype for Business	5061 (TCP (MTLS))	Used for client-to-server SIP traffic for external user access.
Kickle	Any	6891-6901 (TCP)	Used for file transfer between Skype for Business clients and previous clients (clients of Microsoft Office Communications Server 2007 R2, Microsoft Office Communications Server 2007, and Live Communications Server 2005).
Kickle	Any	1024-65535 * (TCP/UDP)	Audio port range (minimum of 20 ports required)

Kickle	Any	1024-65535 * (TCP/UDP)	Video port range (minimum of 20 ports required).
Kickle	Any	1024-65535 * (TCP/UDP)	Peer-to-peer file transfer (for conferencing file transfer, clients use PSOM).
Kickle	Any	1024-65535 * (TCP)	Application sharing.
Kickle	Infrastructure Skype for Business	443 (HTTPS)	Autodiscover Exchange
Kickle	any	80 (HTTP)	Quickassist
Kickle	any	443 (HTTPS)	Quickassist
Kickle	https://meetme.today/	443 (HTTPS)	Meetme.today
Kickle	https://update.kickleforskye.com	443 (HTTPS)	Update Kickle

For more information, please refer to the following TechNet article: <https://technet.microsoft.com/en-us/library/gg398833.aspx>.

6.4.MIRROROP / WIRELESS DISPLAY

Mirrorop is the software/technology that Kickle uses for wireless display. Mirrorop uses the following TCP and UDP ports:

Protocol	Usage	Ports
TCP	Command	443
		3268
		389
	Data	8080
		31865
		515
	Audio	1688
UDP	Activation	TCP 8000
	Device discovery	1047
		1048
		1049

6.5.BANDWIDTH

Media	Typical Codec	Typical Stream Bandwidth (Kbps)	Maximum stream bandwidth without FEC	Maximum stream bandwidth with FEC
Audio	G.722	46.1	100.6	164.6
Audio	Siren	25.5	52.6	68.6
Main video receive	H.264 and RTVideo ¹	260	8015	Not applicable
Main video send	H.264 and RTVideo	270	8015	Not applicable
Panoramic video receive	H.264 and RTVideo	190	2010 (for maximum resolution of 1920x288)	Not applicable
Panoramic video send	H.264 and RTVideo	190	2515 ²	Not applicable

For more information, please refer to the following TechNet article: <https://technet.microsoft.com/fr-fr/library/gg425841.aspx>.

6.1. IF YOU USE A PROXY.

We **strongly** recommend you to bypass your proxy with a specific rule. Proxy configuration is very complex within a Skype for Business infrastructure.

7. CONNECTING AND CONFIGURING KICKLE

7.1.BEFORE CONNECTING KICKLE

Each Kickle is embedded with its own website and settings GUI. First, ensure that Kickle is on a DHCP network. Then, make sure that your computer is on the same sub-network.

7.2.SETTING UP KICKLE

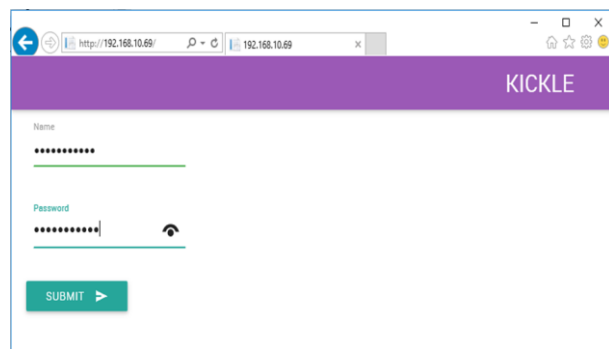
- Connect Kickle to the screen's HDMI port.
- If the screen is a touchscreen, connect the touchscreen source to Kickle via USB. If not, connect a USB mouse.
- Connect the camera and the microphone to the USB ports **at the back of Kickle**.
- Start Kickle.

The embedded website of Kickle starts automatically.

Ask Kickle support team to get the admin account and the password (<http://support.kickle.com>).

You can change the password at any time (see chapter 10).

You can also browse to your Kickle website (<http://ip-address-of-kickle>) from another computer on the same sub-network. Reconnect using the administrator account.



Then, complete the fields in the Web GUI:

- The **username** is the SIP address.
- The **login** is the associated AD account.
(if you use Skype for Business Online / Office 365, username and login are the same).
- The **Exchange login** is the associated AD account.
(if you use Skype for Business Online / Office 365, leave these fields blank).

Authentication

Username	<input type="text" value="kickle.roomdev@kickle.com"/>
Login	<input type="text" value="kickle.roomdev@kickle.com"/>
Password	<input type="password" value="....."/>
Office 365 Account	False <input checked="" type="checkbox"/> True
Phone compatibility	False <input type="checkbox"/> True
Exchange login	<input type="text"/>
Exchange mail	<input type="text"/>
Exchange password	<input type="password"/>
<input type="button" value="SAVE"/>	

Specify the type of network connection: DHCP or fixed IP.

Caution: If you choose fixed IP, you must ensure that Kickle remains accessible. Changing the IP address takes effect immediately.

Network

Network Type	DHCP <input type="button" value="v"/>
DNS Suffix	<input type="text"/>
IPv4	<input type="text" value="192.168.10.69"/>
IPv6	<input type="text"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.10.1"/>
DNS1	<input type="text" value="192.168.10.1"/>
DNS2	<input type="text" value="Enabled"/>

Type the **Exchange webservice** URL.

Webservice Exchange

Web Service Address	<input type="text" value="https://outlook.office365.com/EWS/Exchange.asmx"/>
<input type="button" value="SAVE"/>	

Configure proxy settings, if applicable.

We **strongly** recommend you to bypass your proxy with a specific rule. Proxy configuration is very complex within a Skype for Business infrastructure.

Proxy settings

Proxy

Proxy

Does your proxy require credentials? ☐ False ☒ True

Proxy's login

Proxy's password

Proxy pac

Use automatic configuration script ☐ False ☒ True

Proxy pac URL

Proxy exclusions

Proxy exclusion

SAVE PROXY SETTINGS

Type the **NTP servers** if needed.

System informations

Kickle Name KRL03281216PT

Current Kickle Version 2.0.16358.02 (It's the latest version)

Ethernet Mac Address F4:4D:30:65:53:18 (Operational Status is UP)

Wifi Mac Address 00:C2:C6:F2:40:54

Language English ▼

NTP Server(s) s345.com

ADD

hello.com

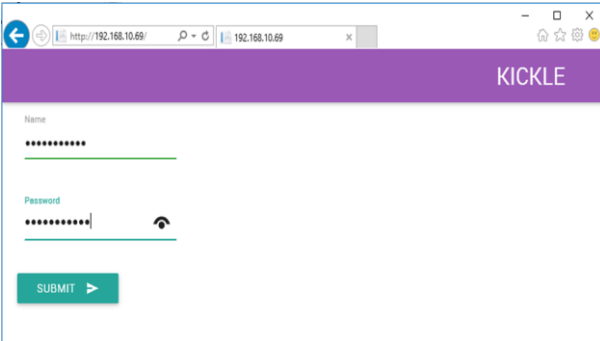
You will need to restart Kickle to apply the new configuration settings.

8. UPDATING KICKLE.

From another computer on the same sub-network or through the Kickle embedded browser, browse to your Kickle website (<http://ip-address-of-kickle>). Reconnect using the administrator account.

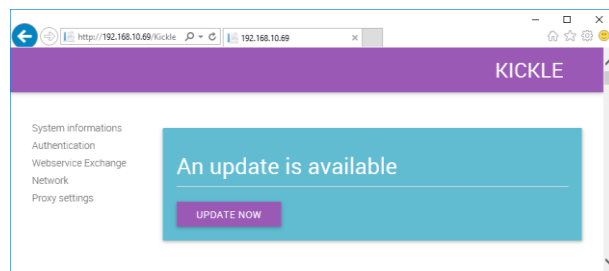
Ask Kickle to get the admin account and the password (<http://support.kickle.com>).

You can change the password.

A screenshot of a web browser window showing the Kickle login interface. The browser's address bar displays 'http://192.168.10.69/'. The page has a purple header with the word 'KICKLE' in white. Below the header, there are two input fields: 'Name' and 'Password', both with masked text (dots). A green 'SUBMIT' button with a right-pointing arrow is located below the password field. The browser window includes standard navigation and status bar icons.

If an update is available, the **update now** button will appear.

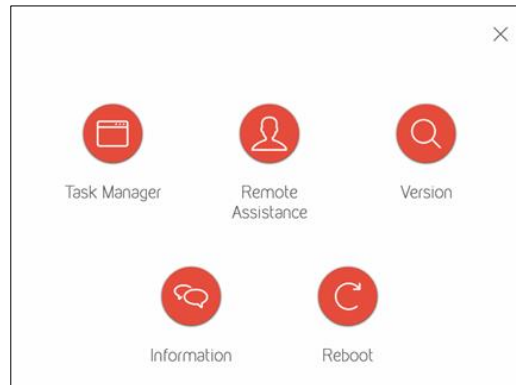
Click on **update now**. Update will download and install automatically. A reboot may be required.



9. HELP MENU AND REMOTE ASSISTANCE

9.1.HELP MENU

At any time, you can display the “help menu” by pressing **ctrl + tab** keys on the keyboard (virtual or real).



From the “help menu”, you can:

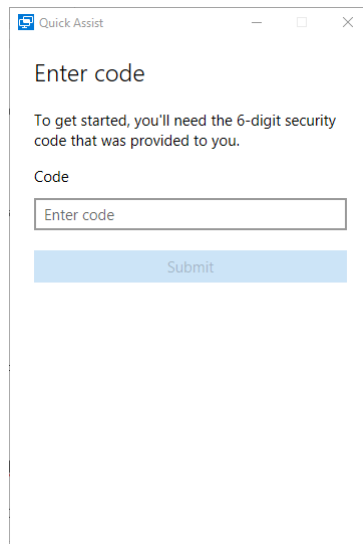
- Start the **Task Manager**.
- Start the **Remote Assistance** (see paragraph 9.2).
- Display the Kickle **Version**.
- Display technical **Information** (such as IP address, Kickle name, Skype account).
- **Reboot** the Kickle.

9.2.REMOTE ASSISTANCE USING MICROSOFT QUICK ASSIST.

Microsoft Quick Assist is a Windows 10 app that enables Kickle users to share their Kickle screen through a remote connection so that a technician can help resolve their problems.

9.2.1.How to use Remote Assistance (Quick Assist) from Kickle.

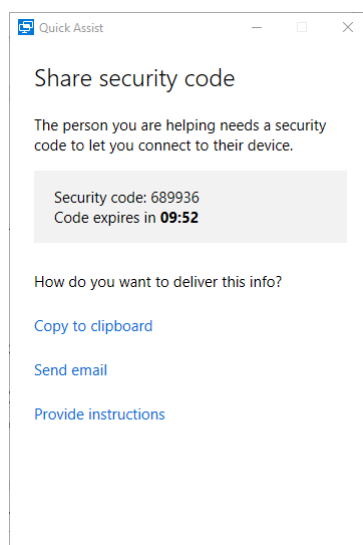
Start Quick Assist from the “help menu” by pressing the **ctrl + tab** keys on the keyboard (virtual or real). Then click on **Remote Assistance**.



9.2.2.How to use Quick Assist from a remote computer.

Quick Assist is only available for Windows 10 at this time.

On your Windows 10 computer, select the **Start** button > **Windows Accessories** > **Quick Assist**, or select the search box on the taskbar and type Quick Assist. Then select **Quick Assist** in the list of results. Finally, select **Give Assistance**.

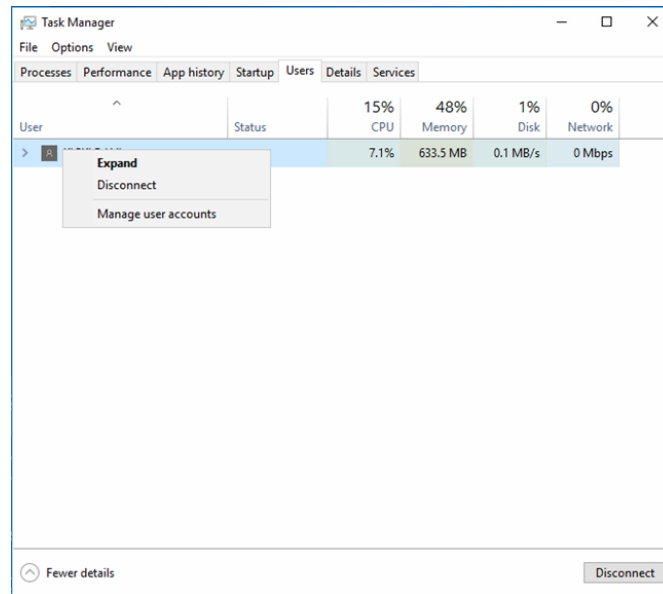


Ask the Kickle user to enter the security code (see paragraph9.2.1).

10. CUSTOMIZING SECURITY SETTINGS.

If you need to apply your own security policy settings or install your own management and security tools, you can log into Kickle as an administrator.

Start **Task Manager** from the "help menu" by pressing the **ctrl + tab** keys on the virtual keyboard. Then, select the **Users** tab, right-click on the KICKLE user, and select **Disconnect**.



Login to Windows using the administrator account. Ask Kickle to retrieve the administrator account and the password (<http://support.kickle.com>). Now you can change the password.

Once logged in, you can configure your own security policy settings or install your own management and security tools.

Before modifying any security policy setting or installing any software, contact the Kickle support team (<http://support.kickle.com>) to make sure there is no conflict.