# How to install /configure Workspace One ?

Our setup will have one UI (user interface server with database) and two connector servers

Basically UI and connectors come as OVA formal appliance. you can download them from my VMware portal based on your account access.

Connect to your Vcenter server and deploy OVA files as below guide.

#### **Deploy manager OVA**

🕝 Deploy OVF Template	_		×
Source			
Select the source location.			
Source			
OVF Template Details			
Name and Location			
Resource Pool			
Disk Format	Deploy from a file or URL		
Ready to Complete			
	Enter a UDI to develop and install the OUT and one from the Trians	1	
	Enter a UKL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a		
	network share, or a CD/DVD drive.		
	≤Back Next ≥	Car	ncel

Select file from browse menu and select Next

🕝 Deploy OVF Template			_		×
OVF Template Details Verify OVF template details.					
Source					
OVF Template Details End User License Agreement	Product:	IdentityManager			
Name and Location  Host / Cluster	Version:	2.7.0.0			
Resource Pool Disk Format	Vendor:	VMware, Inc.			
Properties Ready to Complete	Publisher:	🦁 VMware, Inc.			
	Download size:	3.1 GB			
	Size on disk:	4.4 GB (thin provisioned) 60.2 GB (thick provisioned)			
	Description:				
			≤Back Next ≥	Ca	ncel

Click next

🕗 Deploy OVF Template	-			×
End User License Agreement Accept the end user license a	greements.			
Source OVF Template Details				
End User License Agreeme				
Name and Location	VMWARE END USER LICENSE AGREEMENT			<u></u>
Host / Cluster				
Resource Pool	PLEASE NOTE THAT THE TERMS OF THIS END USER LICENSE			
Disk Format	AGREEMENT SHALL GOVERN YOUR USE OF THE SOFTWARE,			
Properties	INSTALLATION OF THE SOFTWARE.			
Ready to Complete				
	IMPORTANT-READ CAREFULLY: BY DOWNLOADING, INSTALLING,			
	ENTITY) AGREE TO BE BOLIND BY THE TERMS OF THIS END LISER			
	LICENSE AGREEMENT ("EULA"). IF YOU DO NOT AGREE TO THE			
	TERMS OF THIS EULA, YOU MUST NOT DOWNLOAD, INSTALL, OR			
	USE THE SOFTWARE, AND YOU MUST DELETE OR RETURN THE			
	ACQUIRED IT WITHIN THIRTY (30) DAYS AND REQUEST A REFUND			
	OF THE LICENSE FEE, IF ANY, THAT YOU PAID FOR THE			
	SOFTWARE.			
	EVALUATION LICENSE. If You are licensing the Software for evaluation			
	purposes. Your use of the Software is only permitted in a non-production			
	environment and for the period limited by the License Key.			
	Notwithstanding any other provision in this EULA, an Evaluation License of			
	the Software is provided "AS-IS" without indemnification, support or			
	warranty of any kind, expressed or implied.			
	1. DEFINITIONS.			
	1.1 "Affiliate" means, with respect to a party at a given time, an entity			
	that then is directly or indirectly controlled by, is under common control			
	with, or controls that party, and here "control" means an ownership, voting			
	or similar interest representing fifty percent (50%) or more of the total			
				~
	,			
< >	Accept			
	<u>≤</u> Back Next ≥	1	Can	cel

Ac	cept and select Next		
🕝 Deploy OVF Template	_		×
Name and Location Specify a name and locatio	n for the deployed template		
Source	Name:		
OVF Template Details	xtra-ws1-ui		
End User License Agreement	, The name can contain up to 80 characters and it must be unique within the inventory fold	er.	
Host / Cluster			
Resource Pool Disk Format Properties Ready to Complete	Inventory Location: Core DESKTOP Discovered virtual machine MGMT WS1		
	≤ Back Next ≥	C	ancel

Give some  $\ensuremath{\textit{name}}$  to your appliance  $\ensuremath{\textit{select}}$  your fodler location  $\ensuremath{\textit{and}}$  select  $\ensuremath{\textit{next}}$ 

🕝 Deploy OVF Template		_		×
Host / Cluster				
On which host or cluster do	you want to run the deployed template?			
Source	🖂 📗 xtra-virtual			
OVF Template Details	prod			
End User License Agreement				
Host / Cluster				
Specific Host				
Resource Pool				
Disk Format				
Properties				
Ready to Complete				
	J			
	1			. 1
	<u> </u>	t≥	Can	cel
				//

#### Select cluster /host and hit next

🕝 Deploy OVF Template								_		×
Storage Where do you want to stor	e the virtual ma	chine files?								
where do you want to stor										
Source	Select a destin	ation storage f	or the virtua	l machine fil						
OVF Template Details	Neme	Drive Ture			uistand	<b>F</b>	Turne		This Desuis	1
End User License Agreement	Name	Drive Type	Cap	Dacity   Prov	visioned	Free	VMECE	_	Fundated	sioning
Name and Location							VMESS		Supported	
Storage							VMFS5		Supported	
Disk Format							VMFS5	1	Supported	
Network Mapping							VMFS5	;	Supported	
Properties Ready to Complete										
Ready to complete										
	<									>
	1.									-
	🗖 Disable S	torage DRS for	this virtual r	machine						
	Select a data	istore:								
	Name	Dri	ve Type	Canacity	Provisioned	1	Free	Type	Thi	n Provi
	Indille		ve type	capacity	FIOVISIONEU		i i ce	Type	[ 100	FION
							-			
										>
					< Pad		Nevt		Can	
					<u><u><u> </u></u></u>	×	Next	2	Can	

Select Datastore where you want to put your VM

Deploy OVF Template	_		×
Disk Format In which format do you want to store the virtual disks?			
Source         Datastore:           OVF Template Details         Datastore:			
End User License Agreement Name and Location Available space (GB): 1614.7			
E       Host / Cluster         Storage       Disk Format         Network Mapping <ul> <li>Thick Provision Lazy Zeroed</li> <li>Thick Provision Eager Zeroed</li> <li>Ready to Complete</li> <li>Thin Provision</li> </ul>			
<u>≤</u> Back Next	≥	Can	:el

# Select thin provision as storage policy and hit next

🕝 Deploy OVF Template			_		×
Network Mapping	deployed template use?				
what networks should the	deployed template use?				
Cauran					
OVF Template Details	Map the networks used in this OV	F template to networks in your inventory			
End User License Agreement Name and Location	Source Networks	Destination Networks	1		
Host / Cluster     Storage	Network 1	workspaceone_lab			<b>-</b>
<u>Disk Format</u> Network Mapping					
Properties Ready to Complete					
Ready to complete					
	Description:				
	Network 1				
					~
1			Nexts	-	
		<u>&lt;</u> Back	Next >	Car	

# Select network port group where you want to place your VM and hit Next

🕝 Deploy OVF Template	- 0	×
Properties Customize the software solution	on for this deployment.	
Source OVF Template Details End User License Agreement Name and Location Host / Cluster Storage Disk Format Network Mapping Properties Ready to Complete	The default gateway address for this VM. Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [172.17.251.254         Domain Name         The domain name of this VM. Leave blank if DHCP is desired.         ktra-virtual.com         Domain Search Path         The domain name servers Path (comma or space separated domain names) for this VM. Leave blank if DHCP is desired.         DNS         The domain name servers for this VM (comma separated). Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [172.17.251.12         IP Address         The IP address for this interface. Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [172.17.251.10         Netmask         The netmask or prefix for this interface. Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [172.17.251.10         Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [172.17.251.10         Leave blank if DHCP is desired. All fields but hostname are required for static IP.         [255.255.255.0]	
	<u>≤</u> Back Next ≥	Cancel

Provide FQDN, IPV4 information, DNS and hit next

🕝 Deploy OVF Template		_		×
Ready to Complete				
Are these the options you	want to use?			
Source				
OVF Template Details	When you click Finish, the deployment	task will be started.		
End User License Agreement	Deployment settings:			
Host / Cluster				
Storage		4450		
<u>Disk Format</u>	Size on disk:	4.4 GD		
Network Mapping	Folder	XUI d-WSI-UI		
Properties Ready to Complete	Host/Cluster	prod		
Keady to complete		pice		
	Disk provisioning:	Thin Provision		
	Network Mapping:	"Network 1" to "workspaceone_lab"		
	Property:	vamitimezone = Etc/UTC		
	Property:	ceip.enabled = True		
	Property:	vami.hostname = xtra-ws1-ui.vmware.com		
	Property:	gateway = 172.17.251.254		
	Property:	domain = xtra-virtual.com		
	Property:	searchpath =		
	Property:	DNS = 172.17.251.12		
	Property:	ip0 = 172.17.251.10		
	Property:	netmask0 = 255.255.255.0		
	Power on after deployment			
		. 1	1	. 1
		<u>≤</u> Back Finish	Ca	ncel
				//

## Select Power on after deployment and hit finish

Follow same steps to deploy N number of connector appliance as well. for our case we will use N=2

Once we have deployed all are UI and connector servers, it is time to configure them.

#### Configuration of UI + Database server

Access UI FQDN over port 443 for first configuration page. Ignore SSL error as we are using Self signed certificates only.



Select **Proceed** to the next page.



## Select continue on the database configuration page, reset all passwords and hit Continue

🛛 🥅 VMware Identity Manager 🗧 🗙			23
	ii.xtra-virtual.com:8443/cfg/setup	☆	]:
Cat Stated	Set Pacewords		^
Get Statted     Set Passwords     Select Database	Appliance Administrator Account		
Setup Review	Enter the password for Appliance Administrator Account (admin). Login as "admin" to manage appliance se Password length must be at least 6 characters.	ttings.	
	Username admin		
	Confirm Password X		
	Appliance Root Account		
	Change the VMware default "root" user password that gives full rights to the appliance. Username		
	Password X		
	Remote User Account		
	Enter the password that is used to log in to the appliance with an SSH connection.		
	Username sshuser		•

File View VM  File View VM V	ð
VMware Identity Manager x	- @   :
R VMware Identity Managers x	ð
← → C 🔺 https://ws1-ui.xtra-virtual.com:8443/cfg/setup	\$
Change the VMware default "root" user password that gives full rights to the appliance.	
Usemame root	
Password	
Confirm Password	
Remote User Account	
Enter the password that is used to log in to the appliance with an SSH connection.	
Usemame sshuser	
Password	
Confirm Password	
Go Back Continu	
VMware Identity Manager™ 2.7.0.0 Build 3840538. Copyright © 2013-2016 VMware, Inc. All rights reserved. This product is protected by copyright and intelle	tual

Select internal Database and hit **continue**, you can use **external Database** using external Database option, Provide **JDBS url**, database **username** and **password** to configure

<b>m</b> ware <sup>.</sup>		Welcome Admin   🕑 Help
<ul> <li>Get Started</li> <li>Set Passwords</li> <li>Select Database</li> <li>Setup Review</li> </ul>	Select Database Database Type JDBC URL Database Usemame	<ul> <li>Internal Database</li> <li>External Database</li> </ul> Postgres DB: jdbc:postgresqt:// <db_host>/<db_sid>?stringtype=unspecified</db_sid></db_host>
	Database Password	Test Connection



Wait for some time, till you get below page which means UI + DB are configured



Now it is time to **configure connectors to UI server** and adding the **directory** information to be used click **login to the administration console** 



Use Admin as username and password you set in initial configuration

VMware Workspace ONE ×	
← → C ▲ https://ws1-ui.xtra-virtual.com/S	SAAS/t/ws1-ui/auth/login?login?dest=https://ws1-ui.xtra-virtual.com/SAAS/t/ws1-ui/admin/
	Workspace ONE
	admin
	Circuit in
	Sign m
	Forgot password?
	VIIIWale

VMw	are Workspace ONE 🛛 🗙 🗸	Privacy error	×					<u> </u>
$\leftrightarrow$ $\rightarrow$	C A https://ws1-ui.	xtra-virtual.com/SAAS/t/	ws1-ui/admin/identity					☆
	Workspace ONE					Lo	cal Admin 👻 💦	WS1-UI
Dashb	ooard 👻 Users & G	roups Catalog 👻	Identity & Access M	anagement Appli	ance Settings	i users, groups o	r applications	
Connec	ctors Custom Brandi	ing User Attributes	Network Ranges	Auto Discovery	AirWatch	Preferences	Manage	Setup
	Connectors (1)						Add Connector	
	Host Name	Worker	Identity Provider	Authentication	M Assoc	iated Direc	Available Actions	
	Host Name: ws1- ui.xtra-virtual. com	ws1-ui.xtra- virtual.com					Join Domain	
	Port: 8443							
	Version: 2.7.0.0 Build 3840538							
	Domain:							

Click Setup and you will land to the below page select add connector

Add connector FQDN in connector ID Name and generate activation code

Connector ID Name*     West-con1_Xtra-virtual.com     Connector Activation     Connector Activation     Connector Activation     Connector ID Name*     West-con1_xtra-virtual.com     Connector ID Name*     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com     Vest-con1_xtra-virtual.com	. / 💦 🗤	Iware Work	space ONE 🗙 🛛 🖹 Priv	acy error	×/				8	
Workspace ONE       Local Admin       WSrt-Local Admin       WSrt-Local Admin       WSrt-Local Admin       Mappliance       Selection       WSrt-Local Admin       WSrt-Local Admin       Mappliance       Selection       Manage       Selection	$\leftarrow \; \rightarrow \;$	C 🚺	https://ws1-ui.xtra-vi	rtual.com/SAAS/t/	ws1-ui/admin/identity	1				☆
Dashboard       Users & Groups       Catalog       Identity & Access Management       Appliance Suggest users, groups or applications         Connectors       Custom Branding       User Attributes       Network Ranges       Auto Discovery       AirWatch       Preferences       Manage       Seture         Add a Connector       Add the connector name and click Generate Activation Code. The connector activation code is used to establish communication between your service and the connector. Copy the activation code and apply it to your connector setup.       Connector ID Name*       ws1-con1 xtra-virtual com         Connector Activation	<mark>8</mark> 8 m 8	Works	pace ONE					Local	Admin - 📈	WS1-UI
Connectors       Custom Branding       User Attributes       Network Ranges       Auto Discovery       AirWatch       Preferences       Manage       Seture         Add a Connector       Add the connector name and click Generate Activation Code. The connector activation code is used to establish communication between your service and the connector. Copy the activation code and apply it to your connector setup.       Connector ID Name*       ws1-con1.xtra-virtual.com         Code       .       .       .       .       .       .       .       .         1. Launch the Connector tool       .       .       .       .       .       .       .       .       .	Das	hboa rd	✓ Users & Groups	Catalog 👻	Identity & Access M	anagement App	pliance Settings	h users, groups or a	oplications	
Add a Connector         Add the connector name and click Generate Activation Code. The connector activation code is used to establish communication between your service and the connector. Copy the activation code and apply it to your connector setup.         Connector ID Name*       ws1-con1_xtra-virtual.com         Connector Activation Code	Conn	ectors	Custom Branding	User Attributes	Network Ranges	Auto Discovery	AirWatch	Preferences	Manage	Setup
Conserve Antipotion Code		Add bet Cor Cor	d a Connector I the connector name ween your service and unector ID Name* unector Activation le	and click Generat I the connector. C ws1-con1 xtra 1. Launch the C 2. Copy + paste	e Activation Code. Th opy the activation cod a-virtual com Gonnector tool e the Activation code wi	e connector activa de and apply it to y	ation code is us your connector	ed to establish con setup.		

You will need this activation code when you will configure the connectors for the first time

					O Sear	husers groups or a		1101-
Dashboard onnectors	rd → Users & Groups s Custom Branding	Catalog - User Attributes	Identity & Access M Network Ranges	Auto Discovery	ance Settings AirWatch	Preferences	Manage	Setu
	Add a Connector							
		and all the One						
	Add the connector name between your service and	d the connector. C	e Activation Code. Tr opy the activation co	de and apply it to yo	on code is us ur connector	setup.	mmunication	
	Connector ID Name*	ws1-con1.xtra	a-virtual.com					1
								2
	Connector Activation	eyJvdGEiOilz		RNM2huSEIINGM1R	Uddcmv3pv		joiaHR0cHM6Lys	20
	Connector Activation Code	ey <mark>JvdGEiOil</mark> zi	OINROGVGeFNKUK	RNM2huSEIINGM1R	UaqcmV3bV	-ZNWJWIWIAXJSIJ	joiaHR0cHM6Lys	
	Connector Activation Code	ey <mark>JvdGEiOil</mark> Zi	OINROGVGEFNKUK	RNM2huSEllNGM1R	Uadcmv3bv	-ZNWJWIIWIQXJSIJ	joiaHR0cHM6LyS	•
	Connector Activation Code	eyJvdGEiOilz 1. Launch the C 2. Copy + paste	onnector tool • the Activation code w	RNM2huSEIINGM1R	Uaqemv3bv	- ZNWJWIWIQXJSIJ	jolaHROcHM6LyS	,
	Connector Activation Code	ey.JvdGElOilze	OINROGVGEENKUK onnector tool the Activation code w	RNM2huSEIINGM1R	Uaqemv3bv	- ZNWJWIWIQXJSIJ	olaHR0cHM6Lys	•

Make note of the **activation code** and **hit ok** and you should get activation code for all connector services.



Connector configuration: now it is time to configure for the first time

Open https://fqdn of connector servers that will open configuration page as below



Activate Connector	Appnance Administ	rator Account		
Setup Review	Enter the password for Password length mus	or Appliance Adminis at be at least 6 chara	trator Account (admin). Login as "admin" ters.	to manage appliance settings
	Username	admin		
	Password			
	Confirm Password		×	
	Appliance Root Acc	ount default "root" user pa	ssword that gives full rights to the applia	DCe.
	Username	root	source and gree run ingite to the applia	
	Password			
	Confirm Password	••••••	~	
	Remote User Accou	nt		
	Enter the password the	hat is used to log in t	o the appliance with an SSH connection.	
	Username	sshuser		
	Password	•••••		
	Confirm Baseword			

Set passwords as we did for UI server, and next page you need to put your activation code

<b>vm</b> ware		Help
<ul> <li>Get Started</li> <li>Set Passwords</li> <li>Activate Connector</li> <li>Setup Review</li> </ul>	Activate Connector	e that you generated in the VMware Identity Manager administration console.
	Activation Code	eyJvdGEiOilzOINROGVGeFNKUkRNM2huSEIINGM1RUdqcmV3bVFZ WJWIiwidXJsljoiaHR0cHM6Ly93czEtdWkueHRyYS12aXJ0dWFsLmNv S8iLCJ0aWQiOiJ3czEtdWkifQ==

You need to use respective **activation code** that you have noted during addition of connectors to the UI server



After hitting continue you will land to below page with and error

	_	
<ul> <li>Get Started</li> <li>Set Passwords</li> <li>Activate Connector</li> <li>Setup Review</li> </ul>	Activate Connector Add the connector activation cod Activation Code Root CA Certificate	e that you generated in the VMware Identity Manager administration consol eyJvdGEIOIIZOINROGVGeFNKUkRNM2huSEIINGM1RUdqcmV3bV WJWIwidXJsIjoiaHR0cHM6Ly93czEtdWkueHRyYS12aXJ0dWFsLn S8iLCJ0aWQIOIJ3czEtdWkifQ==

This error is due to **certificate error**; you need to update **Root CA** that is from **UI server** for that you need to go back to **UI appliance** configuration. Click **appliance settings** 

shboard 👻 Users	& Groups	Catalog - Identity & Access Management Appliance Strangen users, groups or applications
VA Configuration	>	Virtual Appliance Configuration
License	>	Virtual Appliance System Configuration
		Configure FQDN     Configure a syslog server     Change your Identity Manager password     Change your system passwords     View log file locations and download the log bundle     Manage Configuration

Manage Configuration > that will open another page with appliance configuration as below

<b>n</b> ware				Welcome Admin	🕐 Help	Log out
Database Connection	×	Database	Connection Setup			
Install Certificate	>	Database Type	Internal Database			
Identity Manager FQDN	>		External Database			
Configure Syslog	>	JDBC URL		10. mil		
Change Password	>	-	Postgres DB: jdbc:postgresql:// <db_host>/<db_sid>?stringtype=unspecifie</db_sid></db_host>	ed		
System Security	>	Database Username				
Log File Locations	>	Database				

Click on **Install Certificate** and copy the **SSL certificate chain** this is the Root SSL we need to put on the connector Page .

<b>n</b> ware		Welcome Admin   ⓒ Help   Log o
Database Connection	>	Install Certificate
Install Certificate	>	Terminada PPI en Ideatite Manager (malianea)
Identity Manager FQDN	>	reminate SSL on identity manager (appliance)
Configure Syslog	>	Terminate SSL on a Load Balancer
Change Password	>	lastell a sublic sofficials subscribt an Identity Manager Dated
System Security	>	mstan a public certificate authority on identity manager Portal.
Log File Locations	>	SSL Certificate   Custom Certificate  Auto Generate Certificate (self-signed)
		SSL Certificate Chain HIID72CCAtegAvIBAgIFFIFK2KwDQYJKoZIhvcNAQELBQAwgawxC2AJBgNV BAYT AlVTMRWwEQYDVQQIEwpjYWxpZm9ybmlhMRIwEAYDVQQHEwlQYWxvIEFadG8x D2AN BgNVBAoTBI2Nd2Fy2TEaMBgGA1UECxMRSG9yaXpvb11Xb3Jrc3BbY2UxJDA1 BgNV BAYTG01udGVybmFaIFJvb3QgQ0EgMTQ4MTY0MTE50DEhMB8GCSqGSIb3DQEJ ARYS dW5zbm93bk82bXdhcmUuY29tMB4XDTE1MTIxNDE0NTk10FoXDTQ0MDQy0TE0 NTk1 OFowgagxC2AJBgNVBAYTA1VTMRWwEQYDVQQIDApjYWxpZm9ybmlhMRIwEAYD SSL certificate for external access service

Paste the SSL from about page to the connector page as below, continue



Configuration for connector is finished as you get below page. Configuration all connectors **one by one** using the same **Root certificate** and **activation codes** you already have



Once User interface server and connections are configured we need to configure which **Active directory** our instance should talk to so it can help users to authenticate for providing **single sign** services. follow steps below to configure directory services for **Workspace one** as below.

## Adding Directory services to Workspace1 (Adding Active directory)

Click **setup that** will show you all connectors, we need to add one connector to domain as this will be our sync connector, this will sync users, groups and attributes from Active directory

Once all connectors **registered / configured** it will show as below.



Hit **Join Domain** for any connector and provide **domain information** along with **username** and **password** to add that connector to the Domain.

VMware Workspa	ice ONE ×	rtual.com/SAAS/ad	min/identit	v				<u>(8</u> )	
Workspa	ice ONE					Q Sear	Local	I Admin •	WS1
Dashboard -	Users & Groups	User Attributes	Network	Access Management Ranges Auto Dis	Applia covery	AirWatch	Preferences	Manage	Set
Join	Domain		6						
Select	t the domain and er	iter the user name	and passv	ord of the account th	at has p	ermission to	join the domain.		
Doma	in*	Custom Doma	ain 🔻	xtra-virtual.com					
Doma	in User*	administrator							
Domai	in Password*	••••••							
							Cancel	Join Domain	

Connector once added looks as below

¢	A https://ws1-ui	.xtra-virtual.com/SAAS/a	admin/identity					
W	orkspace ONE					Lo	ocal Admin + 📈	W
s hboa	ard 👻 Users&C	Groups Catalog 👻	Identity & Access M	anagement Applia	nce Settings	h users, groups (	or applications	
inecto	ors Custom Brand	ling User Attributes	Network Ranges	Auto Discovery	AirWatch	Preferences	Manage	S
Co	onnectors (3)						Add Connecto	л
ł	Host Name	Worker	Identity Provider	Authentication M.	. Associ	ated Direc	Available Actions	5
1	Host Name: ws1- ui.xtra-virtual. com	ws1-ui.xtra- virtual.com					Join Domain	
1	Port: 8443							
1	Version: 2.7.0.0 Build 3840538							
į	Domain:							
1	Host Name: ws1- con2.xtra- virtual.com	ws1-con2.xtra- virtual.com					Join Domain	
I	Port: 8443							
,	Version: 2016.4.1.0 Build 3729875							
I	Domain:							
	Host Name: ws1- con1.xtra- virtual.com	ws1-con1.xtra- virtual.com					Leave Domain	
1	Port: 8443							

Now its time to add directory services and sync users and groups

				Loournu	
)ashboard 👻	Users & Groups Ca	italog 👻 Identity & Acce	ss Management Appliance St	Search users, groups or applic	ations
rectories Ide	ntity Providers Pass	word Recovery Assistant	Policies		Manage Set
Director	ies (0)				Add Directory
Directori	(0)				
	Add a direc	tony and sync users and dro	uns from your Active Directory to	the directory	
	1 Add a direc	tory and sync users and gro	ups nom your Active Directory to	Add Directory	

Provide **Directory name**, select connector which is added to domain as **sync connector** 

Wa	orkspace ONE				Local Admin 🔹	WS1
Dashboa	ard 👻 Users & Groups	Catalog 👻 Identity & A	Access Management	Appliance Settings	groups or applications	
irectorie	s Identity Providers	Password Recovery Assistan	t Policies		Manag	ge Se
	Add Directory					
	Add Directory					
	Directory Name*	xtra-virtual com				Î
		Active Directory over L	DAR			
		<ul> <li>Active Directory over E</li> <li>Active Directory (Integr</li> </ul>	ated Windows Authentic	ation)		- 1
	Directory Sync and	Select the connector that syr	ncs users from Active Dire	ctory to the VMware Identity	Manager directory.	- 1
	Authentication	Sync Connector	ws1-con1.xtra-virtual	I.com 🔻		
		Authentication	Do you want this Conne	ctor to also perform authentic	ation?	
			• Yes			
			<sup>©</sup> No			
		Directory Search Attribute*	sAMAccountName	<b>x</b> .		
			E 1 11 1 1 11	the sheet of end all a sheet of a second		

### Select Authentication to be performed by Connector

				L		VV51
ashboard	✓ Users & Groups	Catalog 👻 Identity & Ac	cess Management	Appliance Settings	or applications	
rectories	Identity Providers	Password Recovery Assistant	Policies		Manage	Set
,	Add Directory					
	Certificates	If your Active Directory requires certificate. If there is more than each certificate is in the PEM f	s STARTTLS encryptic n one Root CA certifica format with the delimite all connections to use	on, select the check box below and pr te, add all the certificates one after a er lines 'BEGIN CERTIFICATE' and 'E e STARTTLS	ovide the Root CA nother. Make sure ND CERTIFICATE'.	•
1	Bind User Details	In the Base DN field, enter DN OU=myUnit,DC=myCorp,DC=c example, CN=user1,CN=Users	from which to start ac om. In the Bind DN fie ,OU=myUnit,DC=myC	count searches. For example, ld, enter the account that can search orp,DC=com.	for users. For	
		Base DN*	dc=xtra-virtual,dc=c	om		
		Bind DN*	cn=ws1-sync,ou=S/	A,cn=users,dc=xtra-virtual,dc=com		
		Bind DN Password*	Enter your Active Dire	Test Connection		

Click Test Connection to confirm password and once verified click Save & Next  $% \ensuremath{\mathsf{Next}}$ 

Workspace ONE				Local Admin 👻 📈	V
ashboard 👻 Users & Groups	Catalog 😽 Identity	& Access Management	Appliance Settings	oups or applications	
ectories Identity Providers	Password Recovery Assis	tant Policies		Manage	
Add Directory	Connection is s	uccessful.	×		
Certificates	If your Active Directory re certificate. If there is more each certificate is in the P	quires STARTTLS encryp e than one Root CA certifi PEM format with the delim res all connections to u	tion, select the check box below a cate, add all the certificates one af iter lines 'BEGIN CERTIFICATE' a se STARTTLS	nd provide the Root CA fter another. Make sure nd 'END CERTIFICATE'.	
Bind User Details	In the Base DN field, ente OU=myUnit,DC=myCorp, example, CN=user1,CN=U	er DN from which to start a DC=com. In the Bind DN Jsers,OU=myUnit,DC=my	account searches. For example, field, enter the account that can se /Corp,DC=com.	earch for users. For	
	Base DN*	dc=xtra-virtual,dc	=com		
	Bind DN*	CN=ws1,ou=SA,d	ic=xtra-virtual,dc=com		
	Bind DN Password*	•••••	Test Connection		
		Enter your Active D	rectory bind account password.		

Worksp	ace ONE					Lo	ocal Admin 👻 📈	v °
)ashboard 🚽	Users & Groups	Catalog 👻	Identity & Acc	ess Management	Appliance Settings	h users, groups o	or applications	
rectories I	dentity Providers	Password Recovery	/ Assistant	Policies			Manage	
Sele	ect the Domains							
lf you	u are adding an Acti	ve Directory over LDA	AP, domains a	are automatically	selected and listed be	elow with a chec	kmark. If you ar	re
lf you addii Direo	u are adding an Acti ng an Active Directo ctory connection.	ve Directory over LDA ry (Integrated Windov	AP, domains a ws Authentica	are automatically tion), select the (	selected and listed be domains that should b	elow with a chec e associated wit	kmark. If you ar th this Active	re
lf you addir Direc	u are adding an Acting an Active Directo tory connection.	ve Directory over LDA ry (Integrated Window	AP, domains a ws Authentica	are automatically tion), select the (	selected and listed be domains that should b	elow with a chec e associated wit	kmark. If you ar h this Active	re
If you addii Direc	u are adding an Acting an Acting an Active Directotory connection.	ve Directory over LD/ ry (Integrated Window XTRA-VIRTUAL)	AP, domains a ws Authentica	are automatically tion), select the (	selected and listed be domains that should b	elow with a chec e associated wit	kmark. If you ar	re
If you addii Direc	u are adding an Acting an Active Directo connection.	ve Directory over LDA y (Integrated Windov XTRA-VIRTUAL)	AP, domains a	are automatically tion), select the (	selected and listed by	elow with a chec e associated wit	kmark. If you ar th this Active	re
If you addii Direc	u are adding an Acting an Active Directo tory connection.	ve Directory over LD/ ry (Integrated Window XTRA-VIRTUAL)	AP, domains a	are automatically tion), select the (	selected and listed be domains that should b	elow with a chec e associated wit	kmark. If you ar Ih this Active	re
If you addii Direc	u are adding an Acting an Acting an Active Director tory connection. Domain xtra-virtual.com (	ve Directory over LD/ y (Integrated Windov XTRA-VIRTUAL)	AP, domains (	are automatically tion), select the e	selected and listed by	elow with a chec e associated wit	kmark. If you ar h this Active	re
If you addii Direc	u are adding an Acting an Active Directo tory connection. Domain xtra-virtual.com (	ve Directory over LD/ ry (Integrated Window XTRA-VIRTUAL)	AP, domains a ws Authentica	are automatically tion), select the (	selected and listed be	elow with a chec e associated wit	kmark. If you ar	re

Make sure that right domain is checked there Click Next

-		Local Admin -	WS1-
ashboard - Users & Groups Catalog	Klentity & Access Management Appliance	A Search users, groups or applications	Setu
Map User Attributes			
phone	telephoneNumber	*	
disabled	userAccountControl	•	
employeeID	employeeID	×	
distinguishedName	distinguishedName	¥	
userPrincipalName	userPrincipalName	×	
domain	canonicalName		

You may keep attributes selected as default and click **Next** 

S Wo	rkspace ONE			Loca	al Admin -	WS1
)ashboar rectories	d - Users & Group	S Catalog - Identity & Act Password Recovery Assistant	cess Management Ap Policies	opliance Settings	Manage	Set
	Select the groups (	(users) you want to sync				
	Enter the Group DNs to you want to sync to the	sync, for example, CN=users,DC directory. When you select a grou	example,DC=company p, users of that group a	DC=com. Select the Active Direct re also synced.	ory groups that	
		members				
	Sync nested group	includers.				- 11
	Sync nested group	s	Select All	Groups to sync	+	
	Specify the group DNs OU=groups,dc=xtra-	s virtual,dc=com	Select All	Groups to sync	+	
	Sync nested group Specify the group DNs OU=groups,dc=xtra- Group DN	s virtual,dc=com	Select All Mapped Grou	Groups to sync Find Groups	+	
	Sync nested group Specify the group DNs OU=groups,dc=xtra- Group DN	s virtual,dc=com	Select All	Groups to sync Find Groups	+	

Select User and Group DNs from Active Directory that you want to sync

Ū							
Wor	kspace ONE				Local	Admin • 📈	WS1
) as hboard	d 👻 Users & Groups	s Catalog 👻 Identity & Ad	ccess Management	Appliance Settings	users, groups or ap	oplications	
rectories	Identity Providers	Password Recovery Assistant	Policies			Manage	Set
	Select the Users yo	ou would like to sync					
- 200							
8	Enter the User DNs to sy	ync, for example, CN=username,	CN=users,DC=exa	mple,DC=company,DC	=com. All users fo	und under the	
	DN are also synced. To J	evolude any users from syncing	provide evclusion t				
	DN are also synced. To	exclude any users from syncing,	provide exclusion ti	iters.			
	DN are also synced. To Specify the user DNs	exclude any users from syncing,	provide exclusion fi	iters.		+	
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x	exclude any users from syncing, tra-virtual,dc=com	provide exclusion fi	iters.		+ + ×	
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x ou=users,dc=xtra-virt	tra-virtual,dc=com	provide exclusion fi	liers.		+ × + × +	
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=xt ou=users,dc=xtra-virt	exclude any users from syncing, tra-virtual.dc=com wal.dc=com	provide exclusion fi	ners.		+ × + × +	•
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x ou=users,dc=xtra-virt Add a filter to exclude	exclude any users from syncing, tra-virtual,dc=com ual,dc=com	provide exclusion fi	ners.		+ + × + - × +	•
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x ou=users,dc=xtra-virt Add a filter to exclude	exclude any users from syncing, tra-virtual,dc=com uual,dc=com users	provide exclusion ti			+ × + × +	
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x ou=users,dc=xtra-virt Add a filter to exclude	exclude any users from syncing, tra-virtual,dc=com ual,dc=com users	provide exclusion ti	ners.		+ + × + × +	
	DN are also synced. To Specify the user DNs CN=ws1,ou=SA,dc=x ou=users,dc=xtra-virt Add a filter to exclude	tra-virtual,dc=com ual,dc=com users	provide exclusion ti			+ ×+ ×+	•

Click Next

Dashboar	rd 👻 Users & Group	s Catalog 👻 Identity & Acc	cess Management	Appliance Settings	sers, groups or applications	
rectories	s Identity Providers	Password Recovery Assistant	Policies		Manage	Se
	Review					
	The groups and users y	ou selected are ready to sync to t	he directory. You ca	an still make changes be	fore you sync.	
		Add	Remove	Update		
		1	0	O	Edit User DNs	
		1	0	0	Edit Group DNs	
	After the initial sync, the	sync is scheduled to run Once pe	er week. You can ch	ange the sync frequenc	y now or you can change it	
	later from the Sync Free	luency page. Edit				

Click Edit to select sync frequency for our case its **Every Hour** 

)ashboard 👻	Users & Groups	Catalog 👻	Identity & A	ccess Management	Applian	ce Settings	h users, groups o	or applications	
rectories Ide	entity Providers	Password Recov	ery Assistant	Policies				Manage	S
	S	ync Frequency	Domains	Mapped Attributes	Groups	Users	Safeguards		
Sync F	requency	Every bour	•						
		Every nour							

Finally save and select **Save & Sync.** And Workspace one is ready after its syncs all users and groups, now you are ready to configure your applications!!!