OKTA Integration with Workspace ONE Access

Scenario and Objectives of this Lab Module

We will come into to many existing environments and they will already have existing Federations in place. We will see what is required when the customer has **OKTA** Federated with existing Applications.

OKTA sees **Workspace ONE Access** as their go to market solution for cross-platform SSO solutions and have officially deprecated the MDM component in favour of using Workspace ONE

In this scenario **OKTA** could be the first point of call and we would use **Workspace ONE Access** to authenticate and provide SSO access to mobile devices and **Workspace ONE UEM** to manage compliance

Please note we will complete the testing of this lab in the latter part of this course once we have **Mobile SSO for Android** and **Mobile SSO for IOS** for **Workspace ONE Access**.

This lab is comprised of 5 parts

Part 1. Configuring an **OKTA** individual developer account.

Part 2. Federating **OKTA** with **Workspace ONE Access.**

Part 3. Federating **BambooHR** with **OKTA.**

Part 4. Configuring **Workspace ONE Access** to be an **OKTA** application source.

Note! After we have setup Single Sign On for Android and IOS. We will then Configure Conditional Access policies in Workspace One UEM, then we will test the integrations for SSO through **OKTA, VMware Identity Manger** and **Workspace ONE UEM.**

Just a reminder that when creating custom Accounts. Be sure to write down the exact details related to this account. One suggestion might be to standardize on passwords and keep the password as simple as possible, to ensure success of these labs. In the future if you have concerns related to accessing these accounts feel free to reset the passwords.

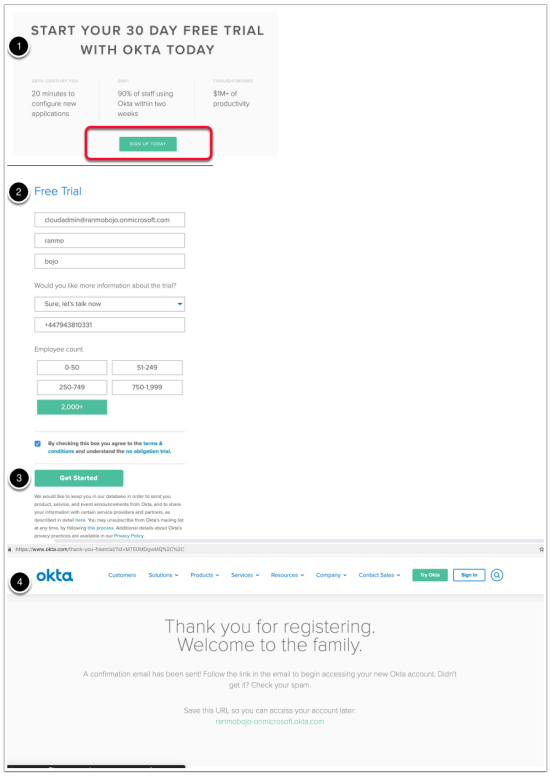
Failure to follow these guidelines could result in being locked out of your tenant and you would then have to take for responsibility for regaining access leading to a loss of time.

Part 1. Setting up an OKTA Overview free trial

1. Setting up an OKTA Overview free trial (PART 1)

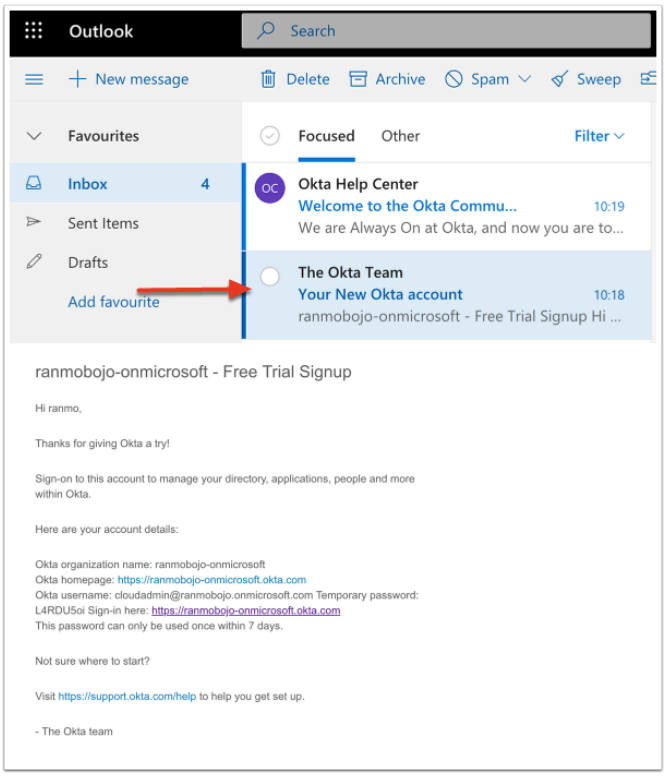
- In this section we will register a 30 day free trial with OKTA account that we will use for this lab. It can be used beyond the scope of this lab as well and does not expire.

1. Open your **Chrome Browser** on the Control Center and browse to **https://www.okta.com/free-trial/#** On the **START YOUR 30 DAY FREE TRIAL WITH OKTA TODAY** page select **SIGN UP TODAY**
2. Fill in the **Free Trial** Form
    1. Using either a ***work e-mail address*** or your ***custom office365 CloudAdmin email account*** ***eg. cloudadmin@ranmobojo.onmicrosoft.com.*** Fill in your **first** and ***last name***
        - ***Do not use a EUC-Livefire.com email address.***
    2. In the drop down ***Would you like more information about the trial?*** select Yes....
    3. In the phone area type a valid phone number
    4. Under Employee count select a one the numbered check boxes
3. Select **Get Started**
4. Notice you have a **Thank You for registering. Welcome to the family.** NB! NOTE the url and save your unique URL to notepad e.g. ranmobojo-onmicrosoft.okta.com



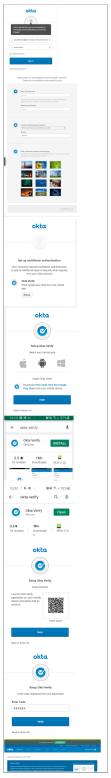
2. Setting up an OKTA Overview free trial (PART 1)

- Go to **Office 365** . Log-in to office.com with your ***Cloud Admin account*** and check your office 365 email. **Open** your email from the ***The Okta Team***
- Click on the **sign in here** URL



3. Setting up an OKTA Overview free trial (PART 1)

- . In the **Login console** use your Okta username the **temporary password**. Select **Sign In.** On the **Welcome** window ,
  1. **Enter** and **Confirm** your **new password,**
  2. Choose a **forgot password question** and **Answer**
  3. Click a picture to choose a **security image**
  4. Select **Create My Account**
  5. On the **Set up multifactor Authentication** page select **Setup**
  6. On the **Setup Okta Verify** page. Complete the following
     1. Choose your device type. (either windows, Android or IOS) In this setup we will demonstrate Android .
     2. **Download and install** the Okta Verify Application. When done open the Okta Verify application on your Device.
     3. Select **Next**
  7. On the **Scan Barcode,** page using your device ***Scan your Barcode*** and select **Next**
  8. On the **Enter Code** page, enter your device Code and select **Verify**
  9. On the **Getting Started with Okta** window notice you now have a 30 day trial of OKTA. Browse around to familiarize with the Console.

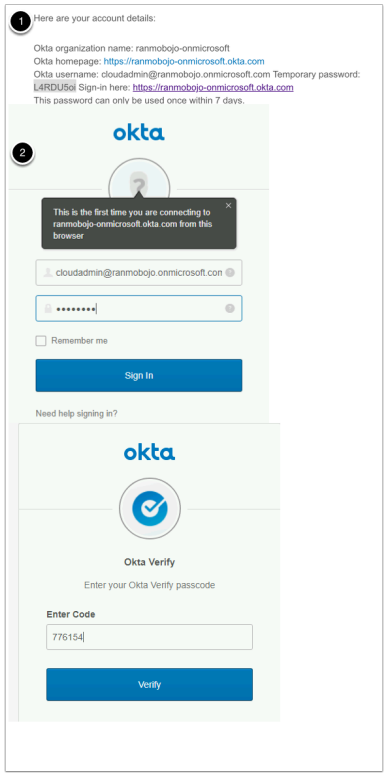


4. Setting up an OKTA Overview free trial (PART 1)

- To complete our setup we will setup Directory sync with your EUC-Livefire Active Directory Domain you and your OKTA environment.

  Log into your **"on-prem" lab** environment as **euc-livefire.com\administrator** with the password **VMware1!**

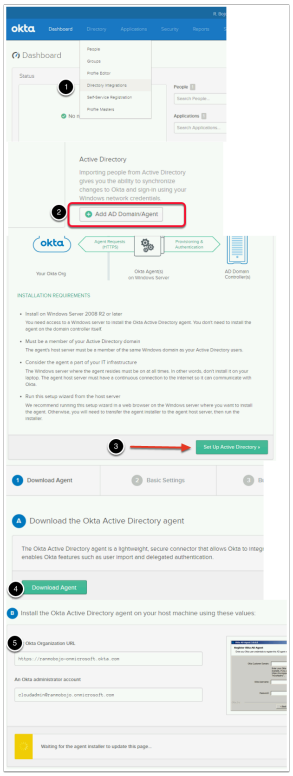
  1. On the **ControlCenter2** server open your **chrome browser** and copy **OKTA url** on the ControlCenter server. e.g. https://ranmobojo-onmicrosoft.okta.com/
  2. Sign in with your **OKTA admin console** with your OKTA ***username*** and ***password*** select **Sign In**
  3. Use your Okta Verify Code to sign in



5. Setting up an OKTA Overview free trial (PART 1)

Setting up Directory sync with our Active Domain and this OKTA environment continued..

1. In the Okta Admin console select **Directory** > **Directory Integrations**
2. In the **Directory Integrations** interface, bottom right-hand corner, select **Add AD Domain/ Agent**
3. Select **Set Up Active Directory** in the bottom right-hand corner
4. Select **Download Agent,**
5. Note the ***installation information*** on your admin Console, you will use this information when installing the agent.

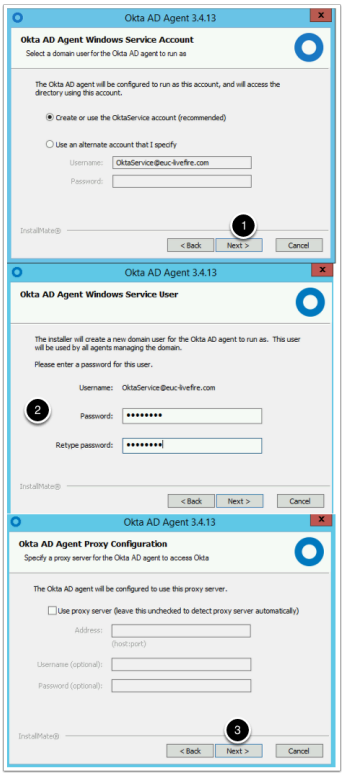


6. Setting up Directory sync with our Active Domain and this OKTA environment continued..

1. in your control center VM Select the downloaded **OktaADAgentSetup.exe** and select **Open** select **Run**
2. On the downloaded Okta AD Agent, select **Next**
3. On the **Installation options** window select **Install**
4. In the **Select AD Domain** window *accept your **default Domain*** and select **Next**

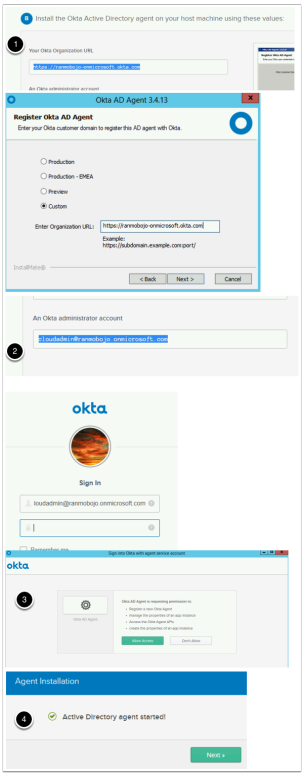
7. Setting up Directory sync with our Active Domain and this OKTA environment continued..

1. On the **Okta AD Agent Windows Service Account** window ***accept the default,*** select **Next**
2. On the **Okta AD Agent Windows Service User**, type and **confirm** the **password, VMware1!** select **Next**
3. On the **Okta AD Agent Proxy Configuration** window, select **Next**



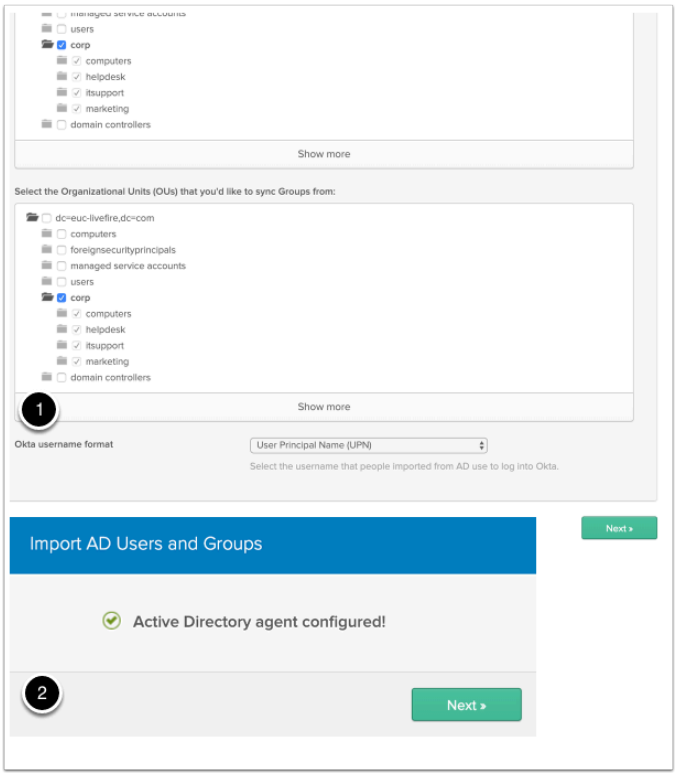
8. Setting up Directory sync with our Active Domain and this OKTA environment continued..

1. On the **Register Okta AD Agent** window, select the Custom radio button, next to Enter Organizational URL: in the **Enter Organizagtion URL:** box type ***your Organization URL*** Select **Next**
2. In the **Sign in** page under **Username**, type the ***OKTA Administrator account*** and ***password*** and select **Sign In**
3. Select **Allow Access**
4. On the Agent Installation window select **Next**



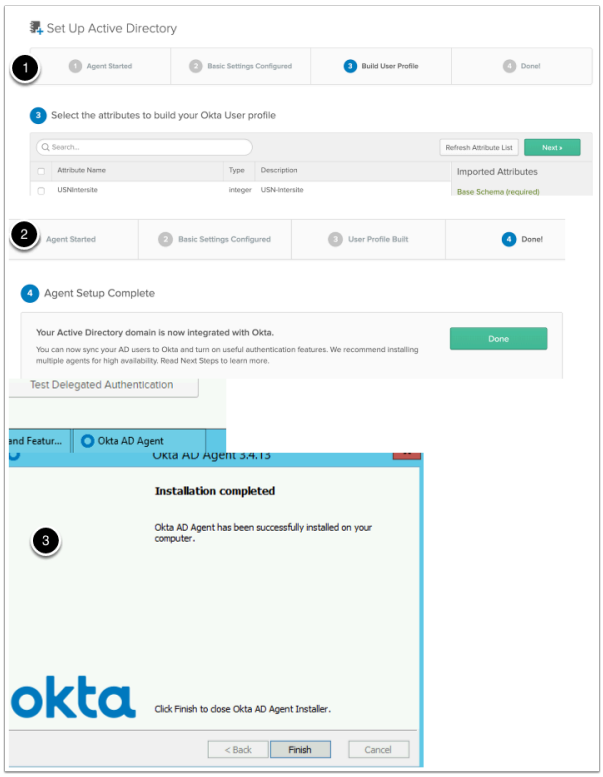
9. Setting up Directory sync with our Active Domain and this OKTA environment continued..

1. In the **Set Up Active Directory** window , In the **Connect an Organizational Units (OU) to Okta i**nterface ensure that only **corp ou** is selected in the **users** and **groups** interface. Select **Next**
2. In the **Import Ad Users and Groups** window select **Next**



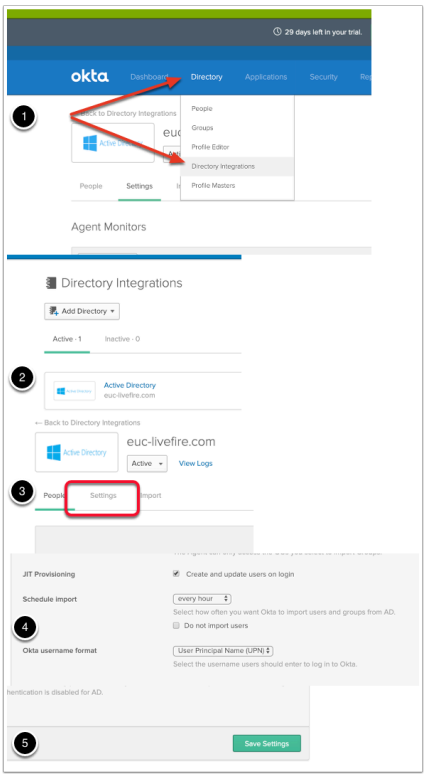
10. Setting up Directory sync with our Active Domain and this OKTA environment continued....

1. On the **Select the attributes to build your Okta User profile** page select **Next**
2. On the **Agent Setup Complete** page select **Done**
3. Select the **Okta AD Agent** on your Taskbar and select **Finish**



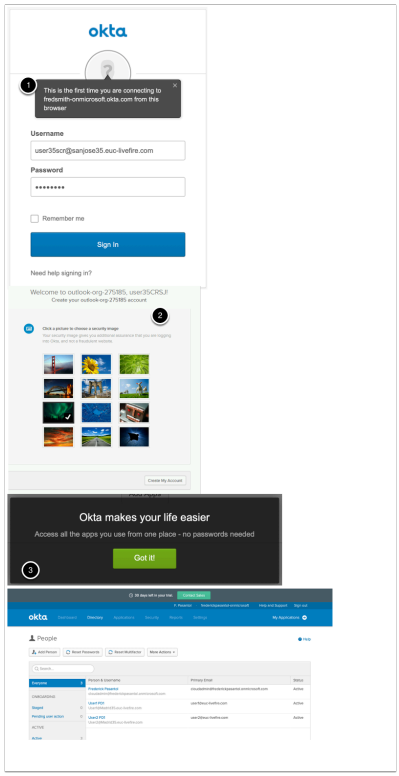
11. Setting up Directory sync with our Active Domain and this OKTA environment continued….

1. In the **Okta admin** console select **Directory** > **Directory Integrations**
2. Below the **Active** tab select **Active Directory**
3. In the **Active Directory** area next to **People** select **Settings**
4. In the **IMPORT AND ACCOUNT SETTINGS** console scroll down and select the following:-
    1. Select the **check box** in line with **JIT Provisioning** called ***Create and update users on login***
    2. Next to **Schedule import** change the **dropdown** from **never** to **every hour**
5. Scroll down to the bottom and select **Save Settings**



12. We will validate our provisioning of user provision now in OKTA

1. Open up an **Incognito window** in your browser and launch your **OKTA login URL.** Login with **your custom user account** user eg **user35SCR@sanjose35.euc-livefire.com** with password **VMware1!** select **Sign In**
2. On the **Welcome to your OKTA page**, click a ***picture to choose a security image*** , select **Create My Account**
3. Close the **OKTA IS THE IDENTITY STANDARD** page by selecting **Got it** on the bottom right hand corner.
4. If you go back to your **OKTA admin Console**, select **Directory** > **People**, you will now notice your provisioned users



Part 2. OKTA and Workspace ONE Access Federation Configuration

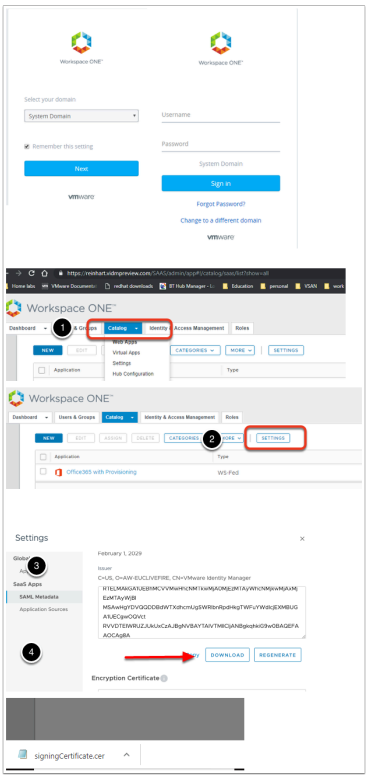
Summary

We have accomplished a few things in Part 1 . You have seen how well **Just In Tme (JIT)** provisioning works with external applications and OKTA. OKTA supports a much broader ecosystem of applications than Workspace ONE Access. This part of the lab would represent what an organisation might already have in place or it might represent what we might have put in place first before using Workspace ONE Access. A very important concept to realize is if we are going to federate 3rd party solutions we have to have a basic understanding of the workings / capabilities of the solution we want to federate with to offer the best solution to the customer. Okta themselves realize that VMware have a very powerful Single-Sign On (SSO) solution using Workspace ONE. We will now federate with Workspace ONE Access.

In this section we will retrieve information required by Okta to setup an Identity Provider . In this scenario Workspace ONE Access will be the Identity Provider.

1. Login to the **Workspace ONE Administration Console** on the **System Domain** with ***Admin*** privileges to your New SaaS Workspace ONE Access Tenant.
   1. Select the **Catalog** -> **Web Apps** tab
   2. To the right select the **Settings** button from the sub-menu
   3. In the resulting dialog navigate to **SaaS Apps** -> **SAML Metadata**

4. Download the **Signing Certificate**. Note the location of the downloaded file ***signingCertificate.cer***



2. Part 2. OKTA and Workspace ONE Access Federation Configuration

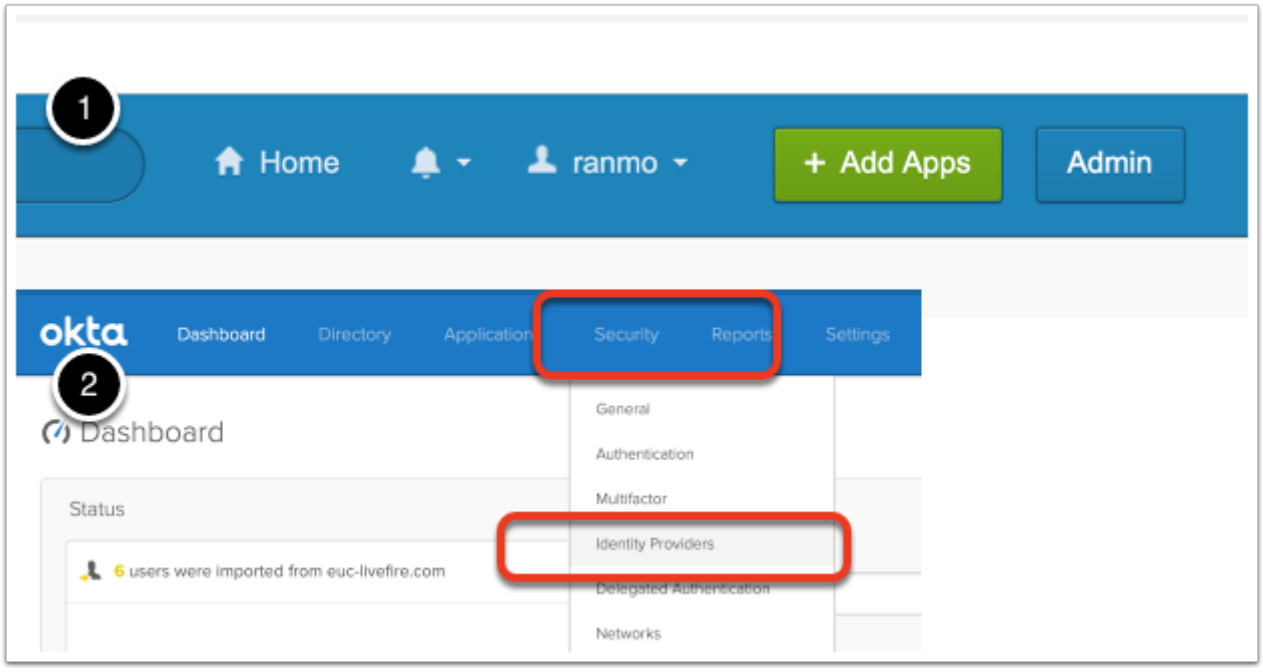
- In the right pane under **SAML Metadata**, click on **Identity Provider (Idp) Metadata** link and record and save the following 2 configurations using **Notepad**
  1. *Next to* **entityID** copy ***your version*** of the following url from the address bar **:** **e.g. https://tenant.vmwareidentity.com/SAAS/API/1.0/GET/metadata/idp.xml**
  2. Search for **urn:oasis:names:tc:SAML:2.0:bindings:HTTP-POST** and next to **Location** copy **your version** of the following: "https://aw-livefirerplaston.vidmpreview.com/SAAS/auth/federation/sso"
  3. *Select **X** in the right hand corner of the pane to close the window*

3. *Part 2. OKTA and Workspace ONE Access Federation Configuration*

- In this section we will create the Identity Provider (IdP) record in the **Okta admin UI** with system
  Administrator login.

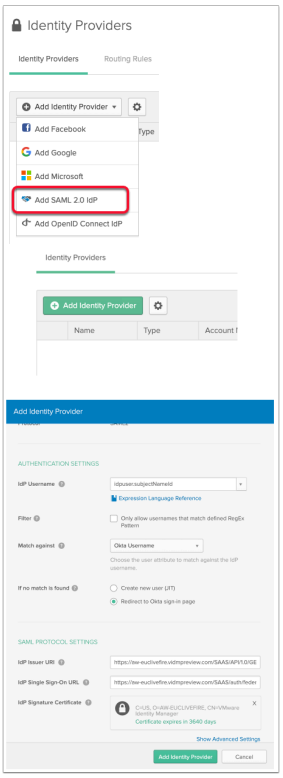
In the OKTA admin Console (on your Chrome browser)

1. If required, In the top right hand corner. Select the **Admin** button
2. Navigate to **Security** -> Identity Providers



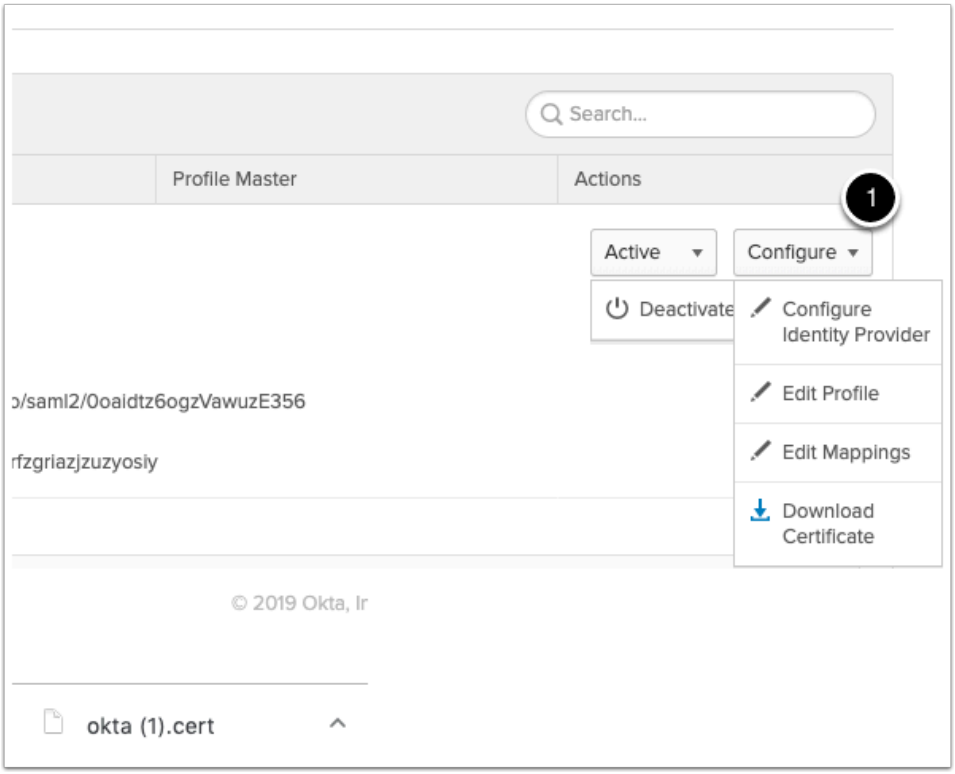
4. *Part 2. OKTA and Workspace ONE Access Federation Configuration*

- **In the OKTA admin Console continued…**
  1. Select **Add Identity Provider** button window, select **Add SAML 2.0 Idp** :
  2. Under **GENERAL SETTINGS** next to **Name**: type ***WorkspaceONE***
  3. Under **AUTHENTICATION SETTINGS**
     1. **Idp UserName :** idpuser.subjectNameid
     2. **Filter:** ***Unchecked***
     3. **Match Against:** ***Okta Username***
     4. **If no match is found:** ***Redirect to Okta sign-in page*** radio button
  4. Under **SAML PROTOCOL SETTINGS**
     1. **IdP Issuer URI: e.g. https://aw-euclivefire.vidmpreview.com/SAAS/API/1.0/GET/metadata/idp.xml**
        Entity ID value value from the Workspace ONE Access IdP metadata file saved to Notepad
     2. **IdP Single Sign-On URL:** e.g. **https://aw-euclivefire.vidmpreview.com/SAAS/auth/federation/sso**
        (*Single Sign on Service value from IdP metadata file from the Workspace ONE Access Idp metadata file)*
     3. **IdP Signature Certificate. Browse** , select **All files** next to filename and **select the Signing Certificate** from your SAAS Workspace ONE Access Tenant*. If your cer files is greyed out, make sure you are using* ***Chrome*** *as your browser.*
  5. Select **Add Identity Provider**



5. *Part 2. OKTA and Workspace ONE Access Federation Configuration*

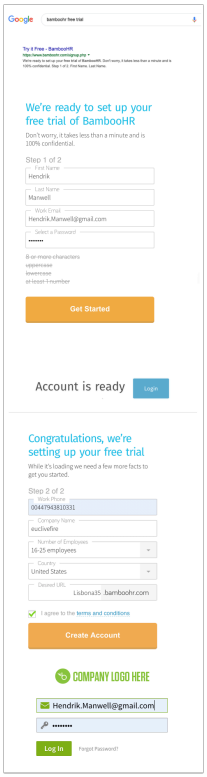
- **In the OKTA admin Console continued…**
  - In the **Identity Providers** interface, to the right, select the **drop down arrow** next to **Configure** and select **Download Certificate**



Part 3: Federating BambooHR with OKTA

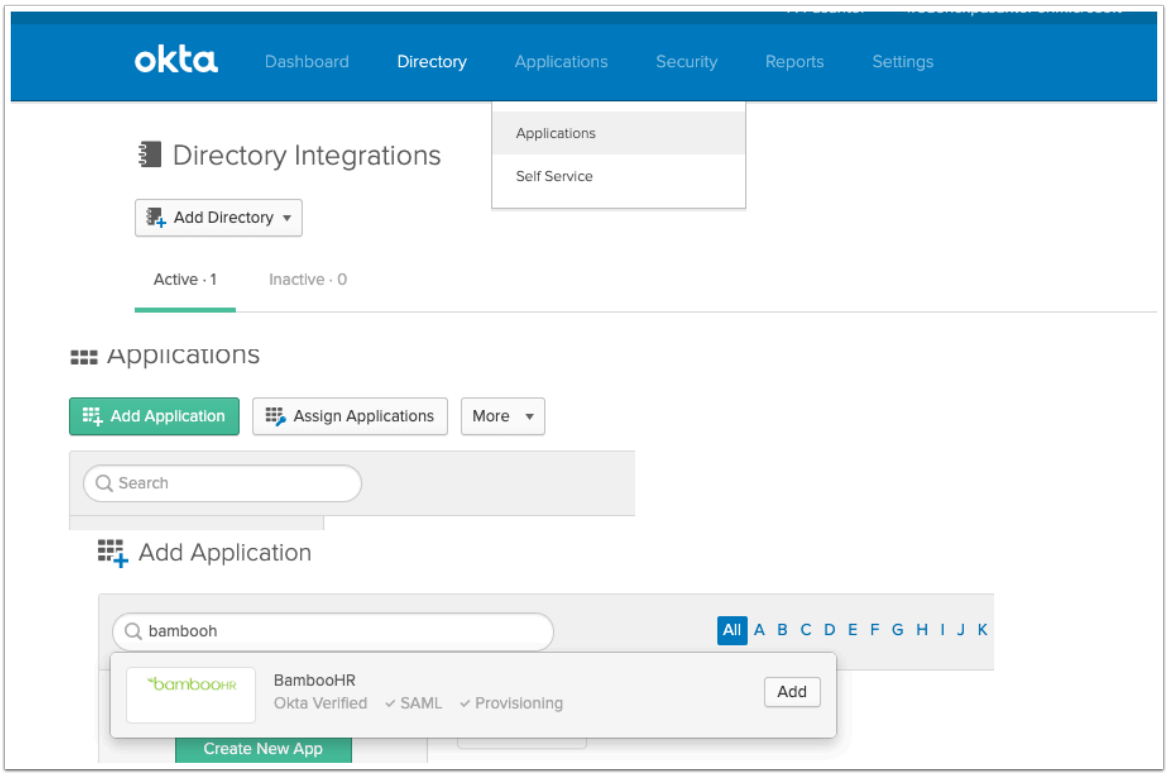
1. Federation of BambooHR with OKTA (Part 3)

- In this section we setup a Federation with BambooHR web application. You are entitled to a 7 day trial of the BambooHR SaaS software.
  1. We will start off by going to a **browser** and In google type **BambooHR free trial.**
  2. Where it says **Try it Free** select
  3. In the **Were Ready to you up page** aenter the following credentials
     - **First Name** *(same First Name you registered with OKTA)*
     - **Last Name** *(same Last Name you registered with OKTA)*
     - **Work email address,** (same email address you registered with OKTA)
     - **Select a Password** (VMware1!)
  4. Select Get Started
  5. On the **Congratulations page** type your
     - work phone number, your phone number
     - **company Name**, eg. Euclivefire
     - **custom domain name** eg. Madrid34.bamboohr.com
  6. Select **Create Account**
  7. On the **Account is ready page** select **Login**
  8. On the login page , login with your email and password



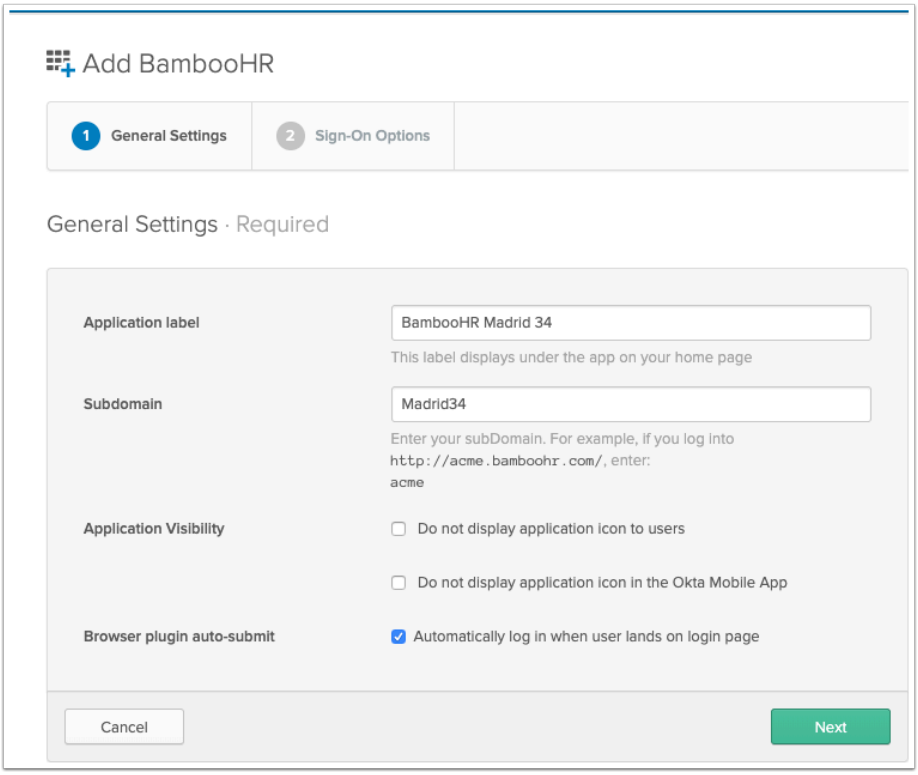
2. Federation BambooHR with OKTA (Part 3)

- Switch to your OKTA admin console to complete the next step of the configuration
  1. In the **Okta Admin Console** select **Applications** > Applications
  2. Under **Applications** select **Add Application**
  3. In the **Search** type **BambooHR** and select **Add**



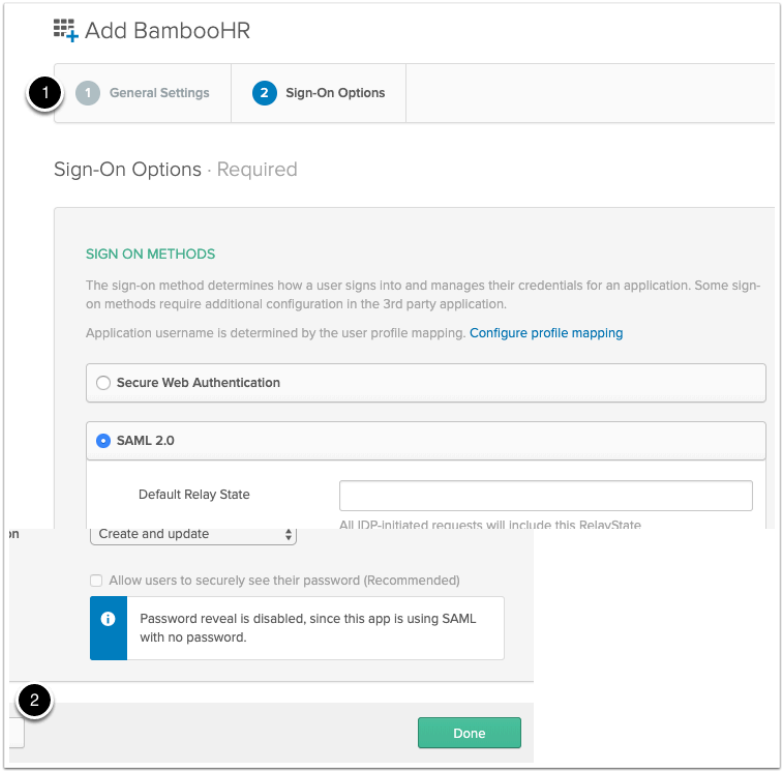
3. Federation BambooHR with OKTA (Part 3)

- In the **Add BambooHR** interface under **General Settings** type the following
  1. Next to **Application Label**, type **BambooHR(customdomain) BambooHR Madrid 34**
  2. Next **Subdomain** type your **custom domain** **e.g Madrid34** select **Next**



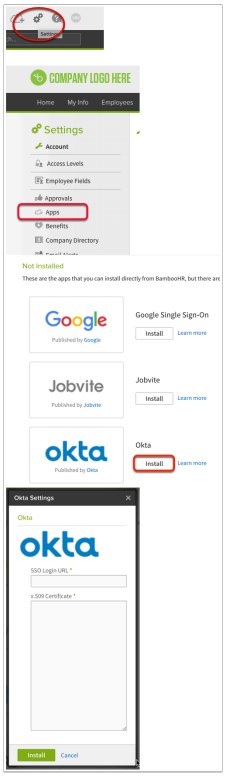
4. Federation BambooHR with OKTA (Part 3)

- In the **OKTA Add BambooHR** interface under **Sign-On Options** select the following
  1. Next to **SAML 2.0** select the **radio button**
  2. At the bottom of the window select **Done**



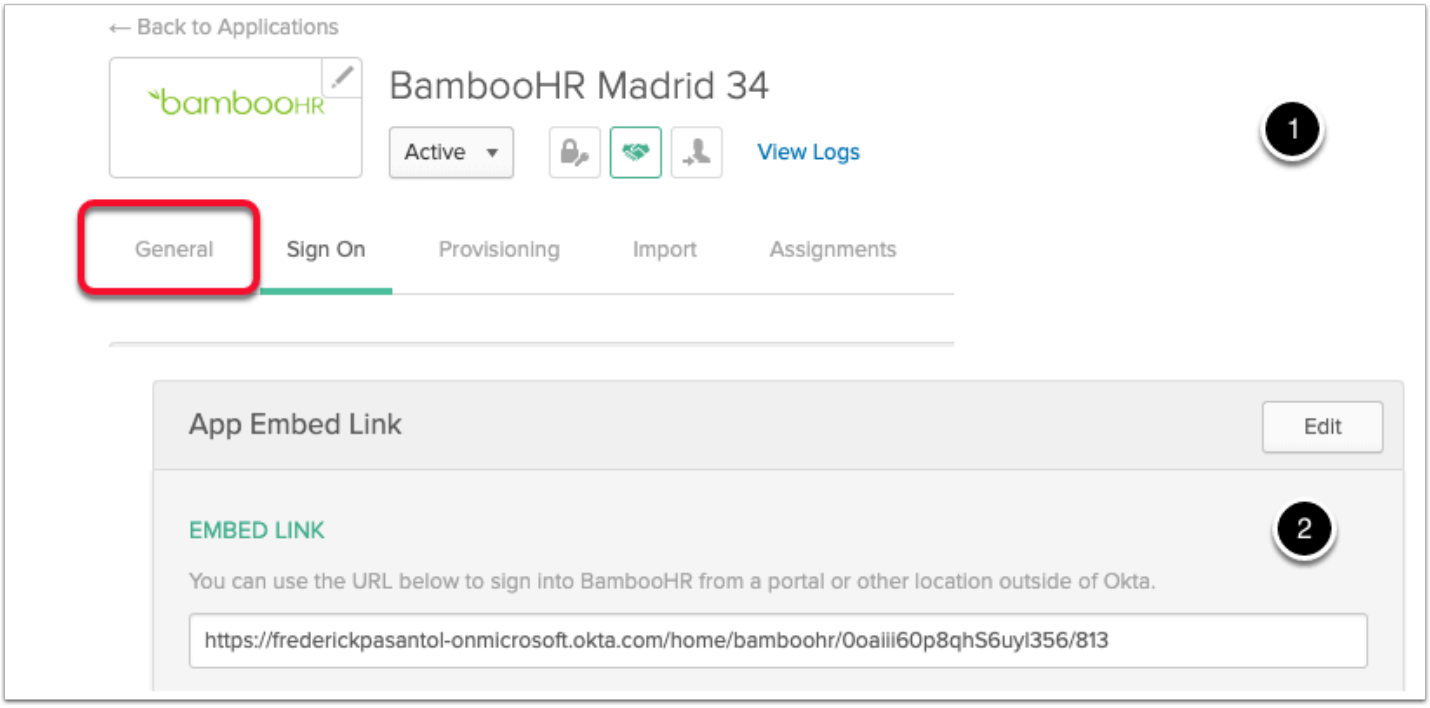
5. Federation BambooHR with OKTA (Part 3)

- Switch back to your custom **BambooHR** Saas AP
  1. In top right-hand select **Settings,** this is a wheel-cog icon
  2. In the left-hand pane select **Apps**
  3. Under **Apps** select **Single Sign-On**
  4. In the **Single Sign-On** window select **OKTA**
  5. Scroll down and select **Install**



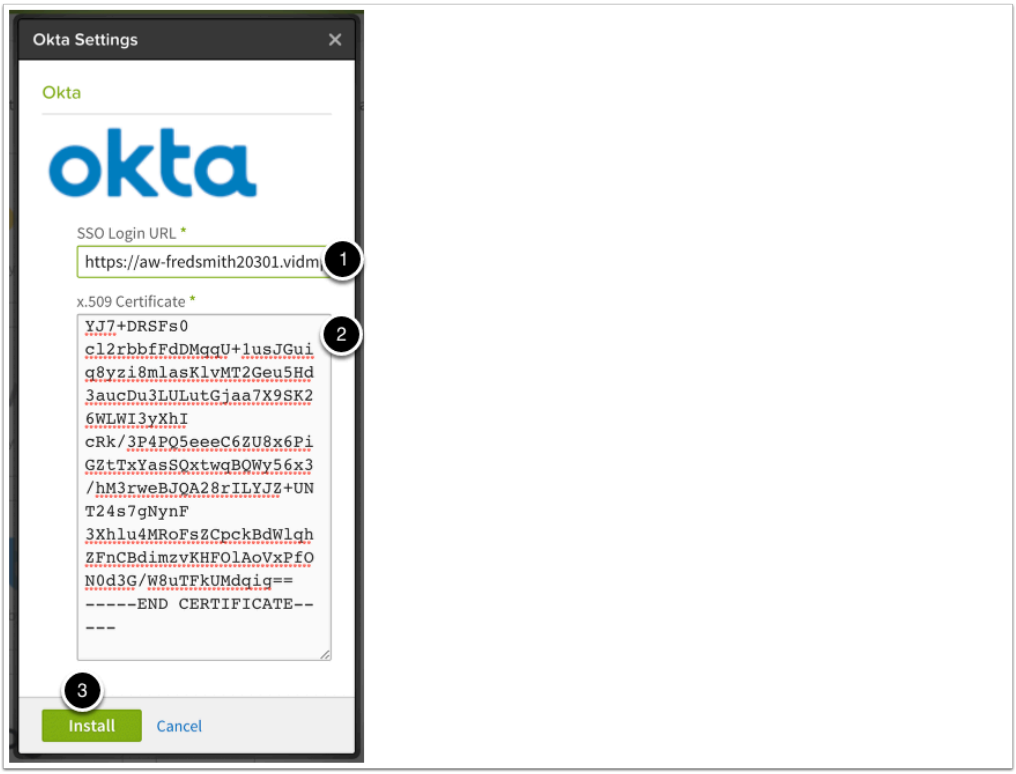
6. Federation BambooHR with OKTA (Part 3)

- Switch back to your **Okta Console**
  1. In the **Applications** interface next to **Sign On** select **General**
  2. Scroll down to **App Embed Link** and under **EMBED LINK** copy **the entire URL** and save in **Notepad**



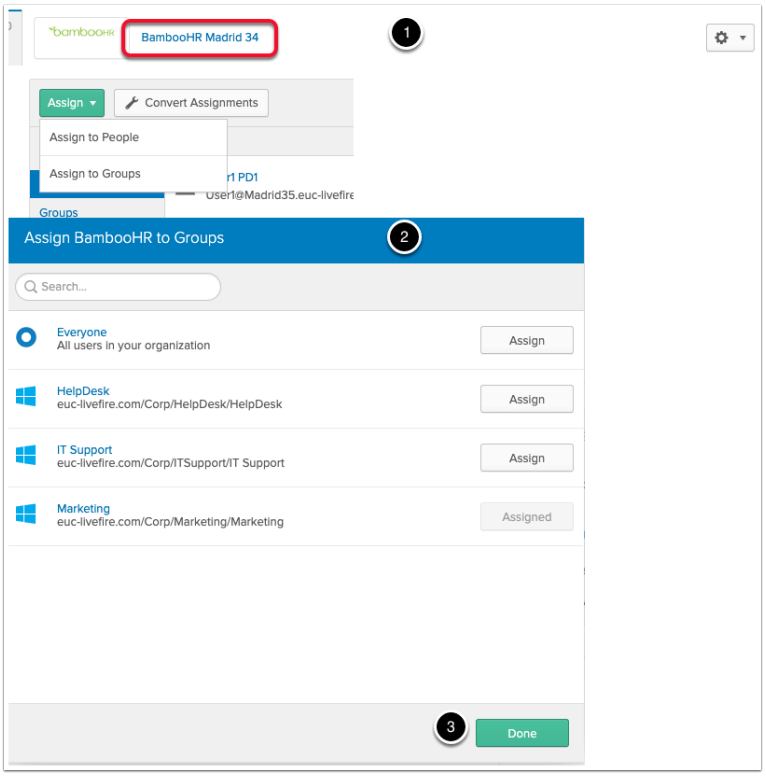
7. Federation BambooHR with OKTA (Part 3)

- Switch back to your **BambooHR Admin Console**
  1. From your Notepad file copy the **SSO Login URL** and under **SSO Login URL** paste the copied link from OKTA
  2. Next open the **Okta.cert** file with a text editor and **copy** the entire certificate, this includes **---begin certificate xxx --- END CERTIFICATE---** and paste into the **x.509 Certificate box**
  3. Scroll to the botton of the page and select **Install**



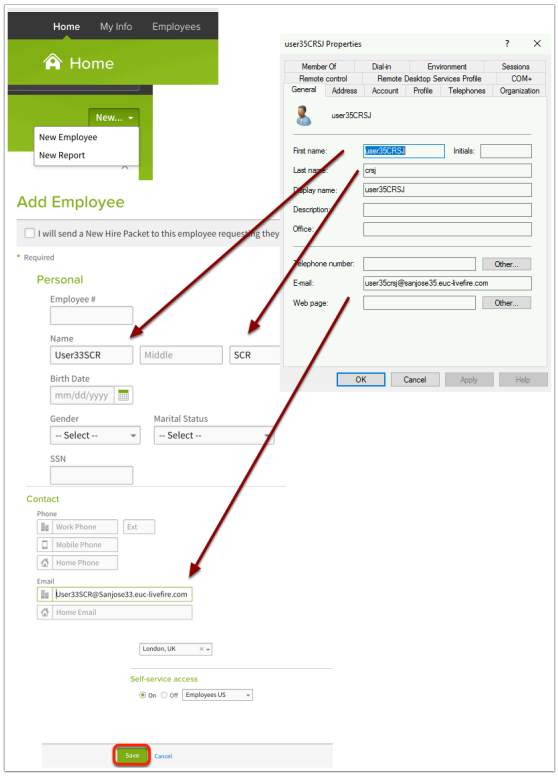
8. Federation BambooHR with OKTA (Part 3)

- Switch back to your **OKTA Admin Console**
  1. Go back to **Applications** > **Applications** and select your **BambooHR application**
  2. Select **Assign** > **Assign to Groups**
  3. In the **Assign BambooHR to Groups** next to **Marketing** select **Assign** and select **Done**
  4. Select **Assign** > **assign to people**
  5. Assign to your administrator user.



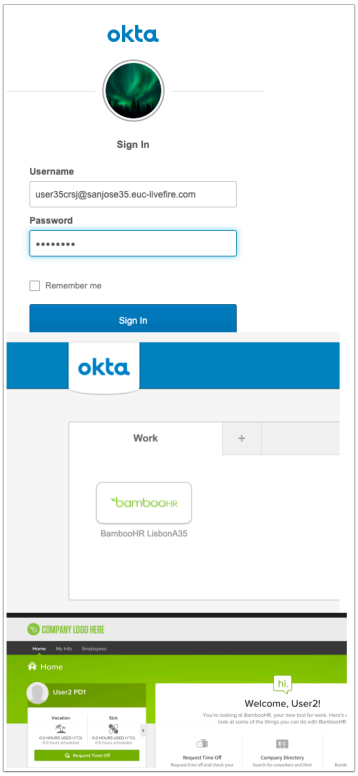
9. Federation BambooHR with OKTA (Part 3)

- Switch back to your **BAMBOOHR Admin Console**
  1. In the Bamboo HR application select the **Home tab**
  2. To right of the page select the **drop down arrow** next **New...** and select **New Employee**
  3. In the **Add Employee** interface , use the following information, type next to:
     1. **Name**: **Unique User from AD** (the one you created in the SFDC lab)
     2. **Last**: Last name of the unique User
     3. **Email address**: **XXXXX@euc-livefire.com** (unique username + @euc-livefire.com)
     4. **Self Service Access:** ON
  4. When done select **Save.**



10. Federation BambooHR with OKTA (Part 3)

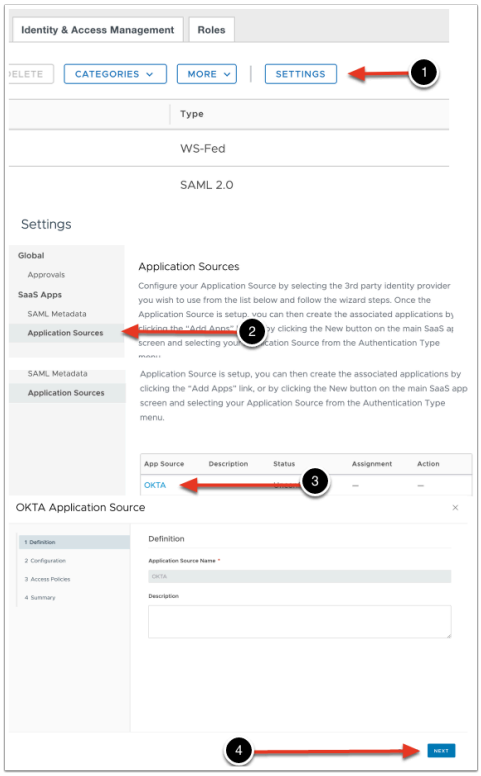
- We will now validate the single sign-on process with OKTA and BambooHR
  1. Open an **Incognito session** of your browser and copy **your custom login url** for OKTA in the address bar. Login with XXXXuniqueuser**@customsuffix.euc-livefire.com** (example user35buk@auckland35.euc-livefire.com) and password **VMware1!** select Sign In
     - If this is the first time you login you will be prompted to choose a custom icon and you will have to close default pop ups
  2. Under the **Work** tab you should see your **BambooHR entitlement.** Select your **BambooHR** entitlement.
  3. You should see the single sign on between **OKTA** and **BambooHR.**



Part 4. Configuring An OKTA Application Source in Workspace ONE Access.

1. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

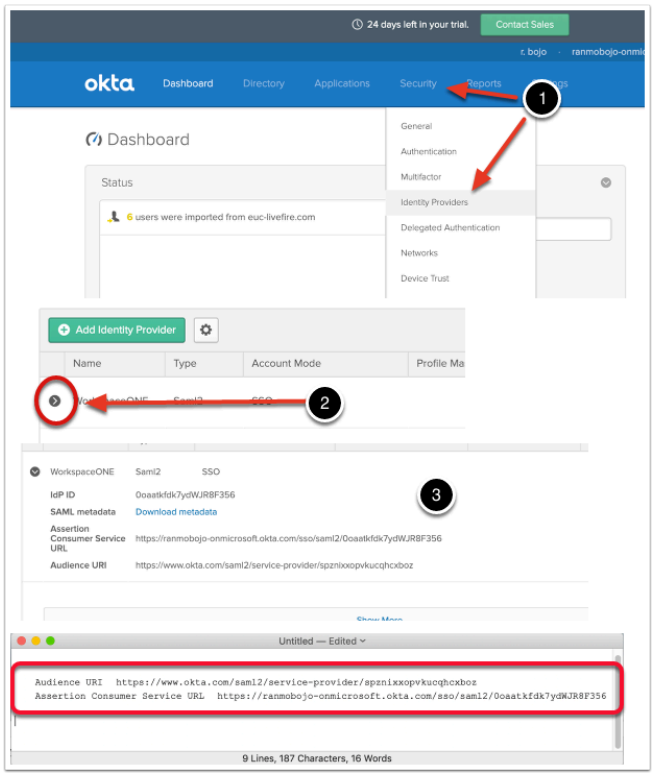
- Ensure you are logged into your Workspace ONE Access Session
  1. Under **Catalog > Web Apps** to the right select **SETTINGS**
  2. In the Inventory pane under **SaasApps** select **Application Sources**
  3. In the **Application Sources** section under **App Source** select **OKTA**
  4. On the **OKTA Application Source** window select **NEXT**



2. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

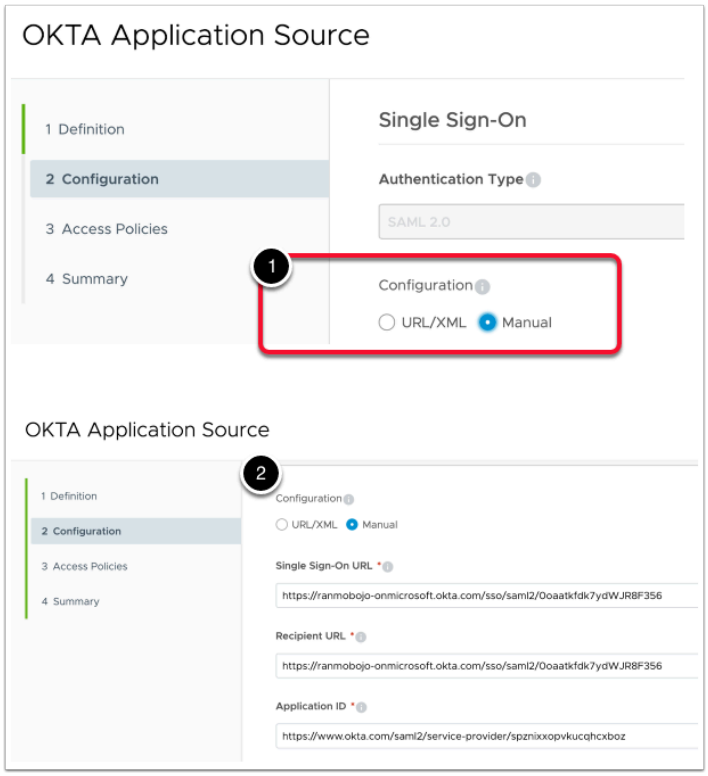
- Switch back to your **OTKA admin Console**
  - Select **Security** > **Identity Providers**

1. Expand your ***arrow >*** next to your existing ***WorkspaceONE*** configuration to face down.
2. Notice under WorkspaceONE you have 4 rows of information.
   - Save your **Assertion Consumer Service URL** and your **Audience URI** to Notepad



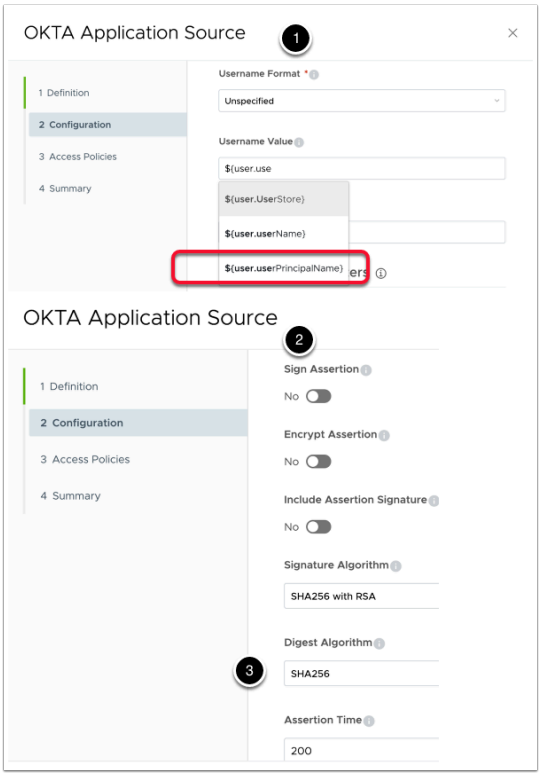
3. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- Switch back to your **Workspace ONE admin console**
  1. In the **OKTA Application Source** under **Configuration** change the **radio button** to **Manual**
  2. In section **2. Configuration** of the **OKTA Application Source** page add the following:-
     1. In the ***Single Sign-On URL*** section **copy and paste** your ***Assertion Consumer URL***
     2. In the **Recipient URL** section **copy and paste** your ***Assertion Consumer URL***
     3. Next to **Application ID: copy and paste** your ***Audience URI***



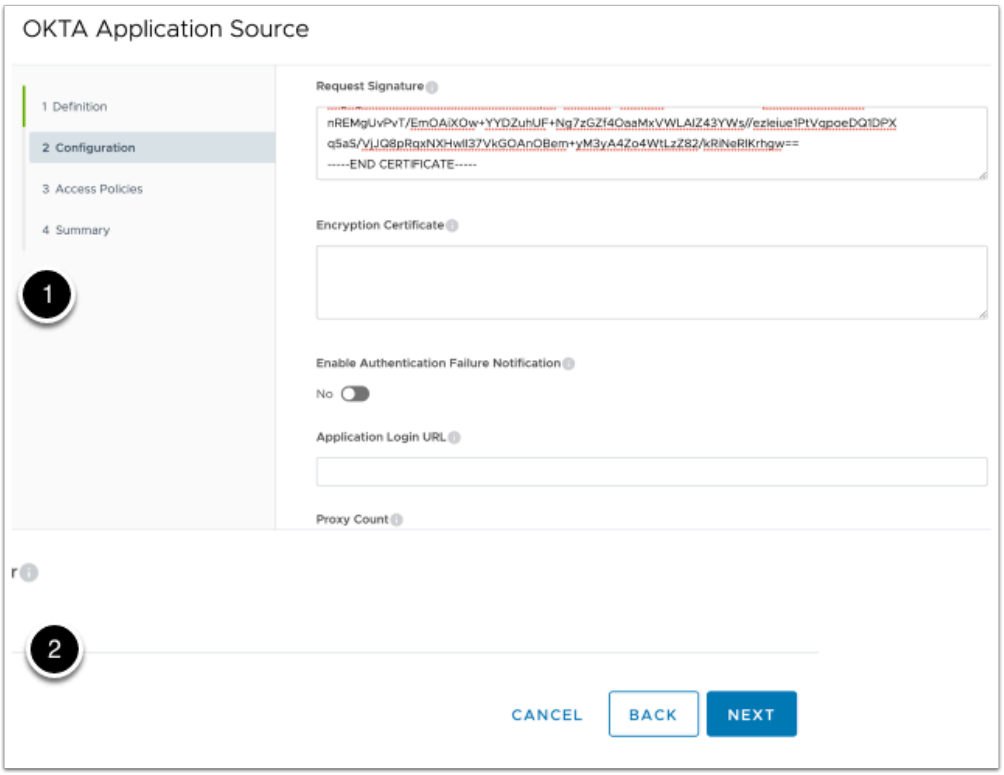
4. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- In the **OKTA Application Source** wizard
  1. Under **Configuration** **Scroll** down, next to:
     1. **Username Format:** Unspecified, (default)
     2. Under the **Username Value:** **${user.userPrincipalName}**
  2. **Scroll down** until **Advanced Properties**, and **expand** configure the following Next to:
     1. **Sign Response**: Yes (default)
     2. **Sign Assertion**: No (default)
     3. **Encrypted Assertion:** No (default)
     4. **Include Assertion Signature:** No (default)
     5. **Signature Algorithm:** SHA256 with RSA (default)
     6. **Digest Algorithm**: **SHA256**
     7. **Assertion Time**: 200 (default)



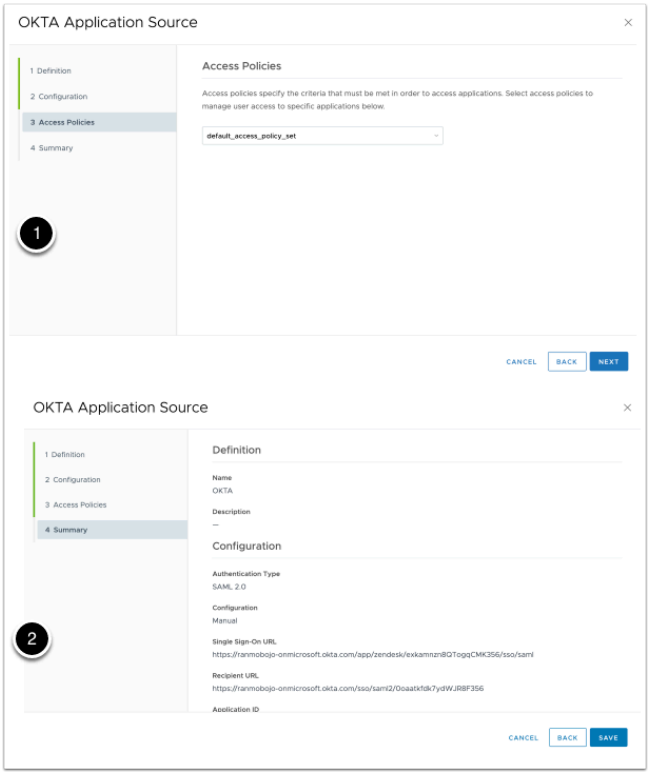
5. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- In the **OKTA Application Source** under **Configuration** continue scrolling down
  1. Under **Request Signature:** **open** the contents of the ***Okta.cert*** file previously downloaded from Okta. **Copy** and **paste** the contents including the **"-----BEGIN CERTIFICATE-----" and "-----END CERTIFICATE-----"**
  2. Select **Next**



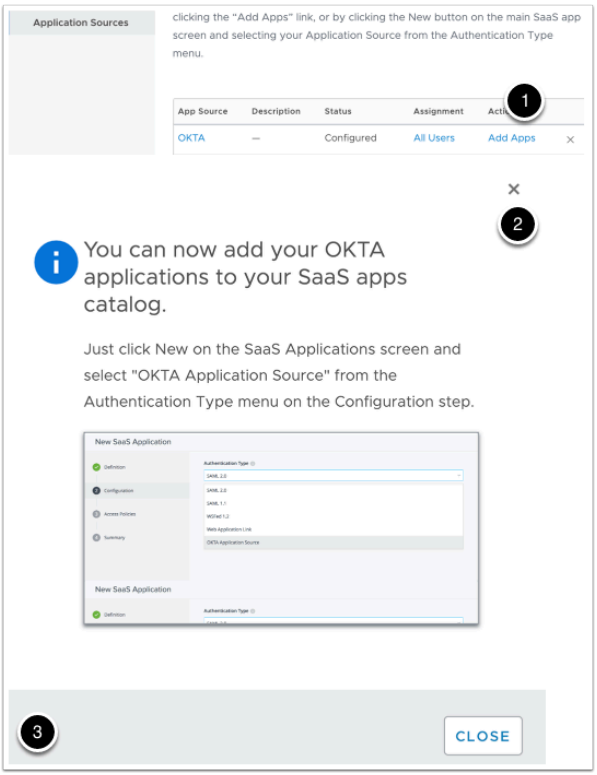
6. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- **OKTA Application Source** under **Configuration** continued
  1. On the **Access policies** page select **NEXT**
  2. On the **Summary** page select **SAVE**



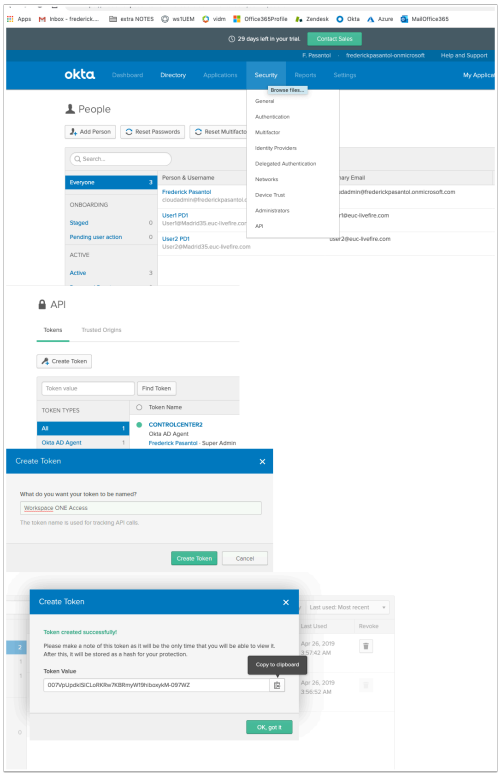
7. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- **OKTA Application Source** under **Configuration** continued
  1. Under **Settings** notice that your **OKTA Source** is now configured. Under **Action** select **Add Apps**
  2. Read the message: When done, select **Close** and select **X** to close the **Settings** page.



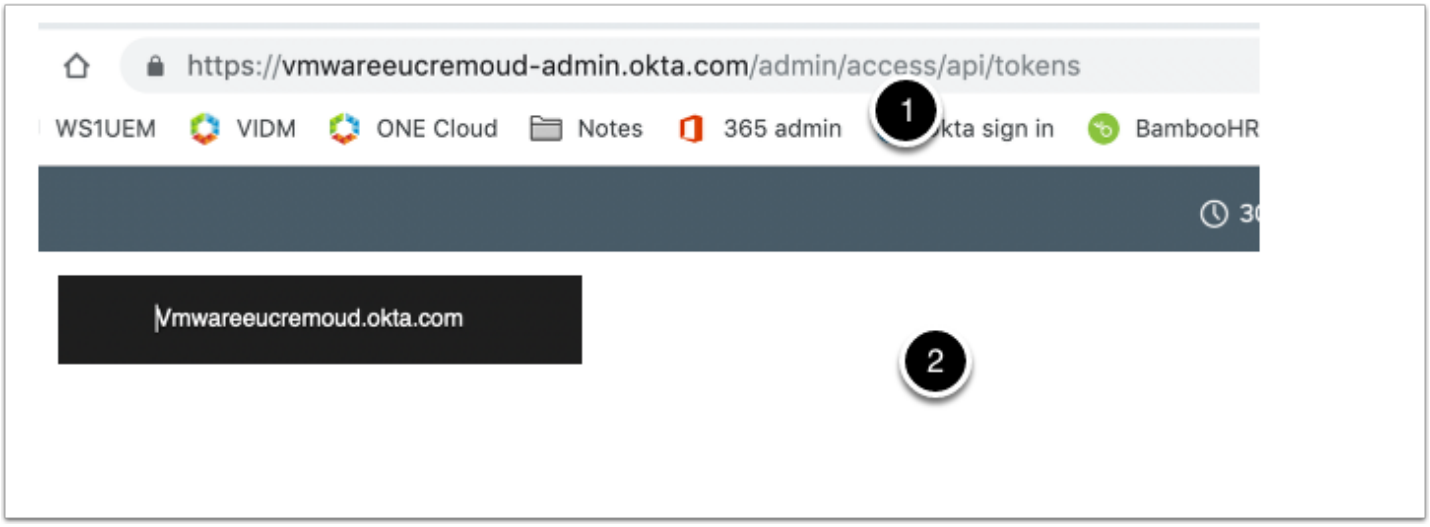
8. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- We will now configure the automatic sync of OKTA applications into the **User Catalog**
  1. Go back to your **OKTA admin Console** and select **Security** > **API**
     - **Very IMPORTANT! We are now going to create a TOKEN, we will only get ONE CHANCE to save this Token. Open a copy of Notepad or Word to document this**
  2. In the **API** console under **Tokens** select **Create Token**
  3. In the **Create Token** window under **What do you want your token to be named?** type **Workspace ONE Access** and select **Create Token**
  4. On the **Create Token** window under **Token Value** select the **Copy to Clipboard** option and **save** and **paste** to Notepad . Then select **OK, got it.**



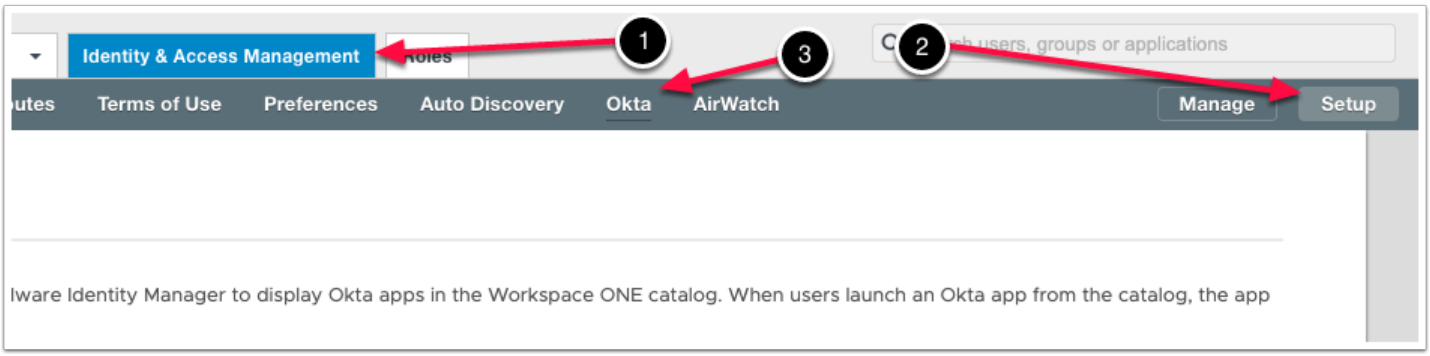
1. 9. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- In the Okta Console configure the following:
  1. Copy your **OKTA ADMIN URL** and save to **NOTEPAD**
  2. In **Notepad** **REMOVE** anything after **.com** and the **-admin** part of the hostname portion from the URL, then **copy the URL**



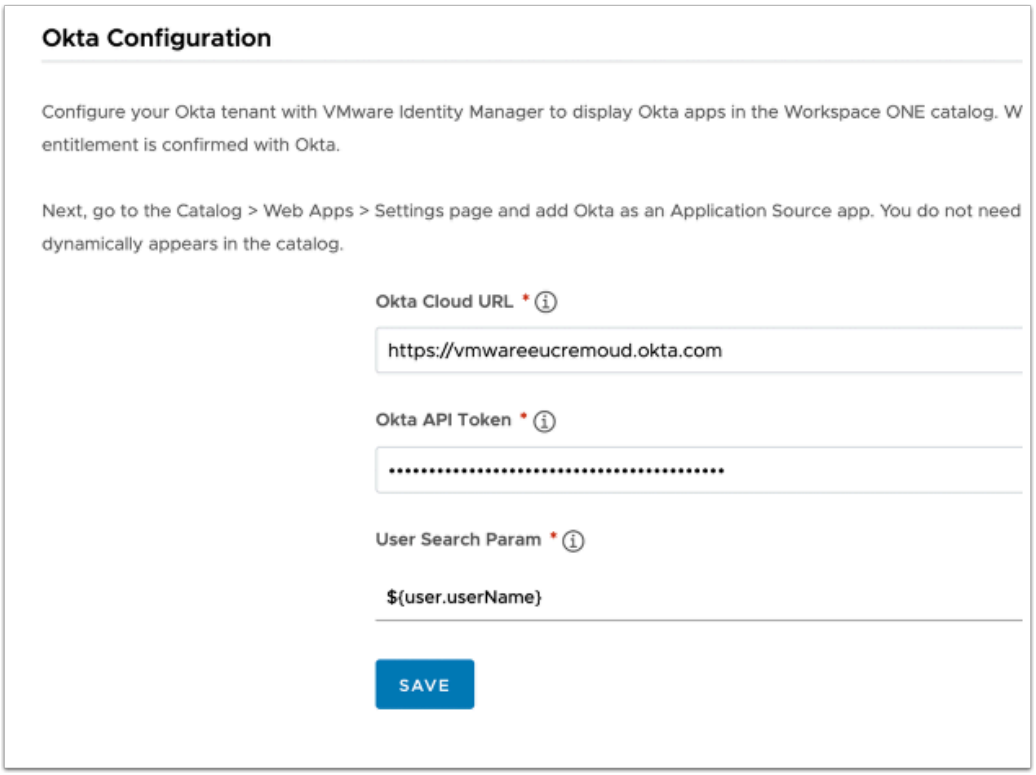
10. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- Switch back to your Workspace ONE Access Console
  - Select the **Identity & Access Management** tab and select **Setup**
  - Select **Okta**



11. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

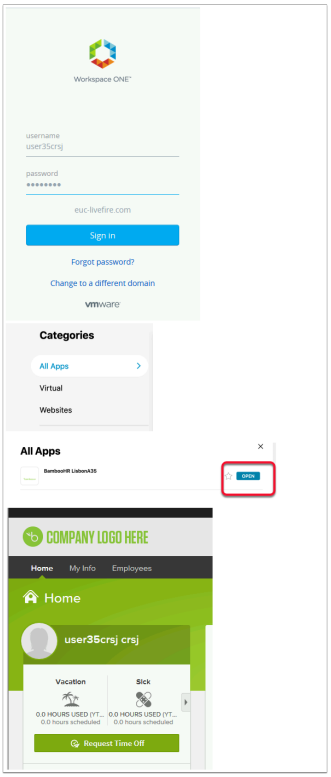
- In the Workspace ONE Access Console under **Setup** > **Okta**
  1. Under **Okta Cloud URL** paste your **edited OKTA URL** from Notepad
  2. Under **Okta API** token paste your **OKTA access token** from Notepad
  3. Under **Search Param** select **$(user.userName)** in the dropdown
  4. Select **SAVE**



12. Configuring an OKTA application Source in Workspace ONE Access (Part 4)

- We will now validate the Single Sign On process from Workspace ONE Access to OKTA to BambooHR
  1. Open a new browser or Incognito session. Make sure all cookies are deleted from previous sessions.
  2. Use your **Workspace ONE Access Url** and login as your **unique user** from the **euc-livefire.com** domain with the password **VMware1!**
  3. Under **Categories** select **All Apps**

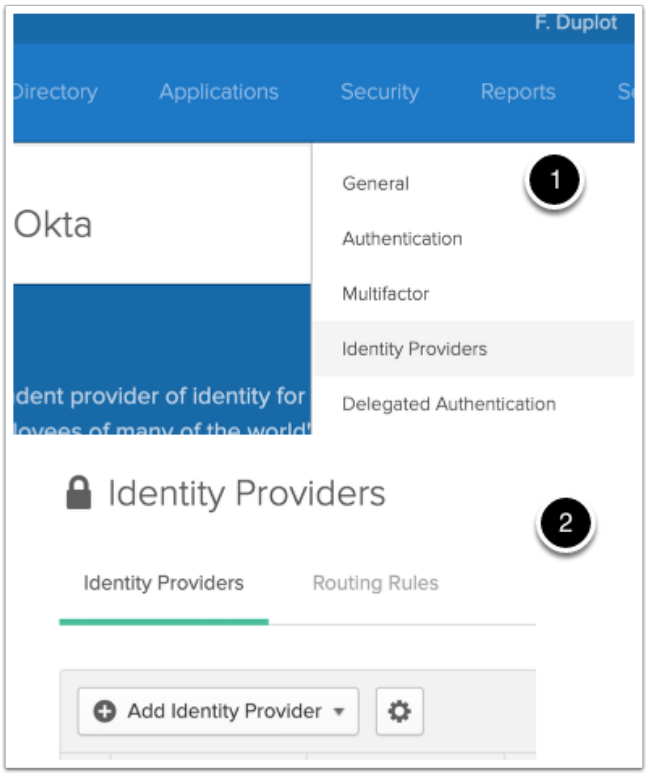
4. Under **All Apps** next to **BambooHR** select **OPEN**, you should now be redirected and signed into ***BambooHR***



Part 5. Configuring An OKTA Routing rules for Workspace ONE Access.

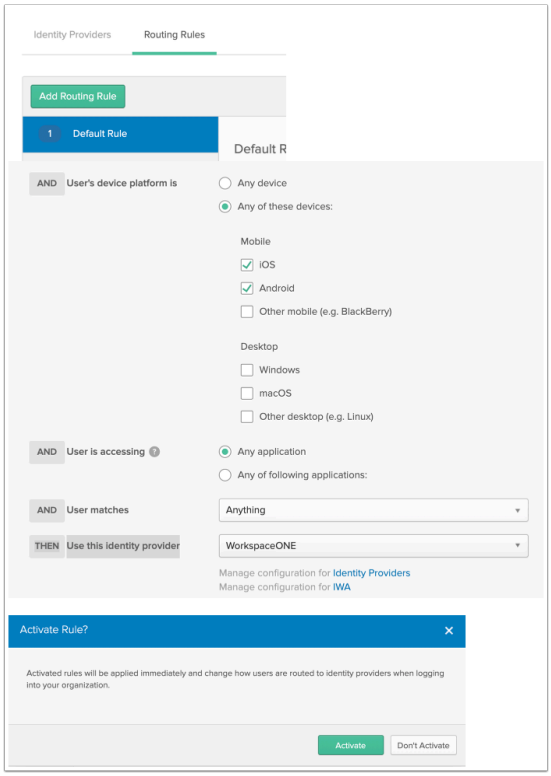
5.1

- Ensure you logged into your trial OKTA Admin console with your Custom admin account
  1. Select **Security** > **Identity Providers**
  2. Next to **Identity Providers** select **Routing Rules**



5.2

- In the Routing Rules section
  1. Select **Add Routing Rule**
  2. In the Add Rule Box select and add the following:
     - **Rule Name: Workspace ONE**
     - **AND User's device platform is :**
       - **Any of these devices: radio button**
         - **Mobile: IOS** and **Android checkboxes**
     - **THEN Use this identity provider :WorkspaceONE**
  3. Select **Create Rule**
  4. On the **Activate Rule?** Window select **Activate**
- When we complete the Mobile SSO IOS and Android labs we can test BambooHR authentication using Workspace ONE Access


Identity Providers
Routing Rules
Add Routing Rule
1 Default Rule
Default R
AND User's device platform is
Any device
Any of these devices:
Mobile
iOS
Android
Other mobile (e.g. BlackBerry)
Desktop
Windows
macOS
Other desktop (e.g. Linux)
AND User is accessing
Any application
Any of following applications:
AND User matches
Anything
THEN Use this identity provider
WorkspaceONE
Manage configuration for Identity Providers
Manage configuration for IWA
Activate Rule?
Activated rules will be applied immediately and change how users are routed to identity providers when logging into your organization.
Activate
Don't Activate