

WEBADM UPGRADE GUIDE

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upgrade

1. Introduction

This document provides the necessary information for upgrading servers running WebADM v1.7.x to WebADM v2.0. WebADM v2 is a major release.

This document is not a guide for installing WebADM or its applications (Web Services and WebApps). Specific application guides are available through the <u>RCDevs Online Documentation</u>. WebADM usage manual is not covered by this guide and is documented in the RCDevs <u>WebADM Administrator Guide</u>. In this guide, we will consider a common installation scenario where WebADM is running in cluster mode with two active servers.

2. What is new in WebADM v2?

2.1 Major changes

2.1.1 Push and license services based on HTTP2

WebADM v2 comes with major changes that need to be considered before the upgrade for both enterprise and freeware customers.

- Replaced Push Servers and License Servers with RCDevs Cloud microservices. RCDevs Cloud microservices provides access to RCDevs online services like OpenOTP Push notification in a much more efficient way. Your WebADM establishes a set of permanent HTTP2-TLS connections with RCDevs services which work via HTTP proxies, under which service requests are tunneled. This involves firewall rules adjustments for push and license services. In 1.x versions of WebADM, push and license services access were done through a custom protocol on following endpoints and ports :
- > push.rcdevs.com port 7000 TCP
- > license.rcdevs.com port 7001 TCP

Now the only outbound connection you need to allow is :

> cloud.rcdevs.com port HTTPS/443

Adjust your firewall rules before the upgrade to keep push and license services connectivities post-upgrade.

2.1.2 Freeware users need a license

A license is now mandatory even for freeware users. Freeware users can generate a license for free by themselves through the following <u>URL</u>. Once you received your license by mail, you need to import it on your WebADM server in /opt/webadm/conf/ folder before starting WebADM. WebADM v2 without any license will prevent it to start. The license is required in order to use RCDevs Cloud services. All your WebADM v1 freeware features are maintained.

2.1.3 VOICE Biometric Authentication

A new OTP type named **VOICE** is now available under OpenOTP configuration. This feature is under license for entreprise usage and included in freeware version. Contact sales@rcdevs.com for VOICE licensing.

- > You need OpenOTP >= 1.5.0 in order to use voice biometrics authentication.
- > You need RCDevs Directory Server >= 1.0.10-3 which includes voice schema.
- > For Active Directory with extended schema, a new attribute needs to be added into your schema. New attribute is named webadmVoice. To add this new attribute in your schema, please refer to section 6 of this document.
- > For Active Directory not extended schema, the attribute used to store voice fingerprint is audio available in user and inetorgperson objectclasses.

2.1.4 Support for PKCS#11 SCHSM USB device

- > WebADM v2 currently supports Nitrokey and SmartContact HSM devices.
- > YubiHSMv2 support will come later this year.

Documentations for configuring these purposes are available here : SmartCard HSM MirKey HSM

2.2 Minor changes

- > Upgraded OpenSSL to version 1.1.1g (including security fixes).
- > Upgraded embedded Redis server to version 6.0.3.
- > Fixed issues with MountPoints having an empty LDAP base DN.
- > Fixed license expiration issues with trial licenses.

3. Backup Your Server

Before upgrading, please back up your WebADM configurations on any WebADM server. Therefore, please follow this guide <u>Backup & Restore</u>, that covers backup and restore recommendations for a typical RCDevs solution deployment including WebADM, OpenOTP with Radius Bridge and RCDevs Directory Server.

4. Install the Upgrade Package

You will need to perform the following instructions on all the servers of your cluster.

4.1 Upgrade WebADM through RCDevs Repository

To upgrade RCDevs packages with the RCDevs repository, packages should be installed first through the repository. To install RCDevs repository and install packages through the repo, please follow the RCDevs Repository documentation.

To upgrade packages through the repository:

4.1.1 RHEL/CentOS

[root@localhost tmp]# yum update webadm

4.1.2 Debian/Ubuntu

[root@localhost tmp]# apt-get update
[root@localhost tmp]# apt-get install webadm

4.2 Upgrade WebADM through the Shell Script

- > Download the WebADM v2.x all-in-one package.
- > Copy the package on the servers with WinSCP or another SCP tool.
- > Connect the servers via SSH or Putty.
- > Uncompress the package with:

gunzip webadm_all_in_one-2.x.x64.sh.gz

Note

Please uncompress the GZ archive once copied on the Linux server and not under Windows!

> Run the upgrade tool with the commands:

[root@webadm1 tmp]# sh webadm_all_in_one-2.0.0-x64.sh WebADM v2.0.0 (x64 bit) Self Installer Copyright (c) 2010-2023 RCDevs Security SA All rights reserved.

A WebADM installation is already present in '/opt/webadm'. Remove(R) or upgrade(U) or quit(Q)? U Verifying package update... Ok

Are you sure you want to upgrade the WebADM installation in '/opt/webadm' (y/n)? y Extracting files, please wait... Ok Removing temporary files... Ok Executing upgrade script for WebADM version 2.0.0 > Adjusting WebADM objects.xml file... Ok > Adjusting WebADM webadm.conf file... Ok > Adjusting WebADM servers.xml file... Ok Resetting file permissions... Ok WebADM has been successfully upgraded. Restart WebADM (y/n) y Checking libudev dependency... Ok Checking system architecture... Ok

Found Trial license (RCDEVSSUPPORT) Licensed by RCDevs Security SA to RCDevs Support Licensed product(s): OpenOTP,SpanKey,TiQR

Starting WebADM PKI service... Ok Starting WebADM Session service... Ok Starting WebADM Watchd service... Ok Starting WebADM HTTP service... Ok

Checking server connections...

Connected LDAP server: LDAP Server (192.168.3.60) Connected SQL server: SQL Server (192.168.3.68) Connected PKI server: PKI Server (192.168.3.64) Connected Mail server: SMTP Server (78.141.172.203) Connected Session server: Session Server (127.0.0.1)

Checking LDAP proxy user access... Ok Checking SQL database access... Ok Checking PKI service access... Ok Checking Mail service access... Ok Checking Cloud service access... Ok

4.3 Check post upgrade

Once you upgraded WebADM and its dependencies, you have to log in on WebADM Administrator portal and check that the setup is completely done. You may have some new configurations who needs to be applied manually like new SQL table or column creation, new setting creation inside an application... Once logged on WebADM GUI, if there is any changes who need to be applied manually, you can see a warning message like below:

Web ADN Enterprise Edition v2.1.15 Copyright © 2010-2022 RCDevs Security, All Rights Reserved	
A Home Admin Cluster Create Search Import Databases	Statistics Applications About Logout
WebADM	Setup
Your WebADM installation is not completely configured! Please run the following setup actions to finish configuring WebADM.	
Checking LDAP schema Reading schema objectclasses Ok Reading schema attributes Ok Checking account objectclass Ok Checking group objectclass Ok Checking objectclass Ok Checking data attribute Ok Checking settings attribute Ok Checking type attribute Ok Checking type attribute Ok Checking voice attribute Ok Checking voice attribute Ok Checking tatabase Checking tatabase connection Ok Reading database tables Ok Checking field Admin Ok	
Checking field Manag.Application Ok Checking field Manag.Method Ok Checking field Manag.DN Ok	

or like this if you already clicked on the Home tab:

Admin Cluster Create Search Import Databases Statistics Applications About Logout
Helio Yoann traut (CN=yoann traut.OU=SUPAdmi) Connected as Super Administrator to webadm1.support.rcdevs.co WebADM installation is incompletel [Run The Setup Wizard] Support Services License status: Valid (Cloud-based) Maintenance included: Expired Maintenance mode: Disabled (Enable maintenance mode) Debugging console: Launch console MFA Authentication Server: Øk (v1.15) Shared Session Server: Øk (v1.2.5) SH Public Key Server: Øk (v1.2.1) Administrators Bervice: Øk (v1.2.1) Administrators Bervice: Øk (v1.2.1) Administrators Service: Øk (v1.2.1) Administrators Service: Øk (v1.2.1) Administrators Kervice Desk: Øk (v1.2.1) Administrators Service: Øk (v1.2.1) MGI User Self-Service Desk: Øk (v1.2.8) User Self-Service Desk: Øk (v1.2.8) User Self-Registration: Øk (v1.2.8) Session Server 1: Alive (192.168.4.20) Session Server 2: Alive (192.168.4.21)
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Session Server 1: Alive (192.168.4.20) Session Server 2: Alive (192.168.4.21)
Session Server 2: Alive (192.168.4.21)
Configurations Objects
User Domains: 3 (Details) Mount Points: 2 (Details)
Client Policies: 35 (Details) Access Devices: 0 (Details)
Option Sets: 2 (Details) Admin Roles: 1 (Details)
✓ Show More

In that case click Run The Setup Wizard button to be redirected on the WebADM Setup screen and then click the blue button(s) (you may have multiple configurations to create) to finish the setup.

Checking field R	ecord.ID Ok
Checking field R	ecord.ApplicationOk
Checking field R	ecord.Start Ok
Checking field Re	ecord.Stop Ok
Checking field R	ecord.DN Ok
Checking field R	ecord Host Ok
Checking field R	ecord. Session Ok
Checking field R	ecord.Type Ok
Checking field R	ecord.Size Ok
Checking field R	ecord.DataOk
Checking field R	ecord.Store Ok
Checking table Cer	tificate Ok
Checking field Co	ertificate.TypeOk
Checking field Co	ertificate.ReferenceOk
Checking field C	ertificate.Description Ok
Checking field Co	ertificate.Start Ok
Checking field C	ertificate.Stop Ok
Checking field C	ertificate.TimeOk
Checking field Co	ertificate. Adst Ok
Checking field Co	ertificate.Active Ok
Checking field Co	ertificate.Renew Ok
Checking table Stat	tistic Missing
Create/Undete	COL database tables
Create/Opdate	
Checking WebAD	
Checking proxy use	er exists Ok
Checking proxy use	er bind Ok
Checking WebAD	M cuper edmine
Checking super ad	min 'cn=voann traut' Ok
Checking super adr	nin 'cn=Domain Admins' Ok
Tree root: DC=supr	ermissions
Checking proxy use	er permissions Ok
Checking default I	LDAP objects
Checking domains Checking clients co	intainer Ok
Checking devices of	ontainer Ok
Checking webapps	container Ok
Checking websrvs	container Ok
Checking optionset	s container Ok
Checking mountpoi	ints container Ok
You must logout v	when setup is completed.
	Web ALLIN Enterprise Edition V2.1.15
	Cupyingin er 2010-2022 hobevs security, Air nigints neserved
	Home Admin Cluster Create Search Import Databases Statistics Applications About Logout
	Database Setup
	Constitue Malaria de Constante
	Creating table Statistic Success
	Ok

If you are running a WebADM cluster well configured, this extra operation should be done only from one WebADM node. Logout and login on the WebADM Admin Portal after finishing the graphical setup to double-check that everything is fine. Your update/upgrade is now finished and WebADM and its dependencies should be ready.

5. Check configuration files adjustements

The updater has automatically adjusted your configuration files. The most important configuration files are webadm.conf and servers.xml. Find below, changes you can observe:

5.1.1 Common to all setups

Enable RCDevs cloud services such as OpenOTP mobile Push and license services.# These features require a HTTPs outbound Internet access from the server.cloud_services Yes

5.1.1 OpenLDAP, Novell, Active Directory schema extended

A new LDAP attribute which is commented out by default has been added :

#webadm_voice_attrs "webadmVoice"

If you want to use Voice biometric for authentication, you need to uncomment this setting and define the attribute in your Active Directory schema.

Below, the new attribute definition who must be part of your AD schema :

dn: CN=webadmVoice
changetype: add
attributeID: 1.3.6.1.4.1.34617.2.3.4
attributeSyntax: 2.5.5.10
oMSyntax: 4
cn: webadmVoice
isSingleValued: TRUE
objectClass: attributeSchema
searchFlags: 0

All schema files are available in /opt/webadm/lib/schemas/ folder.

Have a look at section 5 of this documentation to manually update your AD schema.

5.1.2 Active Directory schema not extended

A new LDAP attribute which is commented out by default has been added :

If you want to use Voice biometric for authentication, you need to uncomment this setting.

#webadm_voice_attrs "audio"

5.2 servers.xml

As you can see, push and license configurations have been removed from your servers.xml file. The following content is now visible :

</th
Removed Push Server Configuration Section
Replaced by Cloud services in WebADM v2.0
>
</td
Removed Push Server Configuration Section
Replaced by Cloud services in WebADM v2.0
>
</td
Uncomment the following block if you have a license server
with an IP pool-based Enterprise license from RCDevs.
>
</td
Removed License Server Configuration Section
Replaced by Cloud services in WebADM v2.0

6. Update AD extended schema with webadmVoice attribute (optionnal)

Open the AD schema snap-in on your domain controller which is schema master.

Console Root 2 ADSI Edit CN=L C	UPN-Suffixes	Class	Distinguished Name
	User User-Control User-Cent User-Cent User-Parameters User-Parameters User-Principal-Name User-Shared-Folder User-Shared-Folder User-Shared-Folder	attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema	CN=UPN-Suffixes, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Account-Control, CN=Schema, CN=Configuration, DC=yorcdevs, CN=User-Comment, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Parameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Parameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Password, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Pincipal-Name, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC

Right-click on the CN=Schema,CN=Configuration... object > New > Object.

And configure the new attribute like below :

-->

Create Object				>
Select a clas	is:			
	ttributeSchema lassSchema			
le	ostAndFound			
	< Back	Next >	Cancel	Help
Create Object				>
Attribute:	cn			
Syntax:	Unicode String			
Description	Common-Name			
Desa pron.	connorrhanc			
Values	websdm\/oice			_
Values	webbunvorcej			
	(Bady	Nexts	Ground	
	< pack	Next >	Cancel	нер
Create Object				>
Attribute:	oMSyntax			
Syntax:	Integer			
Description:	OM-Syntax			
Description.	OPPSymax			
Values				_
value:	4			
	(De de	Nexts	Control	11-b
	< Deck	Next >	Cancel	Hep
Create Object)
Attribute:	isSingleValued			
Contract	Dealara			
Syntax:	boolean			
Description:	Is-Single-Valued			
Value:	TRUE			
	< Back	Next >	Cancel	Help

Create Object	×
Attribute:	attributeSyntax
Syntax:	Object Identifier
Description:	Attribute-Syntax
Value:	2.5.5.10
	< Back Next > Cancel Help
Create Object	×
Attribute:	attributeID
Syntax:	Object Identifier
Description:	Attribute-ID
Value:	1.3.6.1.4.1.34617.2.3.4
	< Back Next > Cancel Help
Croate Object	~
Create Object	^
To complete the	e creation of this object, click Finish.
To set more attr	ibutes, click More Attributes. More Attributes
	< Back Finish Cancel Help

Click on the finish button. The new webadmVoice attribute has been added to your schema and should be available in the attributes list.

🔶 🖄 📶 🗶 🗊 🔒 🛛 🛅			
Console Root ADSI Edit Schema [YOAD19.yorcdevs.eu] CN=Schema CN=Configuration,DC=yorcdevs,DC=eu	Name CN=UPN-Suffixes CN=User-Account-Control CN=User-Cert CN=User-Cert CN=User-Cert CN=User-Parametes CN=User-Parametes CN=User-Shared-Folder CN=User-Shared-Folder-Ctn- CN=User-Shared-Folder-Ctn-	Class attributeSchema classSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema attributeSchema classSchema attributeSchema attributeSchema attributeSchema attributeSchema	Distinguished Name CN=UPN-Suffixes, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Cett, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Cett, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Camment, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Darameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Darameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Darameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Daraed-Folder-CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder-CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder-CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmAccount, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmData, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmData, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmData, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmData, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmScoup, CN=Schema, CN=Configuration, DC=yorcdevs,
	CN=webadmVoice	attributeSchema	CN=webadmVoice, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu

Edit the webadmVoice attribute > attribute editor. Found the searchFlag attribute and put 0 as value.

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Save and exit.

Now, edit webadmAccount object and in attribute editor tab, edit the attribute mayContain:

onsole Root	Mana	Class	Distinguished by	luma.		
ADSIE Edit ✓ I Schema [VOAD19.yorcdevs.eu] CN=Schema,CN=Configuration,DC=yorcdevs,DC=eu	Name CN=UPN-Suffixes CN=User CN=User-Control CN=User-Cent CN=User-Parameters CN=User-Parameters CN=User-Parameters CN=User-Parameters CN=User-Parameters CN=User-Parameters CN=User-Shared-Folder CN=WebadmCount CN=WebadmCount CN=webadmData CN=webadmSroup CN=webadmSroup	Class attributeSch classSchema attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch classSchema attributeSch classSchema attributeSch classSchema attributeSch attributeSch attributeSch attributeSch	Utstruguished N CN=UPN-Suffis CN=User-Cert, CN=User-Cert, CN=User-Parar CN=User-Parar CN=User-Parar CN=User-Phinc CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=User-Shart CN=Webart CN=webadmS CN=webadmS	ame ses, CN=Schema, CN=Configuration, chema, CN=Configuration, unt-Control CN=Schema, CC CN=webadmAccount Pro Attribute Editor Security Attributes: Attributes: Attributes: Attributes: Attributes: MS-OS-ConsistencyC mS-DS-ConsistencyG mDS-NatKnownRDN mDS-NatKnownRDN mDS-NatKnownRDN mDS-SourceAnchor msDS-SourceAnchor msCortain name objectCategory	guration,DC=yorcdevs,DC=eu DC=yorcdevs,DC=eu IN=Confisuration DC=vorcdev perties Value description; mail:mobile; prefered ond set> ond set	s.DC=eu ? fLanguage CN=Configu

Add webadmVoice value

Attribute: mayContain	
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and save your changes.

Update your schema now :

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Console Root	VDAD10 unerelater and Settings Remove Update Schema Now New New Window from Here Rename Refresh	vs,DC=eu	Name CN=UPN-Suffixes CN=User-Account-Control CN=User-Cert CN=User-Cert CN=User-Cert CN=User-Parameters CN=User-Pincipal-Name CN=User-Pincipal-Name CN=User-Shared-Folder CN=User-Shared-Folder-OL_ CN=User-Shared-Certificate CN=webadmGconfig CN=webadmGcoup CN=webadmGroup CN=webadmSettings CN=webadmSettings	Class attributeSch classSchema attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch attributeSch classSchema attributeSch classSchema attributeSch	Distinguished Name CN=UPN-Suffixes, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Account-Control, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Cett, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Parameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Parameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Parameters, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Pansword, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=User-Shared-Folder, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=WebadmAccount, CN=Schema, CN=Configuration, DC=yorcdevs, DC=eu CN=webadmGroup, CN=Schema, CN=C	

Force the schema cache to be flushed.

Schema extension is done, you should be able to register your Voice fingerprint in this new attribute.

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