



CYBERARK®
The Identity Security Company™

PAM Administration

Dependent Platforms



Agenda

By the end of this session the participant will be able to:

- Configure various types of Dependent Platforms

Overview

Dependents

Dependents are another type of **Platform** and are used for managing **Usages**

- A **usage** refers to an instance when an account, which is created at the operating system or domain level, is also used to perform some task somewhere else
- When we change the password for the target account, we must also make sure that any other occurrences (or usages) of the password are also changed

Platform Management

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Filter | Search for dependent platforms

Marketplace | Import platform

Targets | **Dependents** | Groups | Rotational Groups

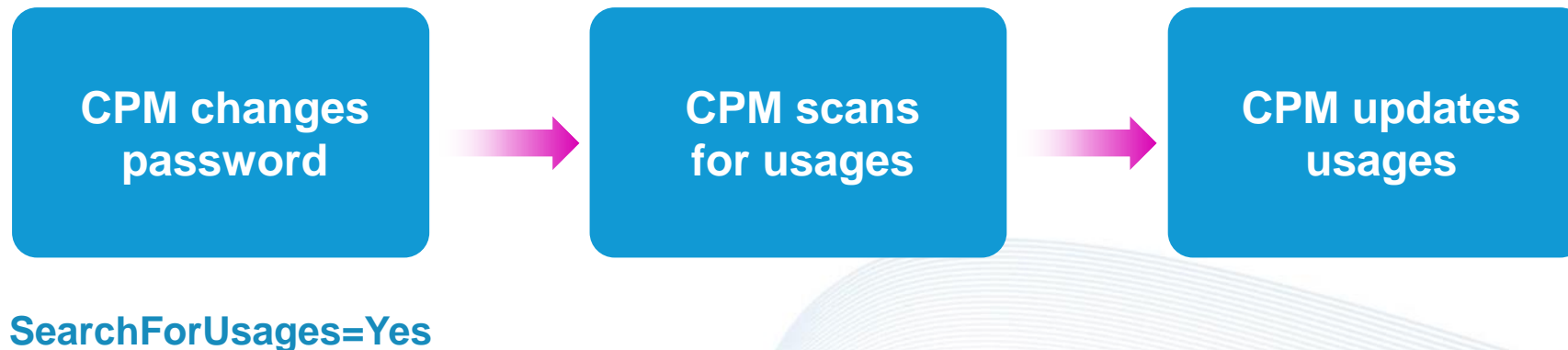
12 results

Platform Name	Manual password change	Number of target platforms	
COM+ Application	✓	9	...
Database String	✓	2	...
IIS Anonymous User	✓	9	...
IIS Application Pool	✓	9	...
INI File	✓	1	...
Private SSH Keys	✓	2	...
Scheduled Task	✓	9	...
Text File	✓		...
Web File	✓		...
Windows Registry	✓	9	...
Windows Service	✓	9	...
XML File	✓		...

Usages

The **CPM** can synchronize an account password with all other occurrences of the same password on the same server or anywhere in the network, provided that those occurrences are registered in **CyberArk PAM**.

This is done through ***Usages***

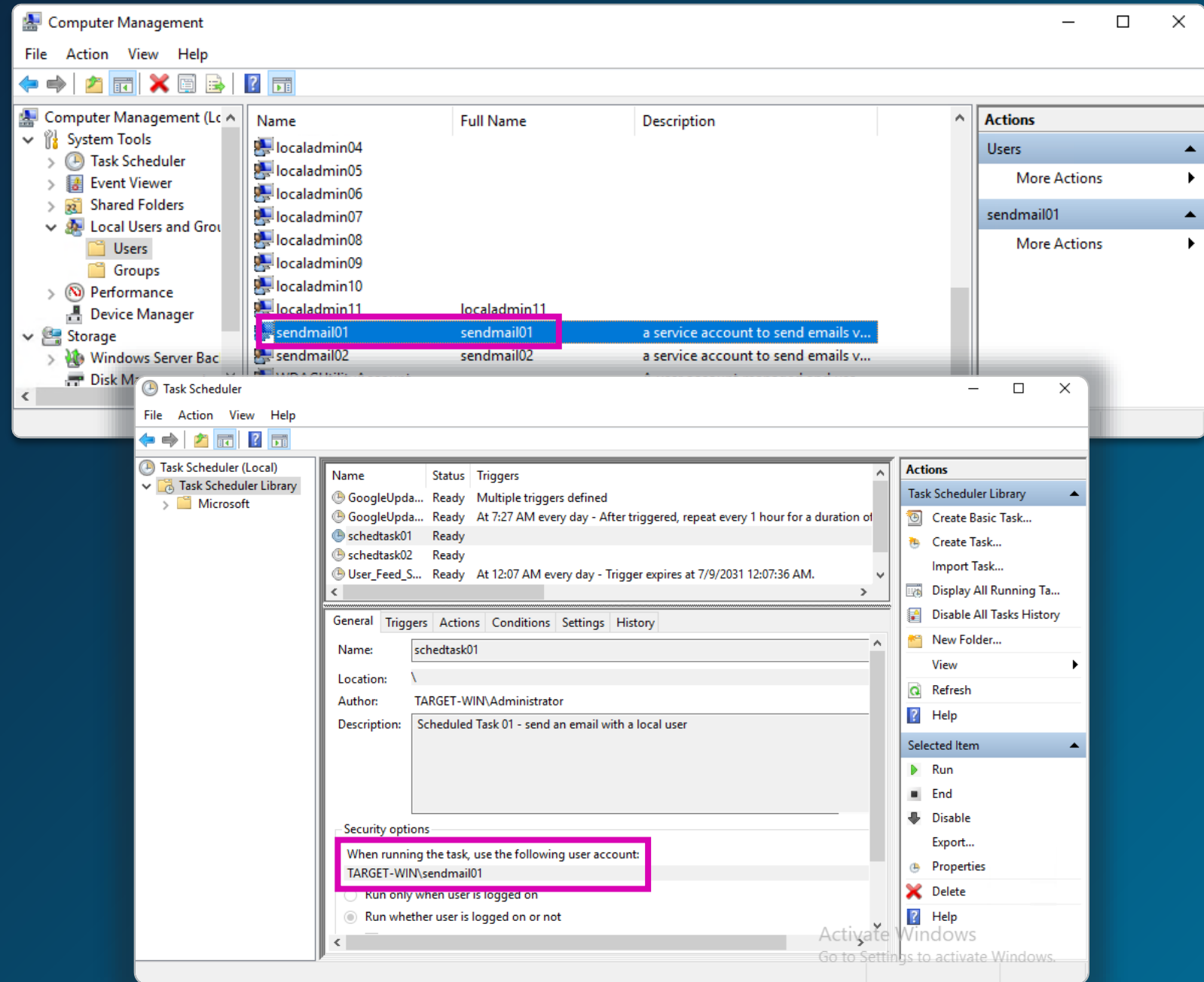


Scheduled Task Example

Scheduled Task Example

In our example, a local Windows user – ***sendmail01*** – is used to run a scheduled task – ***SchedTask01***.

- When we change the password for ***sendmail01***, we must also change the copy of the password that is stored with the scheduled task.
- If we don't, the scheduled task will no longer run.



Scheduled Task Example

Viewing the account details for **sendmail01** in the Classic Interface, you will see the **Scheduled Task** tab. This is where we need to add the task, providing the name of the task and the server address.

Account Details

Edit Change Reconcile Verify Delete Move Send Link Refresh

Search:

Password

RDP

Platform Name: WIN SVR ADM 45
Device Type: Operating System
Safe: Win-Svr-Fin-US
Name: Operating System-WINSVRADM45-target-win.acme.corp-sendmail01
Last verified: N/A
Last modified: PasswordManager (11/25/2022 2:08:40 PM)
Last used: tom (11/25/2022 2:02:28 PM)
Username: sendmail01
Log On To: target-win.acme.corp
Address: target-win.acme.corp

CPM		Activities		Versions		Windows Service		Scheduled Task	
Add		Edit		Search: <input type="text"/>					
		Task Name		Address					
<input type="checkbox"/>		schedtask01		target-win.acme.corp					

When the **CPM** changes the password for ***sendmail01***, it will also change the password in the Scheduled Tasks.

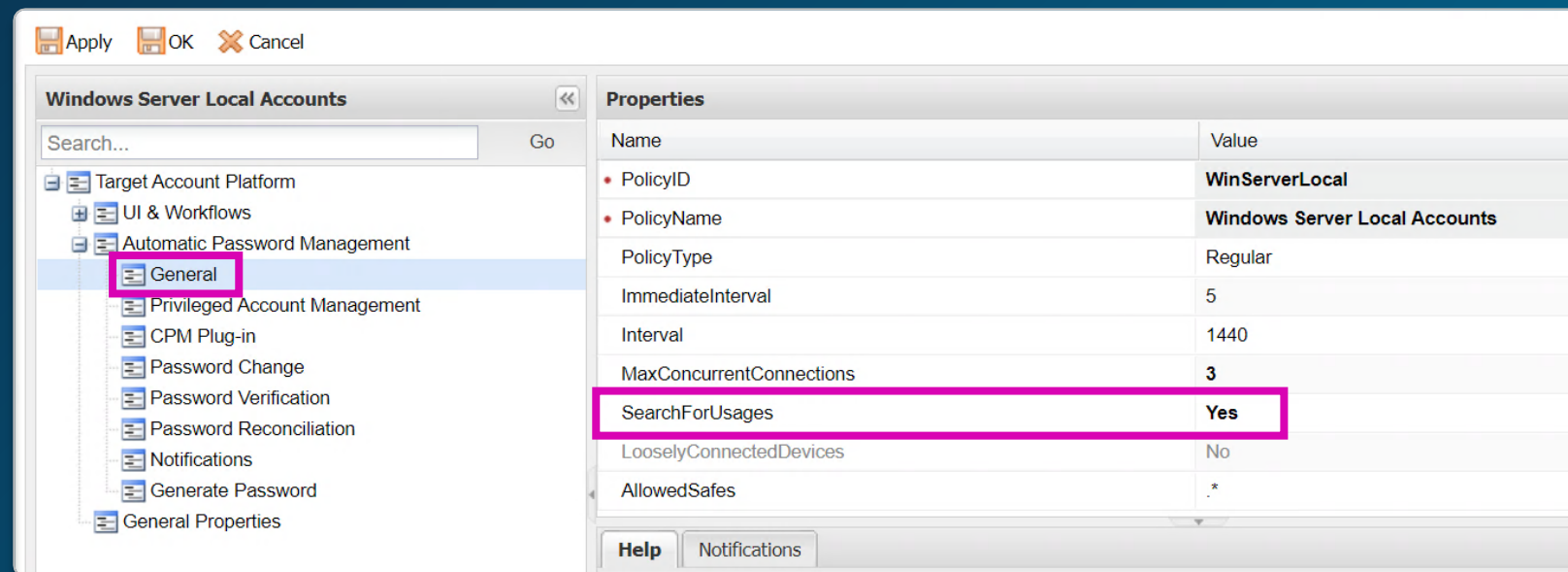
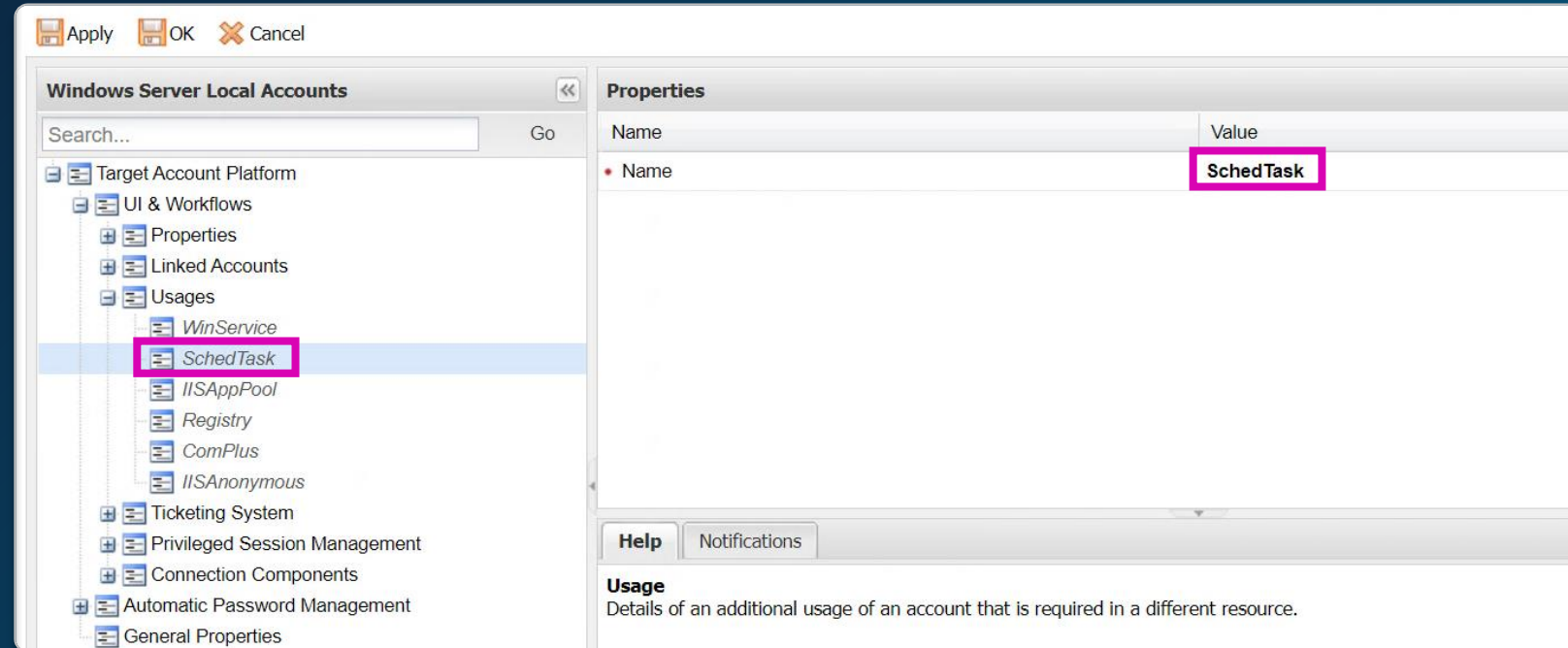
→ Display 1 result(s)

When the **CPM** changes the password for **sendmail01**, it will also change the password in the Scheduled Tasks.

Windows Usages: Platform Configuration

Windows **Usages** are enabled by default in all the Windows **Target Platforms**.

- The **Target Platform** must reference the **Dependent Platforms** for the **Usages**.
- And have the parameter **SearchForUsages** set to **Yes**.



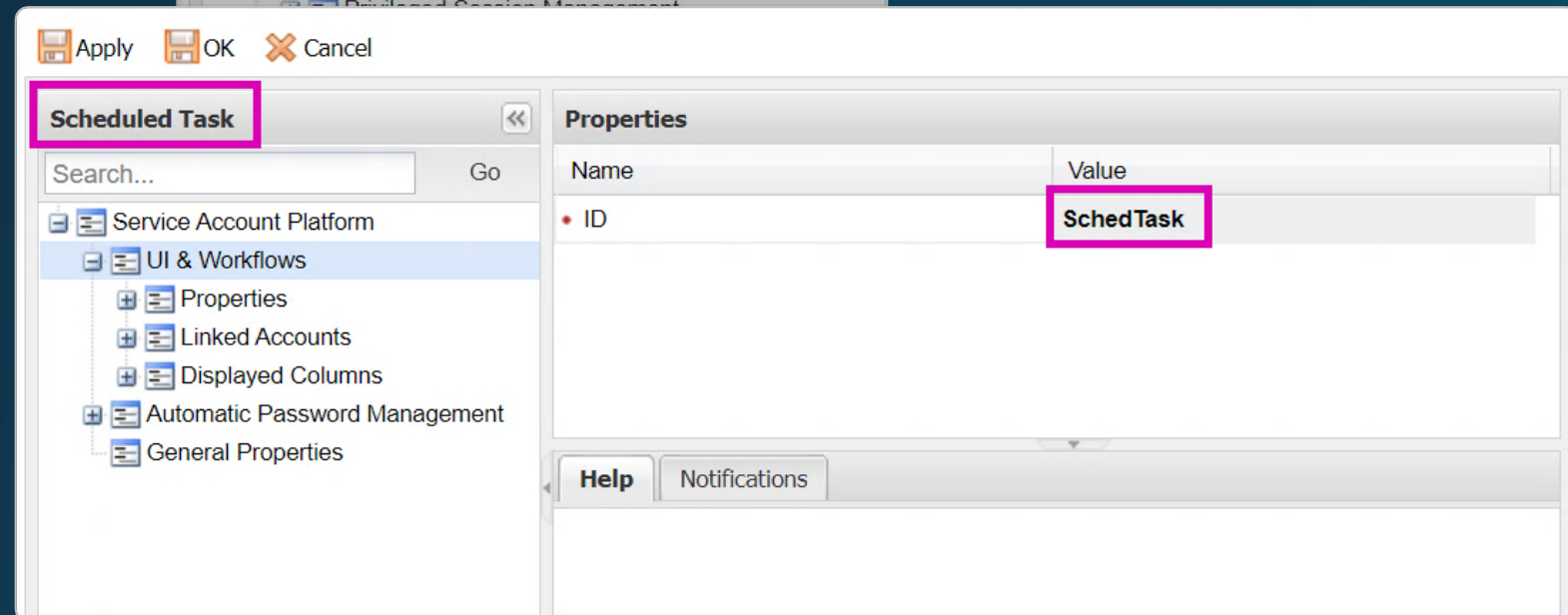
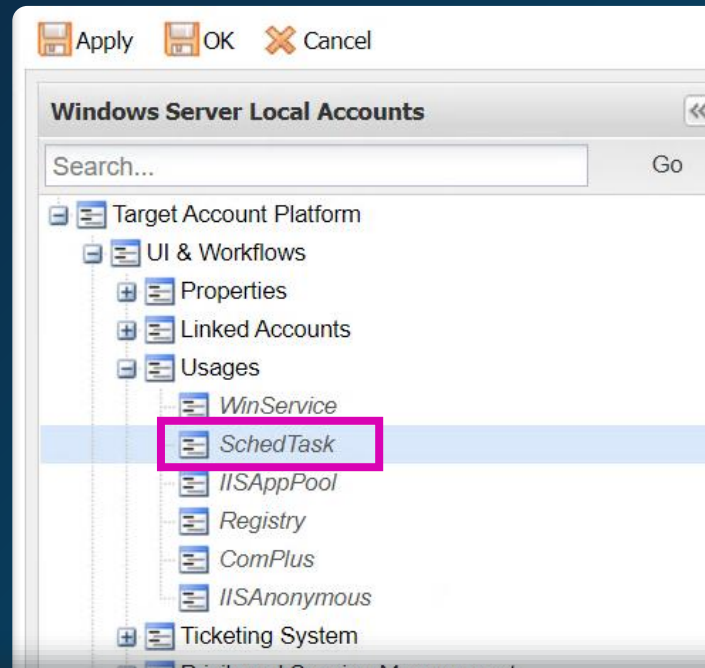
Windows Usages: Platform Configuration

The names listed under **Usages** reference the **PAM** object IDs for the **Dependent Platforms**.

Here we see the usage **SchedTask** in a Windows platform.

If we look at the dependent platform **Scheduled Task**, we will see that its ID is also **SchedTask**.

This parameter informs the **Target Platform** what kinds of **Dependents** it should look for when scanning for usages.



Configuration File Example

Config File Example

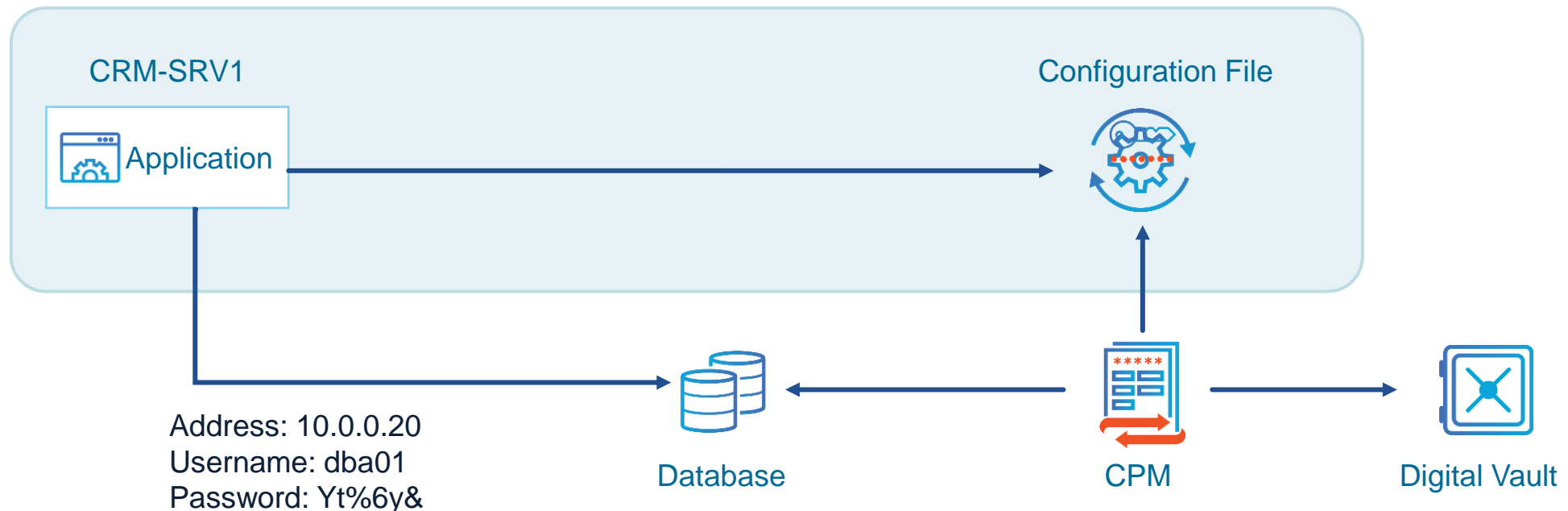
Certain applications are hard-coded to retrieve credentials from configuration files

- The **CPM** can manage application accounts in the following types of files:
 - Plain text
 - INI files
 - XML files
 - Web configuration files
- These usages must be added manually to the appropriate **Target Platforms**

```
1  [Startup]
2  Product=App Server
3  ProductGUID=bf1f0850-d1c7-11d3-8e83-0000e8efafe3
4  CompanyName=CyberArkDemo
5  CompanyURL=www.cyber-ark-demo.com
6  MediaFormat=1
7  LogMode=1
8  SmallProgress=N
9  SplashTime=
10 CheckMD5=Y
11 CmdLine=
12 ShowPasswordDialog=N
13 ScriptDriven=4
14
15 [Languages]
16 Default=0x0409
17 Supported=0x0409
18 RequireExactLangMatch=0x0404,0x0804
19 RTLLangs=0x0401,0x040d
20
21 [Server]
22 Hostname=DBServer01
23 Password=Cyberark1
24
25 [Database]
26 Db=MySQL
27 Port=3306
28
29
```

Config File Usage Explained

- In this example, we have an application that uses a database account – **dba01** – to retrieve data for processing. The application retrieves the password for (the privileged account) from a configuration file and uses the credentials to authenticate to a target database.
- When the **CPM** changes the password for **dba01**, it must also push the updated password to the config file that is used by the application.



Add Config File Usage (1)

To add a configuration file usage, you will first need to add manually the relevant usage in the target account platform

Then enable the parameter ***SearchForUsages***

ORA DBA 30

Search... Go

- Target Account Platform
 - UI & Workflows
 - Properties
 - Linked Accounts
 - Ticketing System
 - Privileged Session Management
 - Connection Components
 - Usages**
 - INIFile
 - Automatic Password Management
 - General Properties

Name	Value
Name	INIFile

ORA DBA 30

Search... Go

- Target Account Platform
 - UI & Workflows
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 - Linked Accounts
 - Ticketing System
 - Privileged Session Management
 - Connection Components
 - Usages
 - INIFile
 - Automatic Password Management**
 - General
 - Privileged Account Management
 - CPM Plug-in

Name	Value
PolicyID	ORADBA30
PolicyName	ORA DBA 30
PolicyType	Regular
ImmediateInterval	1
Interval	1440
MaxConcurrentConnections	3
SearchForUsages	Yes
LooselyConnectedDevices	No
AllowedSafes	Ora-

Add Config File Usage (2)

Next, you must add the specific INI config file usage to the relevant account

Notice that, in addition to providing the server address and the full path to the INI file, this usage also specifies where in the file the password can be found:

in the section **Server** at the parameter **Password**

The screenshot shows a software interface with a top bar containing tabs: CPM, Activities, Versions, **INI Config File**, and Database String. Below the tabs are buttons for '+ Add' (highlighted with a red box) and 'Edit', followed by a search bar with a 'Go' button. A table header is visible with columns: File Path, INI Parameter Name, and Address. The main area is a form titled 'Required Properties:' with the following fields: Address (target-lin.acme.corp), File Path (/var/opt/app/app01.ini), Connection Type (SSH), INI Parameter Name (Password, highlighted with a red box), and INI Section (Server). Below this is the 'Optional Properties:' section with checkboxes for Port, Backup Password File (checked), Connection Timeout, and Usage Display Name. At the bottom, there is a checkbox for 'Disable automatic management for this account' with a 'Reason:' text box, and 'Save' and 'Cancel' buttons.

File Path	INI Parameter Name	Address

Required Properties:

Address: target-lin.acme.corp

File Path: /var/opt/app/app01.ini

Connection Type: SSH

INI Parameter Name: Password

INI Section: Server

Optional Properties:

☐ Port:

☒ Backup Password File: No

☐ Connection Timeout:

☐ Usage Display Name:

☐ Disable automatic management for this account

Reason:

Save Cancel

Configuration Files

In this example, when the **CPM** changes the password for **dba01**, it will also change the password in the file **/var/opt/app/app01.ini** on the server 10.0.0.20 (target-lin).

Password

Show Copy

Connect Copy Shortcut

Platform Name: **Oracle Database**

Device Type: **Database**

Safe: **Databases**

Name: **Database-Oracle-dba01**

Last verified: **N/A**

Last modified: **PasswordManager (12/14/2016 9:57:48 AM)**

Last used: **vaultadmin01 (12/14/2016 9:57:53 AM)**

Username: **dba01**

Port: **1521**

Address: **10.0.0.20**

Database: **xe**

CPM Activities Versions **INI Config File** Advanced

+ Add Edit Search: Go

	File Path	INI Parameter Name	Address	
<input type="checkbox"/>	/var/opt/app/app01.ini	Password	10.0.0.20	

Logon Account

If an extra account is required to log onto the remote machine where the usage exists, you will need to associate a logon account with the usage.

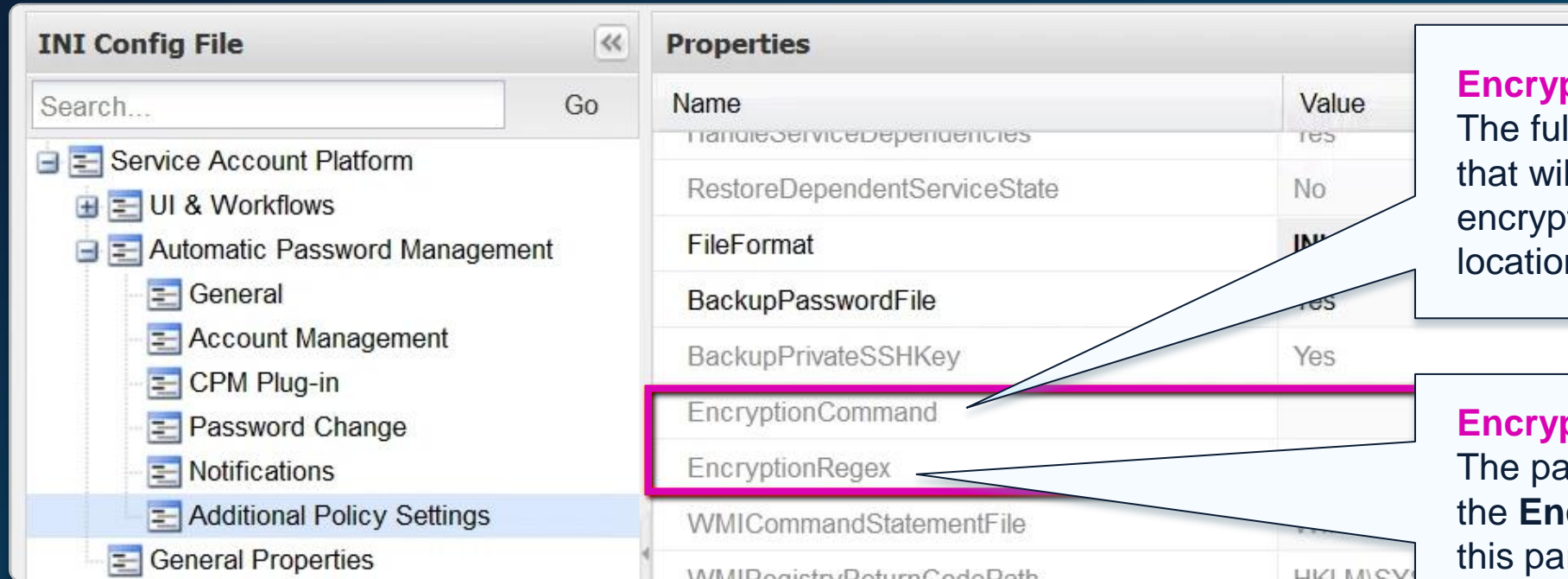
The screenshot displays the CyberArk console interface. The top navigation bar includes tabs for CPM, Activities, Versions, **INI Config File**, and Advanced. Below the navigation bar, there are buttons for '+ Add' and 'Edit', followed by a search bar with a 'Go' button. A table lists configuration entries with columns for File Path, INI Parameter Name, and Address. The first entry is highlighted with a pink border:

	File Path	INI Parameter Name	Address
<input type="checkbox"/>	/var/opt/app/app01.ini	Password	10.0.0.20

Below the table, the 'Logon Account' section is visible, showing the CPM tab selected. The 'Logon Account' field displays 'Unix via SSH-app-account01-10.0.0.20...' with buttons for 'Clear', 'Associate', and 'Create New'. A pink arrow points from the '+ Add' button in the 'INI Config File' tab to the 'Logon Account' section.

Encrypting the Password in config Files

Passwords stored in configuration files can be encrypted using an external command



Encryption Command

The full path of the encryption command that will encrypt the password. The encryption file can be stored in any location on the CPM machine.

Encryption Regex

The parameter that handles the output of the **Encryption Command** parameter. If this parameter is not defined, it will behave as if "(.*)" has been specified. This parameter is only relevant when the **Encryption Command** parameter is defined.

Discovering Dependencies

Discoverable Dependents

The **Accounts Discovery** process can detect the following Windows dependencies and automatically onboard them:

- **COM+ Application accounts**
- **IIS Directory Security (Anonymous Access) accounts**
- **IIS Application Pool accounts**
- **Scheduled Tasks accounts**
- **Windows Services accounts**

Platform Management

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Filter

Search for dependent platforms



Marketplace

Import platform



Targets

Dependents

Groups

Rotational Groups

12 results

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Private SSH Keys	✓	2	...
Scheduled Task	✓	9	...
Text File	✓		...
Web File	✓		...
Windows Registry	✓	9	...
Windows Service	✓	9	...
XML File	✓		...

Non-Discoverable Dependents

The remaining dependent account types cannot be discovered and must be added manually:

- Database String
- INI File
- Private SSH Key
- Text File
- Web File
- Windows Registry
- XML File

We will discuss Accounts Discovery in more detail in a later session

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Text File	✓		...
Web File	✓		...
Windows Registry	✓	9	...
Windows Service	✓	9	...
XML File	✓		...

Summary

Summary

In this session we discussed,

- Dependent platforms
- How to configure various types of usages

Exercises

You may now complete the following exercise:

Dependents – Securing Usages

- Manage a Scheduled Task Usage
- Managing a Configuration File Usage
 - Create a Logon account
 - Configure Usages on the Oracle platform
 - Add the Usage to the target account