

**PAM Administration** 

Privileged Access Workflows



### Agenda

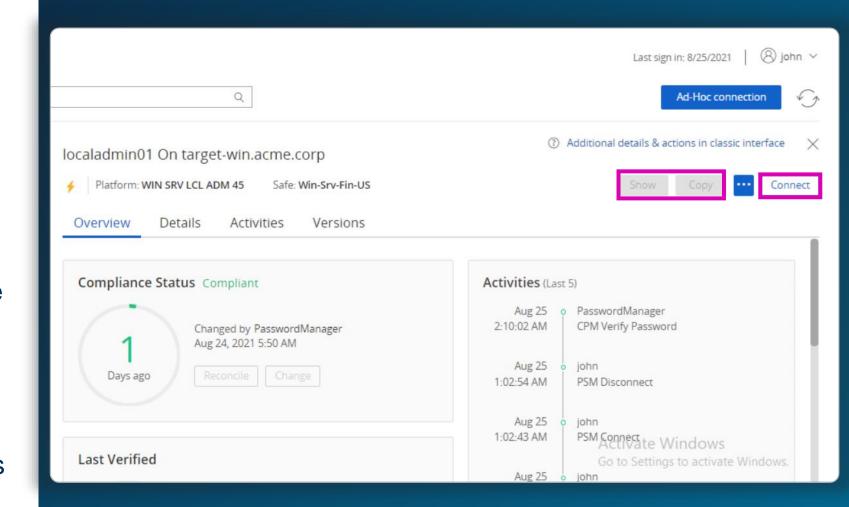
By the end of this session, you will be able to describe and configure the following Privileged Access Workflows:

- 1. Allow transparent connections
- 2. Require users to specify reason for access
- 3. Dual Control
- 4. Exclusive Passwords
- 5. One-time Passwords



# Accessing and Using Accounts

- Users who have List and Retrieve Accounts permissions are able to click on Show and Copy
- Users who have List and Use
   Accounts permissions are able
   to click on Connect
- CyberArk PAM provides advanced workflows on top of these permissions to determine how users can access accounts and for how long

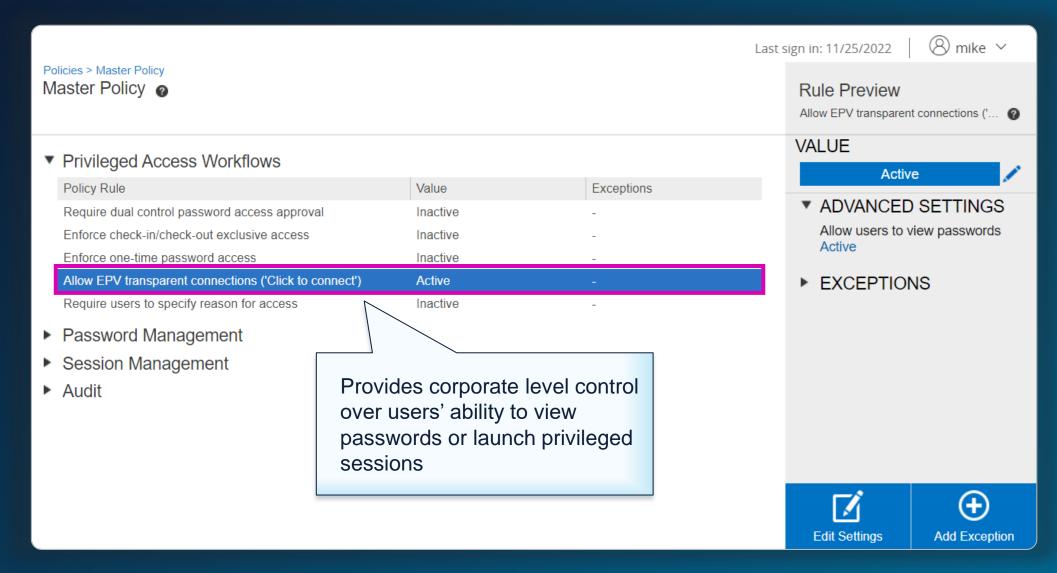




## **Allow Transparent Connections**

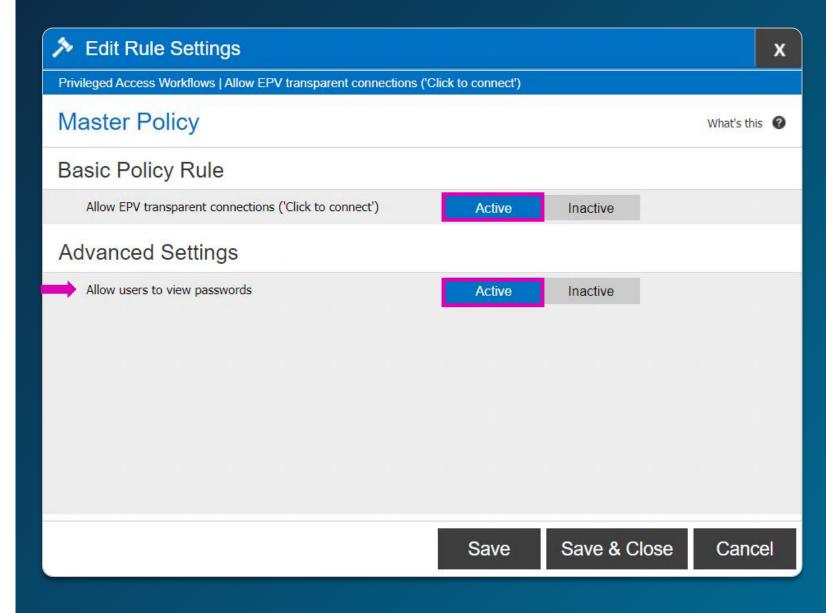


#### **Allow EPV Transparent Connections**



#### Allow Transparent Connections: Advanced Settings

By clicking the **Edit settings** button, we can see that end users are able to **connect** transparently using privileged accounts and are allowed by default to **view** passwords

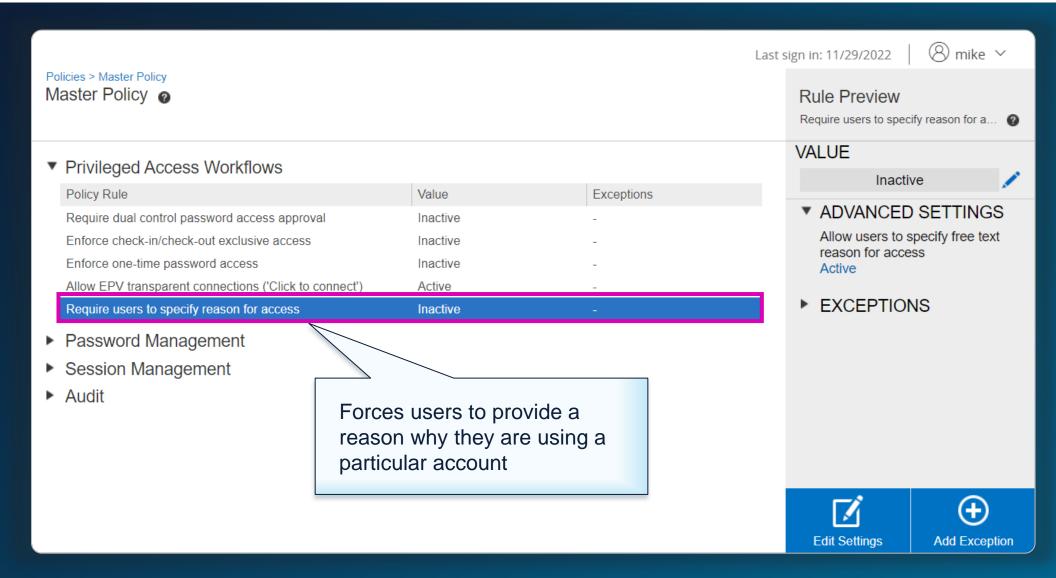




### Reason for Access

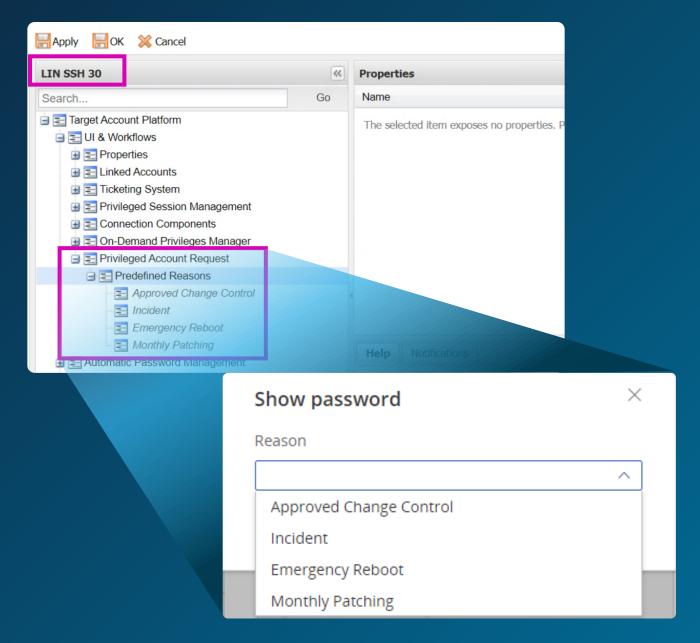


#### Require Users to Specify Reason for Access



### Platform Settings: Privileged Account Request

- The list of options for the drop-down is defined at the *Platform* level, so we can have a different set of reasons on a platform-by-platform basis.
- In the Privileged Account Request section for a given Platform, we can add the Predefined Reasons to create a list of choices for our users when accessing a password in the PVWA.

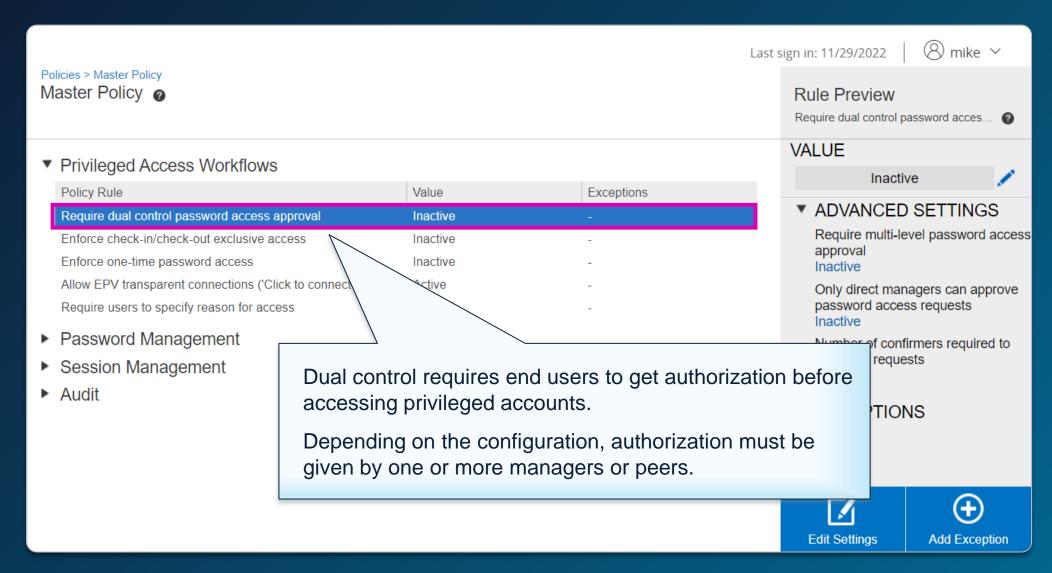




## **Dual Control**



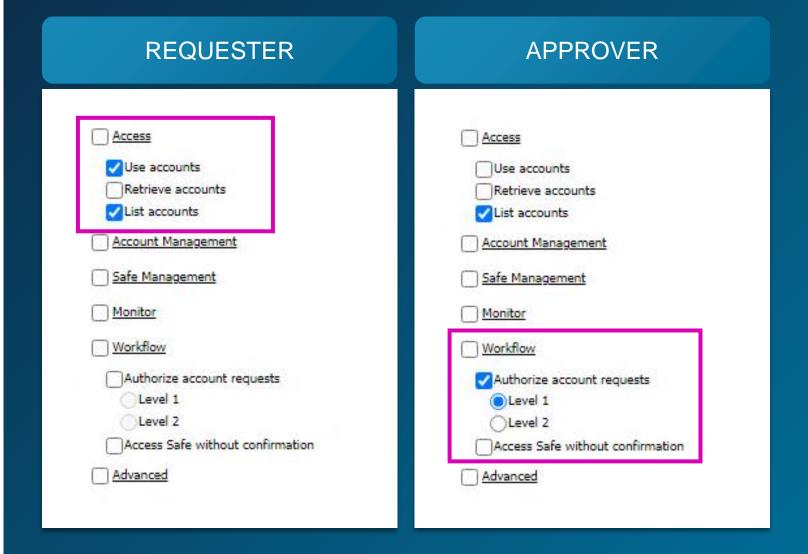
#### **Dual Control – Master Policy**



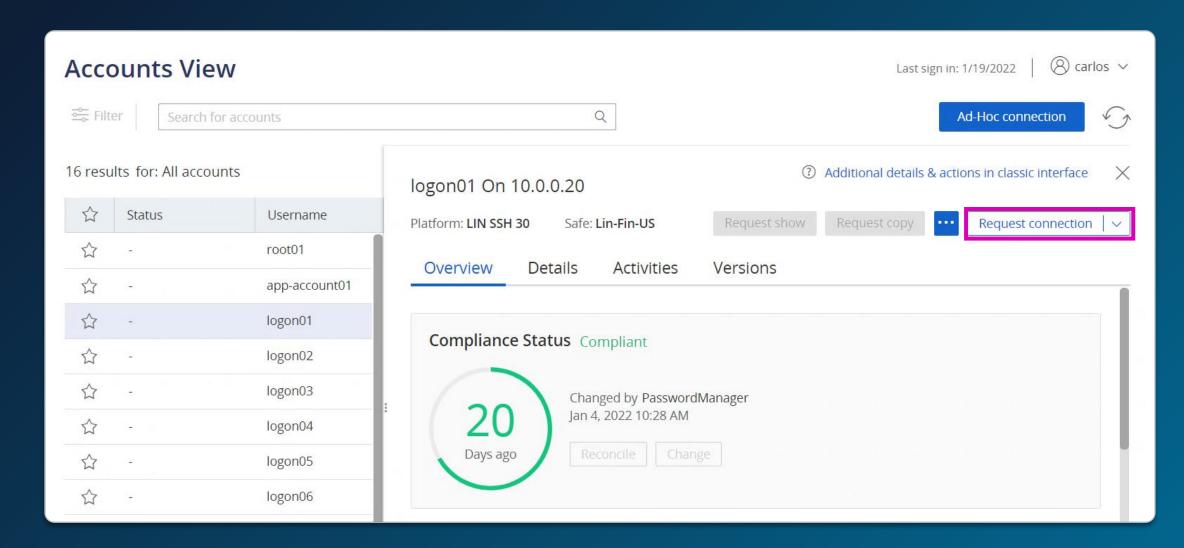
#### Dual Control – Safe Membership

**Dual Control** is controlled through Safe membership

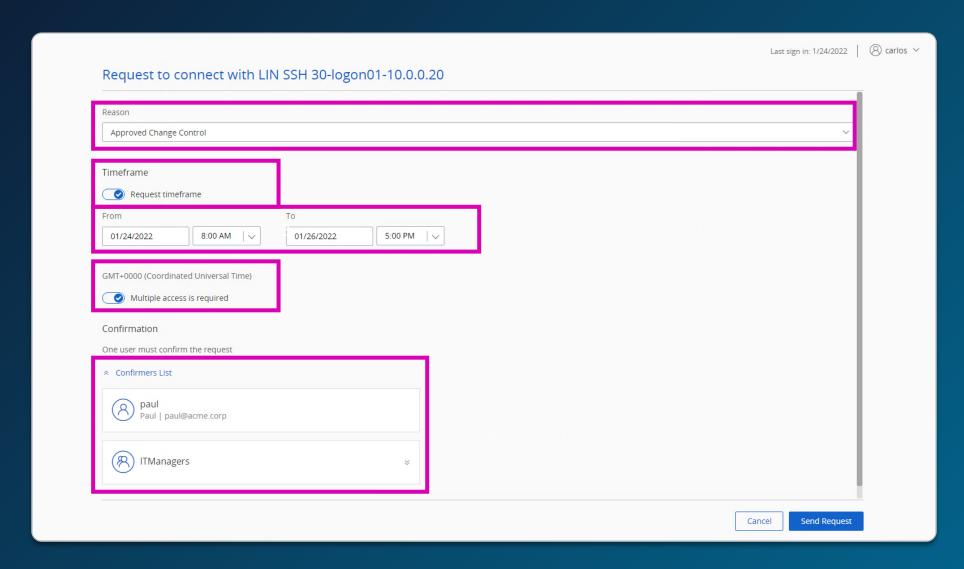
- Requesters are the people who want to use the privileged accounts. They need the permissions Use (and/or Retrieve) and List
- Approvers accept or reject requests to privileged accounts, but generally do not use the accounts. They will need List and Authorize permissions



#### **Dual Control – Request Connection**



## Dual Control – Submitting a Request



#### **Dual Control – Email Notification**

From: CyberArk Vault (no\_reply@acme.corp)

To: paul@acme.corp

Date: Mon, 24 Jan 2022 14:14:30 +0000

Subject: Notification: Password access request

#### Pending password access request

Dear, Pau

A password access request is pending your approval.

#### Requester details

Requester name: Carlos

Requester user: carlos

Requester email: carlos@acme.corp

Requester phone:

#### **Account details**

Account name: Root\Operating System-LINSSH30-10.0.0.20-logon01

Safe: Lin-Fin-US

Device User Name: logon01

Device Address: 10.0.0.20

#### Request details

Issued on: 1/24/2022 2:14:29 PM

Request Id: 4

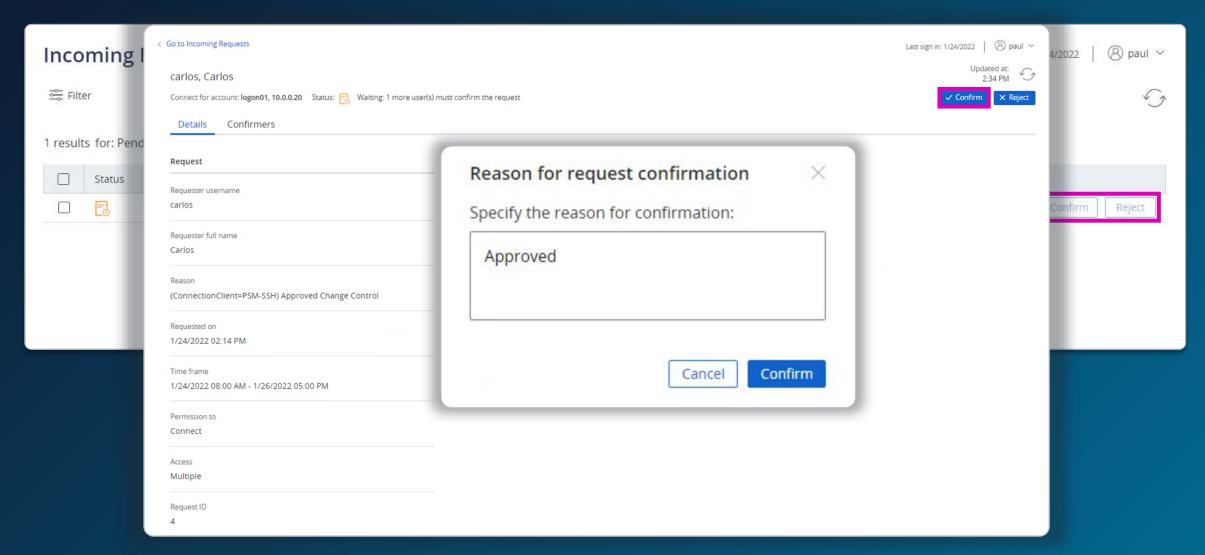
Request start date: 1/24/2022 8:00:00 AM Request end date: 1/26/2022 5:00:00 PM

Request type: Multi

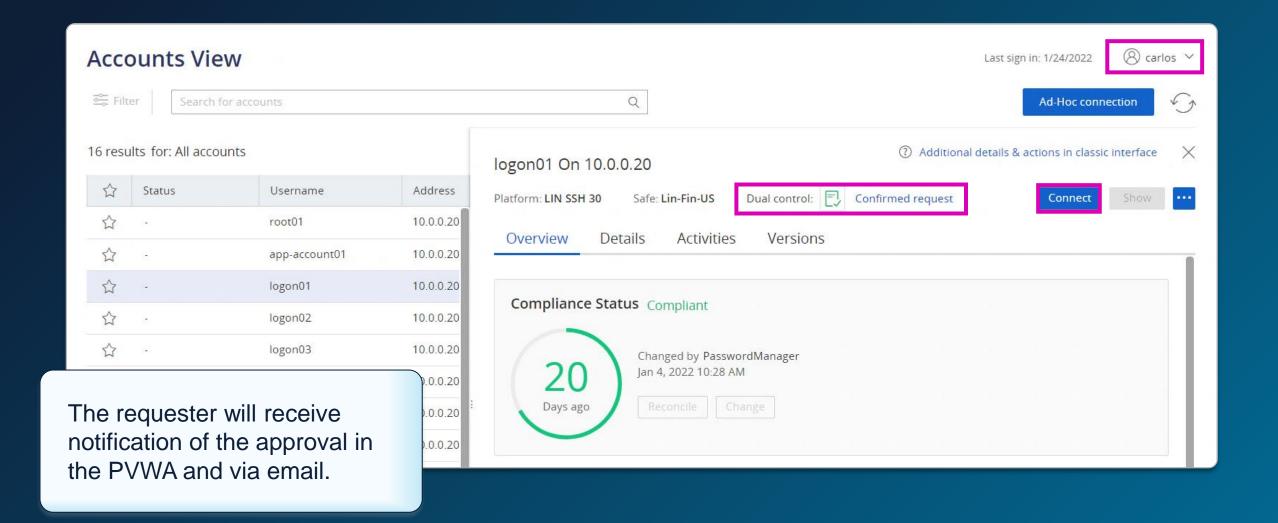
Reason: (ConnectionClient=PSM-SSH) Approved Change Control



## **Dual Control – Incoming Request**



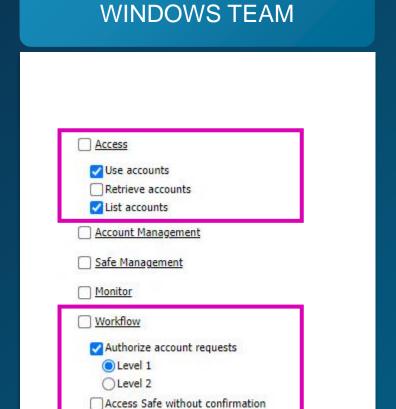
#### **Dual Control**



# Peer Approval Process

Here we have a single group of admins setup with both requester and approver permissions

- In this scenario, anyone could be a requester or an approver, but since the system prevents a person from approving their own requests, it still requires at least two separate actors
- One person from this group will become the requester and one will become the approver



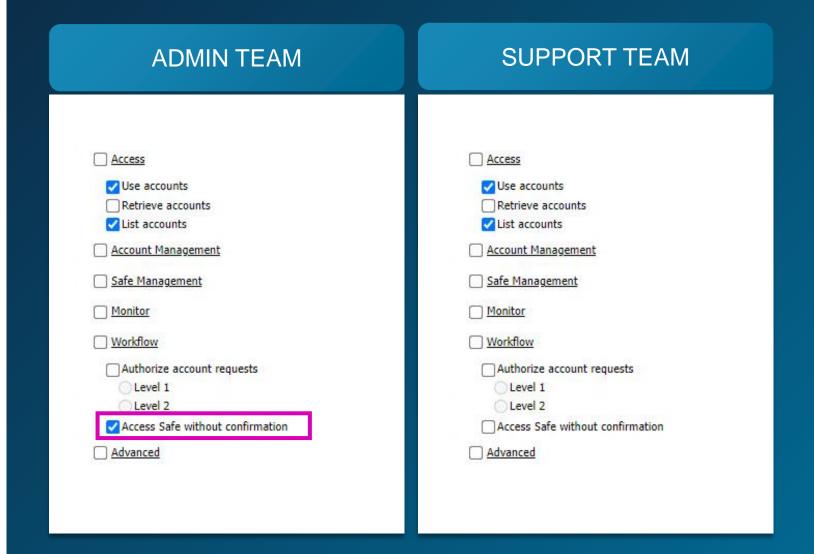
Advanced



# Bypass Dual Control

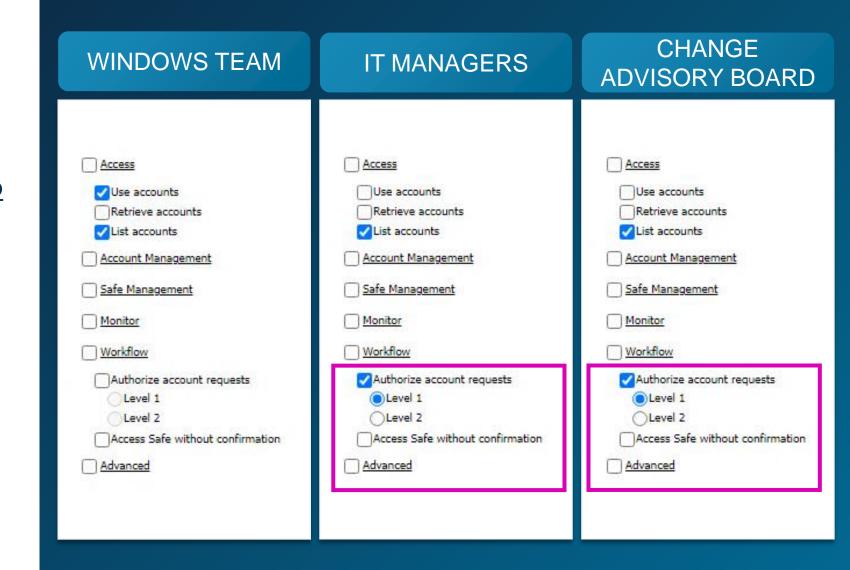
We may want to allow certain groups to bypass Dual Control

- Here our admin teams have the "Access Safe without confirmation" permission and are therefore allowed to bypass dual control
- The support team still needs to get approval



## Multi-Group Approval Process

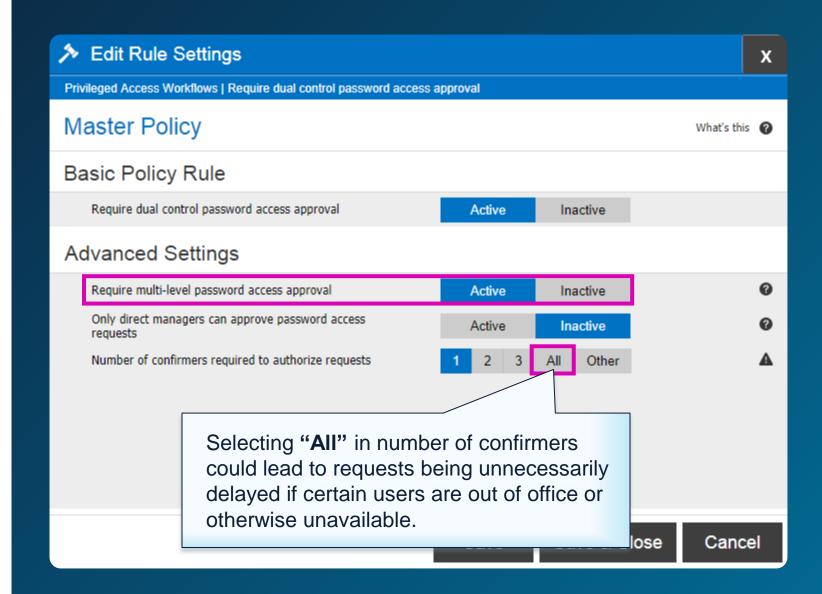
If we setup more than one group with approver permissions, at least one person from each group must approve the request before the requester can use the password



### Dual Control: Advanced Settings

In the advanced settings for **Dual Control**, we can enable a multi-level approval process

- With a multi-level process, a request must first be approved by one group before it is forwarded for approval to another group
- Also in advanced settings, we can enable direct manager approval, determined by the *Manager* attribute on the requester's AD user object

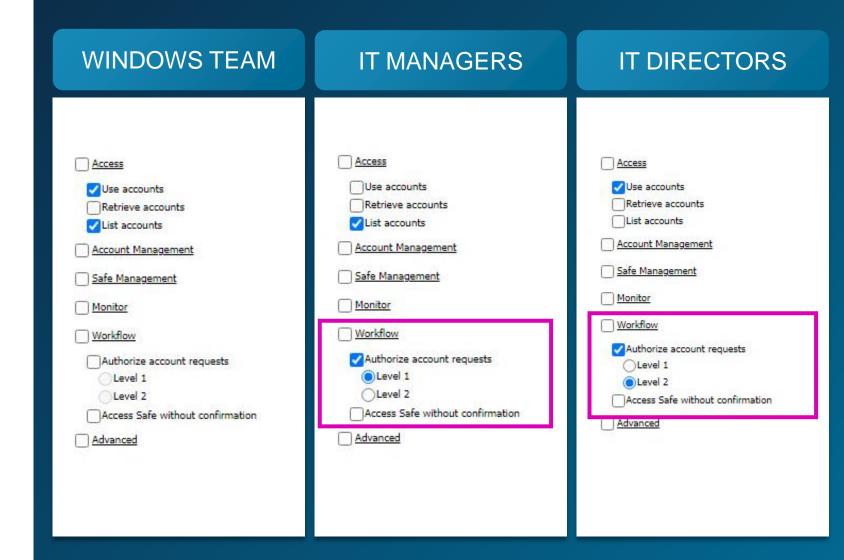




## Multi Level Approval Process

In this example, a request is sent first to the *IT Managers* group

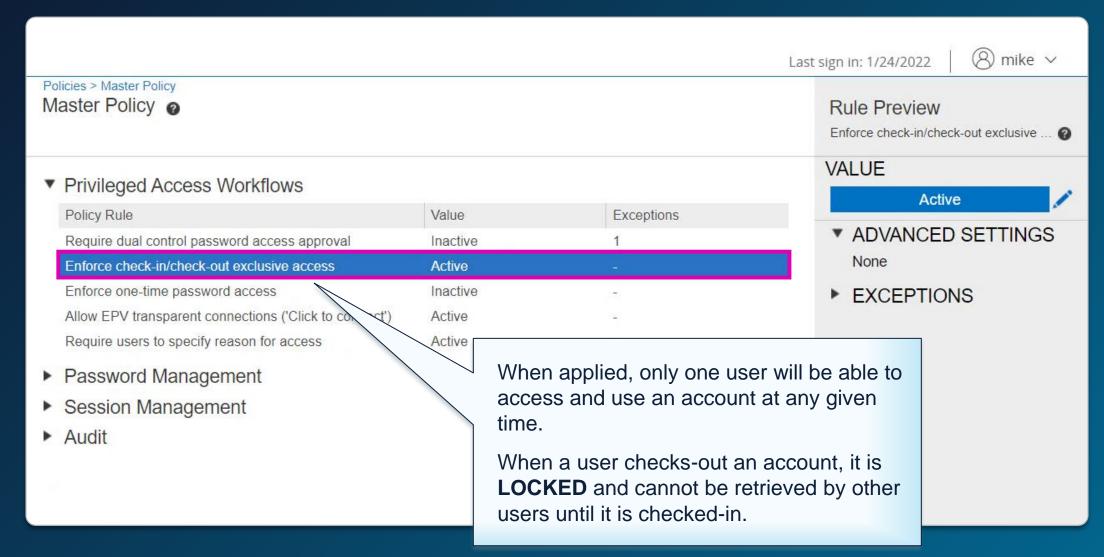
- Once approved by at least one person from the *Managers* group, the request is forwarded to the *IT Directors* group
- At least one person from each group must approve before the password may be used



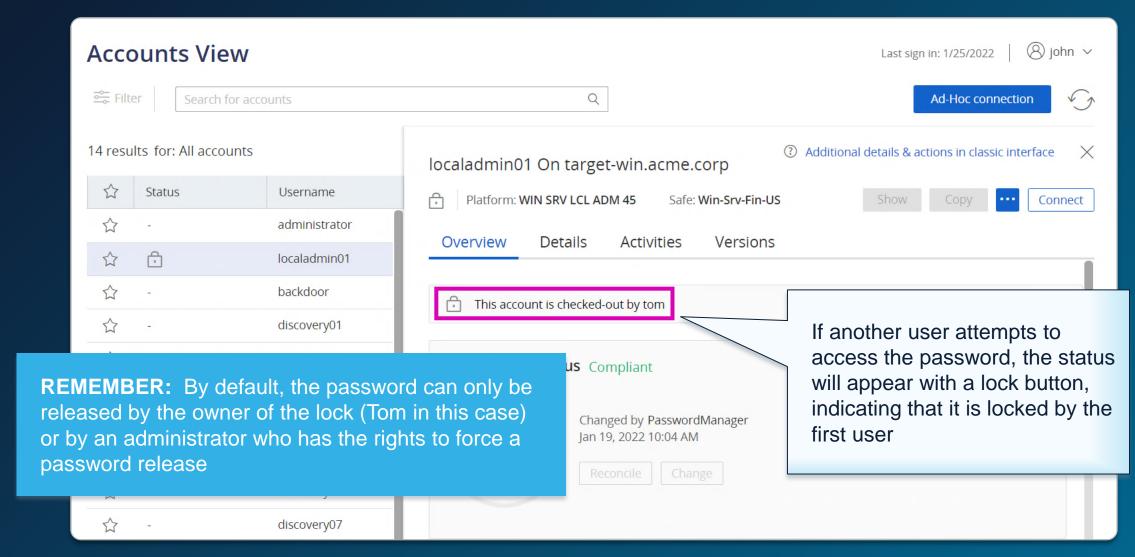
## **Exclusive Access**



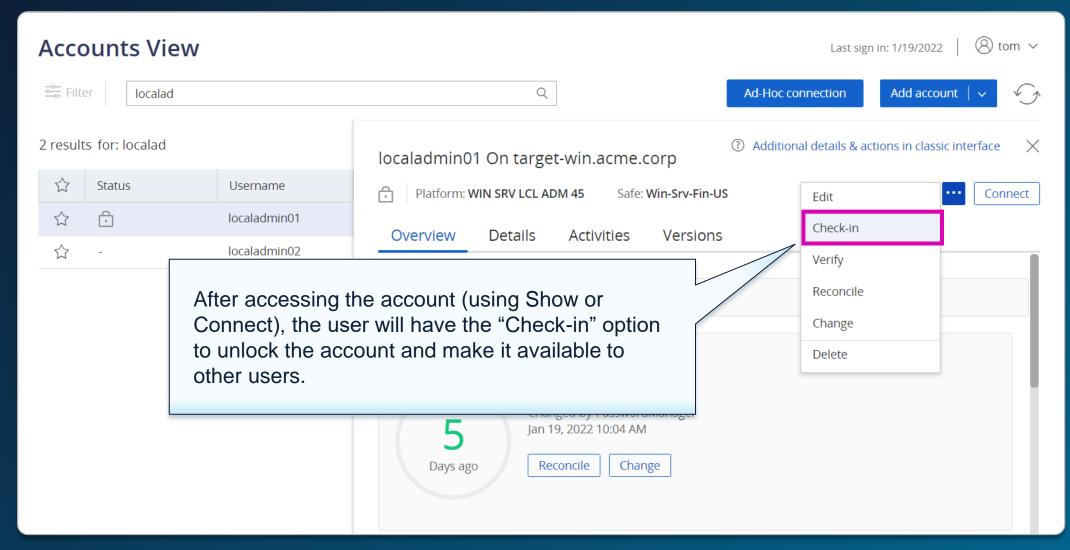
#### **Exclusive Passwords**



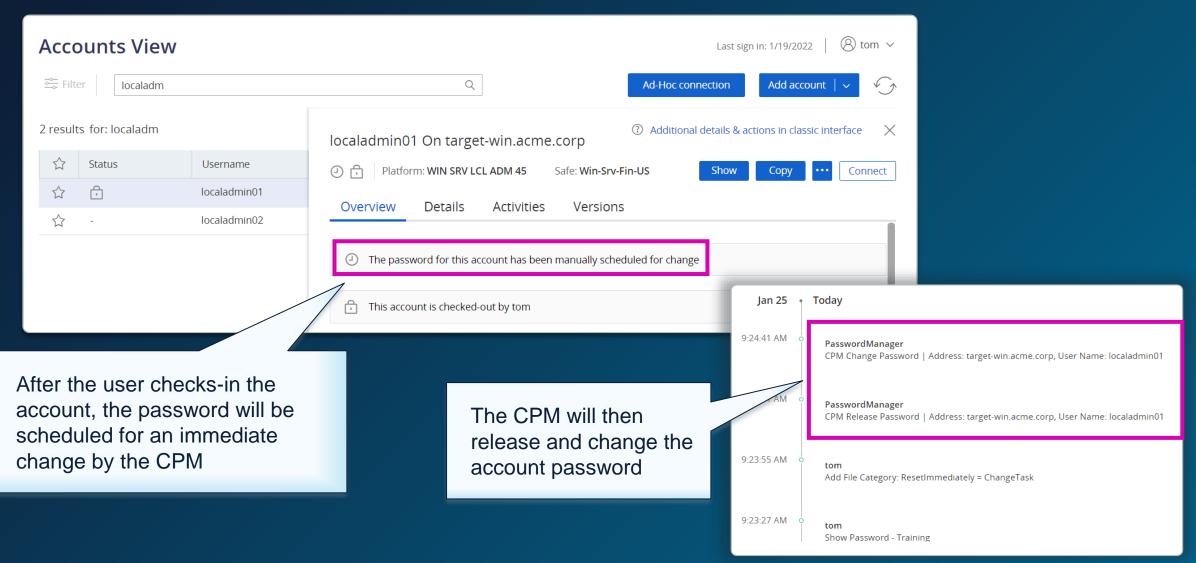
#### Exclusive Password – Locked



#### Exclusive Password – Manual Check-In

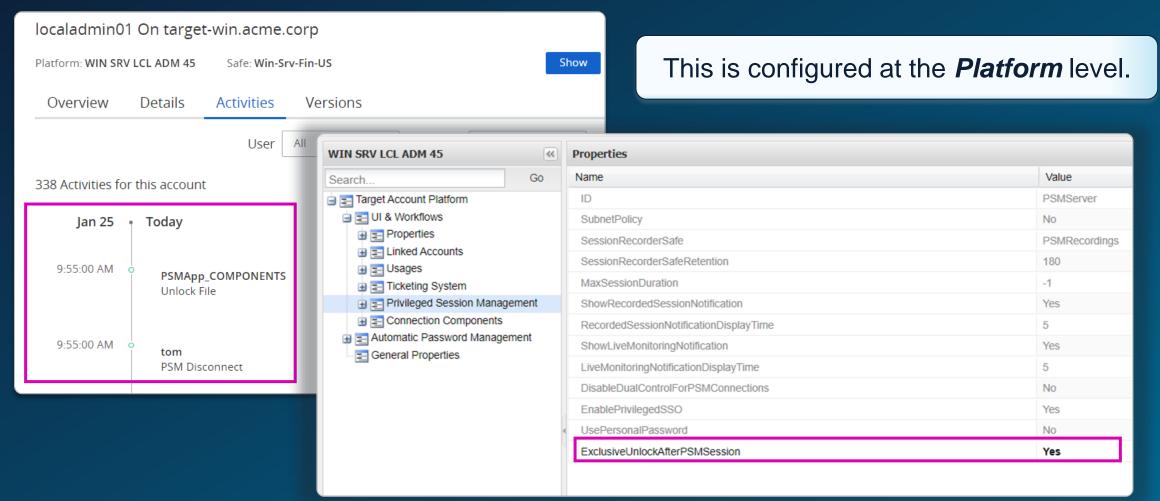


### Exclusive Password – Release and Change



#### Exclusive Password – Auto Release by PSM

Beginning with CyberArk PAM version 11.7, the PSM can automatically release an account after the user closes the session



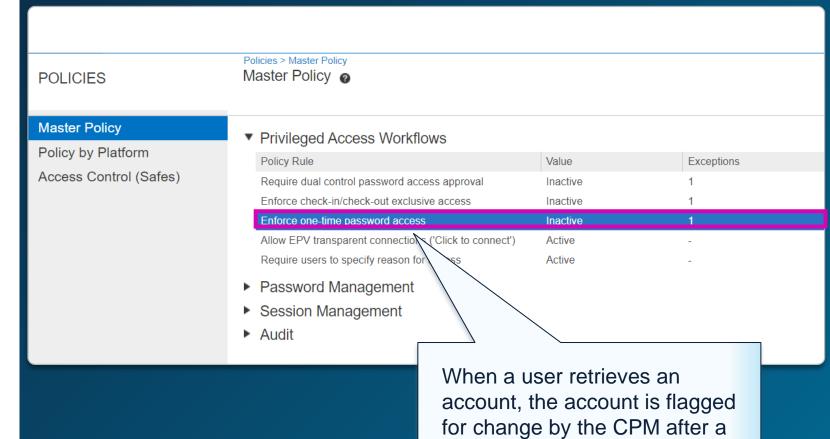
### One-Time Passwords



# One-Time Passwords

- One-time passwords are enabled in the Master Policy
- It is possible for multiple users to access the same account simultaneously
- The password will be changed based on *MinValidityPeriod*, as configured in the **Platform**

#### **Enforce one-time password access** (without exclusivity)

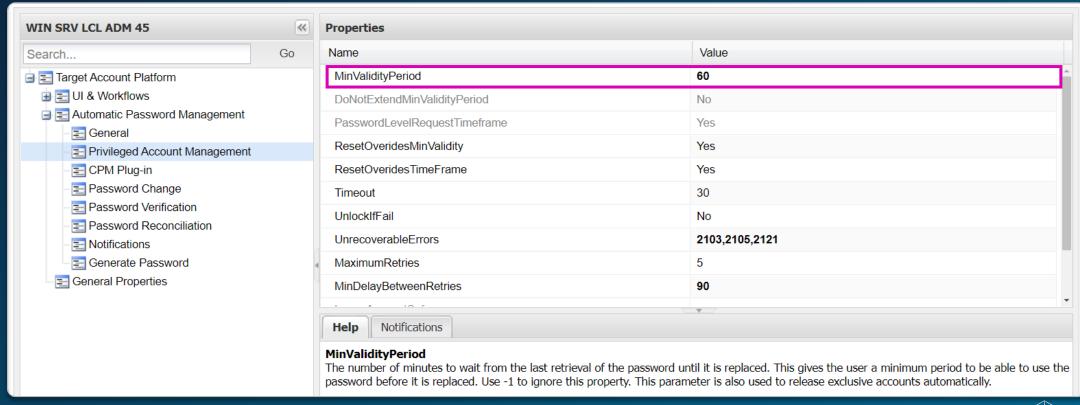


specified time



### MinValidityPeriod – Platform Configuration

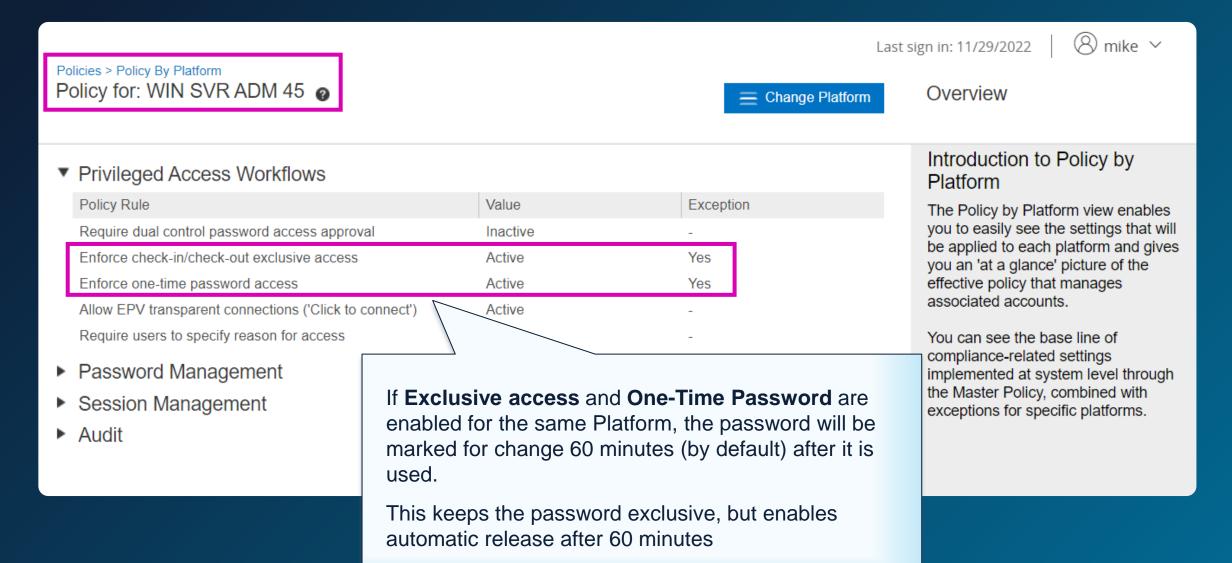
- A MinValidityPeriod of 60 means that the password will be changed 60 minutes after it is accessed
- During that time, other users can access the password
- The MinValidityPeriod should provide enough time for a user to make use of the password



# **Combining Workflows**

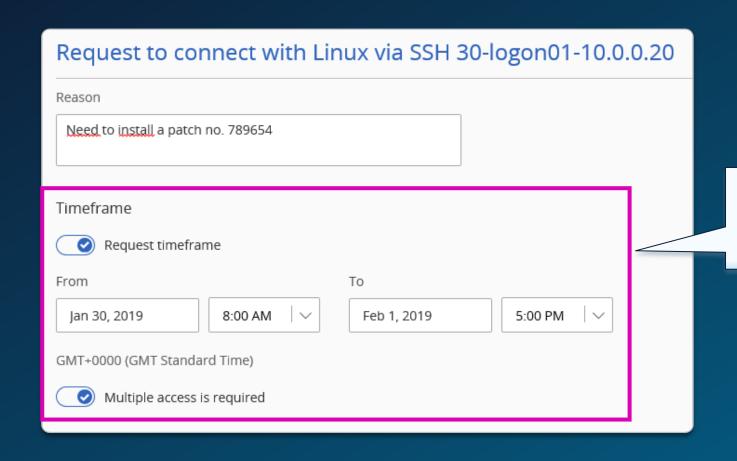


#### **Exclusive Access With One-time Password**



#### **Dual Control With One-time Passwords and Exclusivity**

When using check-in/check-out exclusive access or one-time password access with **Dual Control**, the password will only be changed after the time frame has expired



If the **Request** timeframe is active, this setting overrides the **MinValidityPeriod** 

#### **Exclusive and One-time Password Summary**

#### **Exclusive Passwords**

- When a user accesses a password, the account is locked and no other user can access the password until it has been released.
- Password is changed automatically upon manual release
- In later versions, the password can be auto-released by the PSM

#### **One-time Passwords**

- After a user accesses a password, it is changed automatically based on the minimum validity period
- Multiple users can access the password simultaneously
- Minimum validity period is reset as each user accesses the password

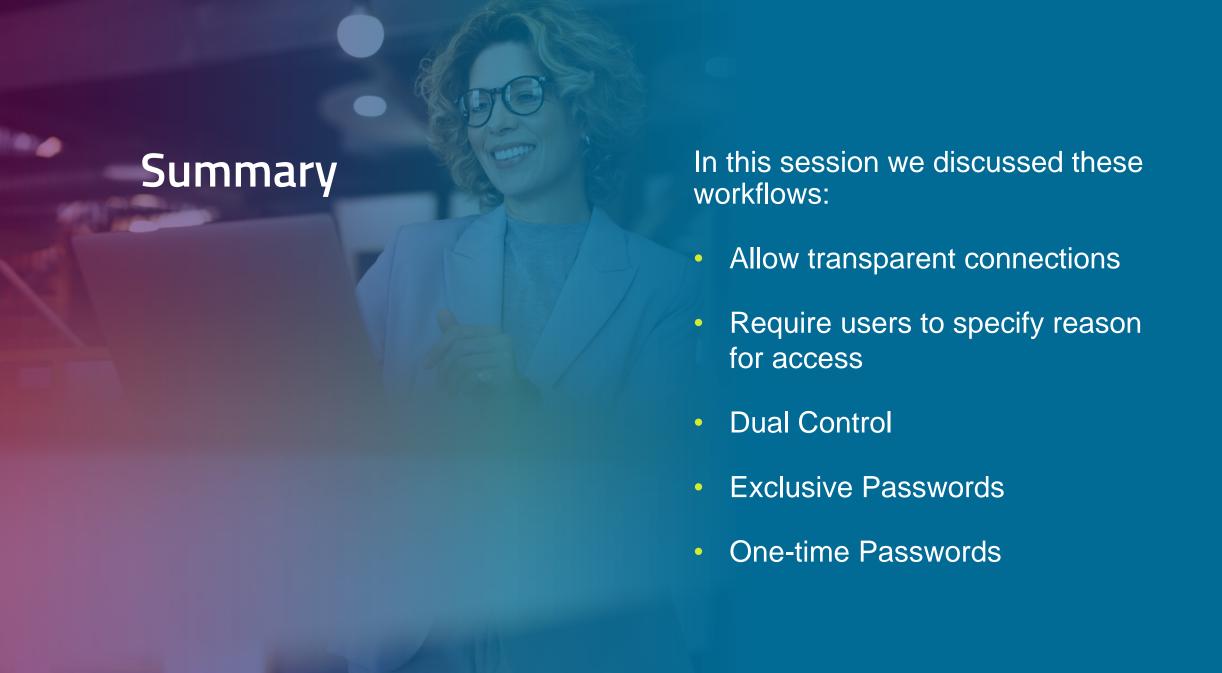
#### Exclusive and One-time Passwords Combined

- Account is locked to a single user, no other user can access it
- If the user does not release the account manually, the system will release it automatically based on the Minimum validity period and change the password



# Summary





# Additional Resources



#### **Online Training**

<u>Customizing Privileged Account Requests</u>

(login required)

#### You may now complete the following exercises:

#### Privileged Access Workflows

- Require users to specify reason for access
  - Activating the Policy
  - Add Predefined Reasons for Access
- Require dual control access approval
  - Activating the Policy
  - Adding an approver to a Safe
  - Testing Dual Control
- Exclusive Passwords with Automated Release and One-time Use
  - Adding a Master Policy exception for Exclusive Passwords
  - Adding a Master Policy exception for One-Time Passwords
  - Reducing the Minimum Validity Period
  - Testing Exclusive Passwords
  - Testing Automatic release by PSM

