Entra ID Self-Service Password Reset (SSPR) Implementation

Field	Details
Document Type	How-To Guide: Enterprise Implementation Runbook
Applies To	Microsoft Entra ID, Microsoft Entra Connect Sync, Microsoft 365
Audience	Identity Engineers / Entra ID Administrators / Systems Administrators
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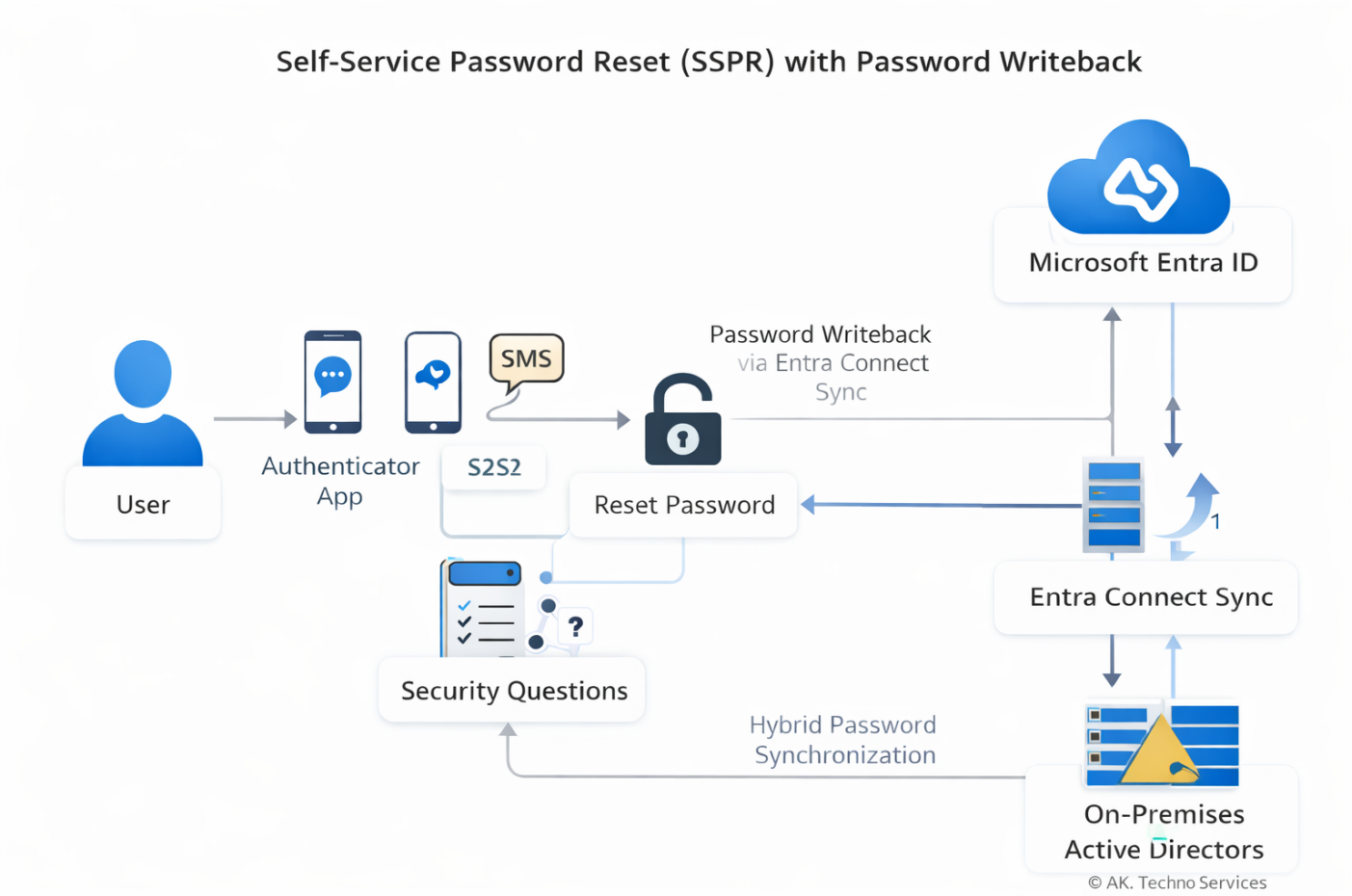
Overview



This document provides a complete runbook for implementing **Self-Service Password Reset (SSPR)** in Microsoft Entra ID within an enterprise environment using **Entra Connect Sync with Password Writeback**. The guide walks through prerequisites, configuration steps, authentication method setup, hybrid password writeback, monitoring, and troubleshooting.

The configuration enables users and administrators to reset their own passwords securely using **Microsoft Authenticator, SMS, and Security Questions**, with passwords written back to on-premises Active Directory.

The Issue

In organisations without Self-Service Password Reset enabled:

- Users must contact the **Service Desk** to reset forgotten passwords.
- Password resets generate **high ticket volume**.
- Account lockouts reduce productivity.
- Password resets outside support hours may delay business operations.

Common symptoms in such environments include:

- Frequent password reset tickets.
- Users locked out of Microsoft 365 services.
- Helpdesk manually resetting passwords in **Active Directory Users and Computers (ADUC)**.

Basic remediation steps such as:

- Clearing browser cache
- Waiting for lockout timers
- Logging into another device

do **not resolve the underlying issue**, because the problem is structural: users lack a secure self-service mechanism.

Context

The root cause is the absence of **Self-Service Password Reset capability integrated with the organisation’s identity infrastructure**.

In hybrid identity environments, password changes must occur across two identity planes:

```
User → Entra ID Authentication
       ↓
SSPR Validation (Authenticator / SMS / Questions)
       ↓
Entra ID Password Reset Engine
```

```
        ↓
Password Writeback via Entra Connect
        ↓
On-Prem Active Directory Password Update
        ↓
Password Sync Back to Entra ID
```

Normal Process (with SSPR)

1. User initiates password reset.
2. Entra ID verifies identity using configured authentication methods.
3. Password reset is approved.
4. Password writeback sends the new password to on-prem AD.
5. Entra Connect synchronises the updated password hash.

What Breaks Without SSPR

- Users cannot reset passwords independently.
- Password resets must be performed by administrators.
- Hybrid environments create delays due to manual intervention.

Known Triggers for Password Reset Demand

- Password expiry policies.
- Account lockout thresholds.
- New device sign-ins triggering authentication.
- VPN credential usage.
- Conditional Access enforcing re-authentication.

Before You Start

Check	Where
Entra ID P1 or P2 licenses assigned	Microsoft 365 Admin Center
Microsoft Entra Connect Sync installed	On-prem identity server
Password Writeback feature enabled	Entra Connect configuration
Hybrid identity synchronisation healthy	Entra Connect Health
Security group created for SSPR pilot scope	Entra ID → Groups
Users registered for authentication methods	Security Info portal
Required firewall ports open	Identity infrastructure

Implementation steps

Step 1: Create the SSPR Security Group

1. Open the **Microsoft Entra Admin Center**

```
https://entra.microsoft.com
```

2. Navigate to:

```
Identity > Groups
```

3. Select **New Group**

Configuration:

Setting	Value
Group Type	Security
Name	SSPR-Enabled-Users
Membership	Assigned

4. Add users who should have SSPR enabled.

> This group will be used to scope the SSPR policy.

Step 2: Enable Self-Service Password Reset

Navigate to:

```
Entra ID > Password Reset
```

Setting	Value
Self Service Password Reset Enabled	Selected
Selected Group	SSPR-Enabled-Users

Save the configuration.

Step 3: Configure Authentication Methods

Navigate to:

```
Entra ID > Authentication Methods
```

Method	Enabled
Microsoft Authenticator	Enabled
SMS	Enabled
Email OTP	Enabled

> Choose and enable all required Auth methods and add the Entra ID group with the SSPR-Enabled-Users group to the policy.

Navigate to:

```
Entra ID > Password Reset > Authentication Methods
```

Setting	Value
Number of methods required	1

> Choose the desired number of authentication methods required to reset a password and save.

Step 4: Enable Password Writeback

Open the **Microsoft Entra Connect Windows Server**.

Launch:

```
Azure AD Connect
```

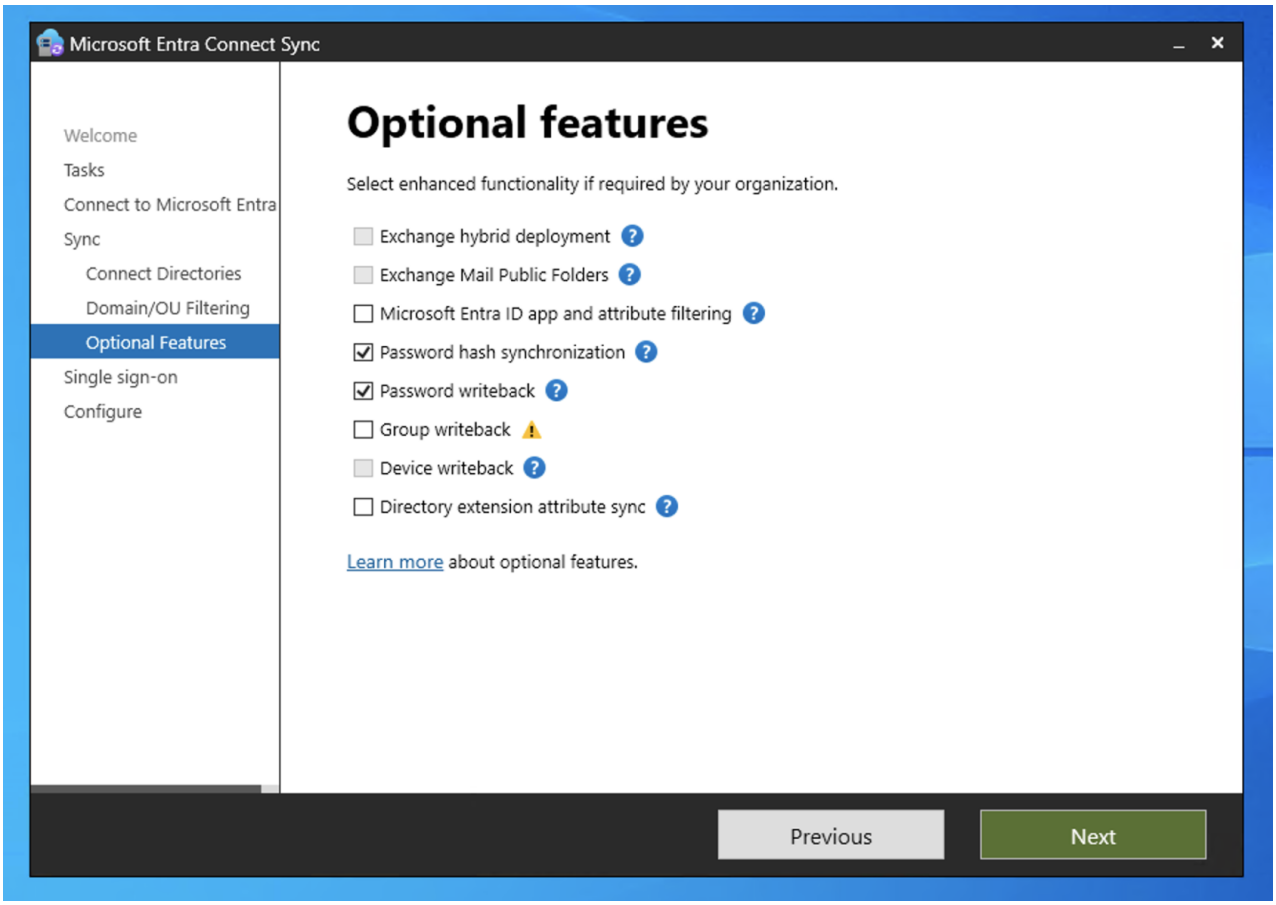
Select:

```
Configure → Customize synchronization options
```

During configuration:

Enable:

```
Password writeback
```



Complete the configuration wizard.

Verify status in:

```
Entra Admin Center
Identity → Hybrid Management → Entra Connect
```

> Password writeback must show **Enabled**.

Step 5: Enable Administrator SSPR

In Entra ID navigate to:

```
Entra ID > Password Reset > Administration Policy
```

Administrators require stricter security.

Recommended configuration:

Setting	Value
Number of authentication methods required	2
Allowed methods	Authenticator, SMS

>

> Security questions are **not recommended for administrators**.

Step 6: Verify Combined Security Information Registration

Combined registration allows users to configure **MFA and Self-Service Password Reset authentication methods in a single workflow**.

Navigate to:

```
Entra ID > Authentication Methods > Settings
```

Verify the tenant is using the **modern Authentication Methods policy framework**.

If the **Combined registration toggle is not visible**, the feature is already enabled by Microsoft and no further configuration is required.

User registration portal:

```
https://aka.ms/mysecurityinfo
```

Users will register the following methods during onboarding:

- Microsoft Authenticator
- SMS verification
- Security questions (if enabled in SSPR policy)

> This portal supports both **MFA and SSPR authentication method registration**.

Step 7: Configure User Notification Settings

Navigate to:

```
Password Reset > Notifications
```

Recommended configuration:

Setting	Value
Notify users on password reset	Enabled
Notify admins on admin password reset	Enabled

========== Monitoring and Reporting ==========

Entra Audit Logs

Navigate to:

```
Entra Admin Center
Password reset > Audit Logs
```

Filter for:

```
Activity: Self-service password reset
```

Events recorded:

- Password reset initiated
- Password reset completed
- Password writeback success/failure

Sign-In Logs

Navigate to:

```
Password reset > Audit Logs
```

Review authentication challenges and method usage.

SSPR Usage Reports

Navigate to:

```
Entra ID > Password Reset > Usage & Insights
```

Metrics include:

Metric	Description
Password resets	Total resets performed
Registrations	Users who registered authentication methods
Success rate	Successful resets vs attempts

These reports help measure adoption and identify issues.

==========Troubleshooting==========

Password Writeback Failed

Error example:

```
Password reset failed to write back to on-premises directory
```

Possible causes:

- Entra Connect not running
- Password writeback disabled
- Domain controller connectivity issues

Resolution:

1. Verify Entra Connect service status.
2. Confirm writeback is enabled.
3. Check **Event Viewer - Application Logs** on the Entra Connect server.

User Not Allowed to Reset Password

Possible cause:

User not included in the **SSPR security group**.

Resolution:

1. Add the user to the SSPR group.
2. Wait for directory replication.

User Not Registered for Authentication

Error example:

```
You need to register for password reset
```

Resolution:

Direct the user to:

https://aka.ms/mysecurityinfo

```
https://aka.ms/mysecurityinfo
```

Complete registration before attempting password reset.

Administrator Reset Fails

Possible cause:

Administrator policy requires stronger authentication.

Resolution:

Ensure the administrator has registered:

- Microsoft Authenticator
- SMS

Expected Outcome

Metric	Result
Resolution Time	Immediate user password reset
User Impact	Reduced helpdesk dependency
Recurrence Risk	Low once authentication registration is completed

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