Onboarding Nexus Repository Manager into SIAM

# Objective

This document outlines the process for onboarding Nexus Repository Manager into SIAM, covering the creation of roles in Nexus and their corresponding role entitlement mapping in SIAM.

# Nexus Repository Manager Roles

Nexus Repository Manager uses the following roles:

1. System Administrator  
2. NX Admin  
3. Developer

Additionally, Nexus provides several default roles which can be used as per the needs of the organization, such as read-only access, etc.

# Role to Role Entitlement Mapping

|  |  |
| --- | --- |
| Role in Nexus | Role Entitlement in SIAM |
| System Administrator | Nexus Admin Role Entitlement |
| NX Admin | Nexus NX Admin Role Entitlement |
| Developer | Nexus Developer Role Entitlement |

# Nexus Repository Manager APIs

## 1.1 Fetch Roles

To fetch all available roles in Nexus Repository Manager:

Endpoint: GET /service/rest/v1/security/roles

Example cURL:

curl -X GET "https://nexus-repo-url/service/rest/v1/security/roles" -u "admin:password"

Response Example:

{"items": [{"name": "System Administrator"}, {"name": "NX Admin"}, {"name": "Developer"}]}

## 1.2 Fetch Users in a Role

To fetch users belonging to a specific role:

Endpoint: GET /service/rest/v1/security/roles/{roleId}/users

Example cURL:

curl -X GET "https://nexus-repo-url/service/rest/v1/security/roles/System%20Administrator/users" -u "admin:password"

Response Example:

{"users": [{"username": "user1"}, {"username": "user2"}]}

## 1.3 Create User

To create a new user in Nexus Repository Manager:

Endpoint: POST /service/rest/v1/security/users

Request Payload:

{"userId": "newuser", "firstName": "John", "lastName": "Doe", "emailAddress": "john.doe@example.com", "roles": ["System Administrator"]}

Example cURL:

curl -X POST "https://nexus-repo-url/service/rest/v1/security/users" -H "Content-Type: application/json" -u "admin:password" -d '{"userId": "newuser", "firstName": "John", "lastName": "Doe", "emailAddress": "john.doe@example.com", "roles": ["System Administrator"]}'

Response Example:

{"userId": "newuser", "status": "created"}

# 2. Process for Onboarding Nexus Repository Manager into SIAM

## Step 1: Role Entitlement Creation in SIAM

Create Role Entitlements in SIAM for the Nexus roles:  
1. Nexus Admin Role Entitlement → System Administrator  
2. Nexus NX Admin Role Entitlement → NX Admin  
3. Nexus Developer Role Entitlement → Developer

## Step 2: Request Flow for Users

1. User raises an RITM in SIAM specifying the role they require in Nexus Repository Manager.  
2. The request goes through the SIAM approval workflow.  
3. Once approved, the user is ready to be added to Nexus Repository Manager with the necessary role.

## Step 3: User Addition to Nexus

1. Use the POST /service/rest/v1/security/users API to create the user in Nexus Repository Manager (if the user does not already exist).  
2. Assign the user to the appropriate role using the role management APIs.

## Step 4: Validation

1. User Validation: Confirm the user appears in the correct role in Nexus by fetching users from the specific role.  
Example API: GET /service/rest/v1/security/roles/{roleId}/users  
2. Role Validation: Ensure that the role entitlement in SIAM has been successfully mapped to the user.  
3. Access Validation: Verify the user’s access to Nexus Repository Manager based on their role.

## Step 5: Monitoring and Maintenance

1. Periodically audit role memberships by using the GET /service/rest/v1/security/roles/{roleId}/users API to verify group memberships.  
2. Clean up inactive users by using the GET /service/rest/v1/security/users API.  
3. Ensure the correct role entitlements are applied within SIAM.

# 3. SIAM Workflow Summary

1. User raises an RITM for a specific Nexus role in SIAM.  
2. Approval workflow validates the request.  
3. SIAM Administrator performs the following tasks:  
 - Maps the user to the correct Role Entitlement in SIAM.  
 - Validates the user in Nexus Repository Manager.  
 - Uses the POST /users API to create the user if needed.  
 - Adds the user to the appropriate role.  
4. Validation is performed by checking the role and access within Nexus Repository Manager.

# 4. Conclusion

This document provides a detailed guide for onboarding Nexus Repository Manager into SIAM. By following this process, organizations can ensure secure and efficient management of user roles and entitlements for Nexus Repository Manager through SIAM.