Optimizing user group and role management with access control and control flow.

Team ID : NM2025TMID06138

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Description above project:

This project helps manage who can see, edit, or control certain parts of a system. It makes user access faster, safer, and easier to handle for both users and administrators.

Ideation phase

Brainstorming & idea prioritization template.

(Phase-1)

Date	November 4
Team ID	NM2025TMID06138
Project name	Optimizing user group &role management with access control and control flow
Maximum marks	4 marks

Title theme:

This title is about improving how users are organized, assigned roles, and given permissions in a system — so that security and efficiency are both strong.

1. User Group Management → Grouping users (e.g., Admins, Managers, Employees).
2. Role Management → Assigning what each group can do (e.g., Admin can add users, Employee can view only).
3. Access Control → Setting clear permissions: who can access what (files, features, data).
4. Optimization → Making the whole process faster, simpler, and more secure — reducing errors, duplication, and unauthorized access.

Golden rules for great ideas:

Rule:

What is mean for our service now project

Volume over value:

The system should be able to handle high user volume (many users and roles) while maintaining quick access control, permissions, and role assignments without slowing performance.

Example:

Automating role assignments for 10,000+ users instead of manually approving a few users at a time.

Definition:

Focusing on managing a large number of users and groups efficiently rather than handling only high-value or limited users.

Using the idea template:

An Idea Template in ServiceNow is a structured format used to capture, organize, and evaluate new ideas or improvement suggestions within an organization. It serves as a standardized framework for users to submit ideas related to process enhancement, automation, innovation, or service improvement.

This template helps ensure that every idea is documented with key details—such as the problem statement, proposed solution, business impact, and effort required—making it easier for review teams to analyze, prioritize, and implement the most valuable ideas using the ServiceNow Idea Management module.

Step 1: team gathering, collaboration & select the problem statement.

Optimizing user group and role management with access control and control flow

Efficient user management is essential for maintaining security and smooth operations in any system. This study focuses on optimizing user group and role management through effective access control and streamlined control flow, ensuring that permissions are well-defined.

- 🕐 **10 minutes** to prepare
- ⏳ **1 hour** to collaborate
- 👤 **2-8 people** recommended

● Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕐 10 minutes

A Team gathering

The team gathering focuses on enhancing collaboration to optimize user group and role management through improved access control and control flow. The goal is to streamline permissions, strengthen security, and ensure efficient user access across all systems.

B Set the goal

To optimize user group and role management by implementing efficient access control and streamlined control flow, ensuring secure, scalable, and well-structured user permissions across the system.

**C** Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

Open article →

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1 Define your problem statement

In many systems, user group and role management processes are often complex, inconsistent, and prone to security risks due to inefficient access control and poorly defined control flow. This leads to difficulties in assigning permissions, managing user roles, and ensuring proper access levels across departments or applications.

🕐 5 minutes

> **PROBLEM**
> How might we [your problem statement]?
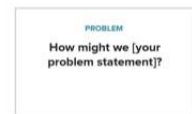
Key rules of brainstorming

- Give users only the access they need.
- Create clear and specific roles.
- Group users based on similar tasks or departments.
- Review and update roles and permissions often.
- Keep a record of all access changes.
- Use approval steps for new access requests.
- Remove access quickly when a user leaves or changes role

Need some inspiration?
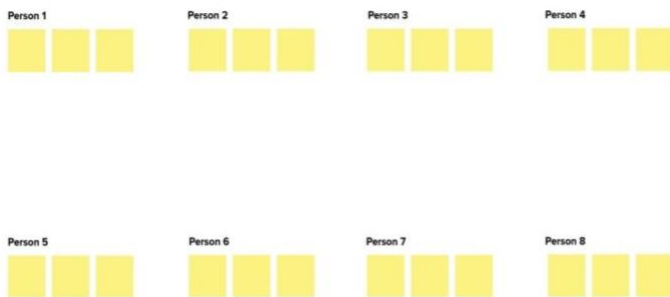
See a finished version of this template to kickstart your work.

Open example →

Step 2: group idea, brainstorming.

2 Brainstorm

Optimising user group and role management with access control and control flow means improving how users are organized, assigned roles, and given permissions in a system. It focuses on automating user access, ensuring security, simplifying approval processes, and maintaining clear control over who can do what within the system.

TIP
You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

Person 2

Person 3

Person 4

Person 5

Person 6

Person 7

Person 8

3

Group ideas

Optimizing user group and role management with access control and control flow means improving how users are grouped, assigned roles, and given permissions in a system. It helps ensure that the right people have the right access at the right time, making the system more secure, organized, and easy to manage.

⏱ 20 minutes

TIP
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.
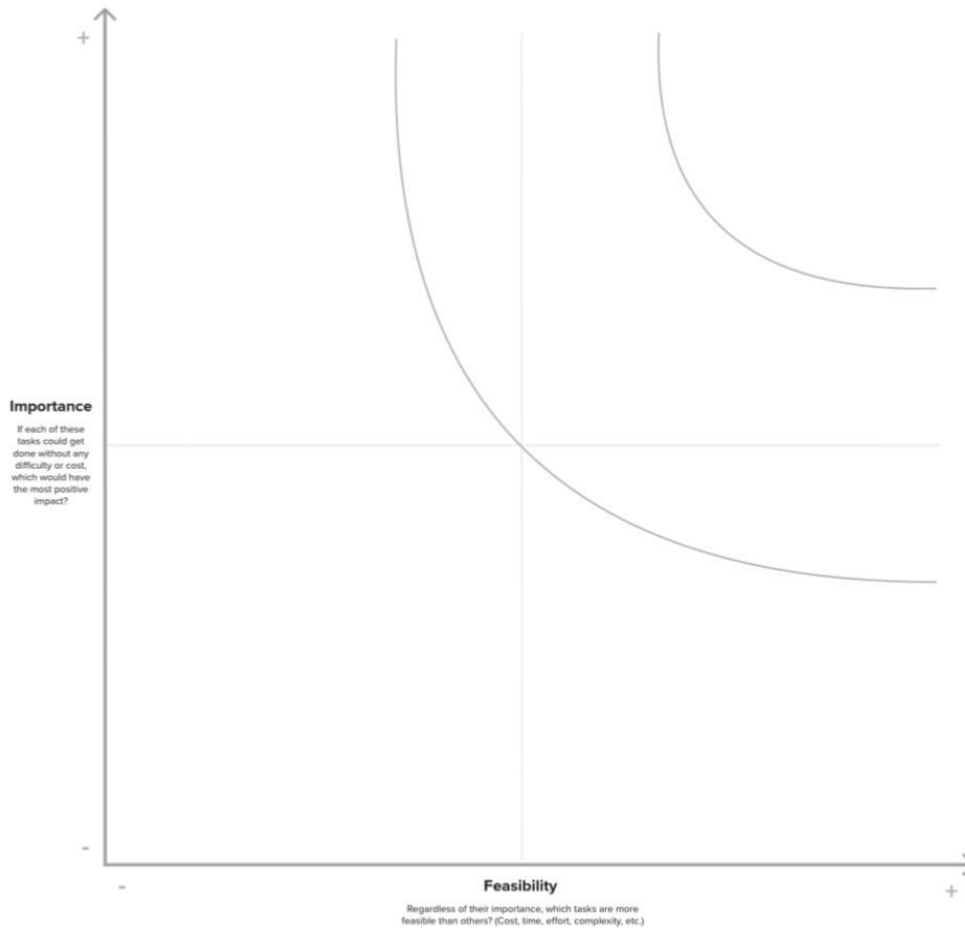
4 ## Prioritize

- Improve access control to keep data secure.
- Simplify user roles to avoid confusion.
- Group users based on their work.
- Make approval and access flow easier.
- Check and update permissions regularly.

⏱ 20 minutes

TIP
Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H key** on the keyboard.

Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

After you collaborate
You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

A **Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

B **Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →

Define the problem statement

(Phase -2)

Date	4th November 2025
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The service now problem statement:

In large organizations or digital systems, managing users, groups, and roles effectively is crucial for ensuring proper access control and data security. However, as the number of users and roles increases, maintaining accurate permissions, avoiding redundancy, and ensuring efficient workflows become challenging.

Goal	To design and implement an optimized system for managing user groups, roles, and access control that ensures security, efficiency, and streamlined workflows.
Key Objectives	Simplify user-role and group assignments. - Automate access control and approval workflows. - Eliminate redundant or overlapping roles. - Enhance system security and compliance. - Reduce manual administrative workload. - Improve transparency and traceability of user permissions.
Scope of This project	To centralize and simplify user and role management. - To automate access control processes and approval workflows. - To maintain accurate and consistent user permissions across the system. - To minimize human error and enhance system transparency.
Purpose of this project	To design and implement an optimized system for managing user groups, roles, and access control that ensures security, efficiency, and streamlined workflows.
Expected Outcome	Improved operational efficiency. - Faster user onboarding/offboarding. - Better access accuracy and consistency. - Strengthened data protection and control. - Reduced risk of unauthorized access.

Customer problem statement template

Customers often face major challenges in managing multiple user groups and roles within their organization. As the number of users increases, manually assigning permissions and maintaining proper access control becomes complicated and time-consuming. This leads to frequent errors, unauthorized access, and delays in completing tasks. Employees often experience frustration when they cannot access the right resources at the right time, while administrators struggle to keep track of permissions and workflows. To solve this problem, customers need a centralized and automated system that optimizes user group and role management, ensures secure access control, and streamlines control flow. Such a solution would improve efficiency, reduce security risks, and help organizations maintain clear and consistent access policies across all departments.

I am	A system administrator
I am trying to	I'm trying to manage user groups and assign roles efficiently
But	But access approvals take too long Because there's no centralized control flow for role updates Which makes me feel delayed and less productive
Because	Because the current system lacks automation and a clear control flow Which makes me feel frustrated and overloaded
Which make me feel	Which makes me feel concerned about data security

Example:

I am	I'm trying to	But	Because	Which makes...
I am a system administrator	I'm trying to manage user groups and assign roles efficiently	But access approvals take too long Because there's no centralized control flow for role updates Which makes me feel delayed and less productive	Because the current system lacks automation and a clear control flow Which makes me feel frustrated and overloaded	Which makes me feel concerned about data security

PS(problem statement)		I am trying to	But	Which makes me feel
PS-1 (Admin Interface)	A dedicated system administrattor 🧑🏻‍💼	Manage employee roles and permissions 🔐	The interface is complex and time-consuming 🙁	I get frustrated a lot 🗒️
PS-2 (Data Access)	A data scientist 👩🏻‍💼	I don't have access to certain data 📊	There is no clear, secure access-control system 🛡️	I feel 'tuck and unable to analyze tremds 😕

Empathize and discover

(Phase -3)

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Empathy map canva for Optimizing user group and role management with access control and control flow:

The users of this system mainly include system administrators, IT managers, application developers, and end users who access role-based platforms. They often express frustration about the difficulty of managing multiple users and roles manually, emphasizing the need for a simple dashboard to assign and track permissions. Many say that too many access requests slow down the workflow and that maintaining strong security is a constant challenge.

In their thoughts, users often feel that there must be a smarter and more automated way to handle access control. They worry that improper permission settings could lead to data breaches or compliance violations and believe that better visibility into who has access to what would improve both safety and efficiency.

From their peers and management, users frequently hear comments about failed audits, security risks, and how other organizations use centralized tools to manage roles more effectively.

Empathy Map

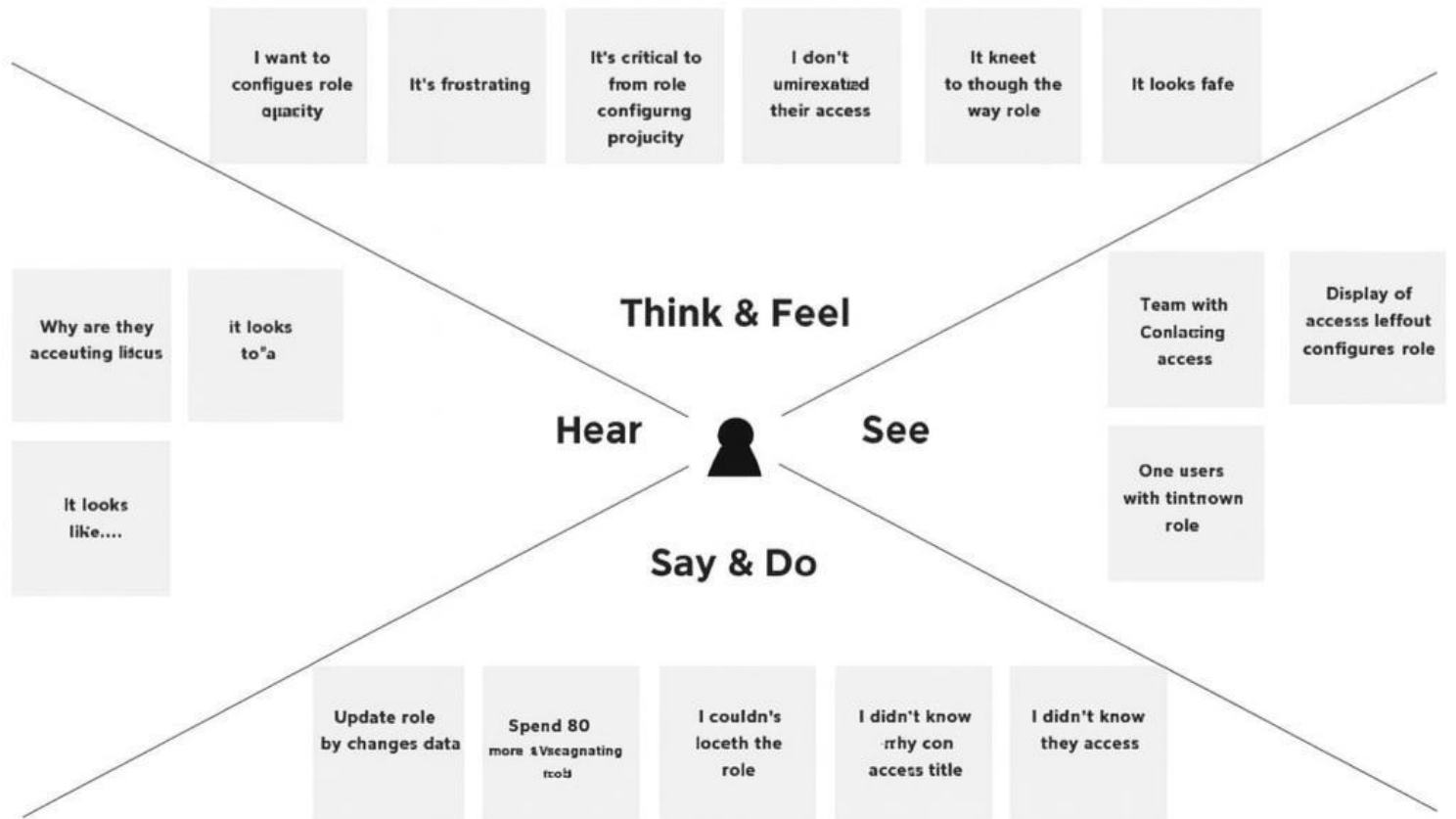## Optimizing user group and role management with access control

What does he THINK AND FEEL?

- Need for streamiined access control
- Concerns about security risks

What does he SEE?

- Natces a clear overview of user roles
- Notices complex group structures

What does he HEAR?

- Frustration regarding access issues
- Advice on implementing better controls

What does he SAY DO

- Requests pracise access controls
- Advocates for automation

What does he SAY /

- Security vulnerabilities
- Tedious manual processes

Gain

- Enhanced security Reduced administrative
- Improved user role visibility

Think & Feel

I want to configues role quacity

It's frustrating

It's critical to from role configurng projucity

I don't umirexatizd their access

It kneet to though the way role

It looks fafe

Hear

Why are they acceuting liscus

it looks to"a

It looks like....

See

Team with Conlacing access

Display of accesss leffout configures role

One users with tintnown role

Say & Do

Update role by changes data

Spend 80 more &Vseagnating rcoli

I couldn's loceth the role

I didn't know rrhy con access title

I didn't know they access

Pain

Task to update role

Conflacing and rifiarable role

Multple roles umpasigan user uffknown contrd

Gain

Configurable

Accuracy