

Authorization Fix Summary

Problem

Free users were getting a **403 Forbidden error** when trying to access the Integration Hub because the system tried to create a project on hub access, which was blocked by subscription limits (maxProjects: 0 for free users).

Solution

Implemented a “try before you buy” model where free users can access and test all hub features but cannot save projects or download code.

Changes Made

1. Backend: Subscription Policy Service (`server/services/subscriptionPolicyService.ts`)

Changed Free Tier Limits

```
free: {
  maxProjects: 1, // Changed from 0 to 1 (allows 1 temporary preview project)
  retentionDays: 0, // No retention - cleaned up on logout
  maxDownloads: 0, // No downloads
  downloadPeriod: 'monthly',
  teamSize: 1,
  canDownload: false,
}
```

Added Project Save Check Method

```
static canSaveProject(subscriptionStatus: string): {
  allowed: boolean;
  message?: string;
}
```

This method checks if a user can permanently save projects. Free users are blocked with a friendly upgrade message.

Updated Authorization Messages

- Improved error messages for free users when they hit project limits
 - Added context-aware messages that explain the preview/trial model
-

2. Backend: API Routes (`server/routes.ts`)

Added Explicit Save Endpoint

POST `/api/projects/:id/save`

- Requires authentication
- Checks `SubscriptionPolicyService.canSaveProject()`
- Returns 403 with `requiresUpgrade: true` flag for free users
- Shows upgrade prompt on frontend

Enhanced Download Endpoints

Updated all download endpoints to include the `requiresUpgrade` flag:

- `/api/projects/:id/download/xslt`
- `/api/projects/:id/download/dataweave`
- `/api/projects/:id/download/mapping-file`
- `/api/projects/:id/download/mapping-document`

```
return res.status(403).json({
  message: downloadCheck.message,
  remaining: downloadCheck.remaining || 0,
  requiresUpgrade: req.user.subscriptionStatus === 'free'
});
```

3. Frontend: Integration Hub Page (`client/src/pages/integration-hub.tsx`)

Added Save Project Functionality

```
const saveProjectMutation = useMutation({
  mutationFn: async () => {
    const response = await apiRequest(`/api/projects/${currentProject?.id}/save`, "POST");
    // ... handle response
  },
  onError: (error) => {
    if (error.message.includes('upgrade') || error.message.includes('paid plan')) {
      if (confirm(`${error.message}\n\nWould you like to view our pricing plans?`)) {
        window.location.href = '/pricing';
      }
    }
  },
});
```

Wired Up Save Button

```
<Button
  variant="outline"
  size="sm"
  onClick={handleSaveProject}
  disabled={saveProjectMutation.isPending}
>
  {saveProjectMutation.isPending ? 'Saving...' : 'Save'}
</Button>
```

4. Frontend: Validation Success Component (client/src/components/validation-success.tsx)

Added Free User Detection

```
const isFreeUser = user?.subscriptionStatus === 'free';
```

Updated Download Logic

- Check for both `isFreeUser` and legacy `isTrial` status
- Show upgrade dialog immediately for free users
- Disable download buttons with lock icon

Enhanced UI Messages

```
{(isFreeUser || isTrial) && (
  <Alert>
    <Crown className="h-4 w-4" />
    <AlertDescription>
      <p>Downloads are disabled for Free users</p>
      <p>You can preview and test all features. Upgrade to download files</p>
      <Button asChild>
        <Link href="/pricing">Upgrade Now</Link>
      </Button>
    </AlertDescription>
  </Alert>
)}
```

How It Works Now

For FREE Users:

✓ CAN DO:

- Access the Integration Hub
- Upload source and target files
- Use AI-powered field mapping
- Generate XSLT and DataWeave transformations
- Preview all generated code
- Run validation tests (5 rows preview)
- Test all features in the workflow

✗ CANNOT DO:

- Save projects permanently (shows upgrade prompt)
- Download generated code files (shows upgrade prompt)
- Create multiple projects (shows upgrade prompt after 1st project)

For PAID Users (One-Time, Monthly, Annual):**✓ CAN DO:**

- Everything free users can do
- Save projects permanently
- Download all generated files (XSLT, DataWeave, mappings, docs)
- Create multiple projects based on their tier
- Keep projects for retention period based on their tier

User Experience Flow

1. **Free user registers and logs in**
2. **Automatically redirected to Integration Hub**
3. **System creates 1 temporary preview project** (no more 403 error!)
4. **User uploads files and uses all features freely**
5. **When trying to save:**
 - Shows friendly dialog: "Free users can preview and test the hub, but cannot save projects permanently. Upgrade to a paid plan to save your work."
 - Offers link to pricing page
6. **When trying to download:**
 - Shows lock icon on download buttons
 - Shows banner: "Downloads are disabled for Free users. You can preview and test all features. Upgrade to download files"
 - Offers "Upgrade Now" button

Testing Recommendations

Test Case 1: Free User Access

1. Register as a new free user
2. Navigate to `/hub`
3. **Expected:** Hub loads successfully with 1 preview project created
4. Upload source and target files
5. Generate field mappings
6. Generate XSLT/DataWeave code
7. **Expected:** All features work, code is visible in preview

Test Case 2: Free User Save Attempt

1. As a free user in the hub
2. Click "Save" button
3. **Expected:** Dialog appears with upgrade message and link to pricing

Test Case 3: Free User Download Attempt

1. As a free user, complete the workflow to validation step
2. Try to click any download button
3. **Expected:** Buttons are disabled with lock icon
4. **Expected:** Banner shows upgrade message with “Upgrade Now” button

Test Case 4: Paid User Full Access

1. Register/upgrade to paid tier
2. Navigate to /hub
3. Complete full workflow
4. **Expected:** Save button works normally
5. **Expected:** All download buttons work and files download successfully

Test Case 5: Multiple Projects

1. As a free user with 1 existing project
2. Try to create a new project (click “New Project”)
3. **Expected:** Error message: “You already have an active preview project. Upgrade to a paid plan to create and save multiple projects.”

Files Modified

1. `server/services/subscriptionPolicyService.ts` - Updated limits and added save check
2. `server/routes.ts` - Added save endpoint and enhanced download responses
3. `client/src/pages/integration-hub.tsx` - Added save functionality with upgrade prompts
4. `client/src/components/validation-success.tsx` - Updated to check free user status and show upgrade prompts

Git Commit

Changes have been committed locally:

```
commit 77255f7
Fix: Allow free users to access Integration Hub in preview mode
```

Note: The push to GitHub failed due to authentication issues. You can push manually with:

```
cd /home/ubuntu/integration-hub
git push origin main-backup
```

Or configure SSH/token authentication and retry.

Production Deployment Checklist

Before deploying to production:

1. ☒ Ensure PostgreSQL database is running and accessible
 2. ☒ Set DATABASE_URL environment variable
 3. ☒ Set SESSION_SECRET environment variable
 4. ☒ Run database migrations if any
 5. ☒ Test with actual free user registration
 6. ☒ Verify Stripe webhook integration for subscription upgrades
 7. ☒ Test upgrade flow from free to paid
 8. ☒ Monitor error logs for any 403/auth issues
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Success Metrics

After deployment, monitor:

- ☒ **No more 403 errors for free users accessing /hub**
 - ☒ Increase in free user engagement (file uploads, mappings generated)
 - ☒ Conversion rate from free to paid (upgrade clicks from prompts)
 - ☒ Reduction in support tickets about “can’t access hub”
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Notes

- Free users’ preview projects are ephemeral (retentionDays: 0)
- Projects are cleaned up when free users log out or periodically
- This implements a true “freemium” model where users can try before buying
- All upgrade prompts link to `/pricing` page for seamless conversion