

# **Finanzas Authentication Validation Guide**

Finanzas SD – Architecture, Flows & SOPs  
Arquitectura, Flujos y Procedimientos

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# 1 Finanzas Authentication Validation Guide

## 1.1 Overview

This document provides step-by-step manual validation procedures for the Finanzas Cognito Hosted UI authentication flow. Use this guide to verify that the authentication system is working correctly after deployment.

## 1.2 Architecture Summary

### 1.2.1 Authentication Flow (Cognito Hosted UI + Implicit Grant)

1. **User initiates login:** Clicks “Sign in with Cognito Hosted UI” in the Finanzas application
2. **Redirect to Cognito:** Browser redirects to Cognito Hosted UI domain (us-east-2fyhltohiy.a
3. **User authenticates:** Enters credentials on Cognito-hosted login page
4. **Cognito redirects with tokens:** After successful auth, Cognito redirects back to callback URL with tokens in URL hash:

`https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html#id_token=...&`

5. **Callback processes tokens:** Static callback.html file:
  - Parses tokens from URL hash fragment
  - Validates id\_token is present
  - Stores tokens in localStorage (keys: cv.jwt, finz\_jwt, idToken, cognitoIdToken)
  - Determines user's module access from token claims (Cognito groups)
  - Redirects to appropriate module (/finanzas/ or /)
6. **React app loads:** AuthProvider detects stored tokens and initializes authenticated session

### 1.2.2 Key Configuration

- **User Pool ID:** us-east-2\_FyHLt0hiY
- **App Client ID:** dshos5iou44tuach7ta3ici5m
- **Cognito Domain:** us-east-2fyhltohiy.auth.us-east-2.amazoncognito.com (no hyphen after region)
- **CloudFront URL:** https://d7t9x3j66yd8k.cloudfront.net
- **Callback URL:** https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html
- **OAuth Flow:** Implicit grant (response\_type=token)
- **OAuth Scopes:** openid, email, profile

## 1.3 Manual Validation Procedure

### 1.3.1 Prerequisites

- Access to test Cognito user account (e.g., christian.valencia@ikusi.com)
- Modern web browser with Developer Tools
- Network connectivity to CloudFront and Cognito

### 1.3.2 Step-by-Step Validation

**1. Clear Browser State** Before testing, ensure a clean state:

```
[ ] // Open browser console and run: localStorage.clear(); sessionStorage.clear();
```

Then refresh the page or navigate to: <https://d7t9x3j66yd8k.cloudfront.net/finanzas/>

#### 2. Initiate Hosted UI Login

1. Navigate to: <https://d7t9x3j66yd8k.cloudfront.net/finanzas/>
2. You should see the login page
3. Click the **“Sign in with Cognito Hosted UI”** button
4. **Expected:** Browser redirects to Cognito Hosted UI domain
5. **Verify URL** contains:

<https://us-east-2fyhltohiy.auth.us-east-2.amazoncognito.com/oauth2/authorize?>

#### 3. Authenticate with Cognito

1. On the Cognito login page, enter test credentials:
  - **Email:** christian.valencia@ikusi.com
  - **Password:** (use the configured test password)
2. Click **Sign In**
3. **Expected:** After successful authentication, browser redirects back to callback URL

**4. Verify Callback Processing** This is the most critical step. Open browser Dev-Tools (F12) **before** starting the login flow to capture all logs.

**What to observe:**

1. **URL should briefly show:**

`https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html#id_token=eyJ.`

2. **Console logs should show** (search for [Callback] prefix):

```
[Callback] Starting authentication callback processing
[Callback] href: https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.h
[Callback] id_token present: true
[Callback] access_token present: true
[Callback] id_token successfully extracted from hash
[Callback] Token claims decoded successfully
[Callback] User: christian.valencia@ikusi.com
[Callback] Storing tokens in localStorage...
[Callback] Stored both id_token and access_token
[Callback] User groups: ["SDT"]
[Callback] Routing: SDT-only user → /finanzas/
[Callback] Final redirect target: /finanzas/
[Callback] Executing redirect to: /finanzas/
```

3. **Page should show** “Signing you in...” briefly before redirecting

4. **After ~50ms:** Browser redirects to /finanzas/ and loads the dashboard

**5. Verify Token Storage** After successful login, check localStorage:

```
[ ] // In browser console: console.log('cv.jwt:', localStorage.getItem('cv.jwt')); console.log('finz_jwt:', localStorage.getItem('finz_jwt')); console.log('idToken:', localStorage.getItem('idToken')); console.log('cognitoidToken:', localStorage.getItem('cognitoidToken')); console.log('finz_access_token:', localStorage.getItem('finz_access_token'));
```

**Expected:** All five keys should contain JWT tokens (long base64-encoded strings)

**6. Verify Authenticated Session**

1. **Dashboard loads:** You should see the Finanzas dashboard with navigation
2. **No redirect loop:** Page should not redirect back to login
3. **User menu:** Click on user avatar/menu in top-right corner
4. **Profile displays:** Should show user information from token

**7. Verify Role-Based Access** Based on user's Cognito groups, verify appropriate sections are accessible:

- **SDT/FIN/AUD groups:** Can access Finanzas module (/finanzas/)
- **PMO/EXEC\_RO groups:** Can access PMO module (/)
- **Dual-role users:** Can switch between modules

Navigate to different sections to ensure no authentication errors: - /finanzas/catalog/rubros  
 - Rubros catalog - /finanzas/projects - Projects manager - /finanzas/adjustments  
 - Adjustments

## 8. Verify Logout

1. Click logout button (usually in user menu)
2. **Expected:**
  - Tokens cleared from localStorage
  - Browser redirects to Cognito logout endpoint
  - Then redirects to /finanzas/ (or login page)
3. **Verify:** Attempting to access /finanzas/ after logout should show login page

## 1.4 Troubleshooting Common Issues

### 1.4.1 Issue 1: "No id\_token present" Error

**Symptoms:** - Callback page shows error: "No id\_token present" - Console shows: [Callback] ❌ MISSING id\_token in URL hash

**Possible Causes:** 1. **OAuth configuration mismatch:** - Verify response\_type=token in src/config/aws.ts - Verify scope includes openid 2. **Cognito App Client configuration:** - Check that "Implicit grant" is enabled - Verify callback URL is whitelisted exactly: https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html 3. **Incorrect domain:** - Verify VITE\_COGNITO\_DOMAIN is set to: us-east-2fyhltohiy.auth.us-east-

**Fix:** - Review and correct configuration in src/config/aws.ts - Verify Cognito console settings match expected values - Redeploy if configuration changes were made

### 1.4.2 Issue 2: Infinite Login Loop

**Symptoms:** - After callback, page redirects back to login - Login → Cognito → Callback → Login (repeats)

**Possible Causes:** 1. **Tokens not being stored:** Callback.html failing to write to localStorage 2. **React intercepting callback route:** App.tsx rendering before callback completes 3. **CloudFront serving wrong file:** index.html served instead of callback.html

**Diagnosis:** 1. Check console for [Callback] logs - if missing, React is loading instead 2. Check Network tab - verify response body for /finanzas/auth/callback.html contains "Signing you in" 3. Check localStorage after redirect - if empty, tokens weren't stored

**Fix:** - Verify src/App.tsx has callback route exception (returns null for /auth/callback paths) - Verify post-deploy script confirms callback.html is being served (not index.html) - Check CloudFront configuration for /finanzas/auth/\* behavior

### 1.4.3 Issue 3: CloudFront Returns index.html for Callback

**Symptoms:** - Network tab shows index.html content for /finanzas/auth/callback.html - No [Callback] logs in console - React app loads on callback URL instead of static HTML

**Diagnosis:**

```
[ ] # Test from command line: curl -I https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html
# Check response body contains callback markers: curl -s https://d7t9x3j66yd8k.cloudfront.net/finanzas/auth/callback.html | grep "Signing you in"
```

**Possible Causes:** 1. **File not uploaded to S3:** Build artifact missing callback.html 2. **CloudFront caching:** Old cached version before callback.html existed 3. **CloudFront error handling:** SPA error handling (404 → index.html) intercepting callback

**Fix:** 1. Verify build output: dist-finanzas/auth/callback.html exists 2. Verify S3: `aws s3 ls s3://ukusi-ui-finanzas-prod/finanzas/auth/` 3. Invalidate CloudFront: `aws cloudfront create-invalidation --distribution-id EPQU7PVDLQXUA --paths "/finanzas/auth/*"` 4. Check CloudFront distribution configuration for custom error responses

### 1.4.4 Issue 4: CORS Errors on API Calls

**Symptoms:** - Login successful, dashboard loads - API calls fail with CORS errors - Console shows: "Access to fetch at '...' has been blocked by CORS policy"

**Possible Causes:** - API Gateway CORS not configured for CloudFront origin - Token not being sent in Authorization header

**Fix:** - Verify API Gateway has CORS enabled for CloudFront domain - Check that API calls include: `Authorization: Bearer ${token}` - Verify token is not expired

## 1.5 Known Limitations

1. **Implicit Grant Flow:** Currently using OAuth 2.0 implicit grant for simplicity
  - Tokens visible in URL (browser history)

- No refresh token capability
  - **Future:** Migrate to Authorization Code Flow with PKCE for enhanced security
2. **Token Refresh:** No automatic token refresh implemented
    - Users must re-login when token expires (typically 1 hour)
    - **Future:** Implement refresh token flow
  3. **Multi-Tab Behavior:** Token state not synchronized across browser tabs
    - Logging out in one tab doesn't affect other tabs
    - Tokens stored per-origin (shared across tabs), but state updates require page refresh
  4. **Mobile Safari Quirks:** Some older iOS versions may have issues with hash-based token delivery
    - URL hash may be stripped before callback.html executes
    - Consider fallback to Authorization Code flow for mobile

## 1.6 Automated Testing

### 1.6.1 CI/CD Verification

The deployment pipeline includes automated checks in `scripts/post-deploy-verify.sh`:

```
[ ] # Run post-deployment verification: ./scripts/post-deploy-verify.sh
```

**What it checks:** 1. ☐ CloudFront UI accessible at `/finanzas/` 2. ☐ Auth callback accessible at `/finanzas/auth/callback.html` 3. ☐ `Callback.html` is actual file (not `index.html`) 4. ☐ SPA routing works for nested routes 5. ☐ Static assets load correctly 6. ☐ API endpoints respond

### 1.6.2 Pre-Build Validation

Before building, run:

```
[ ] npm run validate:pre-build
```

**What it checks:** - ☐ `VITE_API_BASE_URL` is set and valid - ☐ URL format is correct (`https://...`) - ☐ Optional: API connectivity (if `VALIDATE_API_CONNECTIVITY=true`)

## 1.7 Reference Configuration Files

### 1.7.1 Key Files for Authentication

1. **src/config/aws.ts**: Cognito configuration, OAuth settings, login/logout helpers
2. **src/components/AuthProvider.tsx**: Authentication state management, token validation
3. **src/hooks/useAuth.ts**: Hook for accessing auth context
4. **src/App.tsx**: Route guard, callback route exception
5. **public/finanzas/auth/callback.html**: OAuth callback handler (static file)
6. **public/auth/callback.html**: Duplicate callback for root path (legacy support)

### 1.7.2 Environment Variables

Required for production deployment:

```
[ ] # Cognito Configuration VITE_COGNITO_REGION=us-east-2 VITE_COGNITO_USER_POOL_ID=us-east-2_FyHLtOhY VITE_COGNITO_CLIENT_ID=dshos5iou44tuach7ta3ici5m VITE_COGNITO_DOMAIN=us-east-2fyhltohiy.auth.us-east-2.amazoncognito.com
# CloudFront VITE_CLOUDFRONT_URL=https://d7t9x3j66yd8k.cloudfront.net
# API VITE_API_BASE_URL=https://pyorjw6lbe.execute-api.us-east-2.amazonaws.com/dev
```

## 1.8 Support and Escalation

If issues persist after following this guide:

1. **Check recent PRs**: Review recent authentication-related PRs for known issues
2. **Review logs**: Check CloudWatch logs for API errors
3. **Cognito Console**: Verify user exists and is in correct groups
4. **CloudFront Console**: Check distribution configuration and cache behavior
5. **GitHub Issues**: Search for similar issues or create new one with validation results

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**Maintained By:** Platform Engineering Team

**Related Docs:** AUTHENTICATION\_FLOW.md, FINANZAS\_AUTH\_FIX\_SUMMARY.md