

# JWKS-MarkLogic Integration - Quick Reference

## Scripts Overview

Script	Purpose	Usage
scripts/extract-jwks-keys.sh	Add new keys	./scripts/extract-jwks-keys.sh <JWKS_URL> [--upload-to-marklogic] [OPTIONS]
scripts/cleanup-obsolete-jwks-keys.sh	Remove old keys	./scripts/cleanup-obsolete-jwks-keys.sh <JWKS_URL> [--delete-keys] [OPTIONS]

## Quick Start Workflow

### 1. First Time Setup

```
# Extract and upload all current keys with custom configuration
./scripts/extract-jwks-keys.sh https://your-idp.com/jwks \
  --upload-to-marklogic \
  --marklogic-host ml.company.com \
  --external-security OAuth2-Production
```

### 2. After Key Rotation

```
# Add new keys (skips duplicates)
./scripts/extract-jwks-keys.sh https://your-idp.com/jwks \
  --upload-to-marklogic \
  --marklogic-host ml.company.com \
  --external-security OAuth2-Production

# Check for obsolete keys
./scripts/cleanup-obsolete-jwks-keys.sh https://your-idp.com/jwks \
  --marklogic-host ml.company.com \
  --external-security OAuth2-Production

# Remove obsolete keys (with confirmation)
./scripts/cleanup-obsolete-jwks-keys.sh https://your-idp.com/jwks \
  --delete-keys \
  --marklogic-host ml.company.com \
  --external-security OAuth2-Production
```

### 3. Regular Maintenance

```
# Weekly analysis (safe)
./scripts/cleanup-obsolete-jwks-keys.sh https://your-idp.com/jwks \
  --marklogic-host ml.company.com \
  --external-security OAuth2-Production
```

## Common JWKS URLs

- Keycloak:** https://your-keycloak.example.com/realms/{realm}/protocol/openid-connect/certs
- Auth0:** https://domain.auth0.com/.well-known/jwks.json
- Azure AD:** https://login.microsoftonline.com/{tenant}/discovery/v2.0/keys
- Google:** https://www.googleapis.com/oauth2/v3/certs

## Prerequisites

```
# Install required tools
brew install curl jq          # macOS
sudo apt-get install curl jq openssl # Ubuntu/Debian
```

## Configuration Options

### Command-Line Parameters (Recommended)

```
--marklogic-host HOST      # MarkLogic server hostname
--marklogic-port PORT      # Management API port (default: 8002)
--marklogic-user USER     # Admin username
--marklogic-pass PASS      # Admin password
--external-security NAME   # External Security profile name
```

### Environment Variables (Most Secure)

```
export ML_HOST="your-server.com"
export ML_USER="admin"
export ML_PASS="secure-password"
export ML_PROFILE="OAuth2-Production"

./scripts/extract-jwks-keys.sh https://idp.com/jwks \
  --upload-to-marklogic \
  --marklogic-host "$ML_HOST" \
  --marklogic-user "$ML_USER" \
  --marklogic-pass "$ML_PASS" \
  --external-security "$ML_PROFILE"
```

## Safety Features

- ✔ Duplicate detection (no duplicate keys added)
- ✔ Confirmation prompts (type "yes" to delete)
- ✔ Analysis mode first (always check before deleting)
- ✔ Detailed feedback (shows exactly what will happen)

## Output Examples

### Successful Key Addition

- ✔ Key 'NewKeyId123' is new – will be added to MarkLogic
- 🔄 Preparing to upload 1 new key(s) to MarkLogic...
- ✔ Successfully uploaded JWT secrets to MarkLogic!

### Duplicate Detection

- 🔍 Key 'ExistingKeyId' already exists in MarkLogic – skipping
- ✗ No new RSA keys found to upload to MarkLogic.

# Obsolete Key Cleanup

```
🗑 OBSOLETE KEYS: 1
🔴 OldKeyId789
📄 To delete: ./scripts/scripts/cleanup-obsolete-jwks-keys.sh <URL> --delete-keys
```

## Troubleshooting

Issue	Solution
Failed to fetch JWKS	Check URL and network connectivity
Invalid JSON response	Verify JWKS endpoint returns valid JSON
Authentication failed	Check MarkLogic credentials and permissions
Permission denied	Run <code>chmod +x *.sh</code> to make scripts executable

## Security Best Practices

- 1. **Test first:** Always run analysis mode before deletion
- 2. **Grace period:** Wait for old tokens to expire before deleting keys
- 3. **Backup:** Consider backing up MarkLogic config before changes
- 4. **Monitor:** Check application logs for JWT validation errors
- 5. **Credentials:** Use secure credential management in production

For complete documentation, see [JWKS-MarkLogic-Integration-Usage-Guide.md](#)