Testing Production Connections

This guide walks you through configuring and testing Oracle SQL and PeopleSoft Component Interface (SOAP) connections in production mode.

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Prerequisites

Before testing connections, ensure you have:

For Oracle SQL

- [ ] Oracle database server hostname/IP address
- [ ] Oracle listener port (typically 1521)
- [ ] Oracle service name (ask your DBA if unsure)
- [ ] Valid Oracle database credentials (username/password)
- [ ] Network access to the Oracle server (no firewall blocking)

For PeopleSoft SOAP

- [ ] PeopleSoft web server hostname
- [ ] PeopleSoft web server port (typically 443 or 8443 for HTTPS)
- [ ] PeopleSoft site name (e.g., HRPRD, HRTST)
- [ ] Portal name (e.g., EMPLOYEE)
- [ ] Node name (typically PT_LOCAL)
- [ ] Valid PeopleSoft user credentials with CI access

Environment Configuration

Step 1: Open your `.env` file

The `.env` file is located in the project root. It contains all connection settings.

```
# Open in your preferred editor
code .env
# or
notepad .env
```

Step 2: Configure Oracle SQL Settings

Find the Oracle section and update these values:

```
# ==========================================
# ORACLE SQL CONNECTION
# ==========================================

# [REQUIRED] Oracle database server hostname or IP
VITE_ORACLE_HOSTNAME=your-oracle-server.company.com

# [OPTIONAL] Oracle listener port (default: 1521)
VITE_ORACLE_PORT=1521

# [REQUIRED] Oracle service name
VITE_ORACLE_SERVICE_NAME=HRPRD
```

Example for a typical PeopleSoft HR database:

```
VITE_ORACLE_HOSTNAME=hr-db-prod.mycompany.com
VITE_ORACLE_PORT=1521
VITE_ORACLE_SERVICE_NAME=HRPRD
```

Step 3: Configure PeopleSoft SOAP Settings

Find the PeopleSoft SOAP section and update these values:

```
# ==========================================
# PEOPLESOFT SOAP CONNECTION
# ==========================================

# [OPTIONAL] Protocol - use 'https' for production (default: https)
VITE_PS_PROTOCOL=https

# [REQUIRED] PeopleSoft web server hostname
VITE_PS_SERVER=your-peoplesoft-server.company.com

# [OPTIONAL] PeopleSoft web server port (default: 443 for https)
VITE_PS_PORT=8443

# [REQUIRED] PeopleSoft site name
VITE_PS_SITE_NAME=HRPRD

# [REQUIRED] Portal name
VITE_PS_PORTAL=EMPLOYEE

# [REQUIRED] Default local node name
VITE_PS_NODE=PT_LOCAL
```

Example for a typical PeopleSoft environment:

```
VITE_PS_PROTOCOL=https
VITE_PS_SERVER=ps-web-prod.mycompany.com
VITE_PS_PORT=8443
VITE_PS_SITE_NAME=HRPRD
VITE_PS_PORTAL=EMPLOYEE
VITE_PS_NODE=PT_LOCAL
```

Switching to Production Mode

Step 4: Enable Production Mode

Change the application mode from `development` to `production`:

```
# ==========================================
# APPLICATION MODE
# ==========================================
# Comment out development mode:
#VITE_APP_MODE=development

# Enable production mode:
VITE_APP_MODE=production
```

> **WARNING**: In production mode, all actions affect live data. Use with caution!

Step 5: Restart the Application

After changing the `.env` file, restart the development server:

```
# Stop the current server (Ctrl+C)
# Then restart:
npm run dev
```

The server will log the connection settings on startup:

```
[Oracle] Service ready
[SOAP] Service initialized
[SOAP] Server: https://ps-web-prod.mycompany.com:8443
[SOAP] Site: HRPRD/EMPLOYEE/PT_LOCAL
```

Testing Oracle SQL Connection

Step 6: Connect via the UI

1. Open the application in your browser: `http://localhost:5173`
2. Locate the **Connection Panel** (left side)
3. In the **Oracle SQL** section:
   - Enter your Oracle **username**
   - Enter your Oracle **password**
   - Click **Connect**

Step 7: Verify Connection

A successful connection will show:

- Green "Connected" indicator
- Console log: `[Oracle] Connected successfully`

If connection fails, check the error message and see Troubleshooting.

Testing PeopleSoft SOAP Connection

Step 8: Connect via the UI

1. In the **Connection Panel**, find the **PeopleSoft** section
2. Enter your PeopleSoft **username**
3. Enter your PeopleSoft **password**
4. Click **Connect**

Step 9: Verify Connection

A successful connection will show:

- Green "Connected" indicator
- Console log: `[SOAP] Connection test successful`

The SOAP connection test performs a `GetCIShape` request against `CI_JOB_DATA` to validate credentials without modifying data.

Running a Test Query

A built-in `connection-test` query is available to verify Oracle connectivity using the DUAL pseudo-table.

Option A: Using Browser Developer Tools

1. Open browser DevTools (F12)
2. Go to the **Console** tab
3. Run this fetch request:

```
// Test Oracle connection with DUAL query
fetch('/api/oracle/query', {
  method: 'POST',
  headers: { 'Content-Type': 'application/json' },
  body: JSON.stringify({ queryId: 'connection-test' })
})
.then(r => r.json())
.then(console.log);
```

Expected successful response:

```
{
  "success": true,
  "data": {
    "rows": [{
      "CURRENT_TIME": "2024-01-15T14:30:00.000Z",
      "DATABASE_NAME": "HRPRD",
      "SESSION_USER": "YOUR_USERNAME",
      "CLIENT_HOST": "your-machine",
      "STATUS": "Connection successful"
    }],
    "rowCount": 1,
    "columns": ["CURRENT_TIME", "DATABASE_NAME", "SESSION_USER", "CLIENT_HOST", "STATUS"],
    "executionTimeMs": 15
  }
}
```

Option B: Using curl (from terminal)

```
curl -X POST http://localhost:5173/api/oracle/query \
  -H "Content-Type: application/json" \
  -d '{"queryId": "connection-test"}'
```

The Test Query

The `connection-test` query executes this SQL:

```
SELECT
    SYSDATE AS CURRENT_TIME,
    SYS_CONTEXT('USERENV', 'DB_NAME') AS DATABASE_NAME,
    SYS_CONTEXT('USERENV', 'SESSION_USER') AS SESSION_USER,
    SYS_CONTEXT('USERENV', 'HOST') AS CLIENT_HOST,
    'Connection successful' AS STATUS
FROM DUAL
```

This query:

- Uses only the `DUAL` pseudo-table (no real table access needed)
- Returns the current server time
- Shows which database you're connected to
- Confirms your session user
- Requires no special privileges

Troubleshooting

Oracle Connection Errors

Error	Cause	Solution
`ORA-01017: Invalid username/password`	Wrong credentials	Verify username and password
`ORA-12154: TNS: could not resolve connect identifier`	Bad hostname or service name	Check `VITE_ORACLE_HOSTNAME` and `VITE_ORACLE_SERVICE_NAME`
`ORA-12541: TNS: no listener`	Oracle not running or wrong port	Verify Oracle is running and check `VITE_ORACLE_PORT`
`ORA-12170: Connection timeout`	Network issue or firewall	Check network connectivity, VPN, firewall rules
`ORA-12514: TNS: listener does not know of service`	Wrong service name	Contact DBA for correct service name
`ORA-28000: Account is locked`	Too many failed logins	Contact DBA to unlock account

Error	Cause	Solution
`ORA-28001: Password has expired`	Password expired	Reset password in Oracle

PeopleSoft SOAP Errors

Error	Cause	Solution
`AUTHENTICATION_FAILED`	Wrong username/password	Verify PeopleSoft credentials
`SOAP Fault: Invalid user`	User doesn't exist or locked	Check PeopleSoft user status
`Connection refused`	Server down or wrong port	Verify server is up, check port
`Connection timed out`	Network issue	Check VPN, firewall, network
`SSL certificate error`	Self-signed cert	Server may need proper SSL cert
`SOAP Fault: Not authorized`	Missing CI permissions	User needs permission to access Component Interfaces

Common Network Issues

1. **VPN Required**: Corporate PeopleSoft/Oracle servers often require VPN connection
2. **Firewall**: Ensure ports 1521 (Oracle) and 443/8443 (PeopleSoft) are open
3. **Proxy**: If behind a proxy, it may block direct database connections

Checking API Status

You can check connection status via these endpoints:

```
# Oracle status
curl http://localhost:5173/api/oracle/status

# SOAP status
curl http://localhost:5173/api/soap/status
```

Environment Variable Reference

Oracle SQL Variables

Variable	Required	Default	Description
`VITE_ORACLE_HOSTNAME`	Yes	-	Oracle server hostname or IP
`VITE_ORACLE_PORT`	No	1521	Oracle listener port
`VITE_ORACLE_SERVICE_NAME`	Yes	-	Oracle service name

PeopleSoft SOAP Variables

Variable	Required	Default	Description
`VITE_PS_PROTOCOL`	No	https	http or https
`VITE_PS_SERVER`	Yes	-	PeopleSoft web server hostname
`VITE_PS_PORT`	No	443	Web server port
`VITE_PS_SITE_NAME`	Yes	-	PeopleSoft site name
`VITE_PS_PORTAL`	Yes	-	Portal name (e.g., EMPLOYEE)
`VITE_PS_NODE`	Yes	-	Node name (usually PT_LOCAL)
`VITE_PS_LANGUAGE_CODE`	No	ENG	Language code for requests
`VITE_SOAP_BLOCKING_FACTOR`	No	40	Records per batch

Security Notes

1. **Never commit `.env` to git** - It contains sensitive connection info
2. **Use HTTPS** - Always use `VITE_PS_PROTOCOL=https` in production
3. **Principle of least privilege** - Use accounts with minimal required permissions
4. **Audit logging** - Enable `VITE_ENABLE_AUDIT_TRAIL=true` in production
5. **Password security** - Passwords are only stored in memory, never persisted to disk

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Quick Reference: Full `.env` Example

```
# Application Mode
VITE_APP_MODE=production

# Oracle SQL Connection
VITE_ORACLE_HOSTNAME=hr-db-prod.mycompany.com
VITE_ORACLE_PORT=1521
VITE_ORACLE_SERVICE_NAME=HRPRD

# PeopleSoft SOAP Connection
VITE_PS_PROTOCOL=https
VITE_PS_SERVER=ps-web-prod.mycompany.com
VITE_PS_PORT=8443
VITE_PS_SITE_NAME=HRPRD
VITE_PS_PORTAL=EMPLOYEE
VITE_PS_NODE=PT_LOCAL

# Optional Settings
VITE_ENABLE_DEBUG_LOGGING=false
VITE_ENABLE_AUDIT_TRAIL=true
```