

Client Update Forms Implementation Guide

Version: 1.0
Date: August 3, 2025
System: Anwar Sales Ecosystem - Client Update Management

Overview

The Client Update Forms system provides comprehensive update management for all client types in the Anwar Sales Ecosystem:

- **IHB (Individual House Builder) Updates**
- **Retailer Updates**
- **Partner/Engineer Updates**

This system integrates with the employee location hierarchy, provides automated approval workflows, and maintains comprehensive audit trails.

IHB Update Forms

Form Configuration

- **Form ID:** `IHB_UPDATE`
- **Handler Function:** `handleIHBUpdateFormSubmit()`
- **Update Sheet:** `IHB Updates`

Update Types Supported

1. **Profile Update** - Name, email, contact information changes
2. **Contact Information Update** - Phone numbers, WhatsApp updates
3. **Location Update** - Address, geographic location changes
4. **Status Change** - Status modifications
5. **Document Update** - Supporting document updates

Form Fields

Field	Type	Required	Description
IHB ID	Text	Yes	Existing IHB ID to update
Update Type	Choice	Yes	Type of update being requested
New IHB Name	Text	No	Updated name if changing
New IHB Email	Text	No	Updated email if changing
New Mobile Number	Text	No	Updated mobile number

Field	Type	Required	Description
New WhatsApp Number	Text	No	Updated WhatsApp number
New Address	Paragraph	No	Updated address
New Zone	Dropdown	No	Zone selection
New District	Text	No	District name
New Area	Text	No	Area name
New Territory	Text	No	Territory name
New Bazaar	Text	No	Bazaar name
New Upazilla	Text	No	Upazilla name
New Business Unit	Choice	No	ACL or AIL
Reason for Update	Paragraph	Yes	Explanation for update
Supporting Documents	Text	No	Google Drive links

Workflow

1. **Submission** → Form submitted by user
2. **Validation** → System validates IHB ID exists and is approved
3. **Location Validation** → If location update, validates hierarchy
4. **Storage** → Update request stored in "IHB Updates" sheet
5. **Notification** → ASM+ receive WhatsApp notifications
6. **Approval** → Manager approves/rejects in sheet
7. **Application** → If approved, changes applied to main IHB record
8. **Notification** → Status update sent to requester



Retailer Update Forms

Form Configuration

- **Form ID:** `RETAILER_UPDATE`
- **Handler Function:** `handleRetailerUpdateFormSubmit()`
- **Update Sheet:** `Retailer Updates`

Update Types Supported

1. **Shop Information Update** - Shop name, proprietor changes
2. **Contact Information Update** - Phone numbers, contact updates
3. **Location Update** - Shop address, geographic location changes
4. **Status Change** - Status modifications
5. **Document Update** - Supporting document updates

Form Fields

Field	Type	Required	Description
Retailer ID	Text	Yes	Existing retailer submission ID
Update Type	Choice	Yes	Type of update being requested
New Shop Name	Text	No	Updated shop name
New Proprietor Name	Text	No	Updated proprietor name
New Shop Address	Paragraph	No	Updated shop address
New Phone Number	Text	No	Updated phone number
New Bkash Number	Text	No	Updated bKash number
New Zone	Dropdown	No	Zone selection
New District	Text	No	District name
New Area	Text	No	Area name
New Territory	Text	No	Territory name
New Bazaar	Text	No	Bazaar name
New Upazilla	Text	No	Upazilla name
New Business Unit	Choice	No	ACL or ALL
Reason for Update	Paragraph	Yes	Explanation for update
Supporting Documents	Text	No	Google Drive links

Workflow

1. **Submission** → Form submitted by user
2. **Validation** → System validates retailer ID exists and is approved
3. **Location Validation** → If location update, validates hierarchy
4. **Storage** → Update request stored in "Retailer Updates" sheet
5. **Notification** → SR+ receive WhatsApp notifications
6. **Approval** → Manager approves/rejects in sheet
7. **Application** → If approved, changes applied to main retailer record
8. **Notification** → Status update sent to requester

Partner Update Forms

Form Configuration

- **Form ID:** `PARTNER_UPDATE_ENHANCED`
- **Handler Function:** `handlePartnerUpdateFormSubmit()`
- **Update Sheet:** `Partner Updates`

Update Types Supported

1. **Profile Update** - Name, email, contact information changes
2. **Contact Information Update** - Phone numbers, contact updates
3. **Location Update** - Geographic location changes
4. **Project Assignment** - Assign partner to new projects
5. **Status Change** - Status modifications
6. **Partner Type Change** - Change between Site Engineer/Partner

Form Fields

Field	Type	Required	Description
Partner ID	Text	Yes	Existing partner ID
Update Type	Choice	Yes	Type of update being requested
New Partner Name	Text	No	Updated partner name
New Partner Email	Text	No	Updated email
New Contact Number	Text	No	Updated contact number
New WhatsApp Number	Text	No	Updated WhatsApp number
New Bkash Number	Text	No	Updated bKash number
New Partner Type	Choice	No	Site Engineer or Partner
New Zone	Dropdown	No	Zone selection
New District	Text	No	District name
New Area	Text	No	Area name
New Territory	Text	No	Territory name
New Bazaar	Text	No	Bazaar name
New Upazilla	Text	No	Upazilla name
New Business Unit	Choice	No	ACL or AIL
Project Assignment	Text	No	Potential Site ID for assignment
Reason for Update	Paragraph	Yes	Explanation for update
Supporting Documents	Text	No	Google Drive links

Workflow

1. **Submission** → Form submitted by user
2. **Validation** → System validates partner ID exists and is approved
3. **Project Validation** → If project assignment, validates project exists and is approved
4. **Location Validation** → If location update, validates hierarchy
5. **Storage** → Update request stored in "Partner Updates" sheet
6. **Notification** → ASM+ receive WhatsApp notifications

7. **Approval** → Manager approves/rejects in sheet
 8. **Application** → If approved, changes applied to main partner record
 9. **Notification** → Status update sent to requester
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Technical Implementation

Core Functions

Form Handlers

```
// IHB Update Handler
handleIHBUpdateFormSubmit(e)

// Retailer Update Handler
handleRetailerUpdateFormSubmit(e)

// Partner Update Handler
handlePartnerUpdateFormSubmit(e)
```

Approval Handlers

```
// IHB Approval Handler
handleIHBUpdateApproval(e)

// Retailer Approval Handler
handleRetailerUpdateApproval(e)

// Partner Approval Handler
handlePartnerUpdateApproval(e)
```

Notification Functions

```
// Update Request Notifications
sendIHBUpdateNotification(updateData, existingIhb)
sendRetailerUpdateNotification(updateData, existingRetailer)
sendPartnerUpdateNotification(updateData, existingPartner)

// Status Update Notifications
sendIHBUpdateStatusNotification(updateId, status, updateData)
sendRetailerUpdateStatusNotification(updateId, status, updateData)
sendPartnerUpdateStatusNotification(updateId, status, updateData)
```

Validation Functions

```
// Location Hierarchy Validation
validateLocationHierarchy(location)

// Project Assignment Validation
validateProjectAssignment(projectId, partnerId, partnerType)

// Stakeholder Lookup
getLocationStakeholders(territory, businessUnit)
```

Update Application Functions

```
// Apply approved updates to main records
applyIHBUUpdates(ihbId, updateData)
applyRetailerUpdates(retailerId, updateData)
applyPartnerUpdates(partnerId, updateData)
```

Database Schema

IHB Updates Sheet

Columns: Timestamp, Update ID, Submitter Email, IHB ID, Update Type, Existing Data, New IHB Name, New IHB Email, New Mobile Number, New WhatsApp Number, New Address, New Zone, New District, New Area, New Territory, New Bazaar, New Upazilla, New Business Unit, Update Reason, Supporting Documents, Status, Request Date, Approval Date, Approver Email, Approval Notes

Retailer Updates Sheet

Columns: Timestamp, Update ID, Submitter Email, Retailer ID, Update Type, Existing Data, New Shop Name, New Proprietor Name, New Shop Address, New Phone Number, New Bkash Number, New Zone, New District, New Area, New Territory, New Bazaar, New Upazilla, New Business Unit, Update Reason, Supporting Documents, Status, Request Date, Approval Date, Approver Email, Approval Notes

Partner Updates Sheet

Columns: Timestamp, Update ID, Submitter Email, Partner ID, Update Type, Existing Data, New Partner Name, New Partner Email, New Contact Number,

New WhatsApp Number, New Bkash Number, New Partner Type, New Zone, New District, New Area, New Territory, New Bazaar, New Upazilla, New Business Unit, Project Assignment, Update Reason, Supporting Documents, Status, Request Date, Approval Date, Approver Email, Approval Notes

Integration Features

Location Hierarchy Integration

- **Validation:** Uses `employee-location-hierarchy.js` for location validation
- **Auto-fill:** Automatically populates parent levels in hierarchy
- **Consistency:** Ensures all location updates follow established patterns

Employee System Integration

- **Notifications:** Uses employee hierarchy for notification routing
- **Stakeholders:** Automatically identifies relevant approvers by location
- **Role-based Access:** Respects organizational hierarchy for approvals

Audit Trail

- **Change Tracking:** All updates logged with timestamps and approvers
- **Historical Data:** Original data stored before applying changes
- **Accountability:** Full trail of who requested and approved changes

Notification System

Notification Hierarchy

IHB Updates

- **Recipients:** ASM, ZSM, BDO, CRO (based on location)
- **Trigger:** New update request submitted
- **Content:** Update ID, IHB details, requester information

Retailer Updates

- **Recipients:** SR, ASM, ZSM, BDO, CRO (based on location)
- **Trigger:** New update request submitted
- **Content:** Update ID, retailer details, requester information

Partner Updates

- **Recipients:** ASM, ZSM, BDO, CRO (based on location)
- **Trigger:** New update request submitted

- **Content:** Update ID, partner details, requester information

Status Notifications

- **Recipients:** Original requester
- **Trigger:** Approval/rejection decision
- **Content:** Update ID, decision, decision date

Deployment Instructions

1. File Setup

```
# Core implementation file
client-update-forms.js

# Testing file
test-client-update-forms.js

# Configuration updates in
config.js
```

2. Google Forms Creation

Create Google Forms with the specified field configurations:

- IHB Update Form
- Retailer Update Form
- Partner Update Enhanced Form

3. Trigger Setup

```
// Set up form submission triggers
function setupClientUpdateTriggers() {
  // IHB Update Form Trigger
  ScriptApp.newTrigger('handleIHBUpdateFormSubmit')
    .onFormSubmit()
    .create();

  // Retailer Update Form Trigger
  ScriptApp.newTrigger('handleRetailerUpdateFormSubmit')
    .onFormSubmit()
    .create();

  // Partner Update Form Trigger
  ScriptApp.newTrigger('handlePartnerUpdateFormSubmit')
    .onFormSubmit()
    .create();
}
```



```

}

// Set up edit triggers for approvals
function setupApprovalTriggers() {
  // IHB Updates Sheet Edit Trigger
  ScriptApp.newTrigger('handleIHBUpdateApproval')
    .onEdit()
    .create();

  // Retailer Updates Sheet Edit Trigger
  ScriptApp.newTrigger('handleRetailerUpdateApproval')
    .onEdit()
    .create();

  // Partner Updates Sheet Edit Trigger
  ScriptApp.newTrigger('handlePartnerUpdateApproval')
    .onEdit()
    .create();
}

```

4. Testing

```

// Run comprehensive test suite
runClientUpdateFormsTest();

// Test individual components
testClientUpdateForms();
demonstrateClientUpdateWorkflow();

```

Usage Examples

Example 1: IHB Profile Update

1. User submits form with IHB ID "IHB-001"
2. Updates name from "John Doe" to "John Smith"
3. Updates mobile number to "+8801234567890"
4. System validates IHB exists and is approved
5. Update request stored with ID "IHB-UPD-001"
6. ASM receives WhatsApp notification
7. ASM approves update in sheet
8. Changes applied to main IHB record
9. User receives approval notification

Example 2: Retailer Location Update

1. User submits form with Retailer ID "RTL-001"

2. Updates shop address and territory
3. New territory: "Dhanmondi-02"
4. System validates location hierarchy
5. Update request stored with ID "RTL-UPD-001"
6. SR and ASM receive notifications
7. ASM approves after verification
8. Location changes applied to retailer record

Example 3: Partner Project Assignment

1. User submits form with Partner ID "PTN-001"
2. Update type: "Project Assignment"
3. Project: "P.S-001"
4. System validates project exists and is approved
5. Update request stored with ID "PTN-UPD-001"
6. ASM receives notification
7. ASM approves assignment
8. Partner assigned to project in system

Troubleshooting

Common Issues

Form Submission Errors

- **Issue:** "IHB ID not found"
- **Solution:** Verify IHB ID exists in IHB Approvals sheet and status is "Approved"

Location Validation Errors

- **Issue:** "Invalid location hierarchy"
- **Solution:** Check location mapping in Location Map sheet, ensure hierarchy is valid

Project Assignment Errors

- **Issue:** "Project not found"
- **Solution:** Verify Potential Site ID exists and status is "Approved"

Notification Issues

- **Issue:** Notifications not being sent
- **Solution:** Check WhatsApp integration, verify employee hierarchy setup

Debug Functions

```
// Test form submission
testIHBFomSubmission();
testRetailerFormSubmission();
testPartnerFormSubmission();

// Test validation
testIHValidation();
testRetailerValidation();
testPartnerValidation();

// Test notifications
testIHNotifications();
testRetailerNotifications();
testPartnerNotifications();
```

Benefits

For Administrators

- **Centralized Management:** All client updates in dedicated sheets
- **Approval Control:** Structured approval workflow
- **Audit Trail:** Complete change history
- **Error Prevention:** Validation prevents invalid updates

For Field Staff

- **Easy Updates:** Simple form-based update process
- **Status Tracking:** Clear visibility of update status
- **Documentation:** Support for document attachments
- **Notifications:** Automatic status updates

For System Integrity

- **Data Consistency:** Location hierarchy validation
- **Change Control:** Approved changes only
- **Traceability:** Full audit trail
- **Integration:** Seamless with employee hierarchy

Future Enhancements

Planned Features

1. **Bulk Updates:** Support for multiple client updates
2. **Mobile App:** Native mobile interface
3. **Analytics Dashboard:** Update metrics and reporting
4. **Automated Approvals:** Rule-based auto-approvals

5. **Document Management:** Integrated document storage

Advanced Features

1. **Workflow Customization:** Configurable approval flows
2. **Integration APIs:** External system integration
3. **Real-time Notifications:** Push notifications
4. **Advanced Validation:** Machine learning validation
5. **Geographic Mapping:** Visual location management

Support

For technical support or questions about the Client Update Forms system:

- **Documentation:** Refer to this guide and inline code comments
- **Testing:** Use the test suite for troubleshooting
- **Logs:** Check console logs for detailed error information
- **Admin Contact:** Use `sendAdminNotification()` for system issues

System Status: ☒ Production Ready

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This implementation provides comprehensive client update management with full integration to the Anwar Sales Ecosystem.