TECHNICAL DESIGN DOCUMENT (TDD)

Product Title: Business Tools – Zoho

Owner: T2Mobile Nigeria
Version: 1.0
Date: 16 February 2026

1. DOCUMENT CONTROL

Item	Details
Document Title	Technical Design Document – Business Tools (Zoho)
Product Owner	T2Mobile Digital and Innovation Team
Integration Partners	T2Mobile, Icontech Solutions, Zoho Corporation
Classification	Confidential – Partner Integration
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Approved By	TBD

2. VERSION HISTORY

Version	Date	Author	Description
0.1	13 Feb 2026	Engineering	Initial Draft
0.9	16 Feb 2026	Engineering	Full Integration & API Specification
1.0	16 Feb 2026	Engineering	Baselined Version

3. EXECUTIVE SUMMARY

T2Mobile intends to offer Zoho business software products via its Subscription Center within the T2Mobile Mobile App.

The integration involves three parties:

- **T2Mobile** – Payment processor, distribution platform, customer owner.
- **Icontech Solutions** – Registered Zoho reseller and API intermediary.
- **Zoho Corporation** – Product owner and upstream service provider.

The solution enables:

1. Product discovery (Zoho catalog listing).
2. One-time purchase and subscription management.
3. Revenue split between T2Mobile and Icontech.
4. Renewal reminders via webhook-triggered payment links.
5. Structured onboarding for affiliate partners under Subscription Center.

This design focuses primarily on the **T2Mobile system architecture and responsibilities**.

4. PARTNER CONTEXT

4.1 T2Mobile

A Mobile Network Operator in Nigeria undergoing transformation into a digital lifestyle services provider while maintaining telecommunications as its core business.

Role:
- Digital storefront (Subscription Center)
- Customer relationship owner
- Payment collection & revenue settlement engine
- Affiliate platform host

4.2 Icontech Solutions

Registered Zoho partner and reseller in Nigeria.

Role:
- API abstraction layer over Zoho APIs
- Product catalog provider
- Product fulfillment orchestrator
- Renewal webhook initiator

4.3 Zoho Corporation

Cloud-based business software provider.

Role:
- Upstream product catalog source
- License provisioning & subscription management
- Reseller network management
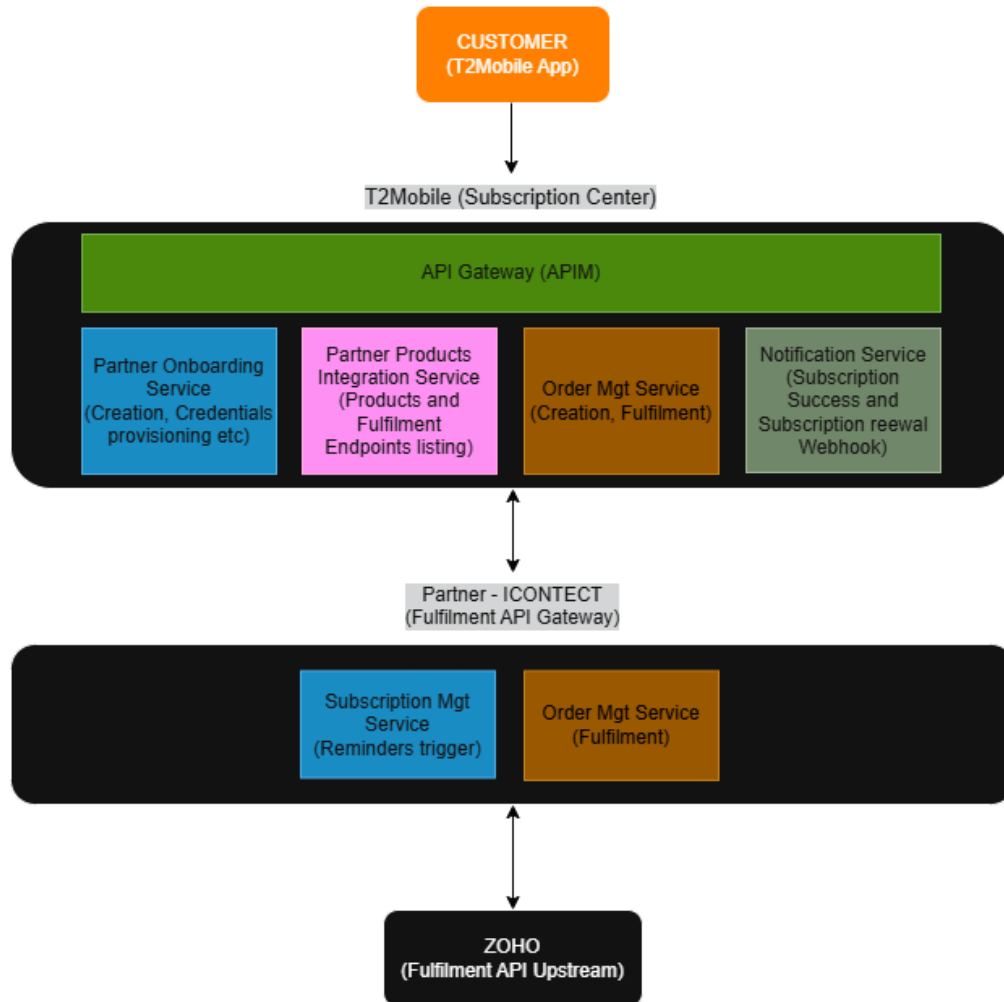
5. SCOPE

5.1 In Scope

- Product listing integration
- Purchase flow integration
- Order management
- Payment processing via T2Mobile
- Revenue split logic (T2Mobile → Icontech)
- Renewal reminder webhook handling
- Partner onboarding model
- API contract definitions
- Security & compliance considerations

5.2 Out of Scope

- Revenue split between Icontech and Zoho
- Zoho internal provisioning mechanics
- Dispute management between Icontech and Zoho
- Customer support workflows beyond T2Mobile L1
- Tax compliance outside Nigeria
- Detailed financial accounting ERP integration

6. HIGH-LEVEL ARCHITECTURE

CUSTOMER
(T2Mobile App)

T2Mobile (Subscription Center)

API Gateway (APIM)

Partner Onboarding Service
(Creation, Credentials provisioning etc)

Partner Products Integration Service
(Products and Fulfilment Endpoints listing)

Order Mgt Service
(Creation, Fulfilment)

Notification Service
(Subscription Success and Subscription reewal Webhook)

Partner - ICONTECT
(Fulfilment API Gateway)

Subscription Mgt Service
(Reminders trigger)

Order Mgt Service
(Fulfilment)

ZOHO
(Fulfilment API Upstream)

7. PROCESS FLOWS

7.1 Partner Onboarding Flow

Purpose: Register Icontech as an approved affiliate partner.

Steps:

1. T2Mobile Admin creates Partner Record:
   - Company Name
   - Contact Email
   - Contact Phone
   - Description
   - Tier
   - Revenue Split Ratio
   - API Credentials

2. System generates:
   - Partner ID
   - API Access Key
   - Webhook Authentication Secret

3. Partner Status = ACTIVE

7.2 Product Listing Flow

Trigger:

User opens Subscription Center.

Flow:

1. T2Mobile calls:
2. GET /partner/{partnerId}/products

On Icontech API.

3. Icontech:
   - Fetches from Zoho
   - Normalizes response
   - Returns structured product array

4. T2Mobile:
   - Caches response (TTL configurable)
   - Displays products in Subscription Center

Response Object Example:

```json
{
  "partnerId": "ICONTECH001",
  "products": [
    {
      "productId": "ZOHO_CRM_STD",
      "name": "Zoho CRM Standard",
      "cost": 150000,
      "currency": "NGN",
      "tenure": "12_MONTHS",
      "imageUrl": "https://...",
      "fulfilmentId": "CRM_LICENSE"
    }
  ]
}
```

7.3 First-Time Purchase Flow

Step 1: Product Selection

Customer selects Zoho product in app.

Step 2: Order Creation (T2Mobile)

T2Mobile:
- Creates Order ID
- Stores customer details
- Status = PENDING_PAYMENT

Step 3: Payment

Customer pays via T2Mobile Payment Gateway.

Payment Status = SUCCESS

Step 4: Fulfillment Call

T2Mobile calls:

POST /partner/{partnerId}/fulfilment/{fulfilmentId}

Payload:

```
{
  "orderId": "T2M123456",
  "productId": "ZOHO_CRM_STD",
  "customerId": "T2M_USER_9001",
  "customerEmail": "customer@email.com",
  "tenure": "12_MONTHS"
}
```

Step 5: Icontech

- Validates order
- Calls Zoho provisioning API
- Returns activation status (via Webhook)

Response:

```
{
  "orderId": "T2M123456",
  "status": "SUCCESS",
  "activationReference": "ZOH123456"
}
```

Step 6: Order Update

T2Mobile updates:

- Status = ACTIVE
- Expiry Date
- Stores activation reference

7.4 Renewal Flow (Webhook Driven)

Trigger: Subscription Near Expiry

Icontech sends:

POST /webhook/renewal-reminder

Payload:

```json
{

  "activationReference": "ZOH123456",

  "customerEmail": "customer@email.com",

  "amount": 150000,

  "currency": "NGN",

  "expiryDate": "2027-02-15"

}
```

T2Mobile:

1. Validates signature
2. Generates secure payment link
3. Sends reminder email
4. Customer clicks link
5. Payment processed
6. T2Mobile triggers fulfilment API again for renewal

8. API STRUCTURE (T2Mobile SIDE)

8.1 Internal Partner Model

```json
{

  "partnerId": "string",

  "companyName": "string",

  "tier": "GOLD | SILVER | BRONZE",

  "revenueShare": 0.30,

  "status": "ACTIVE | INACTIVE",

  "apiBaseUrl": "string",

  "apiKey": "encrypted"

}
```

8.2 Subscription Center API Contract (Internal Standard)

All affiliate partners must expose:

1. Product Listing API

GET /products

Must return:
- productId
- name
- cost
- tenure
- image/icon
- fulfilmentId

2. Fulfilment API

POST /fulfilment/{fulfilmentId}

Must accept:
- Order object
- Customer details
- Metadata

Must return:
- Status
- Activation Reference
- Expiry Date

9. REVENUE SPLIT LOGIC

Revenue Share = Configurable per Partner

Example:

Party	Share
T2Mobile	30%
Icontech	70%

Settlement Model:
1. Customer pays T2Mobile.

2. System logs:
    o Gross Amount
    o Commission
    o Net Payable
3. Monthly settlement report generated.
4. T2Mobile transfers Icontech portion.

10. RESPONSIBILITY MATRIX (RACI)

Activity	T2Mobile	Icontech	Zoho
Customer Acquisition	R	I	I
Payment Collection	R	I	I
Product Catalog Sync	C	R	C
Product Provisioning	I	R	R
Revenue Settlement	R	C	I
Renewal Reminder	I	R	I
Platform Security	R	C	C
SLA Enforcement	R	R	C

R = Responsible
C = Consulted
I = Informed

11. SECURITY REQUIREMENTS
- HTTPS TLS 1.2+
- Mutual authentication (API Key + HMAC Signature)
- Webhook signature verification
- Idempotency keys for fulfilment
- Rate limiting
- Audit logging
- Data encryption at rest

12. DATA MODEL OVERVIEW

Core Tables (T2Mobile)
1. partners
2. partner_products
3. orders
4. transactions
5. subscription_activations
6. revenue_settlements

13. NON-FUNCTIONAL REQUIREMENTS

Category	Requirement
Availability	99.5% minimum
Response Time	< 3 seconds product listing
Security	PCI-DSS compliant payment
Scalability	10,000 concurrent users
Logging	Centralized logging

14. ERROR HANDLING

Scenario	Handling
Fulfilment Failure	Retry 3x + alert
Webhook Invalid	Reject + log
Payment Success but Fulfilment Fail	Escalation queue
Duplicate Request	Idempotency key validation

15. FUTURE ENHANCEMENTS
- Automated reconciliation engine
- Real-time settlement dashboard
- Partner SLA scoring
- Multi-currency support
- Subscription auto-renewal tokenization

16. CONCLUSION

This design enables T2Mobile to:
- Expand into digital B2B services
- Monetize affiliate partnerships
- Maintain ownership of customer and payments
- Standardize partner onboarding
- Scale Subscription Center for multiple vendors

The system ensures:
- Clean separation of responsibilities
- Secure API integration
- Revenue transparency
- Extensibility for additional affiliate partners