

# MT-Facturation API Process Map (Chronological)

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Base Prefix: /api/v1

This document maps all platform-supported API workflows in chronological business order, from setup to collections.

## Global Rules (Apply to All Processes)

- Protected endpoints need auth (Authorization or X-Actor-Id).
- Public client endpoints are under /landing/\*.
- Idempotency is required on critical writes:
- /landing/submit/new
- /landing/submit/plan-change
- /billing/runs
- /collections/payments
- /collections/invoices/{invoice\_id}/approve-paid
- CIN is the client identity reference for landing self-service flows.
- Subscriber endpoints exist, but in normal operations subscriber lifecycle is handled by contract provisioning (no standalone subscriber calls needed).

## P0) Environment and Access Check

Purpose: verify API availability and credentials before business operations.

1. GET /api/v1/health
2. GET /api/v1/me
3. Optional role check: GET /api/v1/admin/ping

## P1) Catalog Foundation (Offer Setup)

Purpose: define services/offers before any contract can be created.

1. Create offer: POST /api/v1/offers
  2. Validate catalog grouping:
- GET /api/v1/offer-categories
  - optional legacy alias: GET /api/v1/offer-families
3. Verify individual offer: GET /api/v1/offers/{offer\_id}

Output:

- reusable offer\_id values for provisioning and landing flows.

## P2) Offer Maintenance (Lifecycle of Offers)

Purpose: maintain commercial catalog over time.

1. Update offer: PUT /api/v1/offers/{offer\_id}

2. Re-check offer/grouping:

- GET /api/v1/offers/{offer\_id}
- GET /api/v1/offer-categories

3. Optional cleanup: DELETE /api/v1/offers/{offer\_id}

Guardrail:

- delete is blocked if contract history exists (409 offer\_delete\_blocked).

## P3) Client Master Data Setup and Maintenance

Purpose: create and maintain client records for internal operations.

1. Create client: POST /api/v1/customers
2. List/search clients: GET /api/v1/customers
3. Get specific client: GET /api/v1/customers/{client\_id}
4. Update client: PUT /api/v1/customers/{client\_id}
5. Optional delete (safe-only): DELETE /api/v1/customers/{client\_id}

Guardrails:

- CIN uniqueness enforced.
- deletion blocked if contract/invoice/payment/collection history exists.

## P4) Internal New Contract Provisioning

Purpose: internal team creates a new active contract while subscriber assignment is auto-managed.

1. Ensure offer\_id and client\_id exist (P1 + P3).
  2. Provision contract:
- POST /api/v1/contracts/provision

Recommended body pattern:

```
{
  "offer_id": "OFFER_ID",
  "contract_start_date": "2026-02-20",
  "commitment_months": 12,
  "client_id": "CLIENT_ID",
  "subscriber": {
    "service_identifier": "+212612300000"
  },
  "provisioning_intent": "auto"
}
```

3. Verify result:

- GET /api/v1/contracts/{contract\_id}
- GET /api/v1/contracts/{contract\_id}/audit

## P5) Internal Manual Contract Creation (Controlled Path)

Purpose: create contract via explicit IDs (advanced/manual path remains supported).

1. POST /api/v1/contracts

2. Verify:

- GET /api/v1/contracts/{contract\_id}
- GET /api/v1/contracts/{contract\_id}/audit

Note:

- Use this only when manual control is required; for normal operations prefer provisioning flow (P4).

## P6) Contract Lifecycle Management (Internal)

Purpose: run day-2 contract operations after activation.

1. List contracts: GET /api/v1/contracts
2. Update status: PUT /api/v1/contracts/{contract\_id}/status
3. Update offer directly: PUT /api/v1/contracts/{contract\_id}/offer
4. Audit trail read: GET /api/v1/contracts/{contract\_id}/audit

## P7) Client Landing Bootstrap and Drafting

Purpose: initialize public client journey state.

1. Load landing metadata: GET /api/v1/landing/bootstrap
2. Save draft: POST /api/v1/landing/drafts
3. Restore draft: GET /api/v1/landing/drafts/{draft\_id}
4. Update draft: PUT /api/v1/landing/drafts/{draft\_id}

## P8) Client New Subscription (Public) -> Contract PDF

Purpose: end user subscribes from landing, system auto-creates/updates client+contract records.

1. (Optional UI step) load offers from bootstrap (P7).
2. Submit new subscription:
  - POST /api/v1/landing/submit/new
  - header: Idempotency-Key
3. Read document\_download\_url from response.
4. Download contract PDF via returned URL (GET .../landing/contracts/{contract\_id}/document?token=...).

Fallback if URL missing or needs refresh:

1. POST /api/v1/landing/contracts/{contract\_id}/document-link with CIN
2. GET returned document\_download\_url

## P9) Client Upgrade/Downgrade (Public) -> Contract PDF

Purpose: existing client changes offer inside same service family via CIN-only flow.

1. Verify CIN:
  - POST /api/v1/landing/clients/verify-cin

2. Fetch active subscriptions + eligible offers:

- GET /api/v1/landing/clients/{cin}/subscriptions?lookup\_token=...

3. Submit plan change:

- POST /api/v1/landing/submit/plan-change
- header: Idempotency-Key

4. Download updated contract PDF from document\_download\_url.

Important:

- same endpoint handles upgrade and downgrade.
- target offer determines direction.
- selected contract\_start\_date becomes the effective upgraded/downgraded contract start date.

## P10) Internal Contract Document Retrieval (Any Time)

Purpose: retrieve contract document after internal updates.

1. Generate secure link by CIN ownership:

- POST /api/v1/landing/contracts/{contract\_id}/document-link

2. Download:

- GET /api/v1/landing/contracts/{contract\_id}/document?token=...

## P11) Monthly Billing Run

Purpose: issue monthly invoices from active billable contracts.

1. Trigger billing:

- POST /api/v1/billing/runs
- header: Idempotency-Key

2. Store result metadata:

- billing\_run\_id, invoice\_ids, totals.

## P12) Invoice Operations (Internal)

Purpose: inspect and distribute invoices from operator side.

1. List invoices:

- GET /api/v1/invoices
- optional filters:
- client\_id
- service (mobile|internet|landline)
- offer\_id

2. Invoice detail:

- GET /api/v1/invoices/{invoice\_id}

3. Download PDF:

- GET /api/v1/invoices/{invoice\_id}/pdf

## P13) Client Billing Self-Service (Public)

Purpose: client checks billing and downloads invoice PDFs.

1. Verify CIN:

- POST /api/v1/landing/clients/verify-cin

2. Retrieve invoice list:

- GET /api/v1/landing/clients/{cin}/invoices?lookup\_token=...

3. Download invoice PDF:

- GET /api/v1/landing/invoices/{invoice\_id}/document?token=...

## P14) Payment Posting and Invoice Settlement

Purpose: record payments and update invoice/collections state.

### Standard payment

1. POST /api/v1/collections/payments (with Idempotency-Key)

2. Read allocation result:

- invoice status after payment
- outstanding amount
- allocation state (partial/full)

### Operator full-settlement shortcut

1. POST /api/v1/collections/invoices/{invoice\_id}/approve-paid (with Idempotency-Key)

2. System creates full outstanding payment and closes settlement path.

## P15) Collections Case Lifecycle and Dunning Actions

Purpose: manage overdue debt recovery lifecycle.

1. Collections snapshot: GET /api/v1/collections/overview

2. Case listing and filtering:

- GET /api/v1/collections/cases

3. Case actions history:

- GET /api/v1/collections/cases/{case\_id}/actions

4. Update case status:

- PUT /api/v1/collections/cases/{case\_id}/status

5. Add manual action:

- POST /api/v1/collections/cases/{case\_id}/actions

6. Optional payment reconciliation view:

- GET /api/v1/collections/payments

## Practical Handover Notes

- For teammate integration, follow P0 -> P1 -> P3 -> P4/P8/P9 -> P11 -> P12/P13 -> P14 -> P15.
- For contract change operations, prefer P9 (landing/submit/plan-change) over direct offer update if you need full client-journey behavior and regenerated documents.
- Keep idempotency keys unique per business operation attempt.