

Business Requirements Document (BRD)

Billing & Service Contract Management System

Document version: 1.0 **Date:** 2026-10-06 **Status:** Final — reflects the system as built

1. Purpose

This document describes the business need, objectives, and scope behind the Billing & Service Contract Management module. It is written for business stakeholders and project sponsors who need to understand *why* the system exists and *what* it does, without technical implementation detail (see the SRS and Developer Documentation for that).

2. Background / Business Problem

The organization sells licenses and ongoing services (annual maintenance, monthly maintenance, and one-off service work) to customers ("Concerns"). Billing for these arrangements previously had no dedicated system to:

- Track a bill separately from the amount actually collectible from a customer at a point in time (customers frequently negotiate to pay a bill in parts).
- Record goodwill waivers/bonuses separately from real cash collection, so the two are never confused in collection figures.
- Generate recurring AMC/MMC bills on a predictable schedule without manual re-entry every period, while avoiding duplicate bills if the process is re-run.
- Report on what is owed, what has been collected, and what has been waived, per customer and across the business.

3. Business Objectives

1. Give billing staff a single place to create and track every bill type (License, AMC, MMC, Service/Other) against a customer.
2. Allow a bill to be split into smaller payable pieces when a customer wants to pay in installments, while keeping a clear link back to the original bill.
3. Record every payment against a specific bill, and never allow collection to exceed what is actually owed.
4. Allow authorized managers to close a bill as a bonus/waiver without a cash transaction, while keeping that action fully auditable.
5. Automate the generation of AMC (yearly) and MMC (monthly) bills on a configurable cycle, without creating duplicate bills if the process is run more than once.

6. Provide standard reports (bill register, outstanding, collections, adjustments, per-customer statement, recurring billing status) so management always knows what is owed and what has been collected.
7. Enforce that only authorized roles can waive/bonus-close a bill or change contract terms.

4. Scope

4.1 In Scope (delivered)

- Concern (customer) master data, with address/contact/attachment info.
- Bill creation for all four bill types: License, Service/Other (one-time, created directly), AMC and MMC (recurring, generated from a Billing Contract).
- Master/child bill splitting with automatic remaining-balance tracking.
- Payment collection against any individual bill, with validation against the real-time outstanding balance.
- Bonus/Waiver/Discount adjustment, restricted to Billing Manager/Admin roles, with mandatory reason and full audit trail.
- Billing Contract management for AMC/MMC: effective date range, billing cycle (billing day for MMC), ability to extend the end date or change the billing day with history retained, contract status (Active/Expired/ Suspended/Cancelled/Completed) auto-managed where applicable.
- An idempotent recurring bill generation job, runnable from the web UI or as a scheduled (cron/Task Scheduler) command.
- Six reports: Bill Register, Outstanding Bill Report, Concern-wise Statement (running ledger), Collection Report, Bonus/Adjustment Report, Recurring Billing Report.
- Role-based login (Admin, Billing Manager, Billing User, Accounts User).
- All monetary values displayed in Bangladeshi Taka (Tk.).

4.2 Out of Scope (not built in this phase)

- Integration with an external/legacy accounting ledger or chart of accounts — there was no pre-existing ERP to integrate with, so the module keeps its own self-contained, computed ledger view instead of posting to a general ledger (documented as an open item — see SRS §9).
- Multi-currency support (Taka only).
- Multi-level bonus approval workflow (bonus is applied directly by an authorized role rather than routed through a separate approval queue).
- Email/SMS notification of due or overdue bills.
- Customer-facing self-service portal.

5. Stakeholders

Role	Interest
Billing Manager	Owns contract terms, approves bonuses, oversees collections
Billing User	Creates bills, splits bills, records payments day to day
Accounts User	Views bills, ledgers, and collection reports for reconciliation
Administrator	Full system access, user/role management
Customer ("Concern")	Receiver of bills; not a system user in this phase

6. Key Business Rules

- A bill's **outstanding balance** is always: bill amount, minus whatever has been carved off into child bills, minus active payments, minus applied adjustments. It is never manually overridden.
- A bonus/waiver reduces outstanding without being counted as cash collected — the two figures must never be mixed in a report.
- A bill can only be split while *it itself* is not already a child of another bill (no multi-level splitting), and only up to its own remaining (unallocated) balance.
- Recurring contracts generate bills strictly within their effective date range; re-running the generation process must never create duplicate bills for a period already billed.
- Changing a contract's billing day or extending its end date must never alter bills already generated — only future generation is affected.

7. Assumptions & Constraints

- The system runs on the organization's existing PHP/MySQL/XAMPP environment; no new application framework was introduced.
- There was no pre-existing customer, accounting, or numbering system to integrate with — this module is the first system of record for billing for these customers (see SRS §9 for the specific ambiguities this created and how they were resolved).
- All amounts are in Bangladeshi Taka.

8. Success Criteria

The system is considered successful when:

- Every bill type can be created, viewed, split, paid, and bonus-closed without manual workaround.
- Recurring AMC/MMC billing requires no manual monthly/yearly re-entry.
- Running the recurring billing process twice never produces duplicate bills.
- All six reports reconcile with each other (e.g. the Outstanding Report total matches the sum of closing balances across all Concern Statements).
- Only Billing Manager/Admin roles can apply a bonus; this is enforced by the system, not by convention.