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Synozur Consuling Delivery Platrfomr (“SCDP”) Specificaion

Version 0.5

**Synozur Consulting Delivery Platform (SCDP) — Product Specification v1.0**\ *Prepared for a 15‑person management consulting firm; optimized for proposals/estimation, time & expense capture, and clean monthly billing inputs. Built to reflect Synozur’s brand voice and ways of working.*\ *Built on your draft v0.1—this consolidates requirements, fills gaps (pricing privacy, change orders, rate overrides, discount handling), and adds a migration-ready architecture plan.*  1

1) Executive Summary

SCDP centralizes **estimation**, **time & expense tracking**, and **billing extracts** around a single client–project data model. Estimation mirrors how we already plan work—**project → epic → stage → activities**—with a weekly grid to staff by **role** or **named person** for pricing. Pricing is private to admins (rack vs. charge rates, with client/project-specific overrides by effective date). Time entries tie back to estimate phases to power **estimate vs. actual** reporting. A monthly **Invoice Batch** produces **QuickBooks Online (QBO)**‑ready data, flags items as **billed**, and supports **drawdowns/retainers, milestone‑based fixed fee, and T\&M**. Exports are **Excel‑first** for proposals and reporting. Enterprise security uses **M365 Entra ID SSO** and respects Synozur’s IT policy. Branding, vocabulary, and offline import templates ensure the app feels native to Synozur and our clients. Phase 2 (post‑1.0) plans **Azure‑hosted GPT‑5** assistants for rapid estimate drafting and portfolio insights.  2 3 4

2) Scope & Release Plan

In‑Scope for v1.0

* **Estimation**: Projects, epics, stages, activities; weekly staffing grid; assign by **role or person**; Excel export for proposals; versioning; one‑click cloning to templates.  5
* **Pricing (Admin‑only)**: Rack vs. charge rates per **role and person**; client and project **rate overrides** with **effective date ranges** and **grandfathering**; USD baseline, dual‑store for FX in future.  6
* **Time Tracking**: Date, hours, billable flag, brief description; optional **phase** picklist mapped to the estimate; admin tags for **billed** and **reported**.  7
* **Expenses**: Billable‑to‑client and reimbursable‑to‑staff capture; standard business categories (travel, hotel, meals, taxi, airfare, entertainment); export to billing.
* **Billing Inputs**: Monthly **Invoice Batches** with discount at **batch (invoice) level**; ability to **zero‑price** a line with explicit discount line so clients see effective discount; mark source time/expenses as **already billed** to prevent duplicates.  8
* **Commercial Schemes**:
* **Retainers / drawdowns** (pre‑ or post‑paid)
* **Milestone fixed fee with outcomes**
* **Time & Materials** (T\&M)\

Progress‑to‑budget reporting and alerts for over/under.

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* **Change Orders**: Additive scope with own rates/budgets; consolidated reporting vs. original baseline.
* **Security & Identity**: **Microsoft Entra ID (SSO)**; RBAC (Admin, Billing Admin, PM, Employee, Exec Read‑only); compliance aligned with Synozur IT policy.  10
* **Branding & Vocabulary**: Global and client‑specific renaming (e.g., “Epic” → “Workstream”); logo/colors/font; exports inherit branding and vocabulary.  11
* **Integrations & Exports**:
* **QuickBooks Online**: Customers/Projects, Items(Services), invoice draft creation; dedupe via **Batch ID**; robust error handling.
* **Excel/CSV**: One‑click exports for proposals, reporting, and admin extracts; **offline import** templates for estimates, time, expenses, and billed data.  12

Planned (Post‑1.0)

* **Multi‑currency**: Dual ledger—store amounts in transaction currency **and** USD; FX captured at **Invoice Batch** time for consistency.  13
* **AI on Azure (GPT‑5)**: Estimate from narrative; portfolio trend analysis; estimate vs. actual variance insights. (Architecture hooks included in v1.0; model activation in v1.1+.)  14

3) Roles & Permissions

* **Admin**: All capabilities; manages vocabulary, branding, rate cards, integrations, and data exports.
* **Billing Admin**: Pricing visibility; manages Invoice Batches, discounts, and QBO export.
* **Project Manager (PM)**: Build/edit estimates; approve time/expenses; create change orders; run reports.
* **Employee/Contractor**: Enter time/expenses; view own entries; no pricing visibility.
* **Executive (Read‑only)**: Portfolio dashboards and exports; no pricing detail.

4) Data Model (Logical)

**Core Entities**

* **Client**: name, currency (default USD now; future multi‑currency), billing contact, vocabulary overrides.
* **Project**: client\\_id, name, start/end, commercial\\_scheme, retainer balance (if applicable), baseline budget, status.
* **Estimate**: project\\_id, version, status, total hours, total fees, visible vocabulary.
* **Epic** → **Stage** → **Activity**: hierarchy; week buckets with role/person, hours, rack rate snapshot, pricing mode (role vs. named).
* **Role**: name, default rack rate.
* **Person**: name, title, default rack & charge rates.
* **RateOverride**: scope (client/project), subject (role/person), **effective\\_start/end**, rack\\_rate, charge\\_rate, precedence.
* **TimeEntry**: person, project, date, hours, **phase (from estimate)**, billable, description, **billed\\_flag**, **status\\_reported\\_flag**.  15
* **Expense**: person, project, date, category, amount, currency, billable/reimbursable flags, description, receipt link, billed\\_flag.
* **ChangeOrder**: project\\_id, reason, approved\\_on, delta hours/fees; own estimate lines.
* **InvoiceBatch**: month, client(s), projects, pricing snapshot date, FX table id (future), totals, exported\\_to\\_QBO, batch\\_id.
* **InvoiceLine**: batch\\_id, project\\_id, type (time/expense/milestone/discount/no‑charge), qty/hours, rate, amount.
* **Vocabulary**: global labels + client overrides (object\\_label, display\\_name).
* **BrandTheme**: logo, colors, font family; accessibility variants.  16

5) Estimation Module

**Capabilities**

* Create **Project** → add **Epics/Stages/Activities**.
* **Weekly staffing grid**: plan hours by **role** or **named person**; switch modes mid‑estimate.
* **Pricing**: compute using rate precedence

1. Project‑specific override → 2) Client‑specific override → 3) Standard role/person rate.

* Add **named participants** to refine pricing or present staffing.
* **Templates**: Save any estimate as template; bundled templates for **GTM**, **AI Strategy & Design**, **Company OS**, etc. (mirrors current spreadsheets).  17
* **Excel export** for proposal/SOW tables; include client vocabulary and branding.  18

**Admin Pricing Console (private)**\ Maintain **rack** (client bill) and **charge** (internal pay) rates for roles and people; define **effective date ranges** and future dated changes with grandfathering on existing engagements.  19**Offline Estimate Template (import/export)**

CSV/Excel columns (minimum set):

1     Project, Epic, Stage, Activity, WeekStartDate, RoleOrPerson, PersonEmail(optional), Hours, PricingMode(Role|Person), Notes

2

* Import validates hierarchy; missing roles/people can be created or mapped.
* Exports preserve client vocabulary and Synozur branding for proposals.  20

6) Time Tracking

**Entry**: Date, hours, billable flag, **phase** (from estimate when available), brief description; personal view to copy prior entries and submit weekly. **No overtime rules** applied.\ **Status tags**: Admin/Billing marks entries as **billed** and/or **reported** (client status), preventing double billing and enabling reporting.  21**Offline Time Import** (CSV/Excel)

1     PersonEmail, Project, Date, Hours, Billable(true|false), Phase(optional), Description

2

**Estimate vs. Actual**: Roll‑up by project/epic/stage/week; variance, burn rate, EAC. Alerts when approaching **overage** or **under‑utilization** against original or current (with change orders) baseline.

7) Expenses

* Categories: **Travel, Hotel, Meals, Taxi, Airfare, Entertainment** (extensible).
* Flags: **Billable to client**; **Reimbursable to staff**; tax handling (T\&E typically non‑taxable in services, configurable).
* Attach receipts; export with Invoice Batch.
* Offline import:

1     PersonEmail, Project, Date, Category, Amount, Currency, Billable(true|false), Reimbursable(true|false), Description

2

8) Billing Inputs & Commercial Models

**Invoice Batch (monthly)**

* Select client/projects/date range; snapshot rates (and FX, later).
* Build invoice lines from **T\&M time**, **billable expenses**, **retainer drawdowns**, or **milestone lines**.
* **Discount handling**: apply **batch‑level discount** (percent or amount).
* **Zero‑charge lines**: retain a **$0 line** and add a paired **discount line** so clients see effective discount—mirrors our QBO export pattern.  22
* **Dedup**: Persist **Batch ID** on exported objects; mark time/expenses as **billed=true**. Retry/rollback paths for partial failures.  23

**Commercial scheme specifics**

* **Retainer/Drawdown**: Track funded hours/fees and remaining balance; warn at thresholds; allow top‑up change orders.
* **Milestone Fixed Fee**: Milestone definitions with acceptance criteria; partials permitted; tie to outcomes.
* **T\&M**: Rate at service date using precedence rules; show effective discounts if applied.

**In‑progress client reporting**: Mid‑cycle “progress vs. billing” snapshots to keep clients apprised of overages/underages (by scheme) with narrative notes.

9) Change Orders

* Create one or more **ChangeOrder**s per project, each with scope, rates, and budgets; optionally inherits baseline rates or applies new overrides.
* Portfolio reporting can include/exclude change orders; client‑facing exports show cumulative or incremental deltas.

10) Reporting & Exports

* **Executive portfolio**: pipeline health, burn, utilization, revenue forecast (by scheme).
* **Estimate vs. Actual**: variance by epic/stage/activity; earned vs. planned hours/fees.
* **Billing controls**: “Unbilled time/expenses,” “Billed this month,” “Discounts and write‑offs (no‑charge).”
* **Excel**: one‑click exports for proposals (estimate tables), monthly billing registers, utilization, and audit extracts—**branded** and **client‑vocabulary aware**.  24

11) Branding & Vocabulary

* **Vocabulary Model**: Rename objects globally (“Account”→“Client”, “Epic”→“Workstream”, “Stage”→“Phase”) and **per‑client**; reflected across UI, exports, and emails; time entry pickers inherit client terms.
* **Branding/Theming**: Upload logo, set primary/secondary colors and font; generate accessible light/dark variants; exports inherit theme.  25

12) Security, Identity & Compliance

* **Identity**: **Microsoft Entra ID** via OpenID Connect; SSO enforced; conditional access supported.
* **RBAC**: Least‑privilege model; pricing field‑level security; audit trail on all pricing changes.
* **Data protection**: Align to Synozur IT policy (safeguard client data, sharing restrictions, DLP where needed).  26
* **Audit & logs**: Admin exports, billing batch logs, QBO export receipts, rate‑change history.
* **Backups & retention**: 35‑day point‑in‑time DB recovery; configurable retention for time/expense artifacts.

13) Integrations

**QuickBooks Online (v1.0)**

* **Master data mapping**
* *Client* → **QBO Customer** (optionally **Project** or **Sub‑Customer** pattern)
* *Role/Service & Named Services* → **QBO Items (Service)**
* *Expense categories* → **QBO Expense/Item/Account** mappings (admin‑maintained)
* **Operational flow**
* From **Invoice Batch** → create **QBO Invoice (Draft)** with service lines (qty/hours × rate), **discount lines**, and **zero‑charge lines** with paired discount for visibility; billable expenses as lines; optional push of reimbursables to Bills/Expenses (phase 2).
* **Dedup** via **Batch ID**; retry & validation error handling with fix‑list.  27

**Microsoft 365**

* **Entra ID SSO**; **Excel** exports; optional SharePoint storage for export artifacts.

14) Offline Templates (Imports)

**Estimate** *(see §5 template)*\ **Time** *(see §6 template)*\ **Expenses** *(see §7 template)*\ **Billing Data** *(admin reconciliation)*:

1     BatchId, ExternalSystem, ExternalInvoiceNumber, ExportedOnUTC, Status, Notes

2

15) Non‑Functional Requirements

* **Performance**: < 2s p95 for portfolio/estimation views at 50K time rows; batch export (10K lines) < 60s.
* **Availability**: 99.5% (business hours focus) in v1.0; design for 99.9% on Azure later.
* **Scalability**: 15 users now; design for 100+ with sharded batch exports.
* **Accessibility**: WCAG 2.1 AA for UI components (contrast, keyboard, labels).
* **Internationalization**: Date/number formats; **USD now**, multi‑currency planned (dual ledger, FX at batch).  28

16) Architecture & DevOps

* **Stack (proposed)**:
* Front end: **React/Next.js** (TypeScript), component library with theming.
* API: **Node.js/NestJS** (TypeScript) or **.NET 8 Web API** (C#) if we prefer tighter Azure alignment.
* Data: **PostgreSQL** (ANSI‑SQL; cloud‑portable).
* Auth: **Entra ID** (OAuth2/OIDC); token‑based RBAC.
* Integrations: **QBO** REST (OAuth2).
* **Source & CI/CD**: Code in **GitHub** with Actions; v1.0 deploy to **GCP** (current Replit hosting), with IaC scripts to move to **Azure App Service + Azure Postgres** when supported.
* **Telemetry**: OpenTelemetry traces; structured logs; audit tables.

17) Reporting Catalog (Initial)

* **Proposal Pack** (Excel): Estimate summary; staffing by week; assumptions.
* **Delivery**: Estimate vs. actual (by epic/stage), variance heatmap; utilization by person/role.
* **Billing**: Unbilled time & expenses; Invoice Batch register; Discounts/No‑charge summary by client.
* **Executive**: Gross margin proxy (rack vs. charge), revenue by scheme, retainer balances.

(*Proposal and reporting exports inherit branding + client vocabulary.*)  29

18) Acceptance Criteria (Samples)

* **Rate Overrides**: Given a project with a client‑level role override effective 10/1–12/31, when time dated 11/15 is priced, the override is applied; time on 01/05 reverts to standard role rate unless a project override exists.
* **No Double Billing**: After Invoice Batch export, all included time/expenses are **billed=true** and cannot be selected in a future batch; attempting to re‑export results in a clear warning.  30
* **Vocabulary**: If client vocabulary maps “Epic”→“Workstream,” UI lists and Excel exports show “Workstream.”  31
* **Pricing Privacy**: Non‑admin users cannot access rack/charge rates via UI or API (attempt logs an audit event).  32
* **Time Entry**: User can assign a phase from the project’s estimate; if missing, user selects from standard phases; admins can add phase mappings later.  33

19) Seed Assets & Provenance

This spec intentionally **adopts how Synozur already works**—weekly estimation sheets, time tracking fields, and QBO mapping—so the team can transition smoothly and export client‑ready materials without re‑learning our process. See:

* **SCDP Specification v0.1** (estimation hierarchy, privacy, Excel and QBO patterns, vocabulary & branding; dual‑ledger FX, dedupe with Batch ID).  34
* Email from [Chris McNulty](https://www.office.com/search?q=Chris+McNulty&EntityRepresentationId=1fd56d08-5c04-4b20-aaef-24c4e38afc1b) to ITHelp on time tracking (clients/projects admin, hidden rates, fields for date/hours/description, billable vs. non‑billable, billed/report tags).  35
* Prior **estimate spreadsheets** (weekly grids with epics/stages) used as import/export reference.  36 37
* **Synozur IT Policy** for security posture and data controls.  38

20) Open Design Decisions (recommend quick alignment)

1. **QBO structure**: Use **Customer + Project** or **Sub‑Customer** pattern? (Spec supports either; default to Projects enabled.)  39
2. **Discount presentation**: Show as a single “Discount” line per invoice, or itemize by workstream? (Spec supports both.)
3. **Retainer accounting**: Track retainer balances in SCDP only, or mirror in QBO via non‑posting items? (Spec recommends track in SCDP; present on invoice memo/line.)
4. **Tech stack**: Node/NestJS vs. .NET 8 API preference for Azure landing.
5. **Change order workflow**: PM‑initiated with internal approval? (Default: PM drafts → Billing Admin approves.)

Next steps (suggested)

* I’ll turn this into a clickable **PRD + backlog** (epics/user stories) and a **Figma wireframe** set for Estimation, Time, and Billing.
* If you’d like, I can also generate the **Excel import templates** and a **sample QBO Item map** this afternoon.

**Quick confirms?**

* Preferred QBO mapping (Customer+Project vs. Sub‑Customer)?
* One discount line vs. itemized discounts?
* Node/NestJS or .NET 8 for the API?

**Appendix A — QBO Mapping (detail)**

* **Client → Customer**; **Project → Project** (or Sub‑Customer)
* **Service Catalog**: “AI Strategy – Principal”, “UX Director”, “PM” etc. as **Service Items**.
* **Expenses**: Billable expenses exported as invoice lines; reimbursables (phase 2) can export to Bills/Expenses.
* **DocNumber/Custom Field** carries **SCDP Batch ID**; on success, mark SCDP rows **billed=true** to prevent duplicate exports.  40

**Appendix B — Branding & Vocabulary Examples**

* Global: “Account”→“Client”, “Epic”→“Workstream”, “Stage”→“Phase”
* Client override (example): For Clarion, “Epic”→“Sprint”; reflected in UI & exports.  41

**Appendix C — AI (Phase 2) Use Cases**

* **Estimate from narrative**: Ingest deal notes → propose work breakdown + hours by role.
* **Portfolio insights**: Trend analysis across estimates vs. actuals; identify systematic under/over.
* **Narrative reporting**: Auto‑generate client status summaries and risk call‑outs. (Azure‑hosted **GPT‑5**, private tenancy.)  42

**Appendix D — Security Posture**

* Entra ID SSO; pricing field‑level protections; export audit trails; DLP‑aligned handling per Synozur policy.  43