

1. DOCUMENT IDENTIFICATION

Project name	Customer Portal Modernization
Project code	CPM-2026
Estimator	S. Rahman, Senior Finance PM
Reviewed by	M. Tanaka (PM), F. Abiola (PMO), K. Voss (Finance Controller)
Approval date	2026-03-12 (charter-aligned, v1.0)
Version	1.0 — baseline cost estimate
Confidence level	Definitive (PMBOK class 1): " 5% / +10%
Approved budget	\$ 2,450,000 USD (sponsor R. Patel, 2026-03-14)

2. ESTIMATION APPROACH

The primary technique used is bottom-up estimation against the level-3 WBS (see section 4). Each work package was decomposed into labour hours by role, multiplied by FY26 blended rates from HR/Finance, and added to vendor and SaaS line items priced from signed quotes or the firm's master services agreements. Two secondary techniques triangulate the result: (a) analogous estimates using the 2023 Business Banking portal (BBP-2023) and 2024 Wealth portal (WMP-2024) — both similar scope, adjusted for inflation and scope delta; and (b) three-point PERT estimates for six high-uncertainty packages (section 6). The bottom-up total (\$2,085,000) sits between the analogous floor (\$1,940,000) and ceiling (\$2,210,000), giving confidence in the base. A 10% contingency (\$245,000) and a \$120,000 management reserve bring the approved envelope to \$2,450,000.

3. BASIS OF ESTIMATES

3.1 Key assumptions

- FY26 blended labour rates from HR/Finance rate card dated 2026-02-10 are held flat for the project window.
- No more than 3 vendor contractors (AWS SA, Accessibility specialist, SRE augmentation) — rates from signed MSAs.
- IAM platform is available from 2026-06-01 (charter assumption); no rebuild of MFA integration required.
- Oracle ! PostgreSQL migration fits within the 2 data-engineer allocation (no external DBA).
- Cloud infrastructure priced on AWS EU-West-1 reserved-instance 3-year terms (20% saving applied).
- 90-day hypercare is fully staffed from the project team; no new hires.

3.2 Inputs and data sources

- FY26 Rate Card — HR/Finance, v2026.1 (internal doc HR-RATE-FY26).
- Architecture design v0.9 (baseline for WBS decomposition).
- Vendor quotes: AWS Support Enterprise (Q-4811), Accessibility firm (SoW #2026-A14), SRE augmentation (SoW #2026-S07).
- SaaS price lists (Snyk, Datadog, Auth0-adjacent): FY26 enterprise agreements.
- Historic actuals: Clarity PPM export for BBP-2023 and WMP-2024, filtered to in-scope WBS lines.

3.3 Historic reference projects

Ref #	Project / benchmark	Year	How applied
B-01	Business Banking Portal (BBP-2023) — similar scope, 70% overlap.	2023	Analogous anchor for portal rebuild + API packages; inflation adjusted +7%.

Cost Estimate & Basis of Estimates

FILLED EXAMPLE

Customer Portal Modernization

Project: CPM-2026 · Version: 1.0 · Owner: S. Rahman (Finance PM) · Date: 2026-03-12

Ref #	Project / benchmark	Year	How applied
B-02	Wealth Management Portal (WMP-2024) — MFA + data migration.	2024	Analogous anchor for IAM integration and data-migration packages.
B-03	Open Banking API Pilot (OBA-2025) — 3 APIs to production.	2025	Per-API cost benchmark (\$38K avg) applied to 6 APIs in scope.
B-04	Core Platform Hypercare benchmark — firm-wide average.	2024	90-day hypercare cost ratio (7.5% of build cost) applied.

3.4 Exclusions

- Native iOS / Android app development — funded separately under MOB-2026.
- Core banking changes and card-product flows — out of scope per charter §4.2.
- Post-hypercare run costs (year 2+) — covered by Digital Channels OpEx.
- Customer acquisition and marketing spend for portal re-launch — funded by Marketing.

4. WBS-ALIGNED COST BREAKDOWN

All figures in USD. Totals are before contingency and management reserve.

WBS ID	Work package	Labour	Mat/SaaS	Vendor	Total	Basis
1.1	Programme management & PMO	145,000	5,000	0	150,000	B-01
1.2	Discovery & requirements	70,000	2,000	0	72,000	BU
2.1	Solution architecture & design	95,000	3,000	12,000	110,000	B-01
2.2	Security architecture & threat model	55,000	2,000	8,000	65,000	B-02
3.1	Portal front-end rebuild (web)	260,000	8,000	0	268,000	B-01
3.2	Portal front-end rebuild (mobile-web)	115,000	2,000	0	117,000	B-01
3.3	Portal BFF & service layer	180,000	6,000	0	186,000	BU
4.1	Open-banking APIs (6 endpoints)	210,000	6,000	12,000	228,000	B-03
4.2	API developer portal & docs	42,000	3,000	0	45,000	BU
5.1	IAM / MFA integration	95,000	8,000	7,000	110,000	B-02
5.2	Data migration (Oracle ! PostgreSQL)	120,000	5,000	0	125,000	B-02
6.1	QA, UAT, performance & accessibility testing	140,000	8,000	22,000	170,000	BU
6.2	Security pen-test & remediation	30,000	3,000	27,000	60,000	Vendor Q

Cost Estimate & Basis of Estimates

FILLED EXAMPLE

Customer Portal Modernization

Project: CPM-2026 · Version: 1.0 · Owner: S. Rahman (Finance PM) · Date: 2026-03-12

WBS ID	Work package	Labour	Mat/SaaS	Vendor	Total	Basis
7.1	Cloud infrastructure & environments	25,000	70,000	0	95,000	AWS RI
7.2	Observability, SaaS tooling (Datadog, Snyk)	15,000	45,000	0	60,000	SaaS EA
8.1	Training, comms & change management	40,000	4,000	0	44,000	BU
8.2	90-day hypercare	75,000	5,000	0	80,000	B-04
TOT	Bottom-up total (before reserves)	1,712,000	185,000	88,000	1,985,000	—

Note: the bottom-up total of \$1,985,000 plus the three-point risk buffer of \$100,000 (section 6) gives a pre-reserve baseline of \$2,085,000. Reconciles to section 9 below.

5. LABOUR ROLL-UP

Resource type	Hours	Blended rate (\$/hr)	Cost	Source
Project Manager (Sr.)	1,400	110	154,000	HR-RATE-FY26
Solution Architect	1,200	140	168,000	HR-RATE-FY26
Senior Software Engineer (x4)	6,400	120	768,000	HR-RATE-FY26
Software Engineer (x3)	4,200	90	378,000	HR-RATE-FY26
UX Designer	900	105	94,500	HR-RATE-FY26
QA Engineer (x2)	2,400	85	204,000	HR-RATE-FY26
Data Engineer (x2)	1,600	115	184,000	HR-RATE-FY26
Security Engineer	500	130	65,000	HR-RATE-FY26
DevOps / SRE	1,000	115	115,000	HR-RATE-FY26
Business Analyst	800	90	72,000	HR-RATE-FY26
TOTAL LABOUR	20,400	—	2,202,500	—

Cost Estimate & Basis of Estimates

FILLED EXAMPLE

Customer Portal Modernization

Project: CPM-2026 · Version: 1.0 · Owner: S. Rahman (Finance PM) · Date: 2026-03-12

Resource type	Hours	Blended rate (\$/hr)	Cost	Source
Reconciliation to WBS (1.1–8.2)	—	—	1,712,000	See note

Reconciliation: the \$2,202,500 gross labour pool is before internal-allocation adjustments (30% of architect/security/SRE time is shared-service-funded and excluded from the project baseline, totalling \$490,500). The project-attributable labour of \$1,712,000 matches the WBS roll-up.

6. THREE-POINT ESTIMATES — HIGH-UNCERTAINTY ITEMS

Applied to six packages where historic data was thin or novel technology was in play. $PERT = (O + 4M + P) / 6$. The delta between PERT and the bottom-up most-likely drives a \$100,000 risk-buffer adjustment captured separately from contingency.

Item	Optimistic	Most likely	Pessimistic	PERT	Std dev
4.1 Open-banking APIs	190,000	228,000	295,000	233,833	17,500
5.1 IAM / MFA integration	92,000	110,000	150,000	113,667	9,667
5.2 Data migration	100,000	125,000	180,000	130,000	13,333
6.2 Security pen-test & remediation	45,000	60,000	110,000	66,000	10,833
7.1 Cloud infra (FX & AWS list changes)	80,000	95,000	130,000	98,333	8,333
8.2 Hypercare (severity spike risk)	65,000	80,000	130,000	86,000	10,833
SUBTOTAL	572,000	698,000	995,000	727,833	—

PERT subtotal (\$727,833) exceeds the bottom-up most-likely (\$698,000) by ~\$30K. Rounded up to a \$100,000 risk buffer at the programme level to cover joint-variance effects not captured in line-level PERT. Combined with the \$1,985K WBS roll-up this gives the \$2,085K pre-reserve baseline.

7. CONTINGENCY RESERVE ALLOCATION

Contingency reserve is 10% of the pre-reserve baseline = \$245,000, allocated per-risk as below and tied to the Risk Register (charter §8.1).

Risk ID	Risk description	EMV method	Allocation	Owner
R-01	Regulator changes mandate scope — extra API or data field.	P×I, expected	75,000	Compliance
R-02	Undocumented Oracle schema fields used by batch jobs.	P×I, expected	55,000	K. Becker
R-03	IAM platform slip blocks MFA integration.	Decision tree	40,000	A. Silva
R-04	Peak holiday traffic overlaps with hypercare.	P×I, expected	35,000	T. Okafor
R-05	Key architect leaves the firm before Alpha.	P×I, expected	20,000	M. Tanaka

Cost Estimate & Basis of Estimates

FILLED EXAMPLE

Customer Portal Modernization

Project: CPM-2026 · Version: 1.0 · Owner: S. Rahman (Finance PM) · Date: 2026-03-12

Risk ID	Risk description	EMV method	Allocation	Owner
R-07	FX / AWS list-price movement during 9-month build.	Sensitivity	20,000	S. Rahman
TOT	Total contingency reserve (10% of \$2,085,000).	—	245,000	PM

8. MANAGEMENT RESERVE

Management reserve amount	\$ 120,000 USD (~4.9% of approved budget)
Release authority	Sponsor R. Patel, with PMO Director concurrence; formal change request required.
Included in cost baseline?	No — held above the baseline; draws flow to Cost Baseline v-next.
Rationale	Covers unknown-unknowns: regulator surprise, IAM direction-of-travel change, security findings outside pen-test scope.

9. COST BASELINE SUMMARY (TIME-PHASED BY QUARTER)

Phase / Quarter	Labour	Non-labour	Reserves	Period total
Q2 2026 — Inception & design	285,000	30,000	0	315,000
Q3 2026 — Build (Alpha)	560,000	75,000	50,000	685,000
Q4 2026 — Beta, hardening, go-live	620,000	118,000	120,000	858,000
Q1 2027 — Hypercare & close-out	247,000	50,000	75,000	372,000
Management reserve (sponsor-held)	—	—	120,000	120,000
Contracted contingency not yet phased	—	—	100,000	100,000
TOTAL APPROVED BUDGET	1,712,000	273,000	465,000	2,450,000

Reconciliation: Labour \$1,712,000 + Non-labour \$273,000 = \$1,985,000 (WBS total). + Risk buffer \$100,000 = \$2,085,000 pre-reserve baseline. + Contingency \$245,000 = \$2,330,000 cost baseline. + Management reserve \$120,000 = \$2,450,000 approved budget. Matches charter §6.

10. CURRENCY & FX ASSUMPTIONS

Reporting currency	USD
Non-USD exposure	~\$95,000 — AWS EU-West-1 in EUR; Accessibility vendor in GBP.
FX rates used	2026-03-01 Bloomberg mid: EUR/USD 1.085, GBP/USD 1.265.
FX variance handling	Variance > 5% absorbed in contingency (R-07). > 5% triggers formal change request.
Hedging	Not applied at project level; treasury hedges at entity level.

Cost Estimate & Basis of Estimates

FILLED EXAMPLE

Customer Portal Modernization

Project: CPM-2026 · Version: 1.0 · Owner: S. Rahman (Finance PM) · Date: 2026-03-12

11. CHANGE LOG

Ver.	Date	Author	Change summary	Delta (\$)
0.1	2026-02-20	S. Rahman	Initial ROM from analogous anchors BBP-2023 / WMP-2024.	+1,940,000
0.5	2026-03-02	S. Rahman	Bottom-up decomposition at WBS level 3; vendor quotes loaded.	+145,000
0.8	2026-03-08	S. Rahman	Three-point PERT on 6 packages; \$100K risk buffer added.	+100,000
0.9	2026-03-10	S. Rahman + K. Voss	Contingency allocated per-risk (10%); management reserve set.	+365,000
1.0	2026-03-12	Sponsor approval (R. Patel)	Baseline approved at \$2,450,000 (charter \$6).	0

APPROVALS

Estimator

S. Rahman
Senior Finance PM

Signature

Date

Finance Partner

K. Voss
Finance Controller, Retail Banking

Signature

Date

Project Manager

M. Tanaka
Senior PM, PMO

Signature

Date

Sponsor

R. Patel
VP, Digital Channels

Signature

Date

