3C PLATFORM -- IMPLEMENTATION GUIDE

Version: 1.0 | **Classification:** Internal -- Authentic Consortium **Prepared by:** Veteran Vectors (VV) Engineering **Date:** February 24, 2026 **Purpose:** Actionable build plan for the 3C Platform assuming VIPC VVP Launch Grant award ($50K)

1. EXECUTIVE SUMMARY

This document is the engineering and business execution plan for building the **3C Platform** -- a unified Salesforce Health Cloud solution for Rural Health Clinics (RHCs) that addresses **Compliance**, **Care**, and **Collect Cash**. It covers the technical architecture, specific tools and licenses, development phases, cost breakdowns, team requirements, partner dependencies, and pilot strategy. This is a build document, not a pitch deck -- every line item is something VV will execute.

Scope: $50K VIPC grant funds Phase 1 (MVP). Subsequent phases funded by pilot revenue and Series A.

2. TECHNICAL ARCHITECTURE -- DETAILED BUILD SPECIFICATION

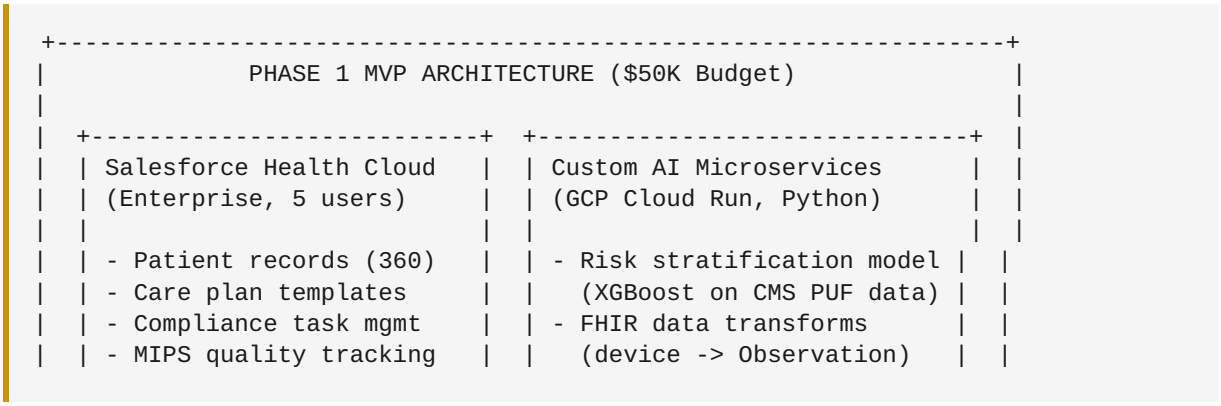
2.1 Platform Stack

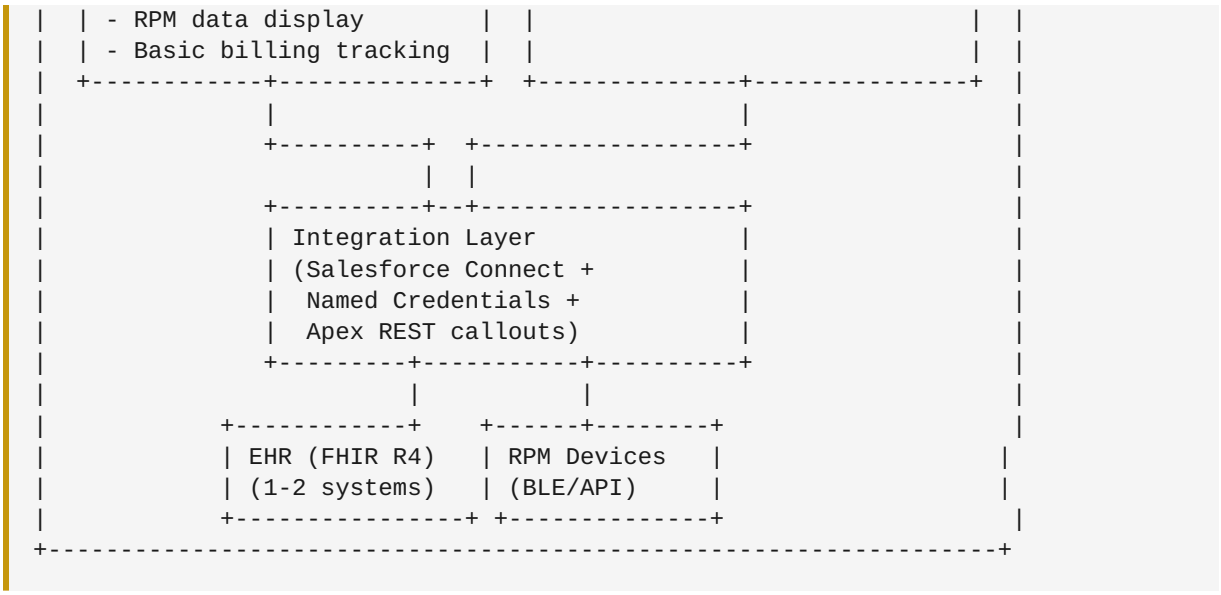
Layer	Technology	Purpose	License Model
CRM/Core	Salesforce Health Cloud (Enterprise)	Patient 360, care plans, provider workflows	$325/user/month
Integration	MuleSoft Anypoint (or Salesforce Connect + custom APIs)	EHR, wearable, clearinghouse connections	See cost analysis Sec. 6
AI/ML	Salesforce Einstein + custom Python models	Risk stratification, NLP, anomaly detection	Einstein: $150/user/month (Agentforce

Layer	Technology	Purpose	License Model
	(scikit-learn, XGBoost, PyTorch)		Healthcare); custom models: self-hosted
Security	Salesforce Shield (Platform Encryption + Event Monitoring)	HIPAA encryption, audit trails, PHI access monitoring	~30% of SF license spend
Analytics	Salesforce Reports & Dashboards (Phase 1); CRM Analytics (Phase 2+)	Compliance dashboards, MIPS tracking, revenue analytics	Reports/Dashboards: included; CRM Analytics: add-on ~$75--$150/user/month
Database	Salesforce platform + external data warehouse (BigQuery or Snowflake) for ML training	Operational data in SF; analytics/training data in warehouse	SF: included; warehouse: usage-based
Hosting (custom models)	Google Cloud Platform (GCP) Healthcare API or AWS HealthLake	HIPAA-eligible model serving, FHIR data store	GCP: ~$500--$2,000/month at pilot scale
DevOps	GitHub (private repos) + GitHub Actions CI/CD	Source control, automated testing, deployment	GitHub Team: $4/user/month
Monitoring	Salesforce Event Monitoring + Datadog (APM)	Application performance, error tracking	Datadog: ~$15/host/month

2.2 Phase 1 (MVP) Architecture -- What We Actually Build First

For the $50K grant phase, we do NOT build the full architecture. We build a functional MVP on a constrained stack:





Key MVP decisions: - **No MuleSoft in Phase 1.** MuleSoft starts at ~$80K/year minimum -- that's more than our entire grant. Use Salesforce Connect, Named Credentials, and Apex REST callouts for Phase 1 integrations. MuleSoft comes in Phase 2 when revenue supports it. - **Custom AI models hosted externally.** Salesforce Einstein for basic automation (lead scoring, flow triggers). Custom ML models (risk stratification, NLP) deployed as containerized Python services on GCP Cloud Run (HIPAA-eligible with BAA). Called from Salesforce via REST API. - **Shield encryption required from Day 1.** Non-negotiable for HIPAA. Budget for it. - **5 Salesforce users for pilot.** Enough for 2--3 clinic staff + VV admin/support users.

2.3 EHR Integration Strategy

Target EHR systems for RHC market (by market share in small/rural practices):

EHR	RHC Market Share	FHIR R4 Support	Integration Approach
eClinicalWorks (eCW)	~12% ambulatory (largest cloud ambulatory install base, 850K+ physicians)	Yes (certified)	eCW FHIR API; strong in FQHCs and primary care
athenahealth	~7% ambulatory (Best in KLAS 2025 for independent practices)	Yes (certified)	athenahealth FHIR APIs (well-documented, developer-friendly); integrated RCM
MEDITECH Expanse		Yes	

EHR	RHC Market Share	FHIR R4 Support	Integration Approach
	~13% acute care (dominant in rural/ community hospitals)		MEDITECH FHIR endpoints; 29 of Becker's "2025 Great Community Hospitals" use MEDITECH
Azalea Health	Niche (purpose-built for RHCs)	Yes (ONC-certified)	Cloud-based, integrated clearinghouse, handles RHC split billing and UB04/CMS1500 formats. HITRUST E1 certified
TruBridge/CPSI (Evident)	~9% acute care (specifically for rural/ community hospitals)	Partial	Integrated clearinghouse and RCM; may need HL7v2 interface for older versions

Phase 1 pilot target: Integrate with **1 EHR system** used by the pilot clinics. Prioritize eClinicalWorks or athenahealth -- both have the best FHIR R4 support and developer programs. If pilot clinics use **Azalea Health**, that's ideal since Azalea is purpose-built for RHCs and has native RHC billing support.

FHIR Implementation Guides to follow: - US Core (v8.0.1 / STU8) -- mandatory baseline for all US clinical data exchange (verify latest published version at time of build; v9.0.0 targeting USCDI v6 is in development) - SMART on FHIR (for app authorization) - Bulk FHIR (for panel-level data extraction) - DaVinci DEQM (Data Exchange for Quality Measures) -- for MIPS/eCQM reporting via FHIR - DaVinci CRD/PAS (Coverage Requirements Discovery / Prior Authorization Support) -- Phase 2 for claims optimization - C-CDA on FHIR -- bridge for legacy EHRs that still produce C-CDA documents rather than native FHIR

2.4 Wearable/RPM Device Integration

Phase 1 target devices (most commonly used in clinical RPM programs):

Device Type	Recommended Device	Approx. Cost/Unit	Integration Method
Blood Pressure Cuff	Smart Meter iBloodPressure (cellular, no WiFi needed) or Omron VitalSight (BP8000-M)	$80--$150	Cellular direct to cloud (Smart Meter API) or Tenovi gateway API
Pulse Oximeter	Smart Meter iPulseOx (cellular) or Nonin 3230 (BLE via Tenovi)	$100--$300	Smart Meter API or Tenovi aggregator API

Device Type	Recommended Device	Approx. Cost/Unit	Integration Method
Glucose Monitor	Smart Meter iGlucose Plus (cellular) or Dexcom Stelo (OTC CGM, no prescription)	$70--$150/ month	Smart Meter API or Dexcom Clarity API
Weight Scale	Smart Meter iScale (cellular) or BodyTrace e-Scale (cellular)	$50--$120	Smart Meter API or BodyTrace API

Critical for rural: Cellular-connected devices are mandatory. Rural patients often lack reliable WiFi or smartphones. Devices from Smart Meter and Prevounce (Pylo) transmit data via built-in cellular modems (multi-carrier SIM) with zero patient tech setup. BLE-based devices (Omron, Withings, Nonin) require a gateway -- **Tenovi** provides a cellular hub that bridges 40+ FDA-cleared BLE devices to their cloud API, making them viable for rural use.

Recommended Phase 1 approach: Partner with **Tenovi** as the device aggregation layer. One API integration covers 40+ devices from A&D Medical, Omron, Transtek, Trividia, Nonin, and Welch Allyn. Alternatively, go direct with **Smart Meter** for the simplest rural deployment (proprietary cellular devices, zero patient setup).

RPM data flow (Phase 1):

```
Patient device (cellular) -> Device vendor cloud (Smart Meter / Tenovi)
                                        |
                            VV integration service (GCP Cloud Run)
                                        |
                                Transform to FHIR Observation
                                        |
                                POST to Salesforce Health Cloud
                                        |
                                Trigger alert Flow if threshold exceeded
```

Billing trigger logic: Track device data transmission days per patient per month. When a patient hits 16 days of data in a calendar month, auto-flag as billable for CPT 99454 ($52.11). Track clinician interactive time for 99457/99458.

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3. MODULE BUILD SPECIFICATIONS

3.1 Compliance Module -- Build Details

Feature	Salesforce Implementation	Custom Development	Phase
HIPAA Compliance Tracker	Custom object: `HIPAA_Compliance_Task__c` with fields for task type, due date, assignee, status, evidence attachment. Flow-based reminders and escalation	None -- pure configuration	Phase 1
HIPAA Risk Assessment	Pre-built assessment questionnaire (Salesforce Survey or custom LWC form) mapped to NIST SP 800-66 controls. Auto-scores risk level	LWC (Lightning Web Component) for assessment UI	Phase 1
HRSA UDS Data Aggregation	Report type pulling from Patient, Encounter, Diagnosis, and Demographics objects. Pre-built reports matching UDS Table structure (Tables 3A, 3B, 4, 5, 6A, 6B, 7, 8A, 9D, 9E). **Note:** UDS reporting is mandatory for HRSA-funded health centers (FQHCs), not standalone RHCs. However, many RHCs are also FQHCs, and building this positions all clinics for value-based care	Apex batch job to aggregate data across reporting period; export to UDS-compatible format	Phase 2
CMS Quality Measure Dashboard	CRM Analytics dashboard tracking MIPS measures: Quality (30%), Cost (30%), Promoting Interoperability (25%), Improvement Activities (15%). Real-time score projection	Apex scheduled job to calculate measure numerators/ denominators from clinical data	Phase 1 (basic), Phase 2 (full)
Regulatory Change Alerts	Integration with Federal Register API + CMS/ HRSA RSS feeds. Flow-triggered notifications when relevant changes detected	Python NLP service to classify regulatory updates by relevance to RHC operations	Phase 3
FCC Broadband Compliance	Custom object tracking E-Rate/RHC Program filings, deadlines, and documentation	None -- pure configuration	Phase 2

Salesforce objects to create (Phase 1): - `Compliance_Task__c` (master-detail to Account) - `Risk_Assessment__c` (master-detail to Account) - `Risk_Assessment_Response__c` (master-detail to Risk_Assessment__c) - `Quality_Measure__c` (lookup to Account) - `Quality_Measure_Result__c` (master-detail to Quality_Measure__c, lookup to Contact/Patient)

3.2 Care Module -- Build Details

Feature	Salesforce Implementation	Custom Development	Phase
Patient Risk Stratification	Einstein prediction on Contact (Patient) object, or external model score written back to custom field `Risk_Score__c`	XGBoost model trained on CMS Public Use Files (Medicare claims, chronic conditions). Features: age, diagnosis codes (HCCs), utilization history, medication count, social determinants. Deployed on GCP Cloud Run, called via Apex REST callout	Phase 1
RPM Data Ingestion	Custom objects: `RPM_Reading__c` (master-detail to Contact). Fields: device type, measurement value, measurement date, device ID, transmission flag	Python integration service on GCP Cloud Run. Pulls from RPM aggregator API (Tenovi or Smart Meter), transforms to `RPM_Reading__c` records via Salesforce REST API	Phase 1
Deterioration Alerts	Flow triggered on `RPM_Reading__c` insert. Evaluates against threshold rules (e.g., systolic BP >180, SpO2 <90, weight gain >3 lbs/day). Creates Task for care team, sends push notification	Phase 1: rule-based thresholds. Phase 2: ML trend analysis model (sliding-window anomaly detection)	Phase 1 (rules), Phase 2 (ML)
Care Gap Detection	Scheduled Apex job comparing patient records against USPSTF/CMS preventive care guidelines. Generates `Care_Gap__c` records for overdue screenings, immunizations, annual wellness visits	Guideline rules engine in Apex. Initial rule set: A1C testing (diabetics), mammography, colorectal screening, flu/pneumonia vaccines, annual wellness visit, depression screening (PHQ-9)	Phase 1
			Phase 1

Feature	Salesforce Implementation	Custom Development	Phase
Care Plan Management	Health Cloud native Care Plan object with custom care plan templates for top chronic conditions (diabetes, hypertension, COPD, CHF, depression)	None -- Health Cloud configuration + custom templates	
Telehealth Integration	Embedded video link (Zoom for Healthcare or Doxy.me) in patient record. One-click launch from Salesforce	Zoom API or Doxy.me widget embedded via LWC	Phase 2

ML Model Specification (Risk Stratification):

Parameter	Value
Algorithm	XGBoost (gradient-boosted trees) -- baseline; logistic regression for interpretability comparison
Training Data	CMS Medicare Public Use Files (100% sample claims data), CMS Chronic Conditions Data Warehouse (CCW) public data, MIMIC-IV (if needed for clinical validation)
Features	Age, sex, HCC risk score, diagnosis count (ICD-10 categories), medication count, ED visits (12 months), inpatient admits (12 months), primary care visits (12 months), days since last visit, social vulnerability index (SVI) by census tract
Target Variable	Binary: hospitalization or ED visit within 90 days
Output	Risk score (0--100) + risk tier (Low/Medium/High/Critical) + top 3 contributing factors (SHAP values)
Performance Target	AUC-ROC >0.75; sensitivity >80% for top-decile risk patients
Framework	scikit-learn + XGBoost (Python); model serialized with joblib; served via FastAPI on GCP Cloud Run
Retraining Cadence	Quarterly with updated claims data; triggered retraining if AUC drops below 0.72
Interpretability	SHAP (SHapley Additive exPlanations) for per-patient feature importance; required for clinical adoption

3.3 Collect Cash Module -- Build Details

Feature	Salesforce Implementation	Custom Development	Phase
RPM Billing Tracker	Custom object: `Billing_Event__c` (master-detail to Contact). Automated tracking of device data transmission days per patient per month. Flow logic: when `RPM_Reading__c` count >= 16 in a calendar month, create billable event for CPT 99454 ($52.11). Clinician time tracking for 99457/99458	Apex scheduled batch: nightly roll-up of RPM readings per patient, flagging billable thresholds	Phase 1
CCM Time Tracking	Custom object: `CCM_Activity__c` with fields for patient, clinician, activity type, duration (minutes), date. Flow logic: when cumulative minutes >= 20 in a calendar month, flag for CPT 99490 ($66.30). Track complex CCM threshold (60 min) for 99487 (~$131.65)	Timer LWC component embedded in patient record for real-time time capture	Phase 1
TCM Workflow	Flow triggered on `Discharge_Notification__c` creation. Auto-creates tasks: (1) patient contact within 2 business days, (2) medication reconciliation, (3) face-to-face visit within 7 or 14 days. Tracks completion for CPT 99495 ($220) / 99496 ($298)	ADT (Admit/ Discharge/Transfer) feed integration from hospital EHR (HL7v2 ADT message or FHIR Encounter)	Phase 2
Coding Optimization	NLP analysis of clinical notes to suggest missed diagnosis codes (HCCs) that affect risk adjustment and reimbursement	Python NLP pipeline: spaCy + MedCAT (medical concept annotation) + custom HCC mapping. Deployed on GCP Cloud Run	Phase 2
Denial Prevention	Rules engine checking claims against common denial reasons (missing auth, timely filing, documentation gaps) before submission	Apex rules engine with payer-specific rule sets; integration with clearinghouse pre-adjudication API	Phase 3
MIPS Payment Projection	CRM Analytics dashboard modeling projected MIPS payment adjustment based on current	Apex calculation engine using CMS MIPS scoring	Phase 1 (basic),

Feature	Salesforce Implementation	Custom Development	Phase
	performance scores. Shows gap to avoid -9% penalty and path to positive adjustment	methodology (Quality 30%, Cost 30%, PI 25%, IA 15%)	Phase 2 (full)

CMS Reimbursement Reference (2026 Rates):

CPT Code	Service	2026 Rate	Billing Threshold
99453	RPM device setup (one-time)	$22.00	Initial setup + 2 days monitoring
99454	RPM device supply/data (monthly)	$52.11	16+ days of data transmission
99457	RPM first 20 min interactive (monthly)	$51.77	20 min clinician time
99458	RPM additional 20 min	~$41.42	Each additional 20 min beyond 99457 (no explicit cap per 2026 final rule; historically limited to 2 units, verify current CMS guidance)
99445	RPM device supply/data (2--15 days/month) -- NEW 2026	~$52.11	2--15 days of data transmission (new lower threshold)
99470	RPM first 10 min interactive -- NEW 2026	~$26.05	10--19 min clinician time (alternative to 99457 for shorter interactions)
99490	CCM first 20 min (monthly)	$66.30	20 min staff time, 2+ chronic conditions
99439	CCM additional 20 min (up to 2x/month)	$50.56	Each additional 20 min
99487	Complex CCM first 60 min (monthly)	~$131.65	60 min staff time, complex needs
99489	Complex CCM additional 30 min	$78.00	Each additional 30 min
99495	TCM moderate complexity	$220.00	Contact within 2 days, visit within 14 days

CPT Code	Service	2026 Rate	Billing Threshold
99496	TCM high complexity	$298.00	Contact within 2 days, visit within 7 days

Revenue unlock per clinic (conservative estimate): Assume a pilot clinic with 800 Medicare patients, 25% chronic disease prevalence (200 patients eligible for CCM/RPM), 40% of eligible enrolled in RPM in Year 1 (80 patients), 60% of eligible enrolled in CCM (120 patients):

Revenue Stream	Patients	Monthly/ Patient	Annual Revenue
RPM (99454 + 99457)	80	$103.88	$99,725
CCM (99490)	120	$66.30	$95,472
MIPS penalty avoidance (-9% on Medicare)	--	--	$36,000--$72,000 (depending on Medicare volume)
Total new annual revenue per clinic			**$195,000--$267,000**

4. DEVELOPMENT ROADMAP

Phase 1: MVP / Proof of Concept (Months 1--4, $50K VIPC Grant)

Goal: Working 3C Platform deployed at 2--3 Virginia RHCs with core functionality in all three modules.

Month	Sprint	Deliverables
Month 1	Sprint 1--2	**Foundation:** Salesforce Health Cloud instance provisioned (Enterprise, 5 users). Shield encryption enabled. Core data model deployed (custom objects, fields, relationships). Patient import from pilot clinic EHR (manual CSV or FHIR bulk export). HIPAA compliance task tracker live. Care plan templates configured for diabetes, hypertension, CHF
Month 2	Sprint 3--4	**Care + RPM:** EHR FHIR integration with pilot clinic EHR (athenahealth or eCW -- read-only patient/encounter data). RPM device integration (1--2 device types: BP cuff + scale or glucose monitor). RPM data flowing into Salesforce. Alert

Month	Sprint	Deliverables
		rules configured (threshold-based). Care gap detection rules for top 6 preventive measures. Risk stratification model v1 trained and deployed (GCP Cloud Run)
Month 3	Sprint 5--6	**Collect Cash + Quality:** RPM billing tracker live (auto-flagging billable thresholds for 99453/99454/99457). CCM time tracking LWC deployed. MIPS quality measure dashboard (basic -- 3--5 key measures). Compliance dashboard for pilot clinics. End-to-end testing with pilot clinic staff
Month 4	Sprint 7--8	**Pilot Launch:** 2--3 Virginia RHCs live on 3C Platform. Staff training completed. Baseline metrics captured (compliance scores, care gaps, billing capture rate). Bug fixes and UX refinements based on staff feedback. Pilot outcomes report for Series A / next funding round

Phase 2: Full Product (Months 5--10, funded by pilot revenue + seed investment)

Month	Deliverables
5--6	MuleSoft integration layer (replace Apex callouts). Additional EHR integrations (2--3 more EHR systems). HRSA UDS report automation. Full MIPS dashboard (all 4 categories). Telehealth integration (Zoom for Healthcare)
7--8	NLP coding optimization engine (spaCy + MedCAT). TCM workflow automation (ADT feed integration). Denial prevention rules engine (top 20 denial reasons). ML-based deterioration prediction (replaces rule-based alerts). Additional RPM devices (3--5 device types total)
9--10	Multi-clinic deployment (10+ Virginia RHCs). Regulatory change monitoring (Federal Register NLP). AppExchange packaging exploration (ISV partner program). Performance benchmarking and case study publication

Phase 3: Scale (Months 11--18, funded by Series A)

Month	Deliverables
11--13	AppExchange managed package (ISV distribution). Automated onboarding workflow (clinic self-provisioning). White-label/partner channel strategy. 50+ Virginia RHCs
14--16	National expansion (target states: West Virginia, Kentucky, Tennessee, North Carolina -- high RHC density). Advanced AI features (population health analytics, predictive staffing). Clearinghouse direct integration (Availity, Change Healthcare/Optum)
17--18	

Month	Deliverables
	100+ RHCs nationally. Series A close based on ARR and clinical outcomes data. SOC 2 Type II audit. HITRUST certification pathway

5. TEAM REQUIREMENTS

5.1 Phase 1 Team (Months 1--4) -- Minimum Viable Team

Role	Who	Commitment	Rate/Cost
Technical Lead / Salesforce Architect	Will Nelson (VV)	30 hrs/week	Sweat equity (VV contribution to ACT)
Salesforce Developer	Contract (Salesforce certified, Health Cloud experience)	30 hrs/week x 4 months	$125--$150/hr = $60K--$72K (over budget -- see note below)
ML Engineer	Contract or VV team member	15 hrs/week x 3 months (Months 1--3)	$150/hr = $27K (or VV sweat equity)
Clinical Advisor / SME	Cari Ann (ACT) + pilot clinic provider	5 hrs/week	ACT sweat equity
Project Manager	Jim Pfautz (ACT CEO)	5 hrs/week	ACT sweat equity

Budget reality check: A fully-contracted team exceeds $50K. The model that works:

Item	Funded by VIPC Grant	Funded by VV/ACT Sweat Equity
Salesforce licenses (5 users x 4 months)	$6,500	--
Salesforce Shield (4 months)	$1,950	--
GCP hosting (HIPAA, 4 months)	$2,000	--
RPM devices for pilot (10--15 units)	$1,500	--
Contract Salesforce developer (part-time, 3 months)	$30,000	--
ML model development tools/compute	$1,500	--

Item	Funded by VIPC Grant	Funded by VV/ACT Sweat Equity
Pilot clinic onboarding (travel, training)	$3,000	--
Legal (HIPAA BAA, pilot agreements)	$2,000	--
Miscellaneous (domain, email, tools)	$1,550	--
VIPC Grant Total	**$50,000**	--
Technical Lead (Will, 480 hrs)	--	~$72,000 (in-kind)
ML Engineering (VV team, 180 hrs)	--	~$27,000 (in-kind)
Clinical Advisory (Cari Ann, 80 hrs)	--	~$12,000 (in-kind)
Project Management (Jim, 80 hrs)	--	~$12,000 (in-kind)
Total Project Value (Phase 1)	**$50,000 cash**	**~$123,000 in-kind**

5.2 Phase 2 Team Additions (Months 5--10)

Role	Needed	Estimated Annual Cost
Full-time Salesforce Developer	1 FTE	$120,000--$140,000
Full-time ML/Data Engineer	1 FTE	$130,000--$150,000
Implementation Specialist (clinic onboarding + training)	1 FTE	$70,000--$85,000
Customer Success / Support	0.5 FTE	$35,000--$42,000
Sales / Business Development	1 FTE (likely Jim/ ACT)	Sweat equity or $80,000--$100,000

Phase 2 run rate: ~$435,000--$517,000/year (team + infrastructure). Funded by combination of pilot clinic SaaS revenue, ACT operating capital, and seed investment.

5.3 Key Hires -- What to Look For

Contract Salesforce Developer (Phase 1 -- critical hire): - Must have: Salesforce Health Cloud certification, Apex development, LWC, FHIR integration experience - Nice to have: Experience with healthcare payer/provider workflows, HIPAA compliance - Where to find: Salesforce Talent Alliance, Upwork (vetted Salesforce pros), Toptal, or Salesforce partner

firms (10th Magnitude, Deloitte Digital -- may be too expensive) - Budget option: Offshore Salesforce developer ($50--$75/hr) with US-based oversight by Will

ML Engineer (Phase 1): - Must have: Python, scikit-learn/XGBoost, healthcare data experience (claims data, ICD-10, HCC) - Nice to have: FHIR, GCP, FastAPI deployment experience - Budget option: VV internal resource or university partnership (Virginia Tech, UVA -- health informatics graduate students)

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6. DETAILED COST ANALYSIS

6.1 Salesforce Licensing -- Realistic Costs

Phase 1 (MVP, 5 users, 4 months):

Line Item	Monthly	4-Month Total
Health Cloud Enterprise (5 users x $325)	$1,625	$6,500
Shield encryption (~30% of license)	$488	$1,950
Einstein/Agentforce (defer to Phase 2)	$0	$0
MuleSoft (defer to Phase 2)	$0	$0
Salesforce Subtotal	**$2,113**	**$8,450**

Note on discounts: Apply for the Salesforce ISV Partner Program (free to join). ISV partners receive 2 free Enterprise Edition Sales Cloud licenses (NOT Health Cloud) and a Partner Business Org for app management. These do not directly offset Health Cloud production costs but provide a free development/testing environment. Explore negotiation for a short-term pilot agreement (4--6 months rather than 12-month annual commit). Also explore the Salesforce for Startups program -- discount availability varies and is not guaranteed. Budget assumes full list price; any discount is upside.

Phase 2 (10 users, full year):

Line Item	Monthly	Annual
Health Cloud Enterprise (10 users x $325)	$3,250	$39,000
Shield (~30%)	$975	$11,700

Line Item	Monthly	Annual
Agentforce Healthcare (10 users x $150)	$1,500	$18,000
MuleSoft Anypoint (Integration Starter)	~$6,700	~$80,000 (minimum; negotiate with Salesforce AE)
Salesforce Subtotal	**~$12,425**	**~$148,700**

6.2 Infrastructure Costs

Phase 1:

Item	Monthly	4-Month Total
GCP Cloud Run (HIPAA BAA, model serving)	$300--$500	$1,200--$2,000
GCP Cloud Storage (training data, backups)	$50	$200
GitHub Team (5 users)	$20	$80
Domain + SSL + email (Google Workspace)	$60	$240
Infrastructure Subtotal	**~$530**	**~$2,120**

Phase 2 (annual):

Item	Annual
GCP (expanded: Cloud Run + BigQuery + Cloud SQL)	$12,000--$18,000
Datadog APM	$3,600
GitHub Team (10 users)	$480
Google Workspace	$720
Infrastructure Subtotal	**~$17,000--$23,000**

6.3 Total Cost Summary

Phase	Timeline	Cash Cost	In-Kind (Sweat Equity)	Total Value
Phase 1 (MVP)	Months 1--4	$50,000 (VIPC grant)	~$123,000	~$173,000

Phase	Timeline	Cash Cost	In-Kind (Sweat Equity)	Total Value
Phase 2 (Full Product)	Months 5--10	~$330,000--$430,000	~$150,000	~$480,000--$580,000
Phase 3 (Scale)	Months 11--18	~$600,000--$800,000	~$100,000	~$700,000--$900,000
Total through Month 18		**~$980,000--$1,280,000**	**~$373,000**	**~$1,350,000--$1,650,000**

7. PARTNER DEPENDENCIES

7.1 Required Partners (Phase 1)

Partner Type	Why Needed	Candidates	Status
Pilot RHCs (2--3 clinics)	Live environment to deploy, test, and demonstrate the platform. Must have Medicare patient panel, chronic disease population, and willingness to participate	Virginia RHCs -- identify through Virginia Rural Health Association or HRSA Health Center database. Target clinics using athenahealth or eCW for easier EHR integration	**Must secure by Month 1**
Salesforce Implementation Partner	Optional but valuable -- can provide discounted licenses through partner program, development support, and AppExchange guidance	Salesforce Health Cloud partners: independent consultants (Upwork/Toptal), Salesforce Trailblazer community referrals, or local Virginia firms	Explore in Month 1
RPM Device Vendor / Aggregator	Device supply for pilot patients, API access for data integration, and potential reseller arrangement. **Cellular connectivity required for rural patients**	**Tenovi** (device aggregation platform, 40+ FDA-cleared devices, cellular gateway, single API); **Smart Meter** (proprietary cellular devices, zero patient setup, multi-carrier SIM); **Prevounce/Pylo** (integrated device + platform line)	**Must secure by Month 2**

7.2 Required Partners (Phase 2--3)

Partner Type	Why Needed	Candidates	Timeline
Clearinghouse	Claims submission, eligibility verification, ERA/EOB processing	**Office Ally** (free for claim submission, 80K+ healthcare orgs, easiest setup) as Phase 2 first target. Availity (free for payer-sponsored eligibility checks) as secondary. Trizetto/Cognizant for advanced scrubbing in Phase 3	Phase 2
Billing Service / Coding Experts	Validate coding optimization logic, provide training data for NLP model, clinical coding advisory	Local medical billing company or AAPC-certified coders	Phase 2
HIPAA/ Compliance Counsel	BAA review, HIPAA policies, compliance attestation support	Healthcare IT law firm (Virginia-based)	Phase 1 (BAA), Phase 2 (full)
Salesforce ISV Partner	Required for AppExchange distribution, managed package development	Self (VV registers as ISV partner -- free)	Phase 2

7.3 Strategic Relationships

Entity	Value	Approach
Virginia Rural Health Association	Clinic introductions, market validation, policy advocacy	Jim/Mandy relationship-building; potential advisory board member
HRSA / Federal Office of Rural Health Policy	Grant opportunities (HRSA has rural health IT grants), regulatory guidance, credibility	Monitor HRSA funding announcements; apply for Rural Health IT Network grant
Virginia Department of Health	State-level rural health initiatives, Medicaid waivers, pilot endorsement	Mandy's political connections
University Partners (UVA, VT, VCU)		

Entity	Value	Approach
	Health informatics talent, clinical research collaboration, IRB for outcomes studies	Internship pipeline, joint publications, capstone project sponsorship

8. COMPLIANCE & SECURITY REQUIREMENTS

8.1 HIPAA Compliance (Day 1 Requirements)

Requirement	Implementation
Business Associate Agreements (BAAs)	Execute BAAs with: Salesforce (standard BAA available), GCP (standard BAA), any EHR vendor, any RPM device vendor, any subcontractor with PHI access. **Must be in place before any patient data enters the system**
Encryption at Rest	Salesforce Shield Platform Encryption (AES-256, tenant-specific keys). GCP default encryption (AES-256) with customer-managed keys (CMEK) for additional control
Encryption in Transit	TLS 1.2+ (Salesforce enforces by default). All custom API calls use HTTPS only. FHIR endpoints authenticated via OAuth 2.0 / SMART on FHIR
Access Control	Salesforce profiles + permission sets (RBAC). Principle of least privilege. Separate profiles for: clinic admin, provider, care coordinator, VV admin
Audit Logging	Salesforce Shield Event Monitoring (login, API, data export, record access) + Field Audit Trail for PHI fields. Shield retains real-time events for limited periods; configure Field Audit Trail for 10-year retention on PHI fields. Export event logs to external archive (GCP BigQuery or Cloud Storage) with 6-year retention to meet HIPAA documentation requirements (45 CFR 164.530(j))
Workforce Training	All VV and ACT team members with PHI access complete HIPAA training before pilot launch. Annual refresher. Document completion
Incident Response Plan	Document and test PHI breach response procedure per HIPAA Breach Notification Rule (45 CFR 164.400--414). All breaches require individual notification within 60 days. Breaches affecting 500+ individuals also require HHS notification and prominent media notification within 60 days. Breaches <500 individuals: HHS notification via annual report within 60 days of calendar year end
Risk Assessment	

Requirement	Implementation
	Complete HIPAA Security Rule risk assessment (NIST SP 800-66 methodology) before pilot launch. Document findings and remediation plan

8.2 State and Federal Regulatory

Requirement	Notes
Virginia Consumer Data Protection Act (VCDPA)	Health data exemptions exist for HIPAA-covered data, but verify applicability for any non-PHI patient data
42 CFR Part 2	If any pilot clinic treats substance use disorders, additional consent and segmentation requirements apply
FDA SaMD	Risk stratification AI that informs clinical decisions may be subject to FDA Software as a Medical Device regulation. However, if positioned as "clinical decision support" meeting all four criteria under 21st Century Cures Act Section 3060(a) / FD&C Act 520(o) -- (1) does not acquire/process medical images or signals from signal acquisition systems, (2) displays/analyzes medical information, (3) intended to support HCP recommendations, (4) enables HCP to independently review the basis for recommendations -- it qualifies for non-device exemption. The January 2026 FDA CDS guidance update takes a more expansive reading of this exemption and broadens enforcement discretion. Document intended use statement and maintain a regulatory file demonstrating compliance with all four criteria
CMS Conditions of Participation	Any software used for billing must not create false claims. Validate all auto-generated billing events against actual clinical documentation

9. SUCCESS METRICS

9.1 Phase 1 Pilot KPIs (Month 4 Report)

Category	Metric	Target
Compliance	HIPAA compliance task completion rate	>90%

Category	Metric	Target
Compliance	MIPS quality measures tracked and reported	5+ measures per clinic
Care	Patients enrolled in RPM	30+ per pilot clinic
Care	Care gaps identified and addressed	50+ per clinic
Care	Risk stratification model AUC-ROC	>0.75
Cost	New RPM/CCM revenue captured per clinic (monthly)	$5,000+
Cost	RPM billing events auto-flagged correctly	>95% accuracy
Platform	Clinic staff adoption (weekly active users)	>80% of licensed users
Platform	System uptime	>99.5%

9.2 Metrics for Series A Pitch (Month 10)

Metric	Target
Clinics live on platform	10+
ARR (Annual Recurring Revenue)	$240,000+ ($2K/month x 10 clinics)
Net revenue unlock per clinic	$100,000+/year
Clinic retention (annual churn)	<10%
NPS (staff satisfaction)	>50
MIPS penalty avoidance demonstrated	100% of pilot clinics

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10. COMPETITIVE LANDSCAPE

10.1 Direct Competitors

Competitor	What They Do	Pricing	Why 3C Wins
Compliancy Group (The Guard)	HIPAA compliance tracking only	~$300/ month	Compliance only -- no care or billing
HIPAA One / Intraprise Health	HIPAA risk assessments	~$200--$500/month	Compliance only

Competitor	What They Do	Pricing	Why 3C Wins
Optimize Health	RPM platform only	$6--$12/ patient/ month	Care/RPM only -- no compliance or billing optimization
Rimidi	Chronic disease management + RPM	Custom pricing	Care only -- no compliance or billing
ThoroughCare	CCM/RPM/TCM/AWV workflow + billing	~$3--$8/ patient/ month	Closest competitor -- but no compliance module, no AI risk stratification, not Salesforce-native
ChartSpan	Outsourced CCM services	Revenue share model	Service, not software -- takes margin from clinic
Waystar / Availity	Revenue cycle management	$500--$2,000/ month	Billing only -- no clinical or compliance
athenahealth RCM	EHR + built-in billing	Bundled with EHR	General-purpose -- not optimized for RHC-specific programs (RPM/ CCM/MIPS)
TelliHealth	End-to-end RPM (devices + platform + monitoring)	Per patient/ month	4G LTE devices, good rural fit -- but RPM only, no compliance or billing optimization
HealthSnap	RPM with clinical monitoring	Per patient/ month	Strong outcomes data -- but RPM only
Azalea Health	RHC-specific EHR + billing	Bundled	Closest RHC-specific competitor -- but no AI, limited RPM, no standalone compliance module

10.2 Pricing Strategy

Target RHC IT budget reality: 81% of rural providers cite budget constraints as the biggest obstacle to new technology (Black Book Research, 2025). A typical 3-provider RHC spends $34,000--$95,000/year on all IT. Our pricing must land in a range that fits within existing budgets while being justified by revenue unlock.

Tier	Monthly Price	Includes	Target Clinic
Starter (Compliance + Basic Care)	$500/ month	HIPAA compliance tracker, care gap detection, basic MIPS dashboard, 50 patients	Small RHC, 1--2 providers
Professional (Full 3C)	$2,000/ month	All three modules, RPM integration, AI risk stratification, up to 200 patients	Mid-size RHC, 3--5 providers
Enterprise	$4,000/ month	Full 3C + NLP coding optimization, unlimited patients, dedicated support	Large RHC or multi-site

Revenue justification: At $2,000/month ($24,000/year), the platform unlocks $195,000--$267,000/year in new RPM/CCM/MIPS revenue. That's an **8--11x ROI**. The platform sells itself on the math.

Key funding tailwind: The **Rural Health Transformation (RHT) Program** allocates **$50 billion over 5 years** to states, with permissible uses including software, hardware, cybersecurity, remote monitoring, and AI. Position the 3C Platform as eligible technology spend under this program -- clinics may be able to fund their subscription through RHT grants.

10.3 Competitive Moat

1. **Unified platform:** No competitor offers compliance + care + revenue on one platform. Clinics currently buy 3--5 separate tools that don't talk to each other
2. **RHC-specific:** Purpose-built for the regulatory, clinical, and financial realities of Rural Health Clinics -- not a hospital product scaled down
3. **Salesforce ecosystem:** Builds on enterprise infrastructure that scales; avoids the "small vendor" risk that RHCs worry about
4. **AI-first revenue optimization:** The AI doesn't just track -- it finds money. Risk stratification identifies patients who need (and qualify for) RPM/CCM. NLP finds missed codes. MIPS projection prevents penalties. The platform literally pays for itself
5. **Virginia-first strategy:** Deep local relationships, VIPC backing, state policy alignment -- hard for national competitors to replicate

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11. RISK REGISTER

Risk	Severity	Likelihood	Mitigation
Salesforce costs exceed budget	HIGH	MEDIUM	Apply for ISV Partner Program and Startup Program discounts immediately. Negotiate multi-year commit. Phase 1 uses minimal user count (5). If costs still prohibitive, evaluate Salesforce Platform (cheaper) instead of Health Cloud
Pilot clinic EHR integration harder than expected	HIGH	MEDIUM	Start with manual data import (CSV) as fallback. Prioritize EHRs with strong FHIR support (athenahealth, eCW). Budget 2 extra weeks for integration troubleshooting
Clinic staff adoption resistance	HIGH	MEDIUM	Involve clinic staff in design from Sprint 1. Keep UI simple (max 3 clicks to any action). Provide on-site training. Show revenue impact early to build buy-in
RPM patient enrollment lower than expected	MEDIUM	HIGH	Offer device-included model (clinic provides devices to patients at no cost -- devices paid by VIPC grant). Start with highest-risk patients who benefit most. Have clinic champion (MA or nurse) lead enrollment
ML model performance below threshold	MEDIUM	LOW	Fall back to rule-based risk scoring (validated clinical risk scores like LACE index). ML model is enhancement, not dependency
HIPAA breach during pilot	HIGH	LOW	Shield encryption from Day 1. BAAs with all vendors. Minimize PHI in development/testing environments (use synthetic data). Incident response plan documented before pilot launch
FDA classifies risk model as SaMD	MEDIUM	LOW	Position as clinical decision support (provider reviews and acts on all outputs). Document intended use per 21st Century Cures Act exemption criteria. Consult regulatory counsel if needed
Salesforce platform changes/price increases	MEDIUM	MEDIUM	Build with standard Salesforce APIs and metadata (avoid deep platform coupling). Maintain architecture flexibility for future platform migration if needed

Risk	Severity	Likelihood	Mitigation
Contract developer unavailable or underperforms	HIGH	MEDIUM	Begin recruiting immediately upon grant award. Have backup candidates identified. Will can cover gap temporarily for simpler configuration work

12. IMMEDIATE NEXT STEPS (Post-Grant Award)

Action	Owner	Deadline	Dependency
Register as Salesforce ISV Partner	Will	Week 1	None
Apply for Salesforce Startup Program discount	Will	Week 1	None
Provision Salesforce Health Cloud dev environment	Will	Week 1	ISV registration
Execute GCP BAA for HIPAA workloads	Will	Week 1	None
Post contract Salesforce developer job listing	Will + Jim	Week 1	None
Identify and contact 5--10 candidate pilot RHCs in Virginia	Jim + Mandy	Week 1--2	None
Execute HIPAA BAA with Salesforce	Will	Week 1	SF provisioning
Reach out to RPM device vendors (Tenovi, Smart Meter) for partnership; request API documentation and pilot pricing	Will + Jim	Week 2	None
Complete HIPAA Security Rule risk assessment	Will + Cari Ann	Week 2--3	None
Apply for EHR developer program access (athenahealth / eCW / Azalea Health based on pilot clinic EHR)	Will	Week 1--2	Pilot clinic identified
Select and onboard pilot clinic (first)	Jim	Week 3--4	Clinic outreach
Begin Sprint 1 development	Will + Contract Dev	Week 2	SF environment ready
Contact Virginia Rural Health Association for introductions	Jim + Mandy	Week 2	None

Prepared by: Veteran Vectors Engineering | Authentic Consortium This is a living document -- updated as implementation progresses