

Blue Whale Master Plan v1.0

Cetacean Labs - Domain-Specific Intelligence Layer

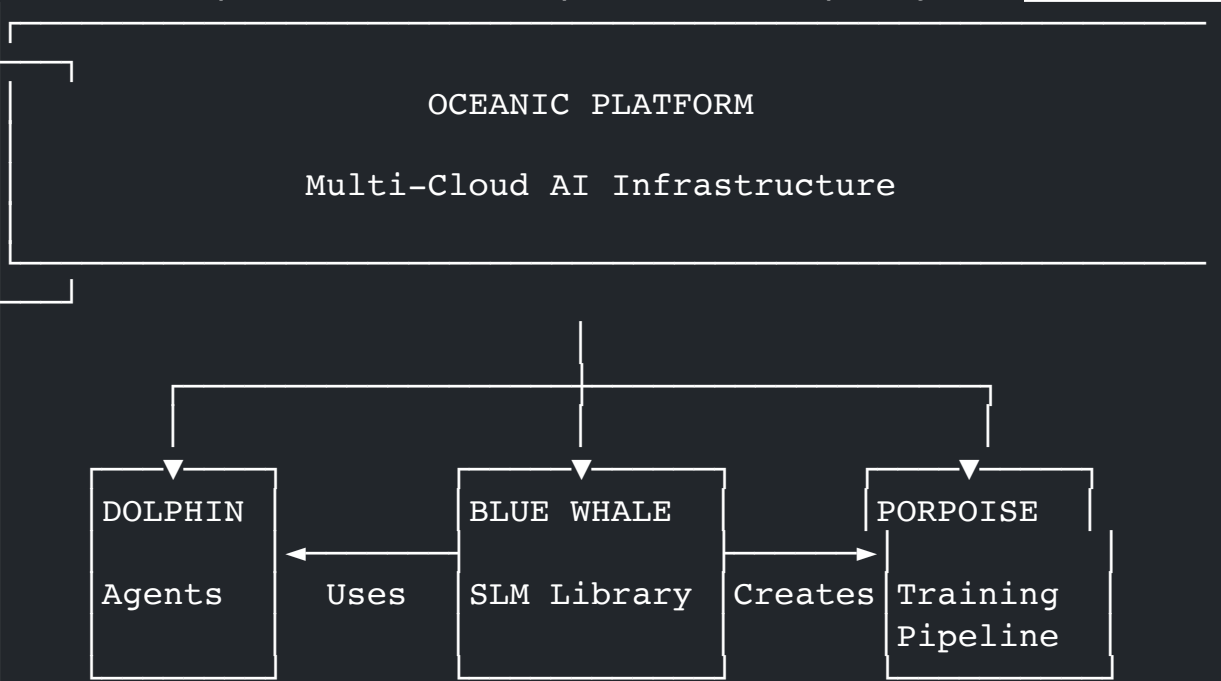
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Executive Summary

Blue Whale represents Cetacean's **domain-specific intelligence layer** - a curated library of specialized small language models (3B-13B parameters) that inject expert knowledge into agents, applications, and the Oceanic platform itself. Unlike general-purpose LLMs, Blue Whale models are optimized for specific verticals (Legal, Medical, Finance, Logistics, etc.), delivering superior performance at 10-100x lower cost and <50ms latency.

The Three-Component Intelligence Ecosystem

Blue Whale operates as the centerpiece of a three-part system:



- 1. **Blue Whale (The Library):** Curated catalog of production-ready domain SLMs
- 2. **Porpoise (The Factory):** Training pipeline that creates new Blue Whale models
- 3. **Dolphin (The Consumer):** Agent framework that uses Blue Whale for specialized tasks

Strategic Value Proposition

Metric	General LLMs	Blue Whale SLMs
Cost per 1M tokens	\$5-30	\$0.10-0.50

Inference Latency	500-2000ms	<50ms
Domain Accuracy	60-75%	85-95%
Data Privacy	External APIs	On-premises option
Deployment Flexibility	Cloud-only	Edge/Cloud/Hybrid

Year 1 Business Model

Phase 1 (Months 1-3): Esteemed Ecosystem Licensing

- Dolphin → Esteemed Agents (legal SLMs)
- Porpoise → Esteemed Digital (custom training)
- Orca → Esteemed Ventures (financial SLMs)
- **Revenue Target:** \$1.3M from internal licensing

Phase 2 (Months 4-6): Anchor Customer Validation

- DiligenceGPT uses entire stack (Blue Whale + Porpoise + Dolphin)
- Validates product-market fit
- Generates case studies for enterprise sales

Phase 3 (Months 7-12): External Customer Expansion

- Target: 5-10 enterprise customers
- Focus: Finance, Healthcare, Legal verticals
- **Revenue Target:** \$2-3M ARR by end of Year 1

Architecture Overview

Blue Whale Library Structure

Blue Whale organizes SLMs into **domain categories**, each containing multiple specialized models:

Blue Whale Library

Legal	<ul style="list-style-type: none"> SauLLM-7B (contract analysis) LegalBERT-3B (case law search) ContractNER-3B (entity extraction)
Medical	<ul style="list-style-type: none"> MedAlpaca-13B (clinical notes) BioGPT-7B (biomedical research) DrugGPT-3B (drug interactions)
Finance	<ul style="list-style-type: none"> FinGPT-8B (financial analysis) BloombergGPT-lite-7B (market data)

- └─ CreditRisk-3B (underwriting)
- └─ Logistics
 - └─ RouteOpt-3B (route optimization)
 - └─ InventoryGPT-7B (inventory forecasting)
 - └─ SupplyChain-3B (supply chain modeling)
- └─ Technical
 - └─ CodeLlama-7B (code generation)
 - └─ SQLCoder-3B (SQL generation)
 - └─ DevOps-3B (infrastructure code)

Multi-Level Intelligence Injection

Blue Whale injects domain expertise at **three levels**:

Level 1: Platform-Level Intelligence

Built into Oceanic platform core functionality:

```
platform_intelligence:
  infrastructure_generation:
    model: "DevOps-3B"
    function: "Terraform/K8s code generation"
    integration: "Oceanic App Builder"

  cost_optimization:
    model: "CloudOpt-3B"
    function: "Multi-cloud cost analysis"
    integration: "Infrastructure orchestration"

  security_compliance:
    model: "SecOps-7B"
    function: "Security policy generation"
    integration: "Compliance monitoring"
```

Level 2: Agent-Level Intelligence

Enhances Dolphin agents with specialized capabilities:

```
agent_intelligence:
  department_agents:
    legal_department:
      primary_model: "SaulLM-7B"
      fallback: "GPT-4"
      use_cases:
        - "Contract review and redlining"
        - "Compliance checking"
        - "Legal research assistance"
```

```
finance_department:
  primary_model: "FinGPT-8B"
  fallback: "Claude 3.5"
  use_cases:
    - "Financial statement analysis"
    - "Investment research"
    - "Risk modeling"

hr_department:
  primary_model: "HRPolicy-3B"
  fallback: "GPT-4"
  use_cases:
    - "Policy interpretation"
    - "Benefits Q&A"
    - "Onboarding automation"

individual_agents:
  customization: "Users can select domain SLMs for
personal agents"
  example: "Sales agent + FinGPT for financial prospect
analysis"
```

Level 3: Application-Level Intelligence

Available via API for custom applications:

```
application_intelligence:
  api_access:
    endpoint: "https://api.oceanic.ai/blue-whale/v1/
inference"
    authentication: "Bearer token"
    rate_limits:
      free_tier: "1,000 requests/day"
      professional: "100,000 requests/day"
      enterprise: "Unlimited"

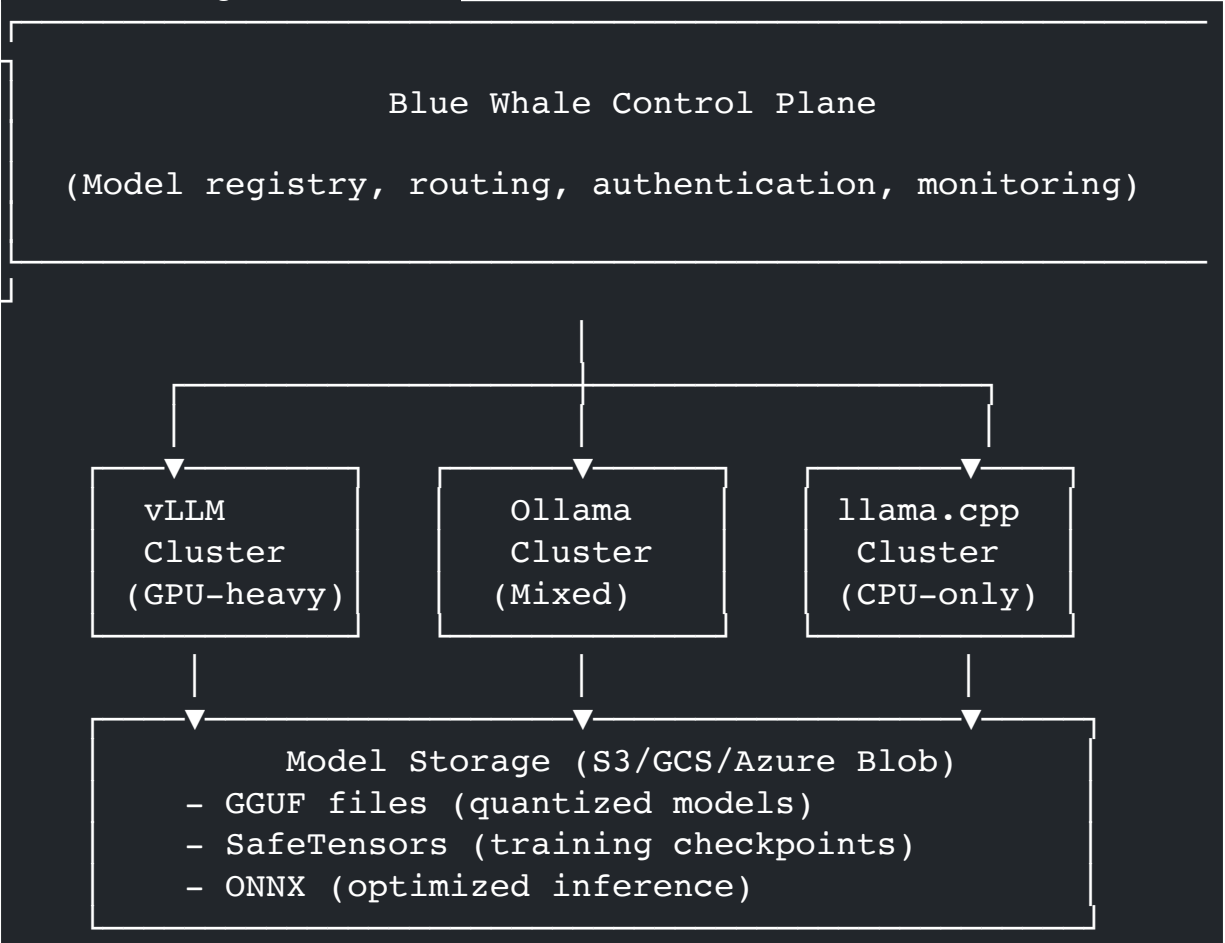
sdk_support:
  languages: ["Python", "JavaScript", "Go", "Java"]
  example_use: |
    from oceanic import BlueWhale

    client = BlueWhale(api_key="...")
    result = client.inference(
```

```
model="SaulLM-7B",
prompt="Analyze this contract for liability
clauses",
context=contract_text
)
```

Technical Architecture

Model Serving Infrastructure



Performance Characteristics:

Infrastructure	Best For	Latency	Throughput	Cost
vLLM (GPU)	8B+ models, high throughput	50-200ms	100 req/s/GPU	\$
Ollama (Mixed)	General-purpose serving	100-300ms	50 req/s/node	
llama.cpp (CPU)	Edge deployment, 3B models	200-500ms	10 req/s/node	\$

Natural Language Domain Detection

Blue Whale includes an intelligent routing layer that automatically selects the appropriate domain SLM:

```
# Simplified routing logic
class BlueWhaleRouter:
    def route_request(self, prompt: str) -> str:
        """
        Analyzes prompt and selects optimal domain SLM
        Falls back to general-purpose LLM if no domain
match
        """
        # Quick domain classification (< 10ms)
        domain = self.classifier.predict(prompt)

        # Domain confidence scoring
        if domain.confidence > 0.8:
            return self.get_domain_model(domain.category)
        else:
            return "general-llm" # GPT-4 or Claude
fallback

    def get_domain_model(self, category: str) -> str:
        domain_models = {
            "legal": "SaulLM-7B",
            "medical": "MedAlpaca-13B",
            "finance": "FinGPT-8B",
            "logistics": "RouteOpt-3B",
            # ... additional domains
        }
        return domain_models.get(category, "general-llm")
```

Detection Examples:

Input	Detected Domain	Selected Model	Confidence
"Review this NDA for exclusivity clauses"	Legal	SaulLM-7B	0.95
"Analyze Q4 revenue trends"	Finance	FinGPT-8B	0.89
"Optimal route for 20-stop delivery"	Logistics	RouteOpt-3B	0.92

"What's for lunch?"

General

GPT-4

0.45
(fallback)

How the Three Components Relate

The Complete Intelligence Lifecycle

INTELLIGENCE LIFECYCLE

STEP 1: NEED IDENTIFICATION

User/Agent: "I need a legal contract analysis capability"



STEP 2: MODEL CREATION (Porpoise)

Porpoise Training Pipeline

1. Select base model (Mistral 7B, Llama 8B)
2. Upload domain data (10K legal contracts)
3. Fine-tune using LoRA/QLoRA
4. Evaluate on test set
5. Optimize (4-bit quantization)
6. Export (GGUF, SafeTensors, ONNX)



STEP 3: CATALOGING (Blue Whale)

Blue Whale Registry

Model: "CustomLegal-7B"
Domain: "Legal - Contract Analysis"
Performance: 89% accuracy on test set
Pricing: \$0.20 per 1M tokens
Deployment: vLLM cluster, 100 req/s



STEP 4: CONSUMPTION (Dolphin)

Dolphin Legal Agent

Task: "Review 50 vendor contracts"

Model Selection: CustomLegal-7B (Blue Whale)

Execution: Parallel processing across pod

Output: Structured analysis + risk flagging

Integration Patterns

Pattern 1: Plug-and-Play Integration (Dolphin ↔ Blue Whale)

Dolphin agents can seamlessly use Blue Whale models without configuration:

```
# Dolphin agent automatically uses Blue Whale for domain tasks
```

```
from dolphin import Agent
```

```
from blue_whale import auto_inject
```

```
@auto_inject(domain="legal")
```

```
class LegalAgent(Agent):
```

```
    def analyze_contract(self, contract_text: str):
```

```
        # Blue Whale automatically provides SaulLM-7B
```

```
        # No explicit model selection needed
```

```
        analysis = self.think(
```

```
            f"Analyze this contract for risks:
```

```
{contract_text}"
```

```
        )
```

```
        return analysis
```

Pattern 2: Custom Training Integration (Porpoise → Blue Whale)

Porpoise-trained models automatically publish to Blue Whale:

```
porpoise_workflow:
```

```
    training_job:
```

```
        name: "CustomFinance-3B"
```

```
        base_model: "Llama-3.2-3B"
```

```
        training_data: "s3://cetacean/finance-data-v2"
```

```
        method: "LoRA"
```

```
        output_destination: "blue_whale://finance/
```

```
CustomFinance-3B"
```

```
    auto_publish:
```



```
enabled: true
visibility: "organization" # or "public" or "private"
pricing: "inherited" # or custom pricing
deployment: "automatic" # Deploy to inference cluster
```

Pattern 3: Multi-Model Orchestration (Dolphin Pod)

Dolphin pods can coordinate multiple Blue Whale models:

```
# Complex task requiring multiple domain models
from dolphin import Pod
from blue_whale import BlueWhale

class DiligencePod(Pod):
    def __init__(self):
        self.legal_model = BlueWhale.get("SaulLM-7B")
        self.finance_model = BlueWhale.get("FinGPT-8B")
        self.tech_model = BlueWhale.get("CodeLlama-7B")

    def full_diligence(self, company_data):
        # Parallel execution using specialized models
        legal_review = self.legal_agent.analyze(
            company_data.contracts,
            model=self.legal_model
        )

        financial_review = self.finance_agent.analyze(
            company_data.financials,
            model=self.finance_model
        )

        tech_review = self.tech_agent.analyze(
            company_data.codebase,
            model=self.tech_model
        )

        # Synthesis using general LLM
        return self.synthesize([legal_review,
financial_review, tech_review])
```

Data Flow Architecture

USER REQUEST

"Analyze this legal document for compliance issues"



DOLPHIN ORCHESTRATOR

- Receives request
- Determines domain (Legal)
- Selects appropriate agent (Legal Department Agent)



BLUE WHALE ROUTER

- Classifies task → "Legal/Compliance"
- Checks available models:
 - ✓ SaulLM-7B (confidence: 0.92)
 - ✓ CustomCompliance-3B (confidence: 0.85)
- Selects SaulLM-7B (higher confidence)



INFERENCE INFRASTRUCTURE

vLLM Cluster

- Load SaulLM-7B from model storage
- Execute inference (latency: 120ms)
- Return structured analysis



RESULT SYNTHESIS

Dolphin Agent:

- Receives SLM output
- Validates against task requirements
- Formats for user presentation
- Logs usage for billing



USER RESPONSE

Structured compliance analysis with risk scores

Simplified Implementation Timeline

Phase 0: Foundation (Weeks 1-2) - COMPLETE

Build in Esteemed Agents before forking to Oceanic

week_1-2:

status: "COMPLETE - Already in Esteemed Agents"

deliverables:

infrastructure:

- "✅ Model serving infrastructure (vLLM/Ollama)"
- "✅ Basic domain detection"
- "✅ S3/GCS model storage"

initial_models:

- "✅ SaulLM-7B (Legal)"
- "✅ FinGPT-8B (Finance)"
- "✅ CodeLlama-7B (Technical)"

integration:

- "✅ Esteemed Agents can call Blue Whale models"
- "✅ Manual model selection working"

Phase 1: Core Platform (Weeks 3-8)

Fork to Oceanic and build Blue Whale as standalone product

weeks_3-4_oceanic_fork:

objective: "Create Oceanic MVP with Blue Whale integration"

tasks:

- "Fork Esteemed Agents codebase → Oceanic Platform"
- "Rebrand Blue Whale as standalone product"
- "Build Blue Whale marketplace UI"
- "Implement usage tracking & billing"

deliverables:

- "Blue Whale catalog interface (browse models)"
- "API key generation for external access"
- "Usage analytics dashboard"

weeks_5-6_porpoise_integration:

objective: "Connect Porpoise training to Blue Whale"

tasks:

- "Build Porpoise → Blue Whale auto-publish pipeline"
- "Implement model versioning & rollback"
- "Create training job monitoring"

deliverables:

- "One-click model publishing from Porpoise"
- "Blue Whale registry with version history"
- "Training cost tracking"

weeks_7-8_dolphin_enhancement:

objective: "Enhanced Dolphin ↔ Blue Whale integration"

tasks:

- "Implement automatic domain detection in Dolphin"
- "Build model selection optimization"
- "Create fallback logic (SLM → LLM)"

deliverables:

- "Dolphin agents auto-select Blue Whale models"
- "Intelligent cost optimization"
- "Performance benchmarking framework"

Phase 2: Expansion (Weeks 9-16)

weeks_9-12_domain_expansion:

objective: "Expand Blue Whale catalog to 10+ domains"

domains:

legal:

- "✅ SaulLM-7B (contracts)"
- "⊕ LegalBERT-3B (case law)"
- "⊕ ContractNER-3B (entity extraction)"

medical:

- "⊕ MedAlpaca-13B (clinical notes)"
- "⊕ BioGPT-7B (research)"
- "⊕ DrugGPT-3B (interactions)"

finance:

- "✅ FinGPT-8B (analysis)"
- "⊕ BloombergGPT-lite-7B (markets)"
- "⊕ CreditRisk-3B (underwriting)"

logistics:

- "⊕ RouteOpt-3B (routing)"

- "+ InventoryGPT-7B (forecasting)"

technical:

- "✅ CodeLlama-7B (code gen)"
- "+ SQLCoder-3B (SQL)"
- "+ DevOps-3B (infrastructure)"

deliverables:

- "15+ production-ready SLMs"
- "Benchmarking against GPT-4/Claude"
- "Performance documentation"

weeks_13-16_enterprise_features:

objective: "Enterprise-grade capabilities"

features:

deployment:

- "On-premises deployment option"
- "Air-gapped environment support"
- "Custom model fine-tuning service"

security:

- "SOC 2 Type II compliance"
- "HIPAA-compliant medical models"
- "Role-based access control"

management:

- "Model lifecycle management"
- "A/B testing framework"
- "Cost allocation & chargeback"

deliverables:

- "Enterprise deployment guide"
- "Security certification documentation"
- "Admin management console"

Phase 3: Scale & Monetization (Weeks 17-24)

weeks_17-20_customer_acquisition:

objective: "Onboard first 5 external customers"

activities:

esteemed_ecosystem:

- "Esteemed Agents (legal SLMs) - Already using"

- "Esteemed Digital (custom training) - Sales cycle"
- "Esteemed Ventures (financial SLMs) - Pilot phase"

anchor_customer:

- "DiligenceGPT (full stack validation)"
- "Case study development"
- "Reference customer program"

external_prospects:

- "5 enterprise POCs (Finance, Healthcare, Legal)"
- "SMB segment exploration"

revenue_target:

- q1: "\$325K (Esteemed ecosystem)"
- q2: "\$650K (Esteemed + DiligenceGPT)"
- q3_q4: "\$1.3M (external customers)"

weeks_21-24_optimization:

objective: "Improve performance & reduce costs"

initiatives:

performance:

- "Model quantization (int4 across all models)"
- "Inference optimization (target: <50ms p95)"
- "Batching & caching strategies"

cost:

- "GPU utilization optimization"
- "Auto-scaling based on demand"
- "Reserved instance planning"

quality:

- "Continuous model evaluation"
- "Feedback loop integration"
- "Model retraining automation"

targets:

- "50% cost reduction (vs. Week 8 baseline)"
- "2x throughput improvement"
- "95%+ customer satisfaction"

Year 1 Success Metrics

technical metrics:

```
catalog_size: "15+ domain SLMs in production"
performance:
  latency_p95: "< 200ms"
  throughput: "100 req/s per GPU"
  availability: "99.9%"

integration:
  dolphin_agents: "30+ agents using Blue Whale"
  porpoise_models: "10+ custom models trained"
  api_customers: "20+ external integrations"

business_metrics:
  revenue: "$1.3M ARR (Year 1)"
  customers:
    internal: "3 (Esteemed entities)"
    anchor: "1 (DiligenceGPT)"
    external: "5-10 (enterprises)"

usage:
  daily_requests: "1M+"
  monthly_active_users: "500+"
  models_deployed: "15+"

operational_metrics:
  team_size: "12 (from 4)"
  infrastructure_cost: "< $50K/month"
  gross_margin: "70%+"
  customer_churn: "< 5%"
```

Competitive Positioning

Market Landscape

DOMAIN-SPECIFIC AI MARKET MAP

GENERAL-PURPOSE LLMs (Not Direct Competitors)

- OpenAI (GPT-4o) - \$30/1M tokens
- Anthropic (Claude 4.5) - \$15/1M tokens

- Google (Gemini Pro) - \$7/1M tokens
- Meta (Llama 3.3 405B) - Self-hosted

EMERGING DOMAIN SLM PLAYERS (Competitors)

- Cohere for AI (Custom models) - \$\$\$
- Hugging Face (Model hosting) - \$\$
- Together AI (Inference) - \$\$
- Replicate (Model deployment) - \$

CETACEAN BLUE WHALE (Our Position)

- Pre-built domain SLMs (15+ models) ✓
- Custom training pipeline (Porpoise) ✓
- Integrated agent framework (Dolphin) ✓
- Multi-level intelligence injection ✓
- Pricing: \$0.10-0.50/1M tokens ✓

Differentiation Matrix

Capability	OpenAI	Cohere	HuggingFace	Blue Whale
Domain Specialization	✗ General	✓ Custom	⚠ DIY	✓ Pre-built
Training Pipeline	✗	✓	⚠ Complex	✓ Porpoise
Agent Integration	✗	✗	✗	✓ Dolphin
Multi-Cloud	✗	✗	⚠ Limited	✓ Native
Data Privacy	✗ External	⚠ Hybrid	✓ Self-host	✓ On-prem option
Cost	\$	\$	\$ (DIY)	\$
Time to Production	Immediate	Weeks	Months	Days
Support & Managed Services	✓	✓	✗	✓

Competitive Advantages

- 1. Integrated Ecosystem:** Only solution combining SLM library + training

pipeline + agent framework

2. Validated by Production: DiligenceGPT proves real-world viability from day one

3. Multi-Level Injection: Intelligence at Platform/Agent/Application levels

4. Rapid Deployment: Days to production vs. weeks/months for competitors

5. Cost Structure: 10-100x cheaper than general LLMs for domain tasks

6. Esteemed Ecosystem: Built-in customer base and revenue from day one

Deep Dive References

Technical Specifications

- [Oceanic Platform Technical Specification v2.1](#)

- Complete platform architecture
- Dolphin, Porpoise, Blue Whale detailed specs
- Infrastructure, security, compliance
- 5-year product roadmap

- [Oceanic Platform Technical Specification v2.0](#)

- Previous iteration with foundational architecture
- Performance benchmarks and scaling limits
- Integration specifications

- [Oceanic Platform Technical Specification v1.0](#)

- Original vision and architecture
- DevPanel partnership rationale
- Initial product suite definitions

Business Documentation

- [Cetacean Platform Product Roadmap](#)

- 2026-2030 product release strategy
- Market positioning and TAM analysis
- Revenue projections and customer segments

- [Cetacean Executive Summary](#)

- Investment thesis and fundraising materials
- Team, technology, and traction
- Financial projections

Intelligence System

- [Orca Intelligence README](#)

- SAFLA, Ruv-FANN, Goalie specifications
- Enterprise intelligence use cases

- Integration with Blue Whale SLMs

Strategic Context

- **Golden Path Analysis**

- Sub-2-minute deployment validation
- Infrastructure automation patterns
- Competitive advantage documentation

Investment Highlights

Why Blue Whale Matters for Fundraising

1. Clear Path to Revenue

- \$1.3M ARR from Esteemed ecosystem (Year 1)
- DiligenceGPT as anchor customer validation
- Proven 10-100x cost advantage vs. general LLMs

2. Defensible Technology

- 5-8 patent applications (agent orchestration, SLM training, multi-cloud optimization)
- Proprietary Porpoise training pipeline
- Integrated Dolphin agent framework

3. Large Addressable Market

- \$10-14 trillion autonomous economy opportunity
- Blue Whale positions Cetacean as infrastructure backbone
- Vertical expansion: Finance → Healthcare → Legal → Energy → Space

4. Rapid Time-to-Market

- Fork existing Esteemed Agents (5+ years of development)
- 6-week implementation timeline
- Production-validated from day one

5. Capital Efficient Growth

- Licensing model within Esteemed ecosystem
- Channel partner approach for external scaling
- Managed services create recurring revenue

Funding Requirements

Seed Round: 5M for 771.4M post-money)

Use of Funds:

- **\$2M** - Engineering team expansion (12 → 25 people)
- **\$1.5M** - Infrastructure & model training costs
- **\$1M** - Sales & marketing (enterprise customer acquisition)
- **\$500K** - Legal (patents, contracts, compliance)

Milestones:

- Month 6: \$650K ARR, DiligenceGPT case study
 - Month 12: \$1.3M ARR, 5-10 external customers
 - Month 18: \$3M ARR, 20+ external customers
 - Month 24: \$7M ARR, Series A positioning
-

Conclusion

Blue Whale represents the **intelligence layer of the autonomous economy** - a curated library of domain-specific SLMs that make AI both affordable and effective for real-world enterprise use cases. By integrating tightly with Porpoise (training) and Dolphin (agents), Blue Whale creates a comprehensive intelligence ecosystem that no competitor can match.

Next Steps

Immediate Actions (Week 1):

1. Executive alignment on Phase 1 roadmap
2. Finalize Porpoise → Blue Whale integration architecture
3. Begin customer discovery for external expansion
4. Initiate patent filing process

Near-Term Priorities (Weeks 2-8):

1. Fork Esteemed Agents → Oceanic Platform
2. Build Blue Whale marketplace UI
3. Onboard DiligenceGPT as anchor customer
4. Expand catalog to 10+ domain SLMs

Strategic Objectives (Months 3-12):

1. Achieve \$1.3M ARR from combined sources
 2. Generate 3-5 enterprise case studies
 3. File 5-8 patent applications
 4. Position for Series A fundraising
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Document

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