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2025

SUPER HACK

SUPEROPS

Building the Future of Agentic AI For IT Management

Team Name :Vipers

Team Leader Name : Sanjay Chari

Problem Statement :Service efficiency improvement for MSPs and IT Teams

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Suite: AWS RMM Dashboard + Alert Intelligence Platform

Notes :We reduce alert noise, accelerate resolution, and prove impact with a combined offering of two products an AI powered RMM dashboard and an MSP-grade alert intelligence platform. This submission combines two different offerings /slide decks .

Prototype Overview:

AWS AI-driven Remote Monitoring & Management(RMM) dashboard providing a centralized view of Bedrock Agents, incidents, servers, and analytics. It showcases autonomous workflows with explainable actions, emphasizing reductions in Mean Time to Repair (MTTR), cost savings, and increased automation rates.

- **How different is it from any of the other existing ideas?**

Unlike static RMMs, this is an agent-first, action-oriented dashboard with explainability and cost-aware automation.

Traditional RMM	Our AI Agent Solution
❌ Reactive monitoring	✅ **Proactive AI prediction**
❌ Manual incident response	✅ **Autonomous resolution**
❌ Single-point monitoring	✅ **Multi-agent orchestration**
❌ 3+ hour MTTR	✅ **Significantly reduced MTTR**
❌ Rule-based alerts	✅ **Context-aware reasoning**
❌ Human dependency	✅ **Self-healing systems**

- How will it be able to solve the problem?

- Reduces MTTR via autonomous incident workflows.
- Predictive maintenance to prevent outages.
- Consistent, policy-aligned responses at scale.

- USP of the proposed solution

Autonomous Agent Orchestra

- 5 specialized AI agents working in harmony
- Real-time decision making without human intervention
- Context-aware reasoning using Amazon Bedrock

Cognitive Operations

- Learns from every incident to improve responses
- Adapts to environment changes automatically
- Predicts failures before they impact business

List of features offered by the solution
Key Features

Agent Ecosystem

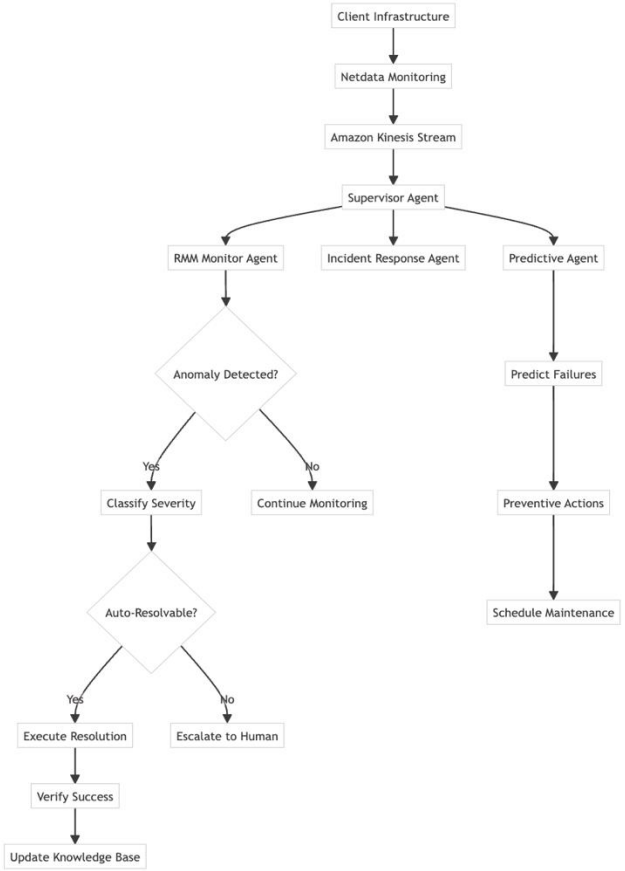
- Supervisor Agent - Orchestrates multi-agent workflows
- RMM Monitor Agent - Real-time infrastructure surveillance
- Incident Response Agent - Autonomous problem resolution
- Predictive Maintenance Agent - Failure prediction & prevention
- Client Management Agent - Multi-tenant resource optimization

List of features offered by the solution (cont'd)
Key Features

Advanced Capabilities

- Real-time Anomaly Detection using ML models
- Automated Root Cause Analysis with reasoning chains
- Intelligent Escalation based on complexity assessment
- Self-Healing Scripts for common infrastructure issues
- Predictive Analytics for capacity planning

Process flow diagram



Use Case & Actor Interactions of the proposed solution

Primary Actors:
IT Administrator - Configuration & oversight
End Users - Service consumers
AI Agents - Autonomous operators
External Systems - Infrastructure components

Core Use Cases:

Autonomous Incident Management
1. Monitor Agent detects anomaly
2. Supervisor Agent classifies severity
3. Incident Agent executes resolution
4. System notifies stakeholders

Use Case & Actor Interactions of the proposed solution
Primary Actors:
IT Administrator - Configuration & oversight
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Core Use Cases:

Predictive Maintenance
1. Predictive Agent analyzes trends
2. System forecasts potential failures
3. Maintenance Agent schedules actions
4. IT Admin receives recommendations

Use Case & Actor Interactions of the proposed solution
Primary Actors:
IT Administrator - Configuration & oversight
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Core Use Cases:

Multi-Client Operations

1. Client Agent monitors tenant resources
2. System isolates tenant data
3. Billing Agent tracks usage
4. Dashboard provides client insights

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Wire-

frame

:

https://deft-vacherin-809e6c.netlify.app/servers/

Relaunch to update

AWS RMM
AI-Powered

- Overview
- Servers
- AI Agents
- Incidents
- Analytics
- Settings

AI Agents Active
5 agents monitoring • 247 metrics

Server Infrastructure

Monitor and manage your server fleet with AI-powered insights

Total Servers	Healthy	Alerts
5	3	5

Production Web Server — healthy
10.0.1.100
Uptime: 99.8% — US-East-1

CPU	45%
Memory	62%
Disk	78%

Good
Last seen: 2 minutes ago

Database Primary — healthy
10.0.1.101
Uptime: 99.9% — US-East-1

CPU	72%
Memory	84%
Disk	45%

Excellent
Last seen: 1 minute ago

API Gateway — warning
10.0.1.102
Uptime: 98.5% — US-West-2

CPU	89%
Memory	91%
Disk	65%

Good — 2 alerts
Last seen: 30 seconds ago

Cache Server — healthy
10.0.1.103
Uptime: 99.7% — EU-West-1

Backup Server — offline
10.0.1.104
Uptime: 95.2% — US-Central

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Wire

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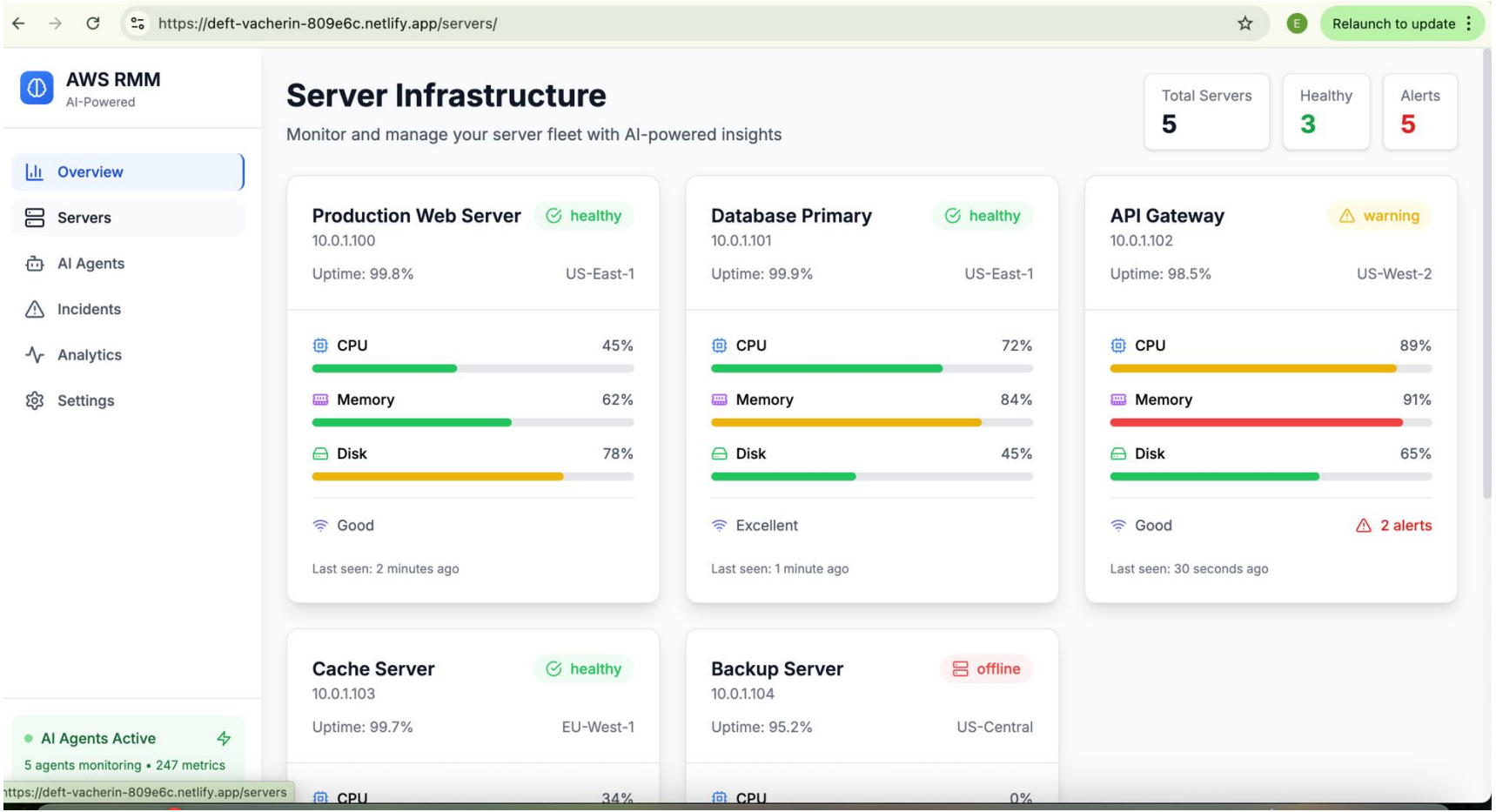

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https://deft-vacherin-809e6c.netlify.app/agents/

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https://deft-vacherin-809e6c.netlify.app/servers

AI Agent Network

Monitor and manage your autonomous AI agents powered by Amazon Bedrock

Active Agents: 3

Total Tasks: 14

Supervisor Agent

active

Orchestration • Claude 3.5 Sonnet

Coordinates and manages all RMM AI agents for optimal system performance

1,247 Tasks Completed

2.3s Avg Response

98.5% Success Rate

3 Current Tasks

Capabilities

Multi-agent coordination | Priority management | Escalation handling

Last activity: 30 seconds ago

RMM Monitor Agent

active

Monitoring • Claude 3.5 Haiku

Real-time system monitoring with predictive analytics and anomaly detection

2,843 Tasks Completed

1.1s Avg Response

99.2% Success Rate

8 Current Tasks

Capabilities

Real-time monitoring | Anomaly detection | Predictive analytics

Last activity: 15 seconds ago

Incident Response Agent

processing

Response • Claude 3.5 Sonnet

Autonomous incident detection, analysis, and resolution with minimal human intervention

Predictive Maintenance Agent

active

Prediction • Claude 3.5 Sonnet

Proactive maintenance scheduling and failure prediction using machine learning

Architecture diagram of the proposed solution

🖥️ CLIENT INTERFACES → 🤖 AI AGENTS → ☁️ AWS SERVICES → 📡 DATA LAYER → 🏗️ INFRASTRUCTURE

Supervisor Agent orchestrates:

```
├── RMM Monitor Agent      ├── Kinesis Streaming     ├── Netdata Agents
├── Incident Response      ├── TimeStream DB         ├── SNMP Collectors
├── Predictive Maint.      ├── Lambda Functions      ├── Custom APIs
├── Client Management      ├── S3 Storage            └── Log Aggregators
└── Escalation Manager     └── OpenSearch/CloudWatch
```

Technologies used in the working prototype (front-end):

Next.js 14 - React framework with App Router

TypeScript - Type-safe development

Tailwind CSS - Utility-first styling

Framer Motion - Smooth animations

Lucide React - Icon library

Technologies to be used in the solution:

Proposed Production (Future AWS Integration):

Amazon Bedrock AgentCore - Multi-agent orchestration

Amazon Q , Kiro - Intelligent processing, Coding

AWS Lambda, DynamoDB, S3 - Cloud infrastructure

SageMaker, Comprehend - Advanced AI/ML

Prototype Performance report/Benchmarking

Additional Details/Future Development (if any)

- Live Bedrock agent integration with explainability and guardrails.
- Multi-tenant orgs, RBAC, audit trails, policy packs.
- Real-time streams (WebSocket) for incident timelines and agent thoughts.
- Predictive models + feedback loops; post-incident learning library.
- Cost governance: per-action cost budget, anomaly alerts, savings reports.
- Ecosystem integrations: Slack, Jira, ServiceNow; webhooks.
- Mobile companion app and offline views.

Estimated implementation cost (optional):

Costs to be determined post-MVP based on measured usage. Focus will be to prioritize cost-efficient architecture and provide optimization recommendations; any scale-up changes will be done based on further discussions and approval.

GitHub & Demo video URL

Front end Prototype-current progress at:

https://deft-vacherin-809e6c.netlify.app/

Github:

https://github.com/ecogetaway/aws-rmm-dashboard2025

https://github.com/ecogetaway/kiro-amazonQ-superhack (Development Exploration)

Demo video URL

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THANK YOU