



AI-Powered Intelligent Incident Response For DevOps & Data Centers

From Madness to Method, From Chaos to Control

Our Team



Experienced leadership with 40+ total years in Enterprise Software & IT Operations

**Founder, CEO
& Head of R&D**



Julie Basu, PhD

Director of Engineering, Oracle
MS, PhD in Computer Science
(AI & Databases)



**Co-founder, COO
& Head of Product**



Rishi Mukhopadhyay

VC Analyst & Startup Corp Dev.
BS in Computer Science &
Business



VP of Customer Solutions



Terry Gallagher

Lead positions in IT Operations
& Crisis Management



Dev, Doc & QA



6 Person US Team
6 Person Offshore
Dev & QA Team (India)

AI/ML, Server, UI /UX

Recent Rise of Cloud & DevOps

- High Availability Requirements, Distributed Teams
- DevOps with Super-Agile deployments
- Common technology stacks (~ 50% repeat problems)

The Challenge

Complex, cross-functional problems

that are difficult and time-consuming to resolve by distributed teams

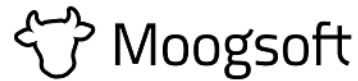
(Time = Money)

The Problem: Inefficient Incident Response

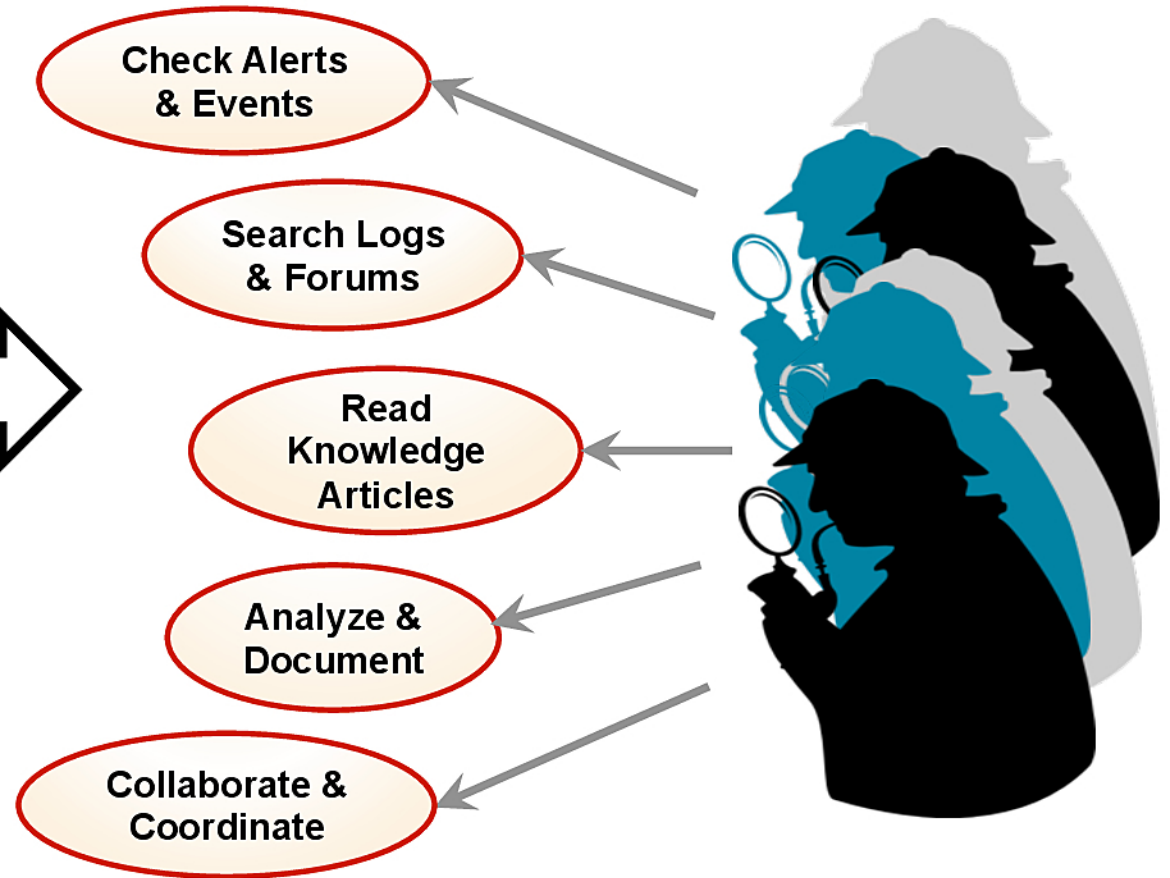
Data Gathering & Analytics (Collection & Detection)



Alerting & Logging (Issue Tracking)



Chaotic & Tedious Investigations (Incident Response)



- Infrastructure & Cloud Service Provider for 300+ customers
- Large IT operations team with time pressure from SLA Agreements

Major Pain Points

- 1) Manual Searching and Filtering of Results - **Tedious**
- 2) Ad-Hoc Problem Solving Methods – **Unclear status**
- 3) Fragmented Collaboration - **Inefficient handover**
- 4) Difficult to reuse Knowledge – **Write & read articles**



Revenue Loss due to SLA Violations & Loss of Reputation, Goodwill with Customers!

Use Case:

Complex Cross-Functional Problem, Distributed Teams



Problem Description:

- Users reported that company website was down displaying “500 Server Error”
- Four teams needed to collaborate in a P1 ‘War Room’
(Network Administrator, System Administrator, DBA , Web Developer on bridge)
- **Uncoordinated actions** taken by team members **failed** to resolve problem
- Finally, Network Administrator traced problem to firewall policies
- Resolution process was **inefficient** due to **lack of a collaboration framework** and **inability to audit** team actions

How smartQED can help:

IT Manager expressed smartQED’s **Methodical Cause Analysis tools** and **Audit Trail** would facilitate organized collaboration between teams and speed up problem resolution.

ROI: Reduced MTTR, Increased productivity & efficiency

smartQED Solution Architecture



Managers



Operators & SMEs



QED Solution Room

AI-Driven Resolution
Visual Cause Analysis
In-Context Collaboration

Self-Learning

Adapters & APIs for
Monitoring & Log Data,
Alerts & Anomalies

QED Case Base

Private & Crowdsourced
Problems with Context,
Symptoms & Solutions

Recommendation Engine
(AI & Machine Learning)

Community Forums &
Internal Knowledge Bases

Matching Cases

New Cases

Recommendations



Visual Workbench for Collaborative Cause Analysis



Self-Learning from User Actions with Solution & Cause Recommendations



Comprehensive, Crowdsourced Case Base with Ranked Similarity Matching

Solution Benefits

✓ **Team Collaboration**
In-context collaboration with
360° view of a problem

✓ **Knowledge Reuse**
Learn from SME actions and
reuse the knowledge

✓ **Easy Status Tracking**
Audit Trails, Reports &
Dashboards for IT managers

✓ **Reduced MTTR**
Mitigate revenue loss &
reputational damage



Company Status

- Incorporated in April 2016
- Beta Product Built & Deployed with **\$250K+** Founder's Capital
- FFL accelerator, with **\$300K+** AWS, Google & IBM Cloud credits
- Launching crowd funding campaign to raise first **\$100K** external capital
- Unanimous positive feedback from pipeline customers



Global Telecommunications
Executive

*“This product is a **brilliant** concept!
It solves the pain points of my IT Ops team.”*

Customer & Partner Traction



- **Paid Pilot** with global telecom & cloud service provider
 - **15K** revenue accrued, expect additional revenue
 - Potential Channel opportunity, expansion within other internal groups
- Under evaluation with multiple SMBs & large enterprises
- ITSM/ITOM Market Leader : *“This is a whitespace for us and smartQED would be a valuable and complementary App in terms of adding ML and suggested remediation to our ITSM and ITOM toolsets”.*

smartQED Uniqueness & IP



Core IP & Product Differentiators:

- ✓ **Visual, self-learning workbench** for in-context collaboration & cause analysis (Patenting)
- ✓ **Recommendation Engine** using problem Context & Symptoms (uses proprietary similarity matching algorithms)
- ✓ **Symptom extraction** from community forums (eg. Stackoverflow) using NLP & machine learning (to leverage community intelligence for cause & solution recommendations)
- ✓ **Open & extensible architecture with APIs** and OOB adapters for common tools like Splunk, New Relic, AppDynamics, ServiceNow ...

Market Size



Related Market Size

Gartner IT Ops Mgmt (ITOM)
market estimate:

\$21B with 7% growth

Methodology

- Gathered US Census Data on companies categorized by NAICS code
- Segmented companies by size and applicable industries
- Applied average ASP assumptions based on company sizes

Go To Market



- **Channel:** Cloud & IT Service Providers
- **Direct/Online Sales :** Enterprises & SMBs with large IT footprints
- **Partner:** Integrate & co-sell with complementary products
- **Ideal Customer Profile:**
 - Sizable Ops Team distributed globally (20+ people)
 - Business Critical Applications
 - Following ITIL Processes
 - Prefer Splunk and/or ServiceNow Customers

Business Model

Cloud



User Based SaaS Subscription

On-Premise



Annual User Based License

- 30 day Free Trial
- Discounts for QED Case Base contribution
- Usage limit on problem matching by package

List Pricing



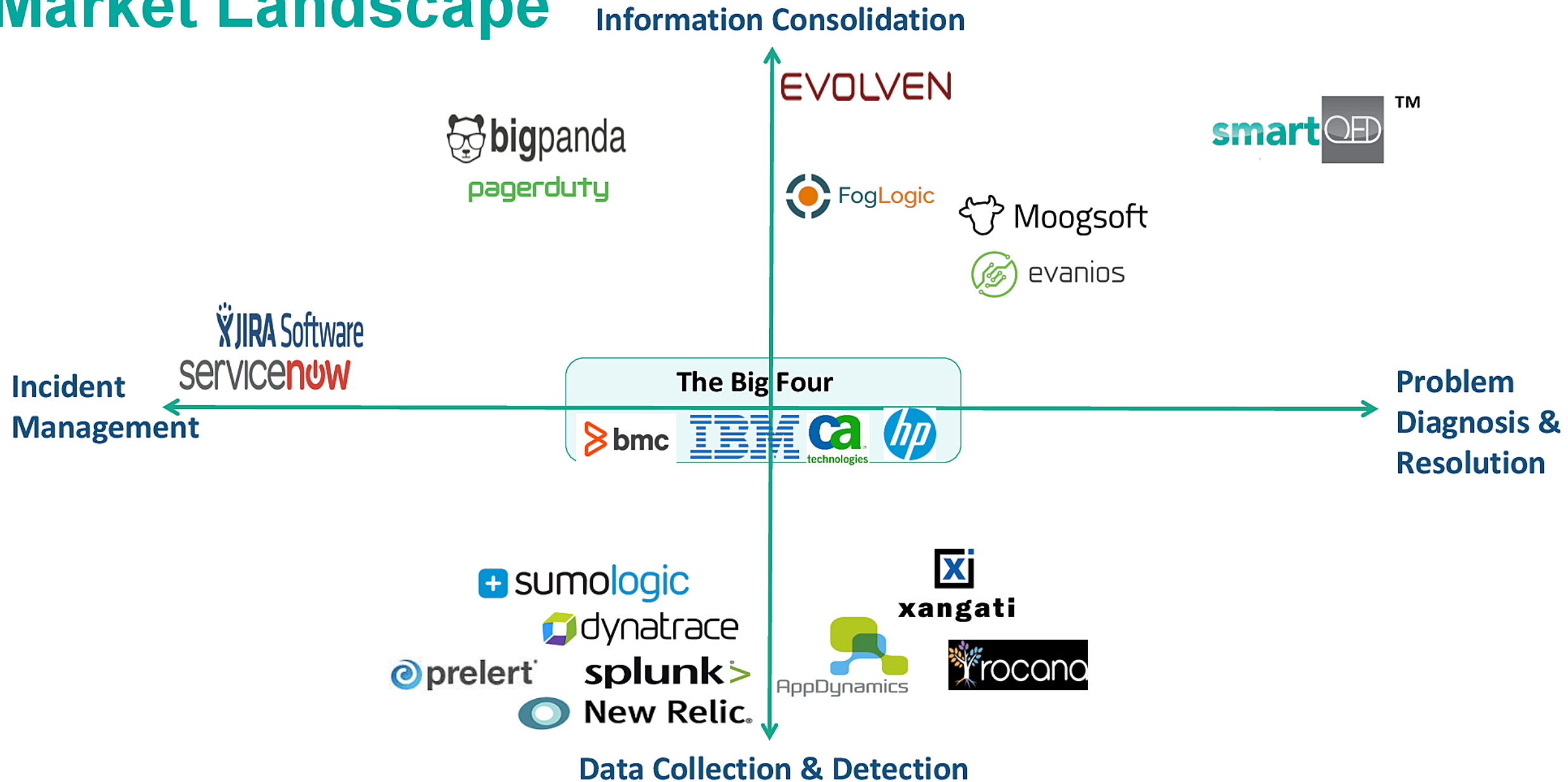
Cloud Pricing				
Type	Bronze	Silver	Gold	Platinum
Package	1-50 Users	51-100 Users	101-200 Users	201+ Users
Price	\$35/Mo./User	\$30/Mo./User	\$25/Mo./User	Custom (Call Us)
Support Included!				

On-Premise Pricing				
Type	Bronze	Silver	Gold	Platinum
Package	1-50 Users	51-100 Users	101-200 Users	201+ Users
Price	\$24,000 Annual License	\$42,000 Annual License	\$72,000 Annual License	Custom (Call Us)
Support (18%)	\$4,320 /Yr.	\$7,560/Yr.	\$12,960 /Yr.	

30 Day Free Trial (Cloud Only)

Discounts for QED Case Base Contribution

Market Landscape



Competitive Analysis

Features	smartQED	Moogsoft	evanios	FogLogic	EVOLVEN
Case Based Matching & Recommendations	✓	✓	✓	✗	✗
Crowdsourced Knowledge Sharing	✓	✗	✗	✗	✗
Visually Aided Root Cause Analysis	✓	✗	✗	✗	○
Collaborative Investigations	✓	✓	✗	✓	✗
Operator / SME Machine Learning	✓	✗	✓	✗	✗
Closure Report & Audit Trail	✓	✗	✗	✗	✗
Alert/ Monitoring Info Consolidation	✗	✓	✓	✓	✓
Monitoring Data Collection & Analytics	✗	✗	✓	✓	✗

This information compiled as of Dec. 2017 based on publicly available information. Product features may have changed since then.

Milestones & Budget



Quarter	Q4 2017	Q1 2018	Q2 2018	Q3 2018
Milestones	<ul style="list-style-type: none"> ✓ Complete smartQED Integration w/ Telco. Client & Deploy ✓ Recommendation Engine Alpha 	<ul style="list-style-type: none"> ✓ Take Collaborative Toolset to Production ✓ Close 2 more Pilot Customers ✓ File Provisional Patents 	<ul style="list-style-type: none"> ✓ 5 Active Customers ✓ Take smartQED Recommendation Engine to Beta ✓ Release ServiceNow & Splunk Apps 	<ul style="list-style-type: none"> ✓ 10 Active Customers ✓ Partner with channel providers ✓ Launch Public Online “Freemium”

Product Roadmap



- Nov 2017 - Collaborative Visual Workbench Beta 2, Alpha Recommendation Engine (Delivered)
- Feb 2018 - Collaborative Visual Workbench Production (SaaS, OnPrem)
- March 2018 - Splunk Add- On
- April 2018 – Standalone Recommendation Engine Beta 1
- Jun 2018 – ServiceNow Application
- August 2018 - Online “Freemium” and Free Trials
- Sept 2018 – Standalone Recommendation Engine Beta 2
- December 2018 – Full Production with Integrated Recommendation Engine

Use of Funds

- Use Of Funds
 - ✓ Sales Team with enterprise experience
 - ✓ Full Time Development Team
 - ✓ Customer deployments & support

Our Advisors

Seasoned Business Executive



S. Sundi Sundaresh

- President & CEO at Xangati sold to Virtual Instruments
- President & CEO at Adaptec sold to PMC-Sierra
- Board member: GridGain, Sureline, Sandforce



Pioneering Venture Capitalist



Sriram Viswanathan

- Founder of IndusAge Partners, Board Director of 5+ Venture Backed Companies
- Former Founder, VP & GM of Intel Capital: Led multi-billion dollar corporate investments and M&A deals



Business Strategy Leader



Mahesh Kothurkar

- Enables startups to gain traction in Silicon Valley & India
- Former GM- Tata Comm. Growth Ventures & Head of Global Excellence



Sales Leader



Talha Hussein

- Prior head of sales at Neptune.io
- Closed first 20 customers, 5 lighthouse wins for Neptune
- Increased revenue 40% monthly.





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