Achieve The Impossible

Deliver the Right Information, to the Right People, on the Right Device at the Speed of Relevance



edgeTI™

Real-time Operational Energy Situational Awareness and Energy Informed Planning (RESAP)

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The Problem We are Solving

- 99% of data needed to make energy informed decisions is currently available to the DOD, but not easily accessible.
- Legacy solutions require combining data in new data warehouses and/or lakes repositories to break down data silos - taking longer to implement than originally estimated.
- Data lakes become stale over time. A secure data mesh is always current.
- CJADC2 needs persistent status of critical logistics factors tailored to the mission commander, not a contract programmer.
- DOD needs an agile platform to transform raw data stored in multiple siloed systems into actionable information with sensitivity analysis for immediate commander assessments.
- Commanders need to be able to refine their platforms in a matter of hours, or days, at a fraction of the cost of larger data warehouses/lakes to meet mission priorities

Where You Can Benefit and Help

- **Share Your Experience** - How you are currently managing and collecting data for operational energy activities?
- **Give us Your Needs** - What would drive faster situational awareness and actionability for your organization? What data streams are important to you?
- **Let us Wow You** - With rapid reconfigurations based upon your input to drive meaningful SA to support warfighters from commanders down to the tactical maneuver level.
- **Tell us How to Make it Better** - Feedback on the dashboards we build.
- **Deepen the Idea Pool** - Introductions to additional members of the operational energy community.
- **Make Our Work Essential to the Warfighter** – Ideas to provide optimal information to streamline real-time joint operational energy situational awareness

This Development Study is currently funded through an OECIF grant.

We need your input to make it more valuable for the warfighter.

JOIN the Community: https://edgeti.com/operational-energy-community/

Challenge – Energy Situational Awareness

Warfighter/Operator Overload…..A Single Point of Control

Too much information

Too many formats

Siloed operations

Embedded complexity

Structured workflow

Visual consistency

Unified operations

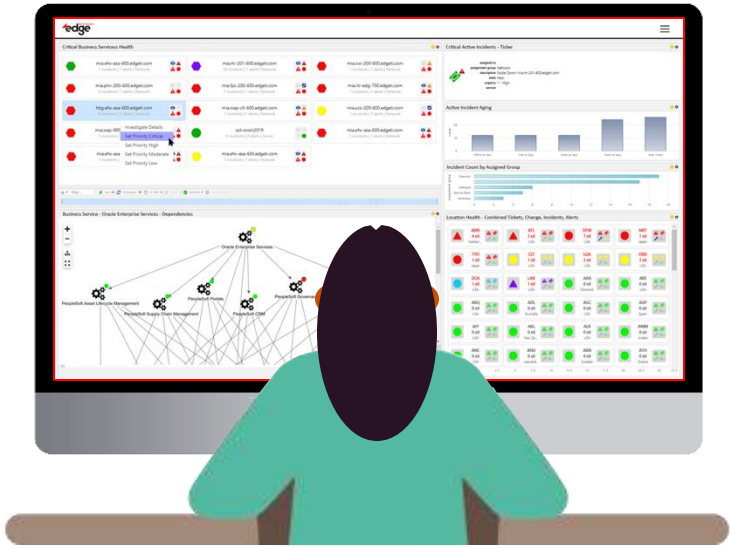
Abstracted access

Missed insights, uninformed decisions, delayed action >>> Complete Situational Awareness, fast decisions, decisive actions



Existing Solutions Can’t Address the Challenges

This is Difficult to Evolve and Govern the speed of relevance



A Digital Twin Brings Objectivity and Intelligence Together

Extensible, Transparent and in line with the CJADC2 vision

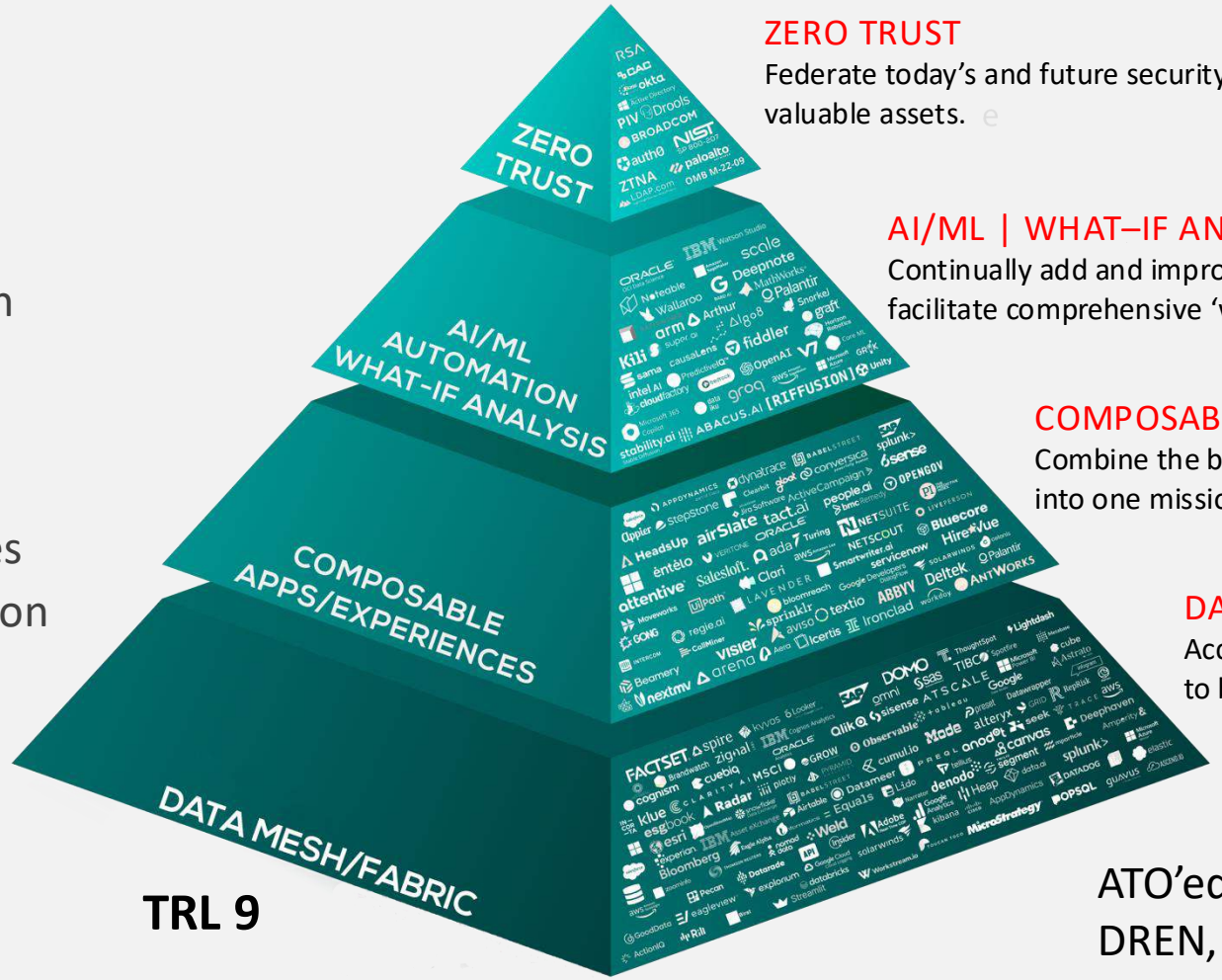
Technical Solution: *Digital Twin of the Enterprise*

Secure operational dashboards, configured in hours or days, to meet your mission scenario.

edgeCore delivers:

- Data as a Product
- AI/ML Orchestration
- Comprehensive Single Sign-On
- No new persistent data store
- Secure data integrations
- Controlled dashboard proxies
- Convergence of user interfaces
- Real-time access and interaction
- Integrate any applications
- Proven at scale worldwide

AT A FRACTION OF THE COST OF CURRENT SYSTEMS



TRL 9

ZERO TRUST
Federate today's and future security paradigms to protect your most valuable assets.

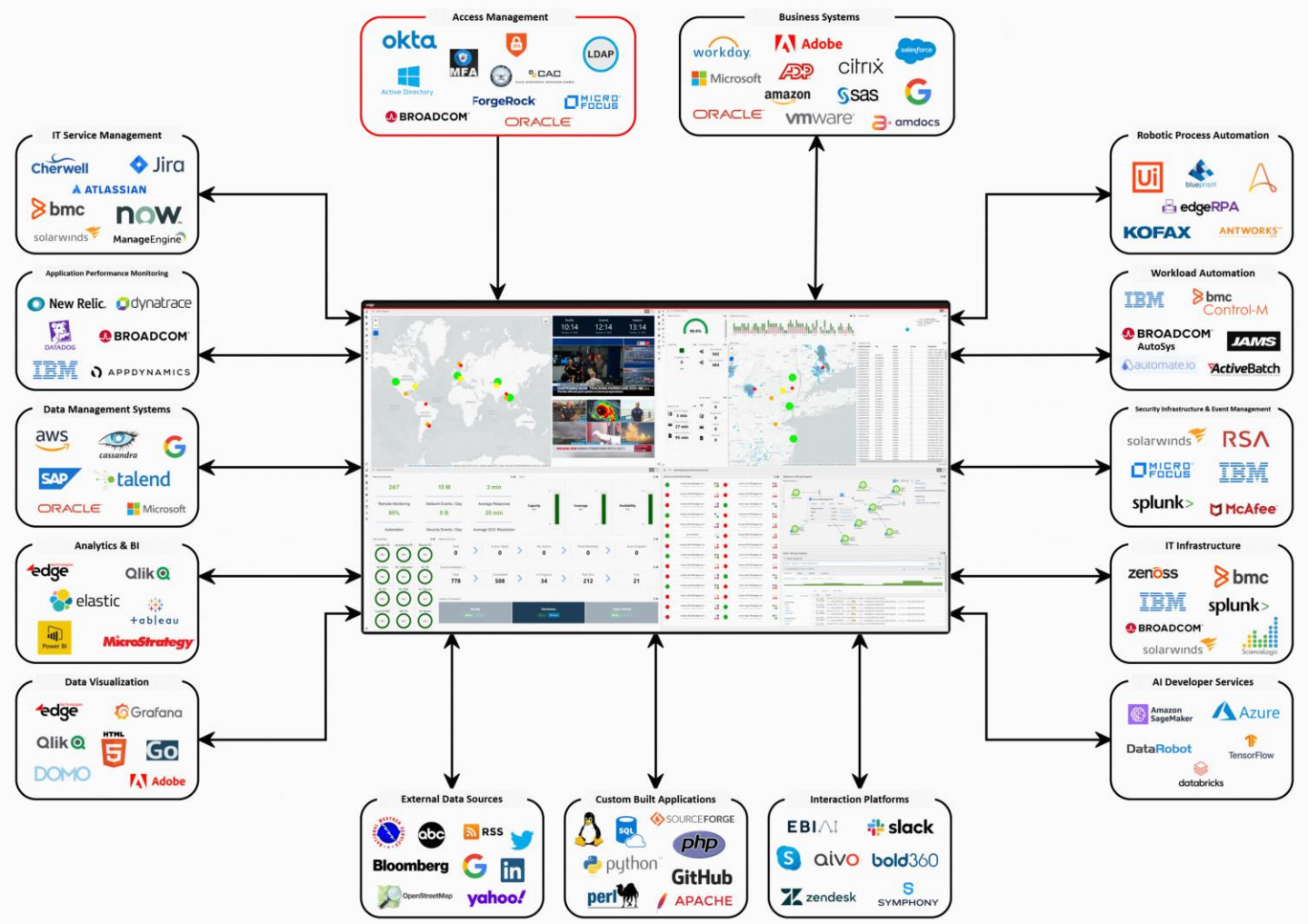
AI/ML | WHAT–IF ANALYSIS | AUTOMATION
Continually add and improve existing processes and solutions to facilitate comprehensive 'what-if' analysis.

COMPOSABLE APPS & EXPERIENCES
Combine the best capabilities of your existing solutions into one mission-focused experience.

DATA MESH & DATA FABRICS
Access data where it lives. Stop moving data to break down silos.

ATO'ed on NIPR, SIPR, JWICS, DREN, VA and DOE networks

Technical Solution: Proven Data Mesh Platform



- Software solution
- Hosted in any environment
- On-premise and/or in cloud

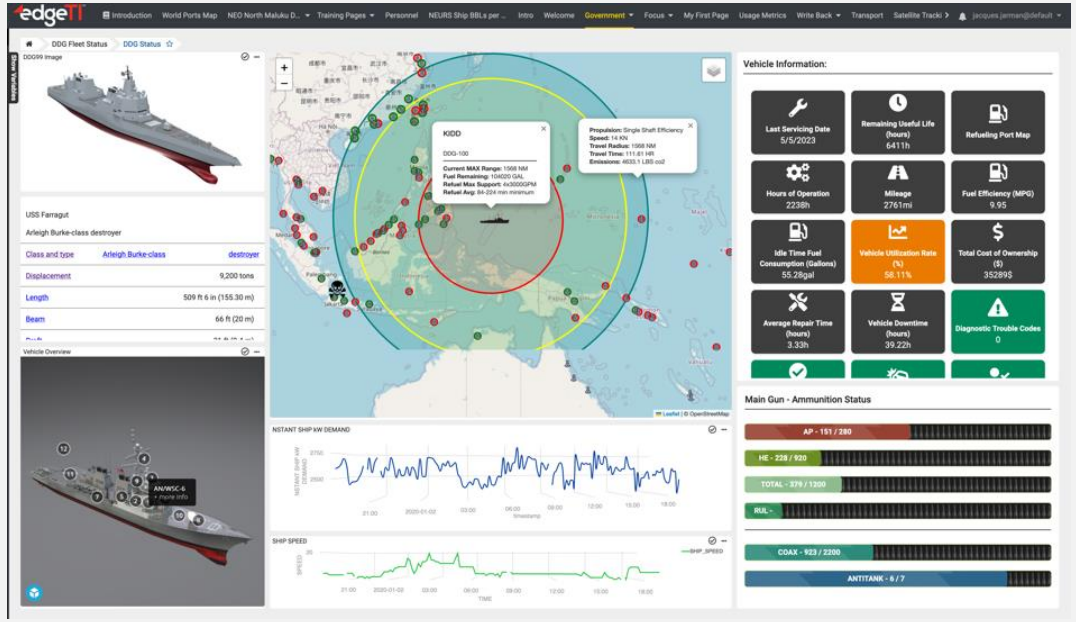
- No agents or collectors
- No changes to client systems
- No persistent data storage

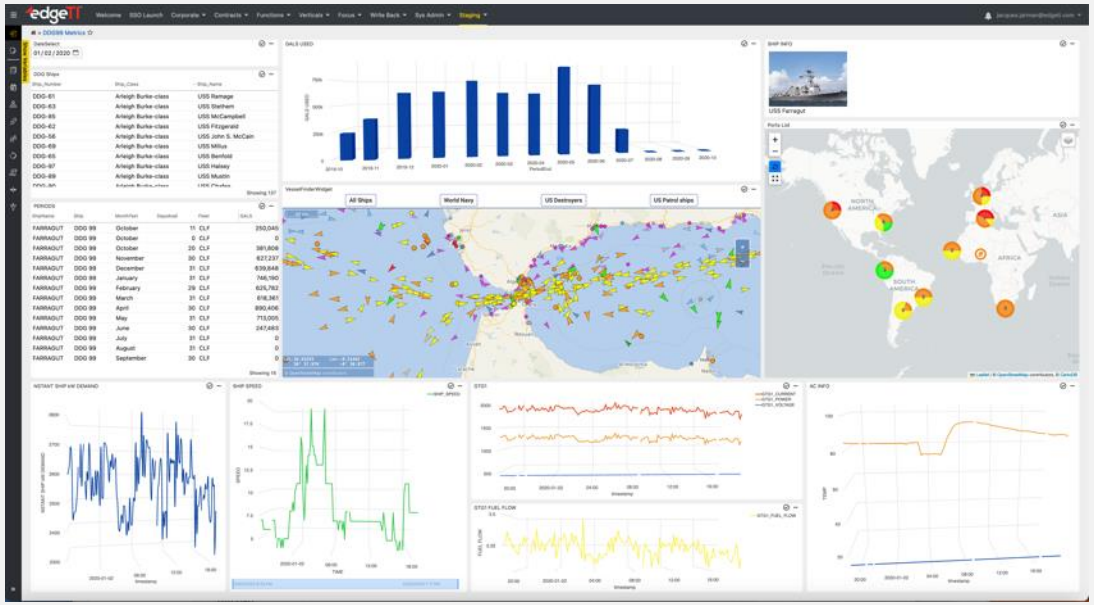
- Flexible adapters
  - Smart APIs / modern tools
  - Legacy tools / systems
  - DBs, files, spreadsheets

- RBAC SSO to existing dashboards

TRL 9 and ATO'ed on NIPR, SIPR, JWICS, DREN, VA and DOE networks

Dashboard Examples



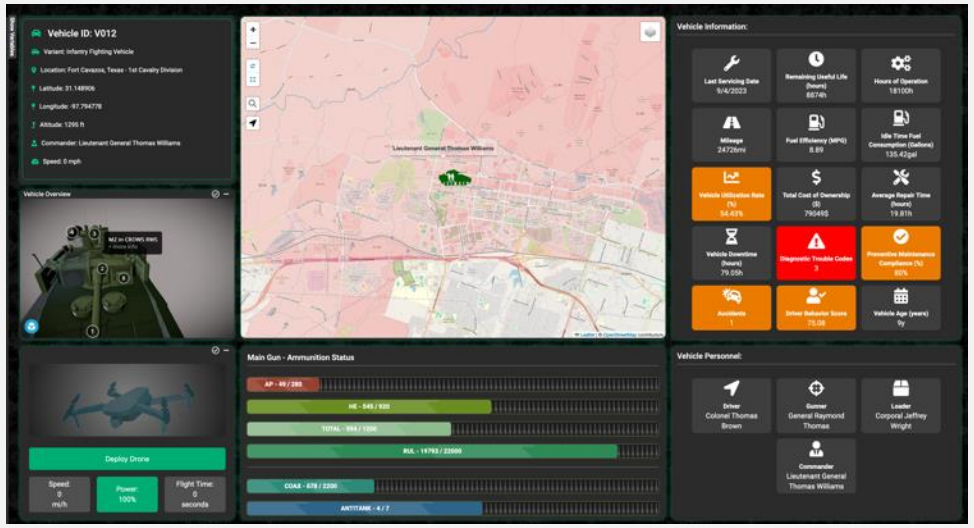


The So What: Our efforts will enhance the quality of Joint planning and improve energy resilience in contested operating environments.

Result: Commanders have adaptive awareness and decision-making ability to incorporate real time status into mission planning and operational decisions to support warfighting objectives and goals.

Additional Use Cases

Performance Use Case: XM – 30 Digital Twin

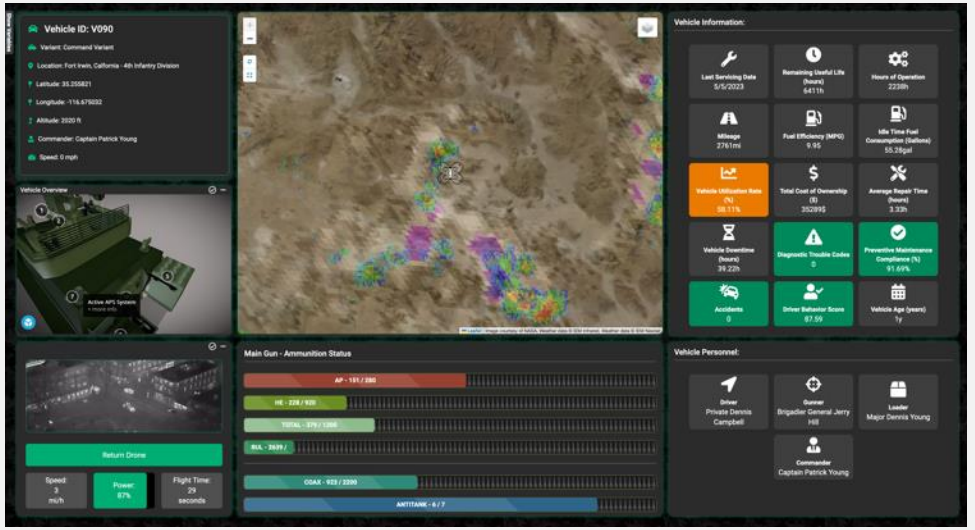


What Matters:

- *Readiness status of vehicle*
- *Tactical operational capabilities - Impacts to the unit mission*
- *Coordination of maintenance to optimize vehicle availability*

How it's done today:

- Sparce tracking of vehicle health and combat power
- Manual reassignment of tactical tasks based on impact to mission
- Inconsistent receipt and prioritization of work orders
- Labored coordination of parts and technicians to service the vehicle



How it's done with Digital Twin:

- Automated notification of affected resources (e.g., vehicle, personnel) and down/degraded vehicles
- Notification of impacts to mission
- Automated scheduling and parts ordering
- Automated recommendations to adjust to change in combat power/order of battle

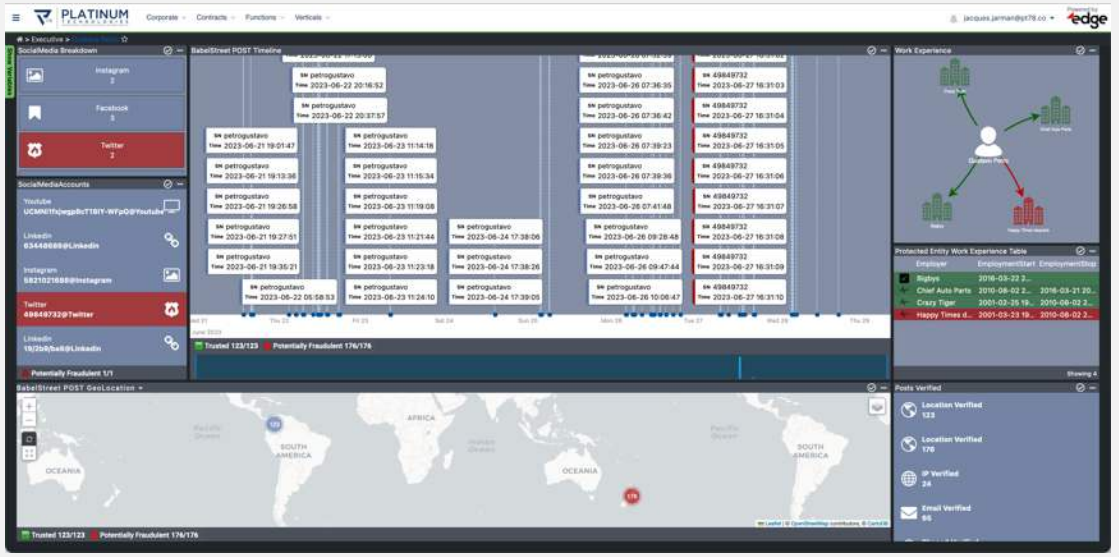
Performance Use Case: Intelligence Assessment

Identifying and remediating Social Media Threats

- Real-time Social Media insights from Babel Street
- HR and organizational system integration
- Mission data
- Enterprise Cyber management integration







Performance Use Case: NSWC NCTE Corona

- NSWC NCTE Corona required a Minimum Viable Product (MVP) to support resource scheduling application for events, maintenance, active/idle, DISA outages, installs, software deployments, patching, all enclaves, and web accessible.
- Their systems are too complex and dynamic to manage coordination of events and understand planned and unplanned system and maintenance outages manually.
- Fleet stakeholders need real-time understanding of service availabilities and minimization of service disruptions.
- edgeCore was used to delivered this capability in the form of actionable dashboards in less than 10 days.

