CLEARBLADE

We Connect the Things.

ClearBlade IoT Platform Overview

BUILD A BETTER INTERNET OF THINGS

ClearBlade's IoT technologies are reliable, scalable, fast, and secure. Upgrade today, outperform tomorrow, all while cutting costs.

ABOUT CLEARBLADE

ClearBlade is the Edge Computing software company enabling enterprises to rapidly engineer and run secure, real-time, scalable IoT applications.

ClearBlade was built for the enterprise from the ground up to run securely in any cloud, on-premise and at the edge. ClearBlade enables companies to ingest, analyze, adapt and act on any data in real-time and at extreme scale. Unleash your data at the edge by leveraging local compute, artificial intelligence and actionable visualizations while integrating with any enterprise system - all from a single platform.

The industry leading ClearBlade Edge delivers the full power of the ClearBlade Platform directly to devices and gateways. The ClearBlade Edge runs autonomously - independent of network connectivity - ensuring resiliency and security. ClearBlade's patented communications-agnostic Auto Sync technology guarantees your environment is always up-to-date.

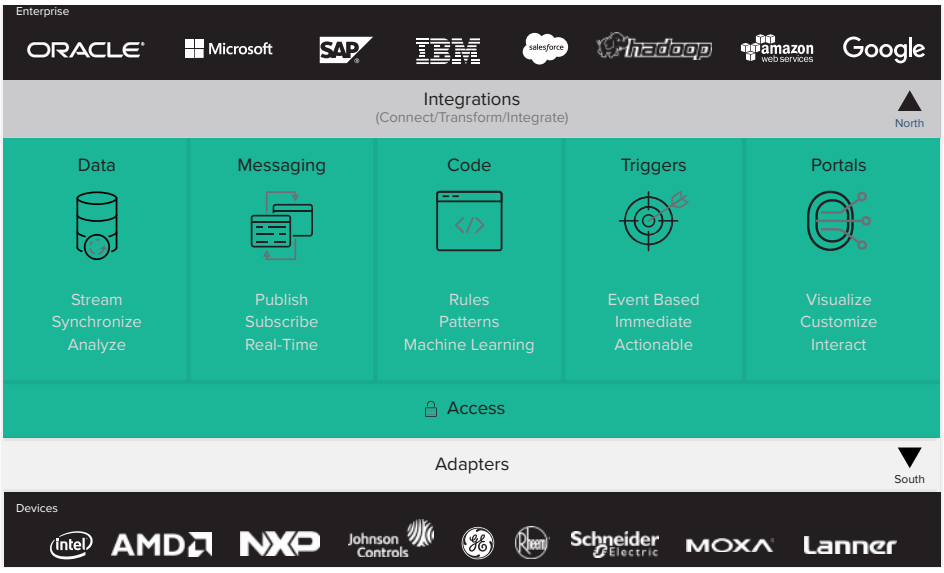
ClearBlade is fully extensible with a suite of proven components and integrations to deliver solutions quickly and at scale. ClearBlade empowers you to focus on business results and outcomes. Providing a consistent platform across Edge, cloud and on-premise environments, ClearBlade runs everywhere and connects everything.

ClearBlade is headquartered in Austin, TX. For more information about the company and our software, please visit https://clearblade.com/.

FEATURES

ClearBlade provides the following features:

- Consistent platform across Cloud, On-Premise, and Edge environments
- Industrial Device Integration
- Industry leading security practices
- Auto Sync + State Management
- Offline Continuity
- Business Rules & Events
- Messaging
- Future-proof products, solutions, and features
- Scalability on any cloud, hybrid or on-premise infrastructure
- Full solution and device life-cycle management
- Fully open visualizations



USE CASES

CONNECTED PRODUCTS
Digitize products, create new data-driven business models, and monetize delivered outcomes

SMART BUILDINGS & CITIES
Resource optimization via real-time data aggregation across disparate commercial building systems

ASSET TRACKING & INTELLIGENCE
Reduce labor costs, identify and improve equipment utilization, and optimize asset performance

REMOTE OIL-WELL MONITORING
Real time, remote monitoring of oil wells and equipment to improve operating efficiencies and reduce loss.

FREIGHT & LOGISTICS
Improve safety and management of transportation resources via secure, real-time status, location, and disposition of assets

SMART RAIL
Worker safety and alerting, wayside monitoring, asset tracking, and predictive maintenance via real-time positioning and monitoring

PREDICTIVE MAINTENANCE
Optimize maintenance schedules and costs based on real-time operations and historical metrics

MARITIME VESSEL MONITORING
Improve maritime safety and operational efficiencies by monitoring disparate ship systems in real time.

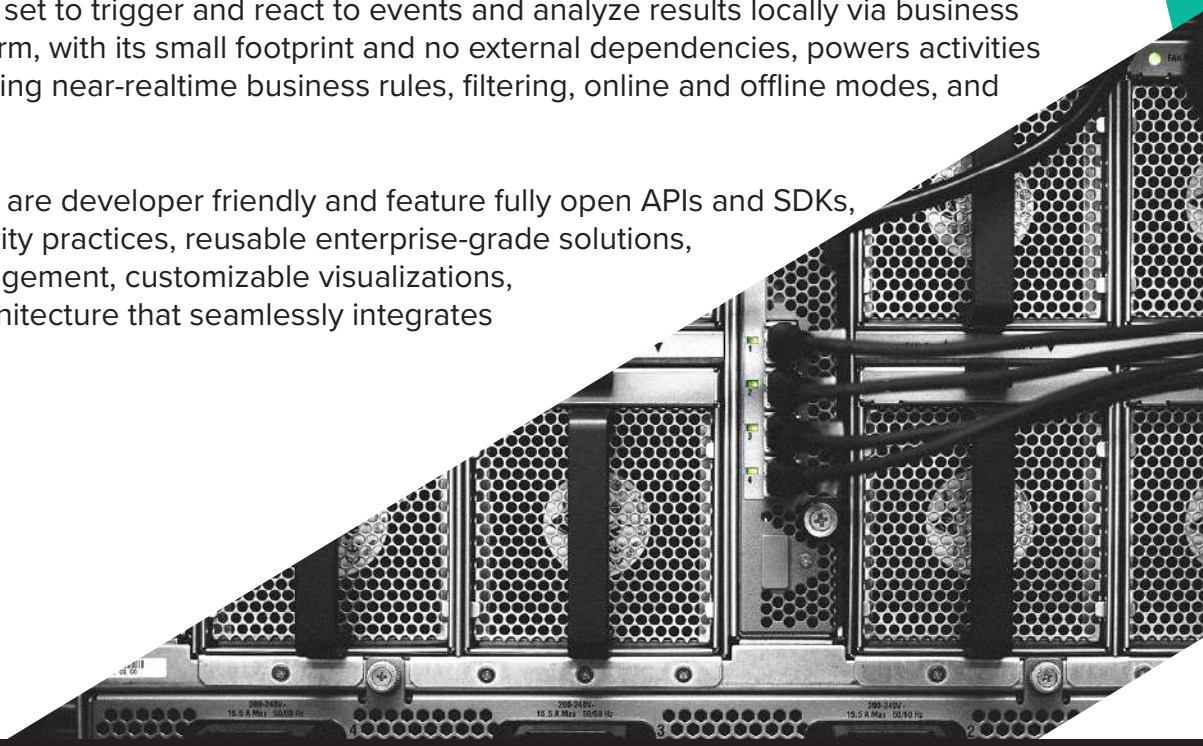
CLEARBLADE TECHNOLOGY & PLATFORM

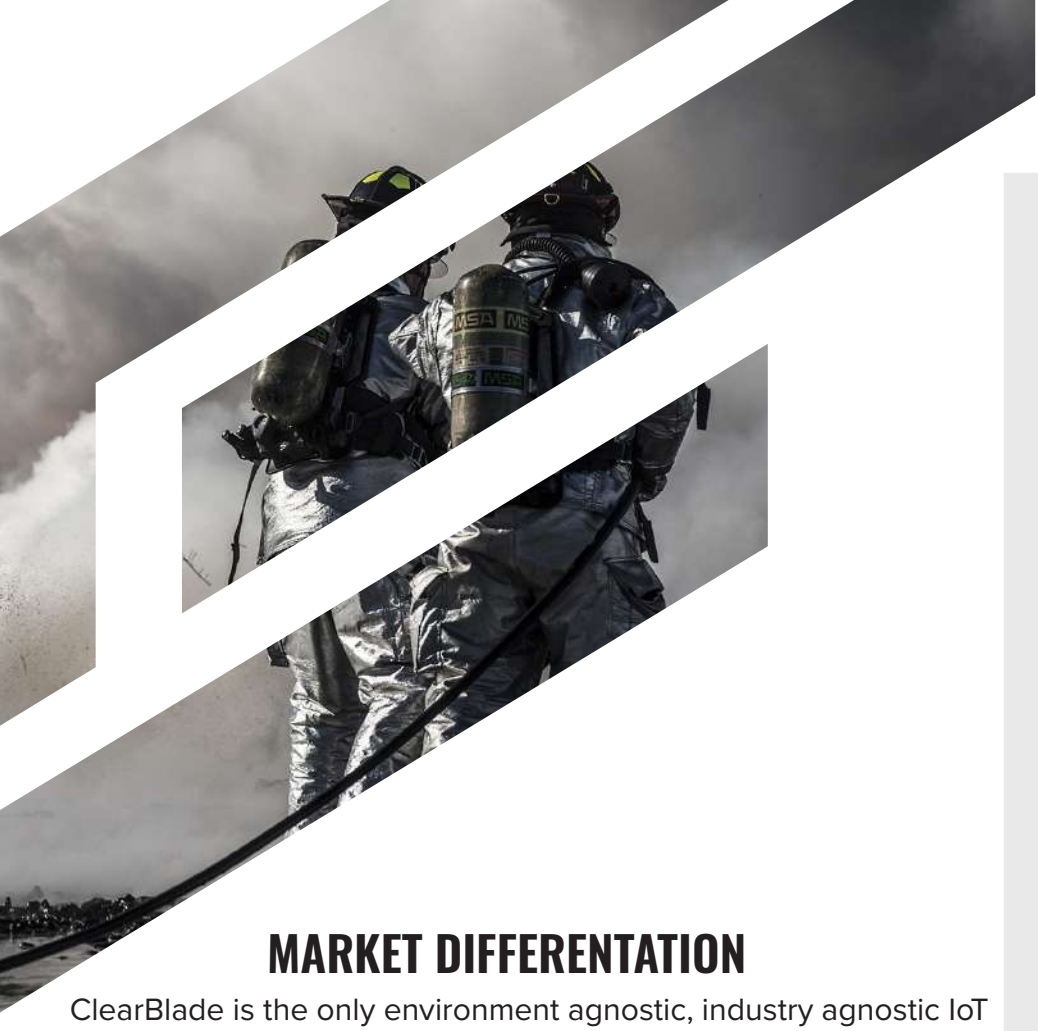
The Linux based ClearBlade Edge Platform runs autonomously, independent of network connectivity, helping to ensure resiliency and security. Data can be stored, modified, analyzed, managed, and routed at the edge. ClearBlade's trademarked, communications-agnostic Auto Sync technology guarantees environments are always up-to-date. The platform is fully extensible with a suite of proven components and integrations to deliver solutions quickly and at scale.

Connectivity is provided via MQTT, REST, and Sockets, along with prebuilt patterns for BLE, Zigbee, Thread, and more. Both user and device states are synced with IoT systems as devices go online and offline.

Business rules can be set to trigger and react to events and analyze results locally via business logic. The Edge Platform, with its small footprint and no external dependencies, powers activities at the IoT edge, including near-realtime business rules, filtering, online and offline modes, and messaging.

ClearBlade's products are developer friendly and feature fully open APIs and SDKs, industry-leading security practices, reusable enterprise-grade solutions, device life-cycle management, customizable visualizations, and a future-proof architecture that seamlessly integrates





MARKET DIFFERENTATION

ClearBlade is the only environment agnostic, industry agnostic IoT Platform engineered with Edge compute to connect everything.

Capability	ClearBlade	AWS + Greengrass	Losant	Foghorn	Litmus LoopEdge	Azure IoT + Edge	Hitachi Lumada	Software AG	PTC ThingWorx
EDGE									
Bare Metal Support	●	◔	○	●	●	○	◔	◔	○
Protocol Extensibility	●	◑	◔	◕	●	◑	◕	◕	●
Device Support	●	◑	◔	◕	●	◔	◑	◕	◔
Memory Footprint	●	◕	○	◑	◔	◑	◔	◔	◔
Synchronized Data Model	●	◑	◔	◑	◑	◔	◕	◔	○
Zero-touch Provisioning	●	●	○	◕	○	◕	◑	◕	○
FULL STACK									
Open Language and API	●	●	●	○	◕	◕	◕	◑	◔
BI Dashboards	●	◑	●	●	◕	◕	●	●	●
Command and Control UI	●	◔	◔	◑	◔	◔	◕	◑	◕
Developer Lifecycle CI	●	◔	◑	◔	◔	◑	◑	◔	◑
Streaming Analytics	●	●	●	◕	◕	●	◕	◕	◑
Microservice	●	●	◕	◑	◑	●	◑	◕	◔
Performance	●	◕	◑	◑	◑	◑	◔	◔	◔
Infinite Role Based Security	●	◑	◔	◑	◔	◑	◑	◕	◔
AI & Data Lake Integration	●	◑	◕	◕	◑	◑	◕	◕	◕
PLATFORM									
Any cloud	●	◔	●	●	●	◔	●	●	●
On premise	●	○	●	○	●	○	●	●	●
Horizontally Scalable	●	●	◔	○	○	◕	●	○	○
Enterprise Connectors	●	◔	◑	◔	◔	◑	◑	●	●
Gateway, Industrial PC Support	●	◑	◔	●	◕	◑	◕	◕	◑

"Never build your system to fit someone else's pre-packaged solution. Find someone that can exceed your needs while building around your existing systems. ClearBlade is the only one we found who could do it."

-Bill Brown, Senior Manager Cloud Architecture - Rheem

TECHNICAL SPECIFICATIONS

There are a number of key specifications for the ClearBlade Edge Platform, including device protocols and gateway device hardware:

Operational Technology & Device Connectivity:

- DF1 Ethernet
- BACNET IP
- Bluetooth BLE & MESH
- Zwave, Zigbee
- Modbus TCP or RTU
- Canbus
- OPC
- COAP

Network Connectivity:

- Ethernet and Wi-Fi
- Cellular WAN
- LoraWAN
- IDP and BGAN Satellite

Hardware Requirements:

- X86, AMD, ARM, MIPS, PowerPC
- Minimum 256 MB RAM
- 30 MB of disk space for single Edge binary
- Ethernet, Wi-Fi, or cellular network adapter
- Support for any device adaptors such as BLE,