



Microsoft Azure and /n software Help Blueforce Deliver Critical Field Data in Counter-Terrorism and Military Operations

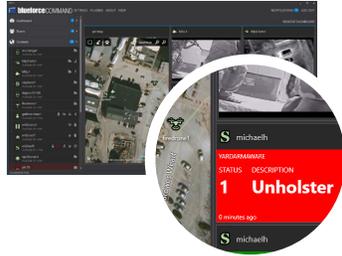
Blueforce Development Corporation (www.blueforcedev.com) customers live in a world where command decisions drive mission success or failure, and where life and death are a function of actionable information getting to the right person at the right time. Most often, the perishability of tactical data is measured in minutes. A robustly networked operational environment coupled with the Internet of Things (IoT) is changing the game specific to real-time access to team movement and health, what's going on around them, and autonomous services that make sense of an environment and the deployed team.

In any given situation, there are countless data points to gather, from still and video images to gas detection to personnel and equipment telemetry. There is an array of lightweight, high-performance devices that can collect and process this data in real time available to be deployed autonomously or with personnel. For example, a mobile device can be connected to a gas sensor mounted to a drone, or wearable cameras can scan crowds and compare images with counter-terrorism databases. The challenge lies in making this data instantly available in tactical scenarios using a Single Pane of Glass View that allows the end user to construct a non-overwhelming view that is relevant, all the while recording real time data captured for historical analysis.

Blueforce meets this challenge with a full-stack solution that connects a variety of devices that collect and display the information for critical decision support. They do this by bringing together best-of-breed technology from leading cloud, communications, and security vendors. The Microsoft Azure stack offers a robust and dynamic backbone that makes these solutions easily connected, easily deployed, and infinitely scalable. At the same time, Blueforce leverages the advanced communications frameworks from /n software to enable Blueforce solutions with secure and reliable messaging across their entire multi-platform, multi-application, and multi-device infrastructure. Blueforce's portfolio, led by the BlueforceCOMMAND Center and the Enterprise Services bundle, includes a collection of products built to make data this mission-critical data always available and relevant.



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BlueforceCOMMAND

Blueforce's patented Single Pane of Glass View common operational picture for Windows and/or HTML5. Command Center combines information from deployed personnel, autonomous agents and information services, and body-attached or unattended ground sensors to provide a broad spectrum of information for commanders and staff

BlueforceTACTICAL (BTAC)

A patented mobile application that fuses data from body-worn sensors amongst team members using Android and iOS devices. It provides secure information exchange using standard cellular, 3G/4G/LTE/FirstNet, Tactical LTE, WIFI, satellite, and/or mobile ad-hoc networks (MANETs).



BlueforceEDGE

An autonomous cloud service platform that enables the ingest or query of unattended ground sensors, fixed facility sensors, drones/UAS, and other sensing platforms. The plugin architecture for BlueforceEDGE includes capabilities for information services (ala Azure Media analytics, geofences, etc.) and data streams.

Four Ways Blueforce Solutions Leverage the Azure Stack

The Azure platform has proven invaluable to Blueforce. It gives Blueforce an instantly available platform to which to deploy solutions and a powerful cloud platform that provides the mobility command centers need. Specifically, the Azure Government Cloud and Azure IoT offerings deliver significant value to both Blueforce and their clients. Azure Government Cloud offers a read-to-use platform with proper Clearance and Security Standards and Azure IoT enables cross-platform device connectivity for various data collection scenarios. Azure Media Services also assist in data analysis.



1. Azure Government Cloud Shared Tenant Model

BlueforceCOMMAND is deployable as a shared tenant model on Azure Government Cloud. This allows Blueforce to rapidly provision hundreds of agencies, each with their own firewalled and secure name/data space.

2. Azure Dedicated Virtual Machines

BlueforceCOMMAND is also available as a managed service in a dedicated Azure VM on the commercial Azure platform for those who cannot or do not wish to use Azure Government Cloud. This model is also available on Azure Government Cloud.

3. Azure IoT

BlueforceEDGE Connector for Azure IoT pushes location and sensor data to Azure IoT. From there, products like PowerBI can be leveraged to apply meaning to the IoT data. Analytics, events, and other workflows that initiate in the cloud can be pushed back into the Blueforce environment and distributed in real time to mobile and/or far forward commanders.

4. Azure Media Services

Blueforce uses a multimedia connector with Azure Media Services for crowd counting, sentiment based on facial recognition, and hostile formation detection.

/n software's Components Power Blueforce Data Communications

Blueforce's solutions rely on fast, secure, and reliable data communications between multiple platforms and /n software's IP*Works! products are just right for the job. Their cross-platform components simplify the development of secure communications with easy implementations of standard networking protocols and security standards.

"/n software has been a valuable partner in our business. Not only are we able to trust that our solutions are enabled with the most efficient and secure communications possible, we know we will always be able to take advantage of emerging technology.

– Michael Helfrich, Founder and CEO at Blueforce



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Key benefits /n software provides Blueforce:

- **Allows Implementation of any Communications Protocol**

/n software offers a complete toolkit with secure or plaintext implementations of all communications protocols. No matter what the scenario, Blueforce has peace of mind knowing that they will be able to use the protocol they need.

- **Lightweight and High Performance**

It is critical for mobile applications to have a compact footprint and still perform at a high level.

- **.NET Core Support**

/n software is a Microsoft launch partner and has more than two decades of experience supporting and extending all of .NET's iterations since its inception. The latest iteration, .NET Core, is no exception. .NET Core enables Blueforce to easily deploy software to a variety of devices and operating systems.

- **Strong Security**

/n software components extend the security capabilities available in the platforms on which Blueforce software runs with the latest and strongest security protocols and algorithms, a critical requirement for Blueforce national security scenarios.

- **Red Carpet Subscription Service**

Technology constantly changes. Development platforms update. New security threats and new protocols and algorithms to meet them emerge. /n software strives to keep tools current with these technology evolutions and frequently pushes updates to their customers through the Red Carpet Subscription.

“/n software has been a valuable partner in our business. Not only are we able to trust that our solutions are enabled with the most efficient and secure communications possible, we know we will always be able to take advantage of emerging technology. For example, we are developing Bluetooth BLE connectivity into our suite and /n software is right there with a component set to enable secure communication over that connection,” said Michael Helfrich, Founder and CEO at Blueforce.



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The Result

Blueforce has combined best-of-breed technology with engineering and operational expertise to develop cutting-edge solutions that drastically improve operational efficiency and put military, police, counter-terrorism and other first-response agencies in the position to save lives. Azure gives Blueforce a turn-key deployment solution and acts as a hub for connecting a diverse set of devices. /n software provides a set of communications components that are always kept up to date and compatible with the latest platforms, protocols, and security standards. Both have enabled Blueforce to focus on their areas of expertise and go to market quickly with a solution their customers can always rely on, a key factor in the fight against outside threats and in first-response rescue efforts.

About Blueforce – Blueforce Development Corporation is focused on the development of software products that facilitate the formation of arbitrary and spontaneous confederations of people, sensors, and systems using handheld devices such as smartphones, tablets, and other mobile devices. Our passion is in the delivery of network-centric computing for those requiring the highest degree of security, mobility, and interoperability. Our focus and vision are pure and simple: develop, design, deliver, and deploy best-in-class solutions optimized for network-centric, last-tactical-mile environments and asymmetric threats.

About /n software – For more than two decades software developers for nearly every Fortune 500 and Global 2000 company worldwide have used /n software products to build powerful connected applications. Our client list includes companies such as Microsoft, Sony, Xerox, Cisco, Dell, Motorola, Intel, and many more. All of our products are backed by an excellent record of accomplishment based on providing robust enterprise-class solutions backed by professional technical support.

Our flagship product IP*Works! is the best-selling, most comprehensive suite of programmable Internet components worldwide. IP*Works! eliminates much of the complexity of developing connected applications, by providing easy-to-use programmable components that facilitate tasks such as sending email, transferring files, browsing the Web, consuming Web services and APIs, and much more.



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