



# Breathing Space Accelerator

A Cutting-Edge Consortium  
of Health Technologies



Founder  
Dr. Yvonne Cagle MD  
Astro Surgeon  
Flight Surgeon  
Retired USAF Colonel

A National Accelerator  
For A Global Solution

## Breathing Space Accelerator: BSA

# Who We Are

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### Data Collection

BSA is a consortium company supporting multiple users, while maintaining state of the art security and encryption.



### Hybrid-Cloud

...using the rapidly adapting interoperable BSA data mesh to securely store and accelerate- in as little as minutes- the harmonization and sharing of large volumes of data, both on and off the cloud.



### Expert Leaders

Leading Multi-Talented Scientists, Health API Specialists, AI and ML Blockchain World Class Technologists, Secure Data Architects, System Integrators, Researchers, Medical Experts and Health Care Professionals from around the world

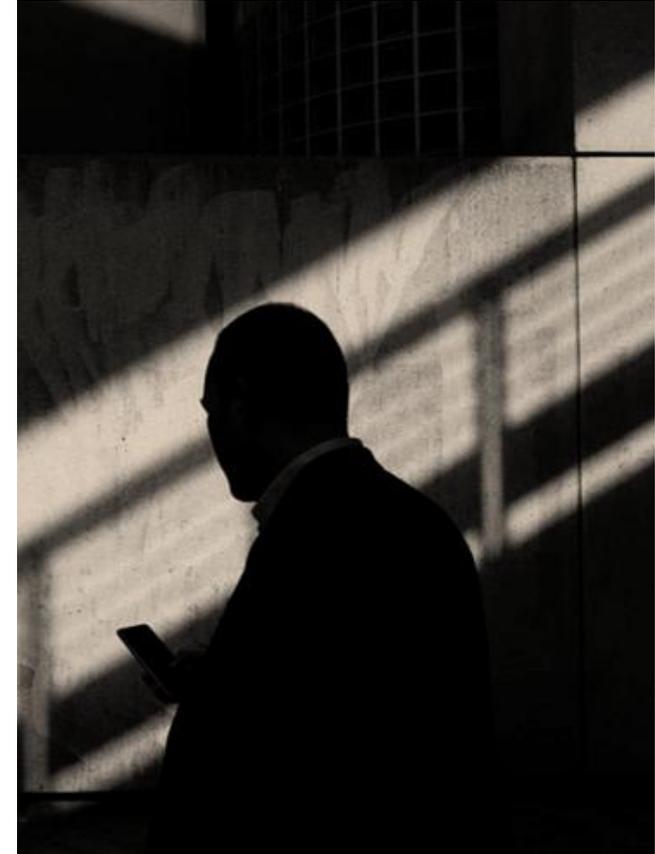
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**The course of technology-driven change has been diverted this year due to the impact of the coronavirus pandemic...**

**Nowhere is this more true than in healthcare... And every key trend, from biotechnology and smart medicine to virtual and augmented reality, smart cities, digital twinning, and robotics, have had their part to play.**

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-The 5 Biggest Healthcare Trends In 2021 Everyone Should Be Ready For Today  
(forbes.com)



**“In 2020, every company has had to become a tech company.... In 2021, every company will learn to become a healthcare company, too...”**

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The COVID-19 pandemic has created both a public health crisis and an economic crisis, worldwide.

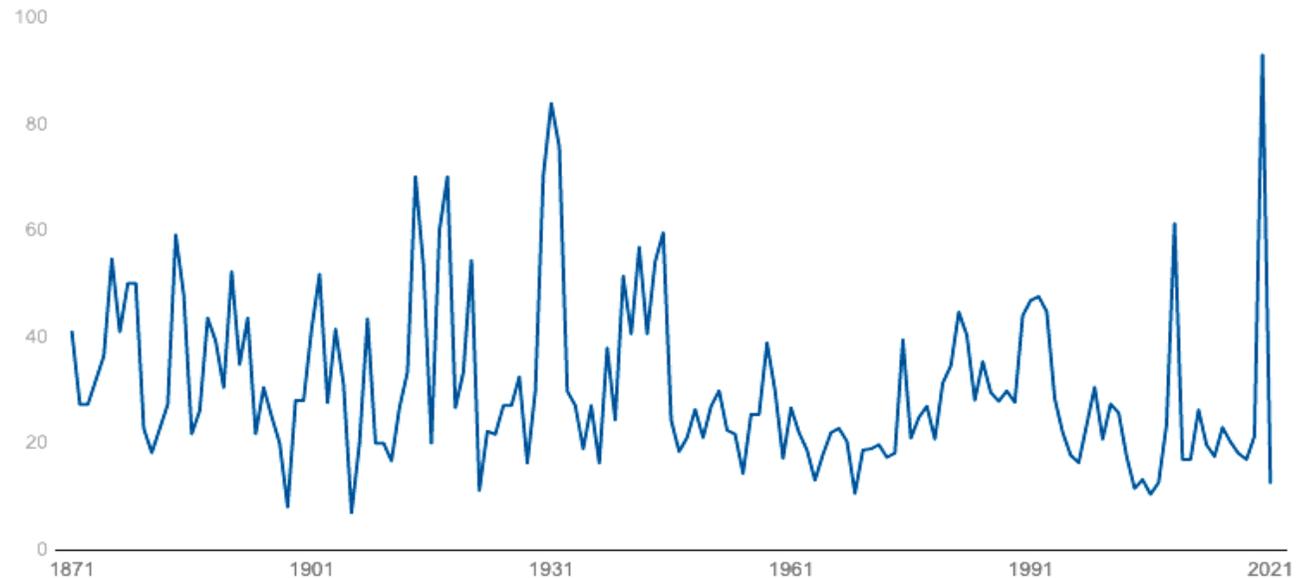
This pandemic is expected to plunge most countries into recession, with per capita income contracting in the largest fraction of countries globally since 1870.

This would represent the weakest showing by this group of economies in at least sixty years.

<https://www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world>

## Most countries are expected to face recessions in 2020

Share of economies in recession, 1871-2021



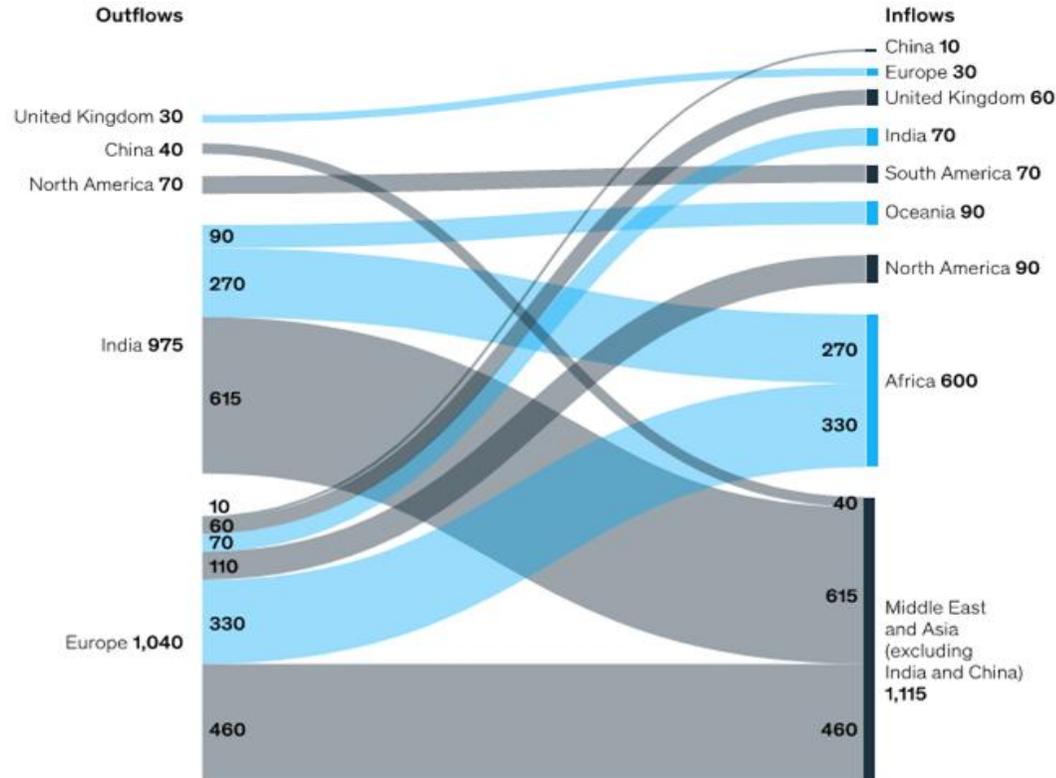
The proportion of economies with an annual contraction in per capita GDP. Shaded areas refer to global recessions. Data for 2020-21 are forecasts.

Source: World Bank • [Embed this chart](#) • [Download Image](#)

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**Our projections of intercontinental flows show that Asia (excluding India and China) and Africa will be the biggest recipients of COVID-19 vaccines.**

Vaccine flows, millions of doses



Source: Publicly announced information; press search; McKinsey analysis

Limited initial supplies, supply chain blunder and over a dozen states disregarding federal priority guidance have resulted in only slightly more than 3 million people in the US receiving vaccines before the close of 2020. That’s less than 1% of the US population and 17 million fewer than the goal of 20 million established by the government late last year.

Dale Smith, Jessica Dolcourt, Website, Jan. 8, 2021

# Our Business Model and Strategy

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Our collaborating companies are working together to achieve one common objective; seeking to solve the universal issue of COVID 19.

**IDENTIFY**



**Focus on an immediate healthcare issue**

**Ex. Combating the COVID 19 outbreak in a major city**

**INTELLIGENCE**



**Immediately, data and research is obtained**

**Ex. In a matter of minutes, significant data is gleaned**

**ANALYZE**



**Industry experts evaluate real, relevant intelligence**

**Ex. Data is interpreted**

**RESULTS**



**BSA fabric allows for acceleration and sharing of data**

**Ex. A grid system is developed, showing the hotspots of COVID 19**

**TREATMENT**



**Specialized medical care can strategically be implemented**

**Ex. Staging for triage care, such as telehome vs. telehealth is determined**

**BROADCAST**



**Clarity in communication and action, so information is no longer siloed**

**Ex. Residents understand why a specific area is quarantined**



# Our Offering

## **Privacy | Cyber Security**

Prevent unauthorized access and changes to customer data, providing secure data transfer

## **IoT | Wearables**

Smart thermometer, health bands, breathalyzer and pulse oximeters provide clinical information in real time on how a patient's condition

## **Data Aggregation | Data Mesh | Blockchain**

Universal medical network adapter deployed blockchain secured data mesh fabric. Amplifying the data aggregation, sharing, and broadcasting of critical healthcare intelligence instantly

## **Research | Innovation**

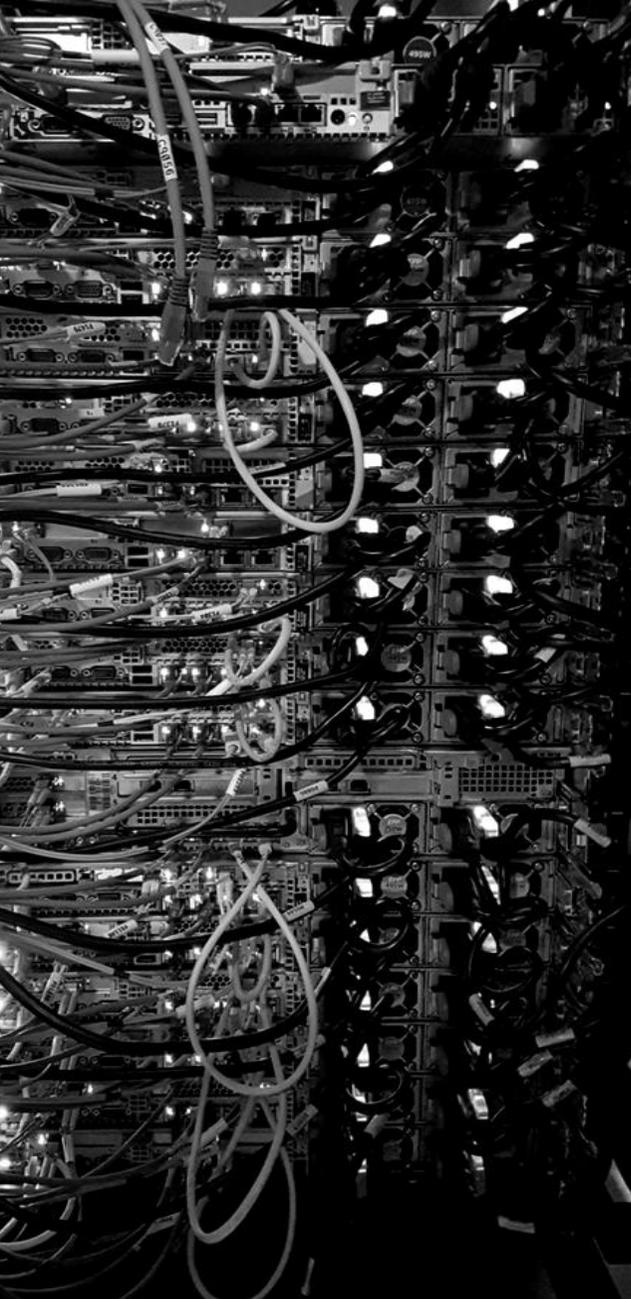
Better diagnostic and decision support. Accurate and informed insights. Deliver personalized treatment. Accelerated clinical trials. New research areas & datasets mitigating further risks

## **Artificial Intelligence | Machine Learning**

Leveraging state of the art AI/ML to provide adaptive and proactive data analysis to stay in front of the crisis, using tools such as chatbots

## **Broadcast | Secure**

Triaging and addressing disaster response throughout the country during times of crisis. Be able to scale out and broadcast to the nation or localized areas. Secure in and across clouds/sites



The BSA Approach

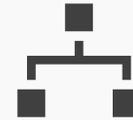
# Our Distinctions

## Expert-vetted AI Intelligence



BSA combines diagnostic health monitoring with hybrid-cloud technologies to capture, connect and process distinct datasets securely, with integrity, worldwide.

## Rapid Interpretation



Our unique data fabric allows for the immediate transmission and distribution of data to central HIE/analytics platforms to track patient encounters.

## Emergency Intervention



Private blockchain capabilities integrated within public healthcare systems validate true COVID intelligence mapping, in real-world, real-time.

BSA Consortium Companies

# BSA & COV-IRT



**COV-IRT** is a unique collaborative team that brings together all the capabilities needed to address the COVID-19 pandemic – computational expertise, biologists, clinical experience, advanced laboratory proficiency, and a deep knowledge of human and coronavirus genetics.

Modeling Clinical Scenarios/Data Analysis

Host-Viral Interaction

Radiobiology & Imaging

Knowledge Graph

Inflammation

Virus

Neurology

Mitochondria-bioenergetics

Microbial

miRNA & Non-coding RNA

Machine Learning

Pediatrics

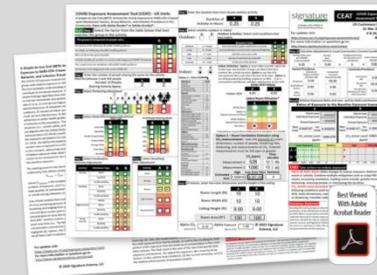
Ethnicity

Long-Term Impact

Funding

## COV-IRT Project Goals:

- Enhance public datasets to reveal host infection dynamics for SARS-CoV-2 to improve medical treatment options for COVID-19 patients
- Determine and design optimal targets for therapeutics against SARS-CoV-2
- Creating new drug delivery systems based on targets
- Test newly developed therapeutics in both *in vitro* and *in vivo* SARS-CoV-2 models
- Apply for human clinical trials
- Develop tools and resources for the public to use to allow of safer and easier ways to assess risk and reopening



The COVID-19 Exposure Assessment Tool facilitates understanding of the relative importance of factors that contribute to increased exposure.

The COVID-19 International Research Team is excited to announce collaboration with RealNetworks in launching the MaskCheck App.



BSA Consortium Companies

# BSA & NetApp

CLOUD-LIKE  
FLEXIBILITY

- Connected to the Core and Cloud
- Robust across low latency, low bandwidth networks
- Broadcast Capable to Any Location
- Deployable Anywhere

NetApp specializes in industry-leading cloud data services, storage systems, and software.

We bring the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. And we do it with industry-leading solutions that work across diverse environments and the world's biggest clouds.

We're shaping the future of cloud by taking a step back from what the technology looks like today. We spot opportunities that others in our industry miss, and we get to work on them first.

People who understand cloud technology know to come to us first. We're big believers in a narrow niche with expertise that runs deep, and we hire in our own image.



Hybrid Cloud  
Services



Secure Data  
Storage &  
Protection



Artificial  
Intelligence



Virtual  
Desktop  
Infrastructure

BSA Consortium Companies

**BSA & NASA** 

**NASA has launched their Health Stabilization Program, and looks take it off planet.**

### NASA ARC E-nose

An electronic nose that is under development to smell a person's breath and determine if they have COVID-19



### NASA Ames Research

The Ames Data Mining and Machine Learning are complex adaptive systems used for prognostics- Code Ti



### NASA mHealth

NASA is partnered with Fitbit on a New program aimed at monitoring the health of 1,000 employees, including 150 astronauts with wearable technology



**NASA**

Since human spaceflight began, NASA has had an investment in telemedicine, telehealth and remote diagnostics. With the development of COVID-19, a heightened awareness has been placed on wellness tracking for improved population health. With its Health Stabilization Program, NASA is using remote health accessories not only to curb the spread of COVID-19, but to give their employees a base to monitor daily health and wellness. The program can be extended from the ground to space, as well. Currently 150 astronauts are taking part in this program.

BSA Consortium Companies

# BSA & Trxade



Medcheks, a Trxade Group company (Nasdaq: MEDS), is launching a personal electronic Health Passport for air and cruise travel, entertainment and sports venues, businesses, corporate offices, and many other locations.

- Travel & Tourism
- Corporate & Industrial
- Entertainment
- Sports Event
- Retail & Hospitality
- Eldercare Facilities

**ACCESS THE WORLD SAFELY AND SECURELY**

# MEDCHEKS

A C C E S S T H E W O R L D

### Easy Access



Download Medcheks Health Passport App. Sign up and build your profile.

### Instant Upload



Upload your test results and vaccination records in one simple click.

### Instant Verification



Green Light means you can return to normal life. Red Light means stop, your health record is not compliant.

### Always On



The Medcheks Health Passport App is available 24/7 with a quick response time and guaranteed uptime,

### Safe and Secure



Through state of the art encryption and blockchain methods, your health data is completely concealed.

### Cost-Effective



Low monthly payments for access to your own individual, secure health passport.

MEDCHEKS APP



DOWNLOAD APP

USER PROFILE



CREATE A PROFILE

UPLOAD RECORD



HEALTHCARE PROFESSIONAL SELF DECLARATION BY USER

HEALTHPASS RESULTS



EMPLOYERS VENUES/EVENTS TRAVEL

HEALTHPASS



PROCEED OR STOP

The core of Ever Medical Technologies, Ever Infrastructure is the groundwork upon which all else is built. With the security, customizability, and interoperability that **blockchain** technology establishes, data collection, sharing, access, and analysis can be done with ease.

### Innovation In Hospital System

Transform your hospital utilizing data-driven changes and unleash the power of data-driven innovations.

### Healthcare Claim Processing

Eliminates reconciliation in claim processing through automated Ever's smart contract, immutable logs and supporting platform.



### Data Exchange Platform

Blockchain-based HIE for well-governed data exchange in a care network or a hospital group settings.



### Health Data Engineering

Utilize our AI and Health Data platform from the initial medical data labeling to predictive health and deep learning for medical images.



### Epidemiology Surveillance System

Holistic platform for outbreak prediction and geo-spatial data analysis for epidemic surveillance.

- Blockchain-based HIE Core
- Ancillary Services Integration
- Tele-Suite System
- Telemedicine, PHR application, and Chatbot
- Epidemiology Suite with BI and Alerting System

BSA Consortium Companies

# BSA & Unisys

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- Healthcare and Medical Device information protection
- Blockchain protected Medical Supply and Pharmaceutical supply chains
- Networking and cloud infrastructure upgrades
- IoT and multi-device collaborative usage optimization
- Research field engineering services to improve potential new cures



## INDUSTRIES

- Commercial
- Communications
- Life Sciences & Healthcare
- Manufacturing
- Retail
- Transportation
- Financial Services
- Government



## SERVICES

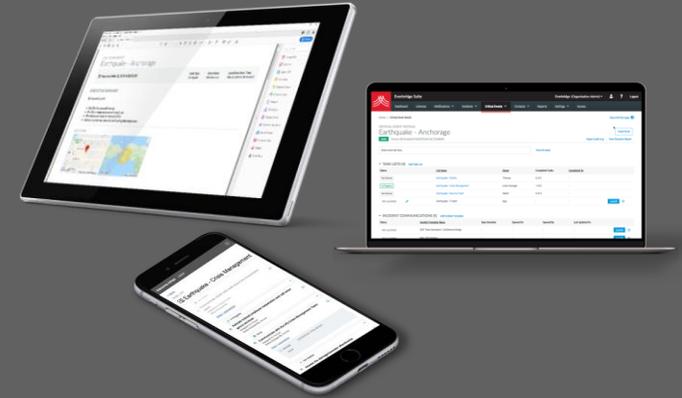
- Digital Workplace Services
- Cloud and Infrastructure
- ClearPath Platforms & Services
- Advanced Analytics
- Application Services
- Industry Solutions
- Security Solutions

Provide intelligent, real-time decision-making support through predictive analytics, as well as logistics management through innovative technologies, so you'll be able to better focus on helping patients get better.

As an incorruptible transaction ledger, blockchain serves as a single source of truth, delivering transparency, data integrity, and information immutability.

BSA Consortium Companies

# BSA & Everbridge



## Everbridge is a Global Critical Event Manager (CEM) Service

- Emergency Management
- Employee, Traveler, Visitor and Lone Worker Safety
- IT Alerting, On-call Scheduling
- Crisis Management
- Supply Chain Disruptions
- Performance Management of Incident Response

**A Critical Event Management platform uses technology to take manual processes and automate them. Amplifying ad hoc data feeds to provide richer intelligence and correlating threats with locations of assets and people, ensures more rapid and comprehensive incident assessment and remediation.**



### PRODUCTS

Safety Connection, Visual Command Center, IT Alerting, Mass Notification, Public Warning, Care Converge, Crisis Management, Control Center, Digital Wayfinding, Risk Center, SmartWeather + Threatview, Mobile Apps, Jarvis



### BY INDUSTRY

Financial Services, State & Local Government, Manufacturing, Transportation, Retail, Education, High Technology, Federal, Healthcare, Emergency & Utilities



### IMPACT

Keep Employees Safe Everywhere, Alert Residents & Visitors, Automate IT Incident Response, Anticipate & Prevent Disruptions to Operations, Accelerate Clinical Response

BSA Consortium Companies

# BSA & Quartolio

Quartolio was selected as one of the top Data/AI startups by Hello Tomorrow, a global, invite-only summit that selects the world's most promising science and deep tech startups.

OUR MISSION

## Moonshots Within Reach™

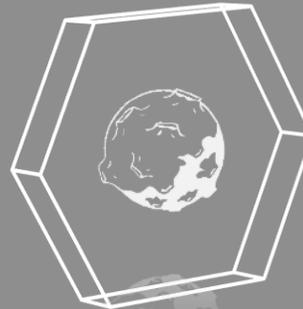
Quartolio is an AI-powered learning platform that accelerates research by connecting the dots across scholarly documents, data, and discussions.

### ★ SPECIALTIES

Responsive Precision & Expansive Reach

### 🔗 INTEGRATION

Tap into streaming insights with zettabytes of science as they're automatically transformed into knowledge on-demand, in the cloud, in real-time.



### 📊 APPLICATIONS

Responsive AI Insight Automation for Research in the lab, library, or with patients.

### 📄 SYNTHESIS

Leverage Leads, not Lists. An impossible list of documents to read doesn't accelerate R&D. Scientific leads, uncovering previously unknown pathways inside those documents, does.

BSA Consortium Companies

# BSA & CareSpace

WEBSITES  
MOBILE  
PATIENT PORTALS  
MICROSOFT TEAMS



## Contact Tracing

A comprehensive option provided through the Health Band gateway and app via Bluetooth using the contract tracing module via Coalition, an open source contract tracing integration.

## CareSpace HealthBand

is a wearable health band that continuously monitors temperature, heart rate, pulse-oxygen levels, and stress levels in real-time, and will light up either red or green depending on whether or not a person has elevated COVID-related symptoms.

**Touchless Payment Processing:** The Purewrist chip turns your Health Band into your wallet on the go, made simple, safe, secure, and contactless.

**Visual Vitals:** Integrated mobile tool via Health Band app that uses a mobile camera to collect clinically-validated visual vitals using PPG and RPPG technology to report biometrics, including: heart rate, heart rate variability (HRV), oxygen saturation, respiration, blood pressure, blood glucose and blood alcohol concentration.



### ACCESSIBILITY

Independently works with and without mobile devices through beacon technology.



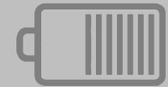
### INTEGRATION

The Health Band SDK supports the integration to third-party apps and platforms.



### SECURITY

Security and Privacy are our highest priorities. Data is encrypted on device and transmitted via HIPPA compliant platform.

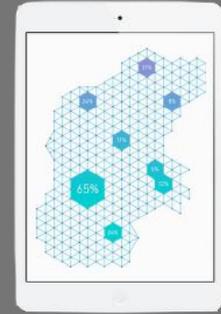


### BATTERY LIFE

One year continuous battery life with replacement. Manufactured with quality in the U.S. by Avnet

BSA Consortium Companies

# BSA & AIE Technology Solutions, Inc.



FAST.  
SECURE.  
EASY.

## MEET AIE



 **mareedi**

Smartphone-generated vitals

- Digital health and wellness monitoring without the need for a wearable
- Tracks heart and respiratory rate, examines symptoms, provides exposure survey, logs daily health score



### OUR VISION

Our vision is to foster healthcare accessibility by delivering affordable software solutions leveraging cutting edge technology in support of best practice patient experience.



### OUR TECHNOLOGY

Our platforms use artificial intelligence and machine learning to better classify large amounts of data. It generates faster, more accurate, more compliant results in a matter of seconds.



### OUR IMPACT

The products and service we offer range from Tele-Health PHI Protection, Healthcare Storage with HIPPA compliant data sharing, Data Conversion with Cloud integration, and AI & ML Powered Custom Software

BSA Consortium Companies

# BSA & IDCC

Inspire Diagnostics Canada Corporation

## IDCC markets a viral screening kiosk branded **Clear2Pass**

The Clear2Pass passport can be used to gain access to cruise lines, airlines, shopping malls, offices, theme parks, businesses, entertainment venues, etc...

### KEY COMPONENTS

- Facial recognition
- Proper mask positioning detection
- Forehead fever detection and thermal printer
- Hypoxia detection via pulse oximeter
- Self sanitizing after each use
- RFID and QR code reader
- Hand sanitizer dispenser
- Secure networking via cellular LTE, Wi-Fi or RJ45

Clear2Pass is an initial viral screening system that securely and safely insures a user is not displaying any obvious COVID 19 related bio-markers and is obeying mask policies prior to entering or proceeding through an establishment.



- Video and audio conferencing to front desk or cellular phone
- Foot pedals for hands-free interaction
- Remote managing and monitoring capabilities
- IP65 standard enclosure manufacturing
- On screen customized banners and messages
- White label branding option



### ADDITIONAL SPECS

- Integral printer to print user likeness, test results, date of test, QR code, etc.
- High definition camera suitable to facial recognition.
- Can intake answers to displayed questions via integral foot pedals
- User interaction is less than 25 seconds



### INTERACTION

- User approaches kiosk and is recognized via facial recognition. Vaccine database is searched OR user presents QR code/RFID card , vaccine database searched
- Clear2Pass assesses for proper face mask positioning and obtains user's vitals.
- Once user passes assessment Clear2Pass prints passport with user likeness, test results, etc. OR Clear2 Pass interfaces with building access system.
- If user fails assessment, user interacts with an administrator of establishment, OR user is provided the location of the nearest COVID testing center.

BSA Use Cases

# Market Verticals

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Time is of the essence.

The lack of unity in pandemic screening, vaccination tracking, and treatment analysis is the driving factors behind our relentless, unprecedented innovation. It's time to coordinate.

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## Travel



Airports



Work/School



Cruises/Ships

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## Healthcare



Hospitals



Medical Centers



Tele-Health

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## Military



Naval Ships



Deployment



Mission Readiness

BSA Verticals

# BSA & Healthcare

**Mitigating the loss of life is our profession.**

**In the wake of COVID 19, healthcare across the world has had to reinvent itself. We are aiding in that reinvention, teaming up to prove that there is strength in numbers when fighting for a collective cause. Amongst all nine of our partnering companies there is one common goal; track, assess, and eliminate the devastating impact of COVID 19.**

**The coronavirus pandemic has shown us that there is a willingness to share our personal data when the benefits to our health are clearly communicated. This has been proven with track-and-trace systems that have reliably kept infection levels in check in participating regions. Big datasets will create more equitable healthcare, confirming the need for universal coordination. We are working to further the progression of tele-health solutions for all of humanity, in a unified manner, around the world.**

**We need to apply common sense and breakthrough systematic understanding if we hope to evolve past the complex conundrum that is the healthcare system today.**



Hospitals



Medical Centers



Tele-Health

BSA Verticals

# BSA & Travel

Whether the objective is “Back to Work” or “Back to Travel”, one of our main missions is enabling life to return back to normal across the world.

We’re seamlessly stepping into the international travel industry. With IDCC installing user screening kiosks on cruise lines, in airports or outside commercial businesses, AIE launching their health symptom-tracking app, and NetApp securing all encrypted data on their hybrid cloud system, our geographical footprint is extensive, to name only a few. Our ability to track and trace sensitive health data to ensure passenger safety takes a leap into the major task of controlling and containing the impact of COVID 19.



Airports



Work/School



Cruises/Ships

The implementation is seemingly endless...

BSA Verticals

# BSA & The Military

**Our U.S. Military relies on their unwavering ability to remain mission-ready at all times.**

**With wearable bands for daily monitoring coupled with oversight admin dashboards, sailors, airmen, and all military personnel can be cleared for travel or access to military establishments with dependable accuracy.**

**Prior to boarding ships and aircraft, health data can be tracked for weeks in advance with any of our numerous Applications, all secured with NetApp storage, on-premise, hybrid, or via the Cloud. The user can reliably be cleared to enter quarters based on their daily vital recordings and contact tracing. Those presenting with ailments or known exposures will be routed for quarantine with continued medical monitoring.**



**Naval Ships**



**Deployment**



**Mission Readiness**

**We arm our protective forces with state-of-the-art tele-health technology for even the most remote areas around the globe.**

BSA Value Proposition

# Market Validation

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We have incorporated  
**nine** of the world's leading  
AI-tech corporations.

**\$191.7B**

TeleHealth/TeleMedicine  
Global Market projected to  
reach USD 191.7 billion by 2025

-globenewswire.com

**\$390.7B**

Global Healthcare IT Market  
projected to reach  
USD 390.7 billion by 2024

-marketsandmarkets.com

The BSA Value Proposition stands on its unparalleled consortium makeup, comprising of nine well-known, high level, advanced technology companies from around the world. BSA is ready to deploy anywhere... anytime... for any means... to solve even the most pressing global health issues.

BSA x COV-IRT

# Road Map 2021



Be part of the  
**transformative**  
technology  
revolution.

We are seeking organizations that  
are working to be ahead of the  
curve in crisis medicine, eager to  
integrate BSA into their current  
operations.

# CONTACT US

Breathing Space Accelerator



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