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VULCAN Overview

Healthcare delivery through augmented reality

www.tienovix.com

About Us

Tienovix™ was founded in 2019 by former NASA contractors to commercialize cutting edge technologies refined from NASA over the last 20 years. Utilizing the power of augmented reality, Tienovix™ has launched a multi-function software system for Microsoft's HoloLens 2 that transforms the device into a powerful learning tool that spans across multiple fields and industries from medical to oil and gas. With deep-machine learning and forward-leading procedural guidance, Tienovix™ aspires to cultivate a new wave of expert operators at a fraction of the time and resources it currently takes.

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A $7B Sonography Challenge Worth Solving

Sonography is the most common diagnostic imaging technology after x-ray. Healthcare providers embrace sonography across several critical applications, including:

- Anesthesiology
- Cardiology
- Gastroenterology
- Interventional Radiology

- Neonatology
- Orthopedics
- Pulmonology

However:

1) Healthcare providers face critical challenges as ultrasound demand increases due to new protocols as a result of COVID 19 and an aging population.
2) Certified and skilled sonographers are in short supply but are essential for accurate diagnoses and high-quality images.
3) Around 80% of sonographers suffer from Repetitive Strain Injuries due to poor delivery ergonomics.
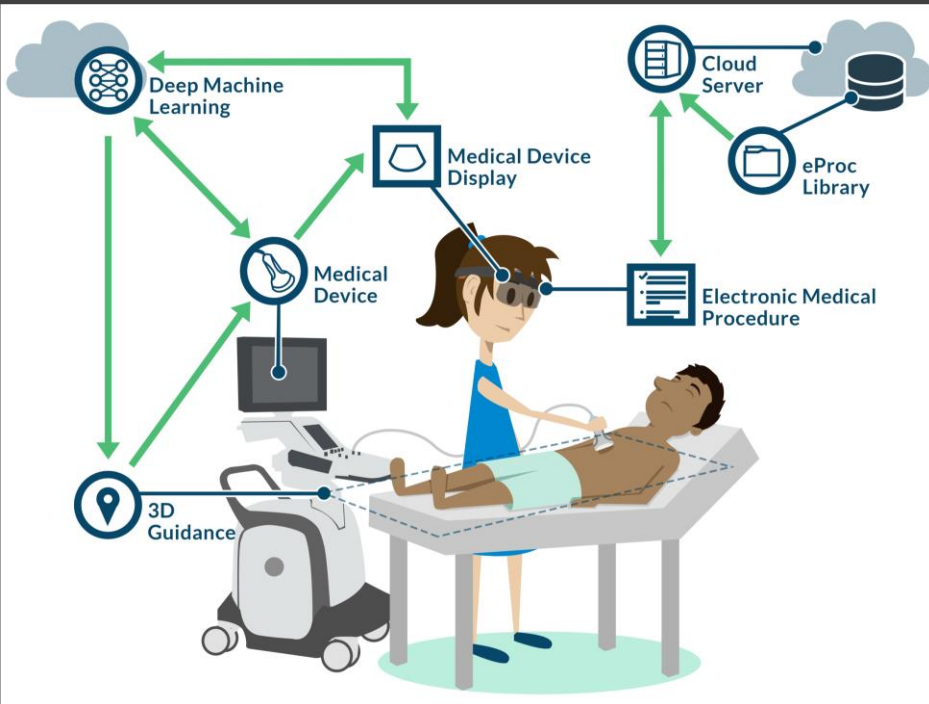
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The Solution

Apply Augmented Reality to revolutionize sonography through enhanced knowledge and real-time guidance.

Introducing VULCAN LIVE-DISPLAY™ & VULCAN-TRAINNING™

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Performing More Ultrasounds Safely Through Augmented Reality

What is VULCAN™ ?

VULCAN™ is a suite of patented and proprietary human-machine interface systems that are capable of facilitating training, diagnostics, remote monitoring & analysis, and data acquisition & retention through augmented reality.

Powerful Display Unit

VULCAN™ allows a sonographer to view the ultrasound image produced by the underlying ultrasound device through a mixed reality device allowing the user to simultaneously see the patient while performing the ultrasound procedure.

Artificial Intelligence

The VULCAN™ Artificial Intelligence actively monitors and provides 3D overlay guidance to remove guesswork and ensure proper training allowing more ultrasound operators to be certified to meet the growing demand.

Remote Supervision

VULCAN™ features telemedicine solutions where a physician can remotely supervise, guide, and analyze, in real-time, from his/her computer screen while watching the user perform the ultrasound procedure.
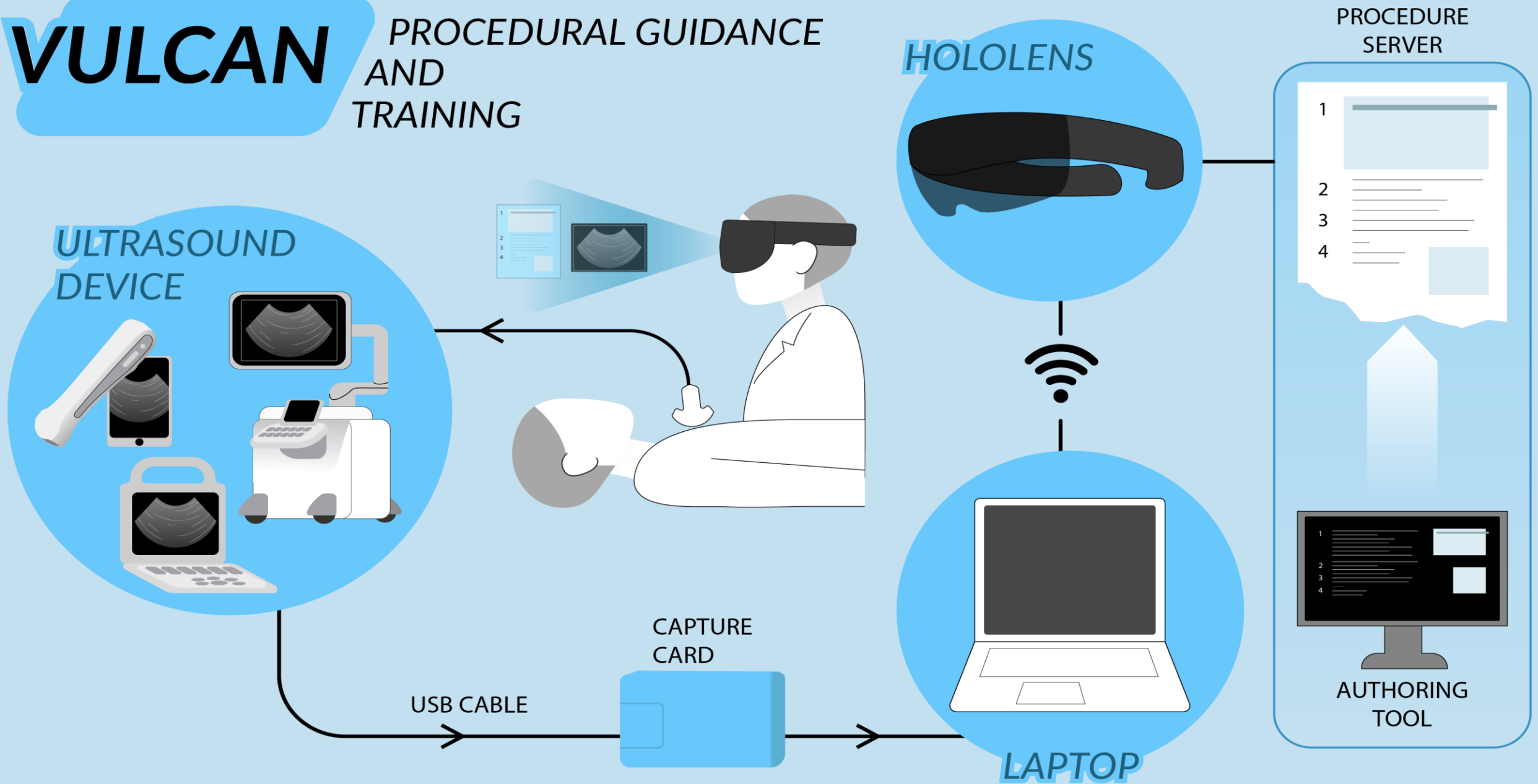
Record and Review

VULCAN™ enables sonographers to record ultrasound images as video, enabling the physician to go back and review if necessary.
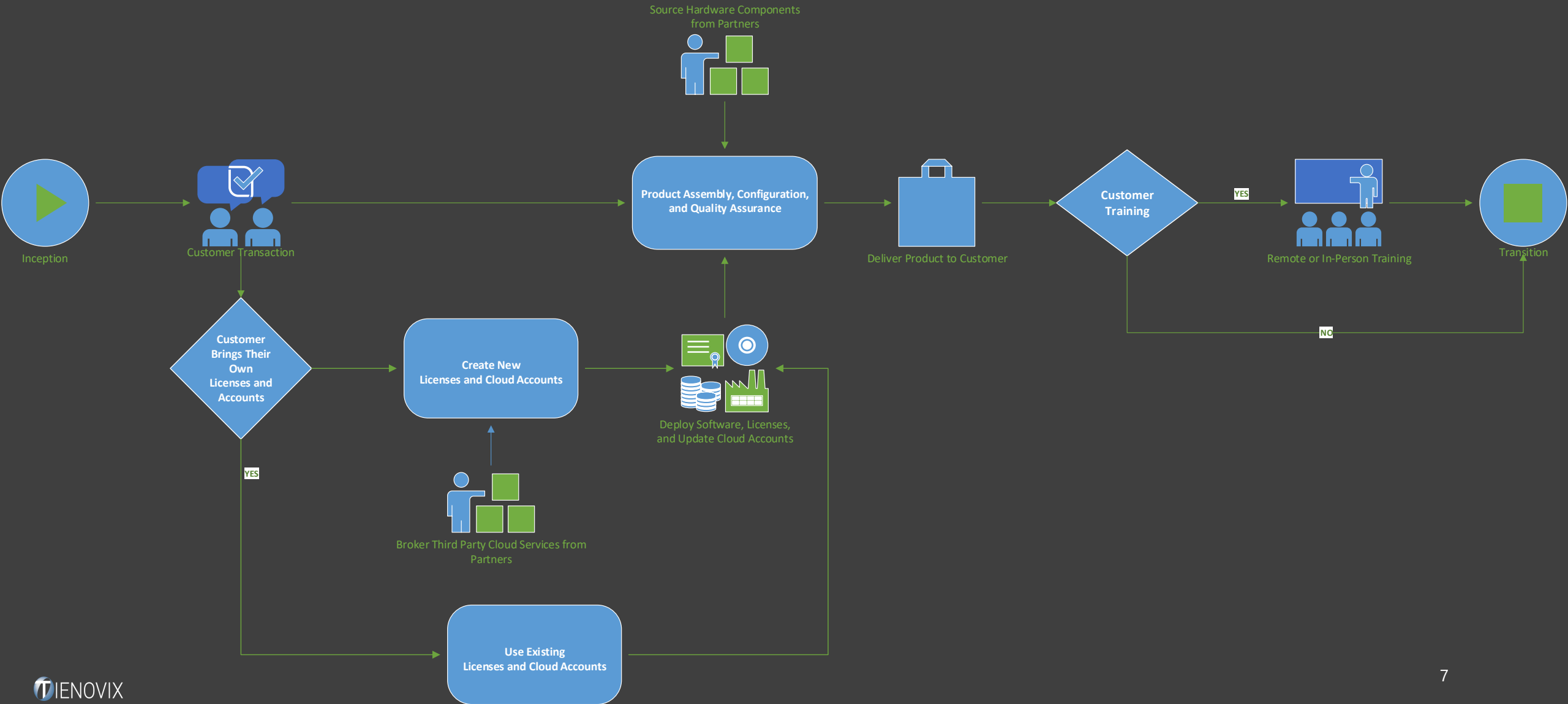
FDA Compliance

VULCAN™ is FDA registered as Class I, 510(k) exempt medical device (Registration # 3016544222) and currently in-process of filing a pre-submission for clinical use.

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VULCAN

PROCEDURAL GUIDANCE AND TRAINING

HOLOLENS

PROCEDURE SERVER

ULTRASOUND DEVICE

AUTHORING TOOL

CAPTURE CARD

USB CABLE

LAPTOP

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VULCAN Deployment to Customers

Source Hardware Components from Partners

Inception

Customer Transaction

Product Assembly, Configuration, and Quality Assurance

Deliver Product to Customer

Customer Training

YES

Remote or In-Person Training

NO

Transition

Customer Brings Their Own Licenses and Accounts

YES

Create New Licenses and Cloud Accounts

Deploy Software, Licenses, and Update Cloud Accounts

Broker Third Party Cloud Services from Partners

Use Existing Licenses and Cloud Accounts

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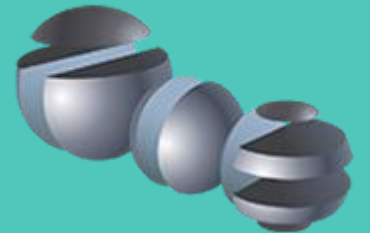
How We Win & Differentiate

Guidance

Empowering ultrasound users with VULCAN™ can dramatically reduce human error and gives powerful 3D guidance tools to entry-level users who lack the experience senior staff in the field may have.

Accuracy

Practice doesn't always make perfect, but the correct practice will increase the competency with expertly designed training programs for your equipment.

Economical

VULCAN™ is a market-ready tool that can be used to educate and train the next generation of ultrasound users

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Market Transformation Rewards are Substantial

Medical diagnostic innovation is being enabled by technological advances in augment reality and artificial intelligence and accelerated by powerful social trends such increased demand of healthcare services from aging baby boomers.

$45B

$11B

$1B

Medical Diagnostic Market

Ultrasound Market

Innovative Hospitals

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Full Service

- Microsoft HoloLens 2 programmed with VULCAN software
- Wireless ultrasound probe
- Laptop, capture card and all required ancillary hardware
- HIPAA compliant storage of images and videos
- Ongoing VULCAN software enhancements
- Comprehensive onboarding services
- Self-service knowledge center for best practices and troubleshooting
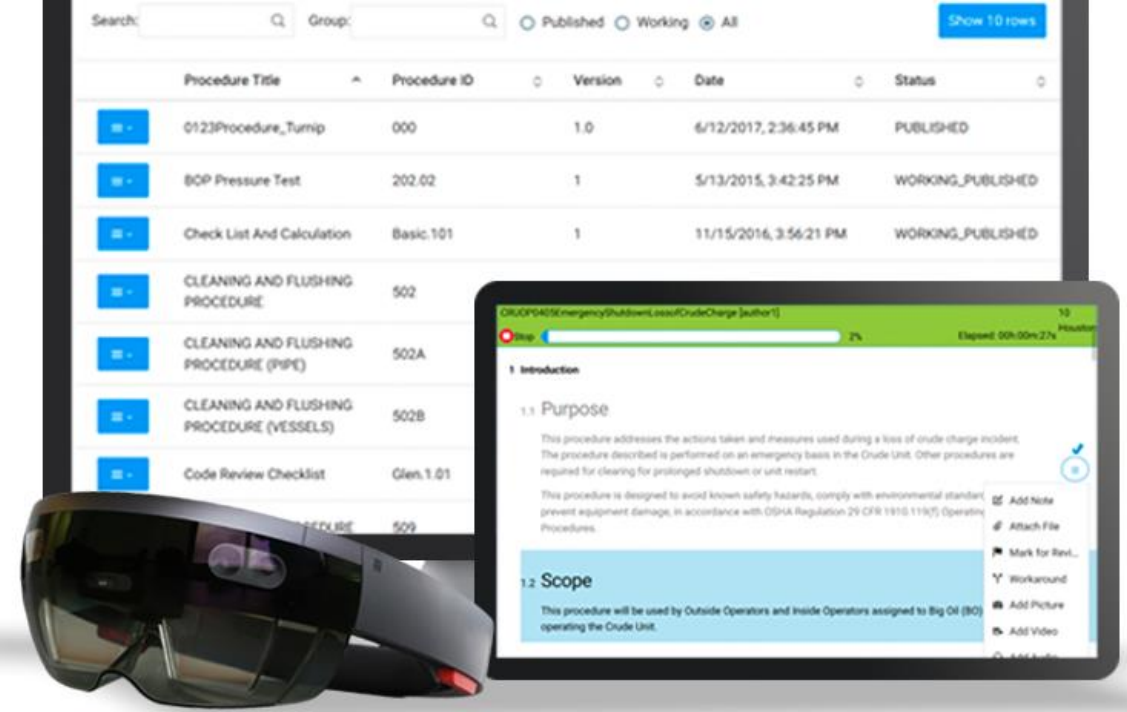
Key Target Markets

- Innovation seeking hospitals
- Top tier ultrasound manufacturers

Primary Offerings

- VULCAN Live-Display™
- VULCAN-Training™
- VULCAN Scan-Assist™ (Q4 2020)
- VULCAN Automated-Diagnostics™ (Q4 2021)

Geographic Priorities by MSA

- *Tier I*: Houston, Minneapolis, Boston, Phoenix
- *Tier II:* Los Angeles, New York, Cleveland

Primary Channels

- Dedicated Distributors – Imaging
- Direct technical and customer support

Building a Strong & Sustainable Commercial Pipeline

Powered by a Clear Roadmap for Success

Today

- Patent Issued (US Patent # 10,636,323)
- FDA Class I Registration
- Clinical trial for VULCAN Live-Display™ and VULCAN-Training™
- Selling direct to healthcare providers

YE 2020

- FDA Approval for Clinical Use
- Selling through strategic partnerships with distributors
- VULCAN Scan-Assist™ (Q4)

2021

- FDA Class II (510K) Exempt Approval
- VULCAN Automated-Diagnostics™ (Q4)

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Product Pipeline Timeline

VULCAN Live-Display™ — Available Now

VULCAN-Training™ — Available Now

VULCAN Scan-Assist™ — Expected Deployment Q4 2020

VULCAN Automated-Diagnostics™ — Expected Deployment Q4 2021

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VULCAN is Revolutionizing Sonography.

Let's discuss next steps!

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