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Enterprise company
Healthcare at the Edge
The Network You Need When Care Matters
ARUBA IN HEALTHCARE
VIVEK GOEL- SYSTEM ENGINEER

MODERNIZING CYBERSECURITY IN HEALTHCARE

-Healthcare is one of the most targeted and breached industries by cybercriminals.
-Stolen EHR (Electronic Medical Health Record) are highly lucrative as they give a comprehensive and multi faceted profile of an individual from which to launch personal identity theft scams as well as phishing and variety of other cyberattacks to gain access to company network.

On the black market, the going rate for your social security number is 10 cents. Your credit card number is worth 25 cents. But your electronic medical health record (EHR) could be worth hundreds or even thousands of dollars," according to Forbes

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TRENDS
IN HEALTHCARE

Driving Toward 100% Digital Patient Records

Optimizing Patient Flow

Securing Patient Data

Improving Patient Satisfaction

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CHALLENGES
IN HEALTHCARE

EHR deployment and networked BioMed devices result in more devices on network

Legacy networks can’t reliably support IoT applications and devices for digital health

Bedside and mobile IoT point of care devices expose vulnerable attack surfaces

Patients want an engaging, self-service environment

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IS YOUR NETWORK

FLEXIBLE?

CONNECTIVITY | SECURITY | USER EXPERIENCE

GO BEYOND

UPTIME

GO FROM REACTIVE TO
PROACTIVE TO

PREDICTIVE

INTRODUCING ARUBA 6th Sense ESP

AIOPS

AI Insights | User Insights

UNIFIED INFRASTRUCTURE

Wi-Fi | Switching | SD-WAN | 5G | IOT

ZERO TRUST SECURITY

Dynamic Segmentation | Device Insight

AS A SERVICE

SaaS | NaaS | HPEFS

ARUBA'S UNIFIED INFRASTRUCTURE

SECURE. SMART. SIMPLE.

Manage the network with software, across a multi-vendor network
Automate many operations and assure optimal performance

For All Your Connection Types – Edge to Cloud
For All Users, IoT, and Apps

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ARUBA CX SWITCHING FOR THE ENTERPRISE

COMPLETE END-TO-END SWITCHING PORTFOLIO

UNIFIED INFRASTRUCTURE

Campus			Data Center	
Access	Aggregation	Core	Spine	Leaf

AOS-CX

CX 6400

Modular
High-density access
Core and Agg

CX 8400

Deep buffers
Large tables
Carrier-class HA

CX 6300

Stackable
Access and Agg
Diverse closet scale

CX 83xx

Top of Rack
Small Core
Campus Agg

One Operating System. One ASIC Architecture. One Operating Model.

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Aruba's Wi-Fi AP portfolio

UNIFIED INFRASTRUCTURE

550 Series
Extreme Density
Wi-Fi 6

530 Series
Very High Density
Wi-Fi 6

510 Series
High Density
Wi-Fi 6

500 Series
Mid Density
Wi-Fi 6

500H Series
Hospitality/Remote
Wi-Fi 6
Expected Summer

518 Series
Ruggedized
Wi-Fi 6
Expected Summer

570 Series
Outdoor
Wi-Fi 6
Expected Summer

340/330/320/310/300 Series
Very High to Mid Density Wi-Fi 5
Indoor Ceiling/Wall Mount

303H/203R/203H Series
Mid Density Wi-Fi 5
Wall, Hospitality and Remote

370/360 Series
Very High to Mid Density
Omni/Directional

370EX Series
Hazardous
Location

387 Series
Point to Point
802.11ad

*Models are not to scale

AIOPS

ARUBA AIOPS FEATURES

AI Insights.

Automated anomaly detection, recommendations and peer-based network optimization

AI Search.

Natural language query of data lake

AI Assist.

Automated trouble ticket generation

AIOPS

SELF-OPTIMIZING NETWORKS

BETTER EXPERIENCE FOR USERS AND IT

AIRMATCH

Power

Channel

Channel Width

CLIENTMATCH

Device Type

Location

AX-AWARE CLIENTMATCH

Group AX Clients

AI/ML

GREEN AP

Energy Savings

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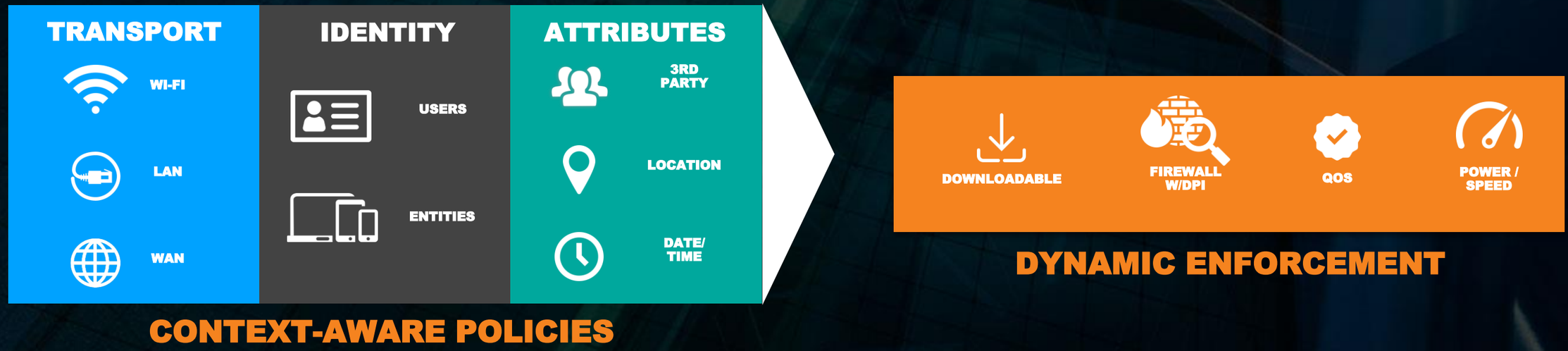
ZERO TRUST SECURITY

SIMPLIFY IT & IMPROVE SECURITY WITH DYNAMIC SEGMENTATION



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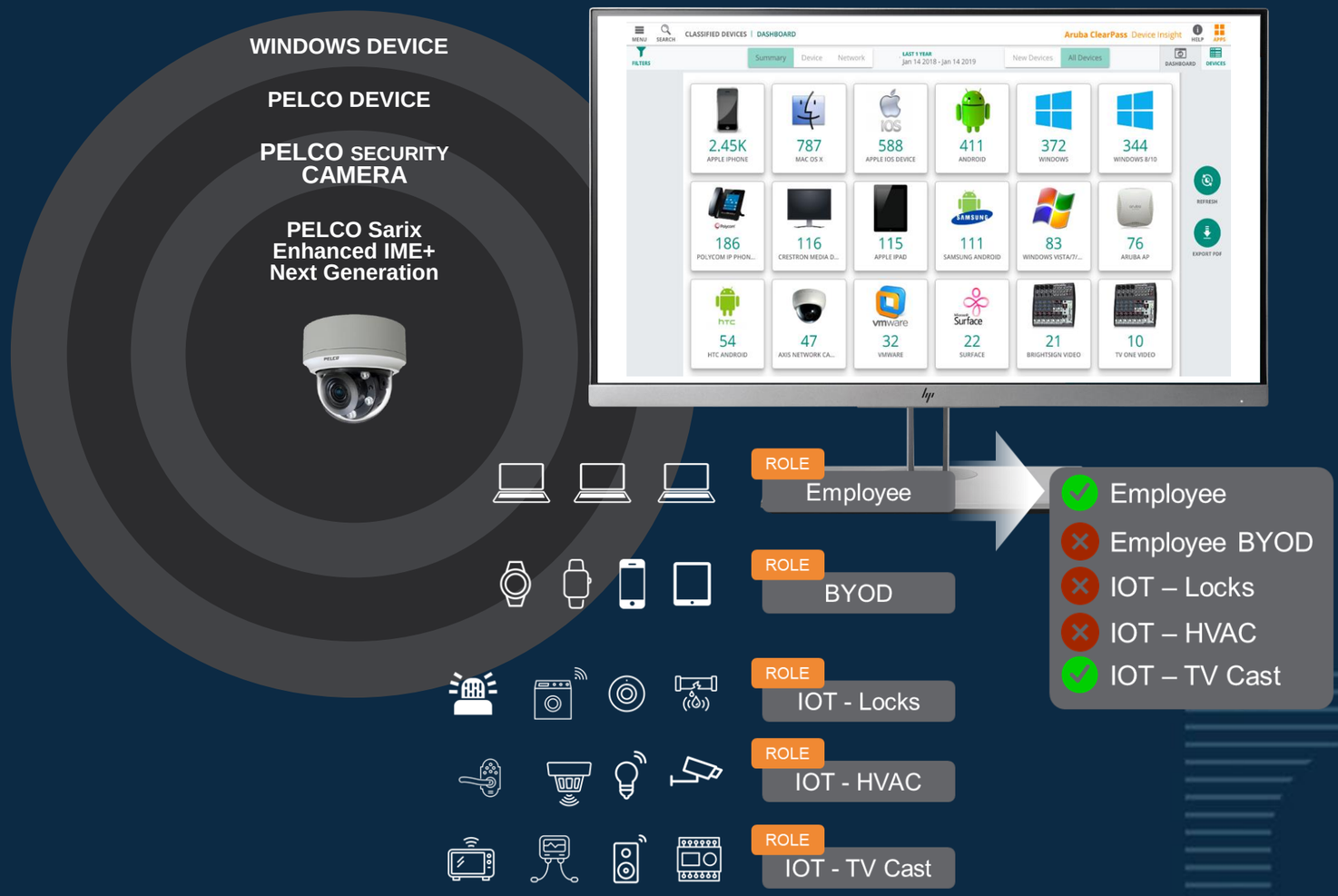
PROTECT WITH A ZERO TRUST NETWORK

Machine learning-based automated device discovery, profiling

Role-based policy

Integrated with policy-based access control

Dynamic Segmentation



ASSURANCE AT THE EDGE
FROM THE USERS' PERSPECTIVE

User Experience Insight

Simple | Proactive | Network Agnostic

User-centric analytics for SaaS, application, and network services assurance driven by machine learning—for any network

SOFTWARE AS A SERVICE

SENSOR

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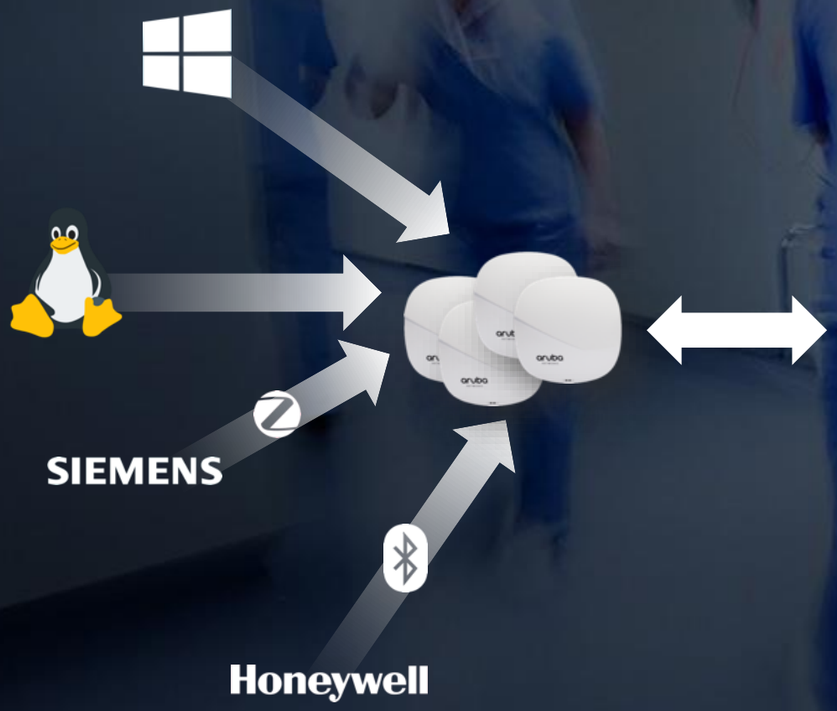
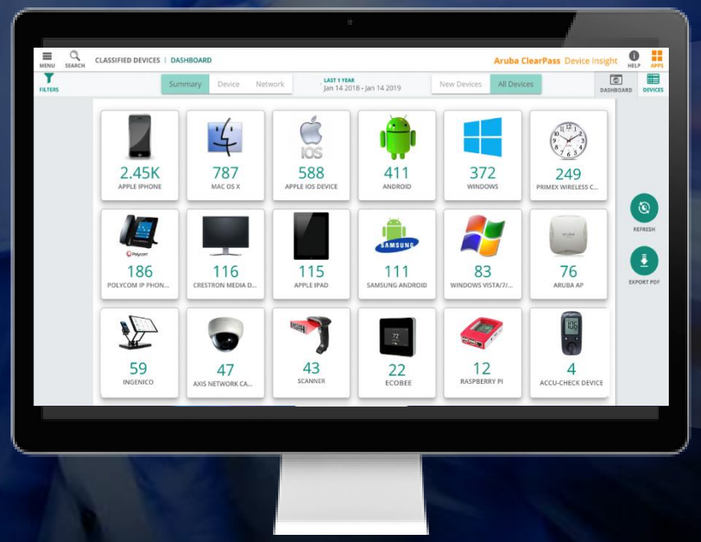
IOT IN HEALTHCARE





ClearPass Device Insight

ENHANCED DISCOVERY / PROFILING

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ACCESS POINT AS A PLATFORM

802.11ax Wi-Fi Radios

- 802.11ax network access
- Asset tracking tags
- Personnel location badges
- Smart wrist bands with telemetry sensors
- Worker safety smart helmets
- Sensors, actuators, and smart lighting systems
- Bar code scanners and mobile printers

802.15.4 Radio

- Food safety sensors
- Cooking and refrigeration sensors
- Heating, air quality, presence, security, panic, call, button, lighting, leak sensors
- Load controls and actuators
- Door locking and access systems

Bluetooth 5 Radio

- Wayfinding and geofencing
- Energy harvesting heating, air quality, presence, security, panic, call, button, lighting, leak sensors
- Load controls and actuators
- Door locking and access systems
- High accuracy industrial and Ex asset and personnel location tags

USB Port

- Cellular interfaces
- Electronic shelf labels
- Gun shot detectors
- Retrofit ZigBee interface for existing deployments
- Custom interfaces

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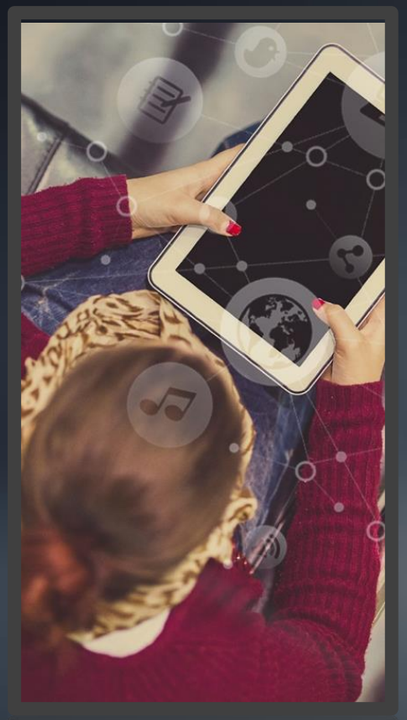
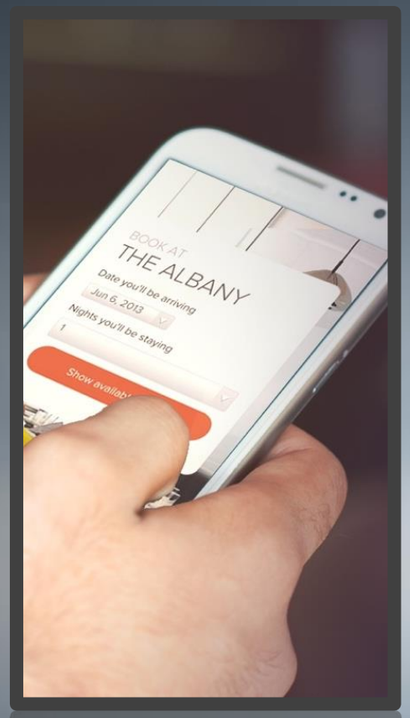
ARUBA LOCATION SERVICES IN HEALTHCARE

Engage on guest Wi-Fi portals, with content per location

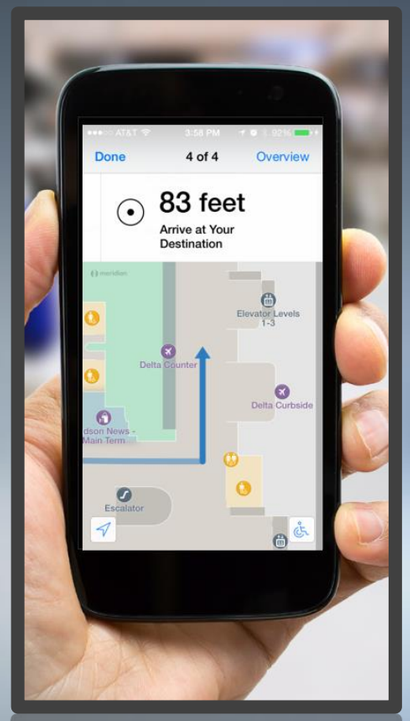


Analyze space utilization and engage users with Wi-Fi presence

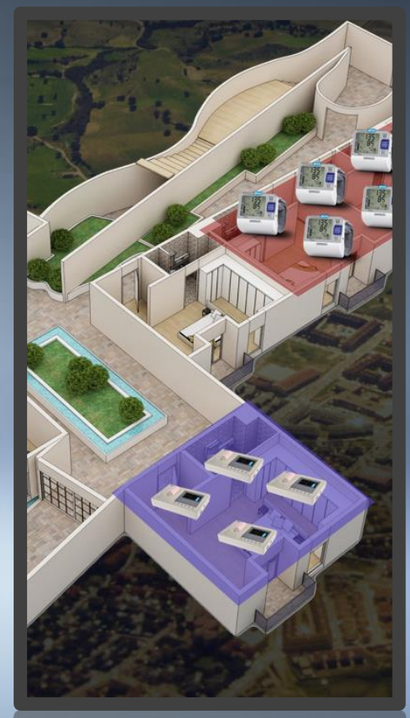
Accelerate engagement with Bluetooth powered proximity services



Improve experience with indoor maps and Bluetooth powered blue-dot navigation



Improve staff productivity with Bluetooth powered indoor asset tracking



Improve patient satisfaction

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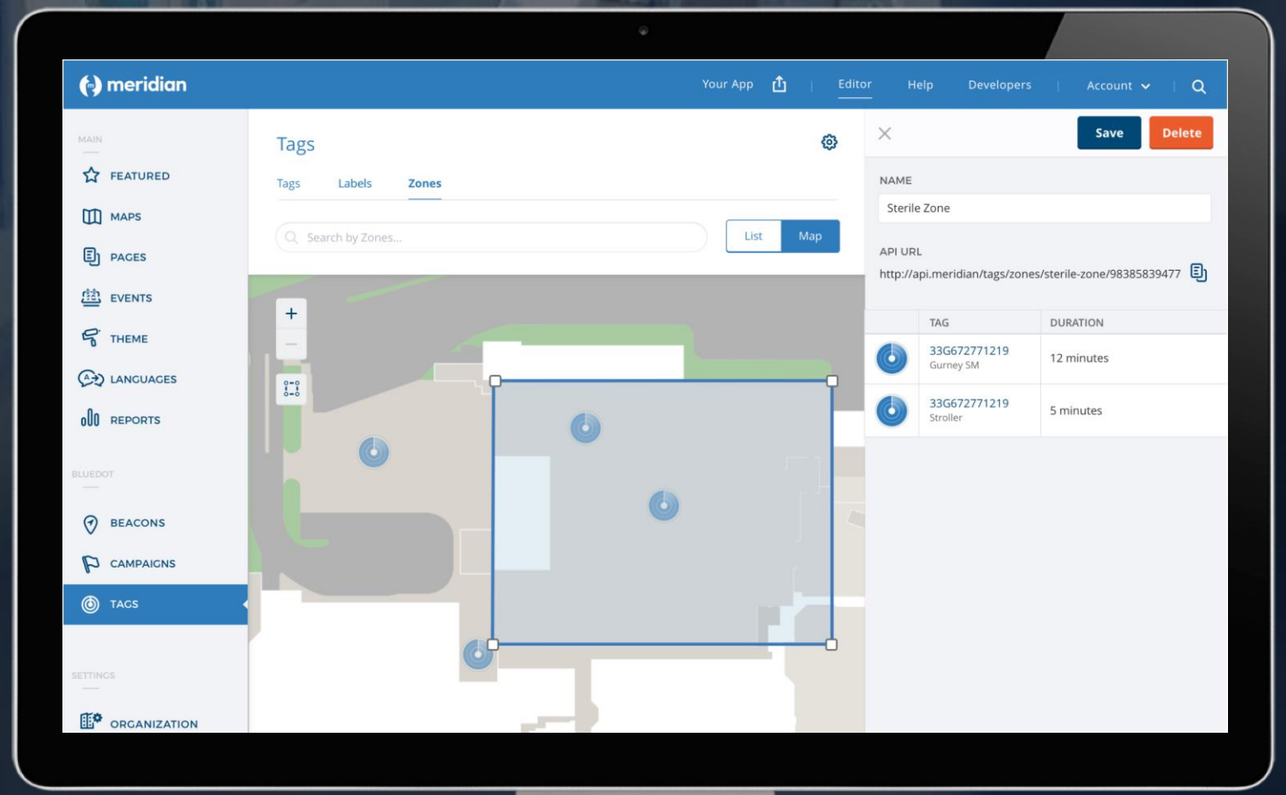
Improve staff operations

ASSET TRACKING FOR PAR LEVEL MANAGEMENT AND IMPROVED STAFF EFFICIENCY

Use Aruba WLAN to track

Presence and duration reporting

with zone entry and exit APIs



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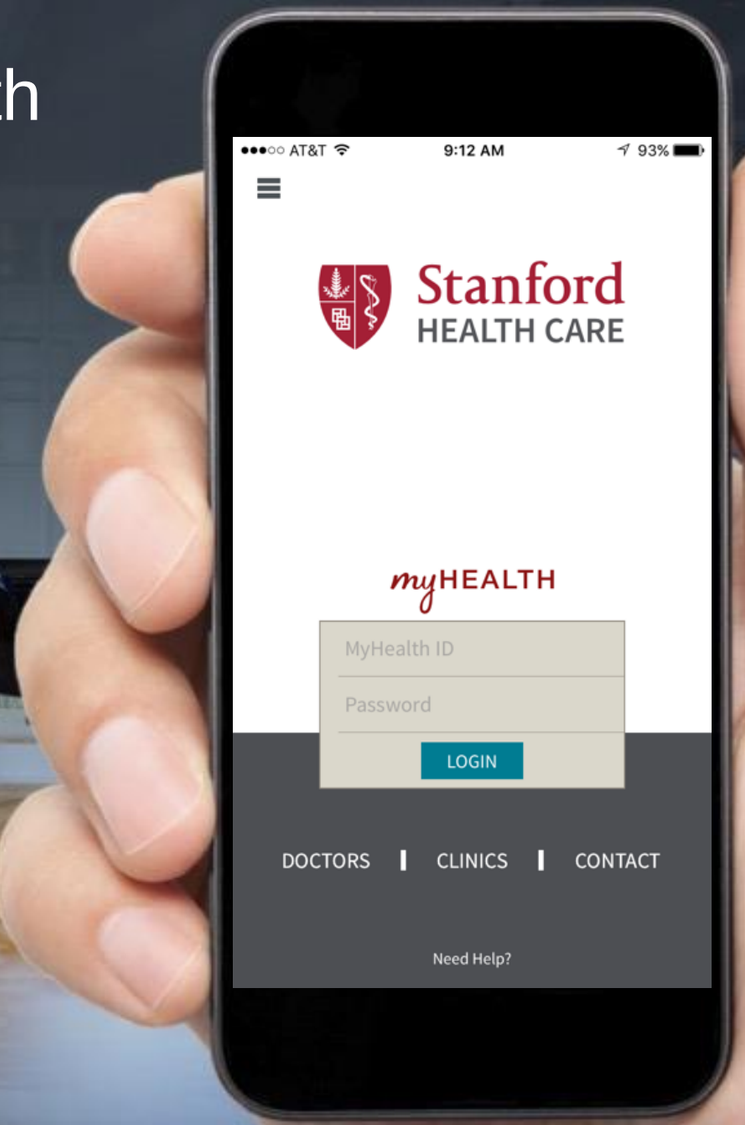
LOSE THE PAPERWORK AND SKIP THE LINE AT STANFORD

Automated check-in and smart interactions with Electronic Health Records



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Single Digital Front Door

-Find a doctor and book an appointment
-Directions from your house to the optimal parking garage based
-Drop a pin where you parked your car
- Navigation into the healthcare facility using Meridian
- Mobile Check-In
- After your appointment, navigate you back to your car
- Additional mobile app features
- Pay my bill
- Check medical results via EHR integration
- Telemedicine
- Securely email my doctor
- Engage via a chat bot

Measuring and Improving Patient Flow

-Reduce wait times
-Increase revenue

MYSPHERA®
Real time location system (RTLS)

HYPROS
INNOVATION IN TRACKING

Staff Safety

Between 8% and 38% of health workers suffer physical violence at some point in their careers.

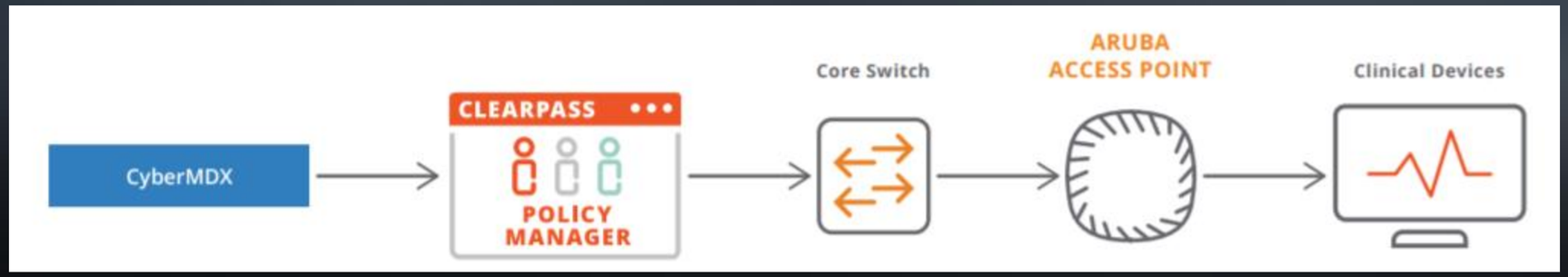
AiRISTA FLOW

CENTRAK®

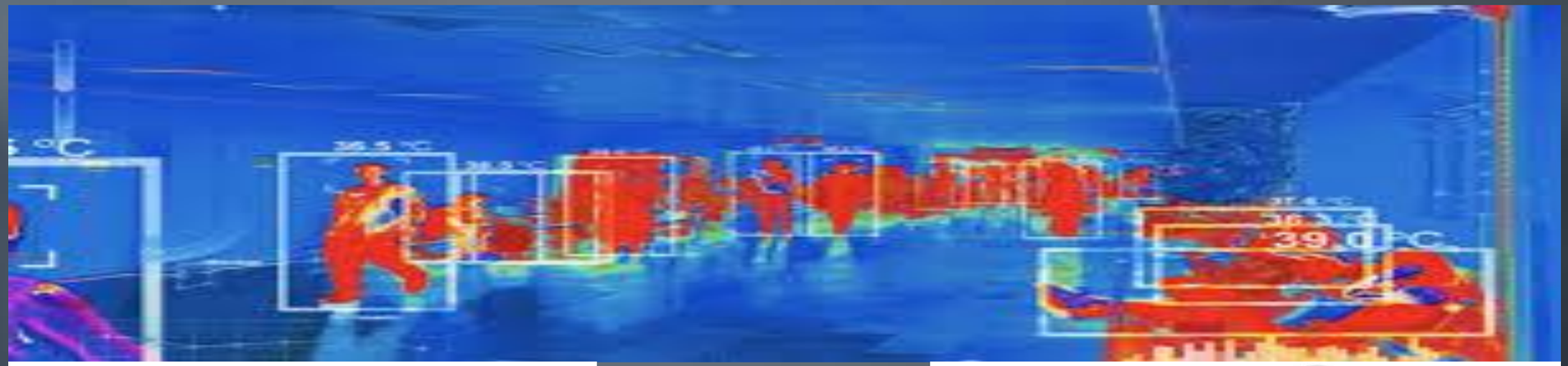
sonitor®

MEDIGATE & CYBER MDX

- The Medigate platform is focused on providing visibility into the Medical and Healthcare space
- identifies every connected device on your clinical network.
- fingerprint each device with deep packet inspection (DPI) techniques,
- This endpoint data is then shared directly with ClearPass via the ClearPass Security Exchange framework and the open API exposed under Policy Manager
- centralized visibility of network assets and endpoints across Medical IoT {MIoT} infrastructure



Using IoT Sensors to Detect Fevers



COSTAR
VIDEO SYSTEMS

Non-contact crowd temperature measurement with facial recognition

Deployment Flexibility for All Locations

Clinic

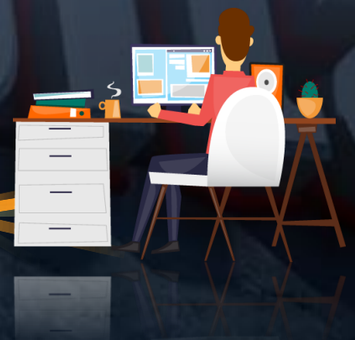
Satellite Campus Wi-Fi with built-in controller

Hospital

Controller-based centralized encryption with advanced services at scale

Remote Staff

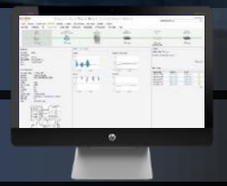
Virtual Intranet Agent and Remote APs



One network management platform

One policy management platform

Enterprise-class capabilities across all products



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RAPID DEPLOYMENT SOLUTIONS FOR DISASTER RECOVERY

Takes just minutes to deploy high-speed 3x3 MIMO 802.11ac

Built by Aruba partners, solutions are highly customizable: fly-away cases, standby power, MIL-STD mounting, FIPS 140-2, switching/routing

Optional cellular backhaul

Optional cloud management

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HEALTHCARE OF THE FUTURE

EDGE-CENTRIC
ACCESS TRANSFORMATION

CLOUD-ENABLED
WAN TRANSFORMATION

DATA-DRIVEN
COMPUTE EVERYWHERE

Intelligence will be embedded everywhere

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STAY SAFE