

# *The Perfect Storm:* *The Challenges of a CISO*

August 20, 2020

SFLHIMSS President – Oscar Perez

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# 24BY7SECURITY CORPORATE OVERVIEW

Premier national Cybersecurity and Compliance Specialists with extensive hands on experience helping businesses build a defensive IT Infrastructure against all cybersecurity threats.

- Healthcare Security & Compliance focus with over **1000 HIPAA Security Risk Assessments**, part-time CISO Services, Policy & Procedures engagements for Hospitals, MSOs, ACOs and Healthcare Technology (EMR, Pop-Health)

Well-credentialed and skilled leadership and team with a cumulative experience of over 100 years in security and compliance needs for many industries.

- Our team members have many certifications including CISSP, HCISPP, CISA, CEH, Security+, CISM, A+, Network+, CRISC, and many more. (Please visit our website <https://24By7Security.com> for a full description of our credentials).





# COVID-19 The Perfect Storm: Challenges of a CISO

Thursday, August 20, 2020



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# How COVID-19 is Changing Technology

# Acceleration of Digital Transformation

## Rapid Demand of Online Tools

- + Virtual Care – Telehealth
- + Patient education and engagement
- + Staff Training & Collaboration
  - Video conferencing & collaboration
  - Virtual Security Trainings
- + Maintaining Compliance Standards Virtually
- + Compliant collaboration
- + Securing Patient Portals

## Adapting to Remote Workforce



Overall IT Spending projected to decrease 5.7%

The two areas still projected to see positive growth



Infrastructure spending (expected to grow by 5.3%)



Software investments (up by 1.7%)  
Demand for solutions supporting remote work and collaboration will drive this growth

# Cybersecurity Threat Landscape

Rapid Change  
Increases  
Vulnerability

Remote Healthcare Staff increases utilization of personal internet networks, which may not always be secure

“Healthcare is the most targeted, yet underprepared sector” – Institute for Critical Infrastructure Infrastructure

Ransomware and phishing attacks increase with overstressed and highpace workforce

- Highly Sensitive Research under attack
- Higher PHI vulnerability

# Future Technology Considerations

Impact of returning to new normal/ future outbreaks on IT resources and infrastructure

- + Contact tracing
- + Digital wayfinding
- + Social distancing mandates
- + Continued expanded role of telehealth
- + Increased needs for more IT support

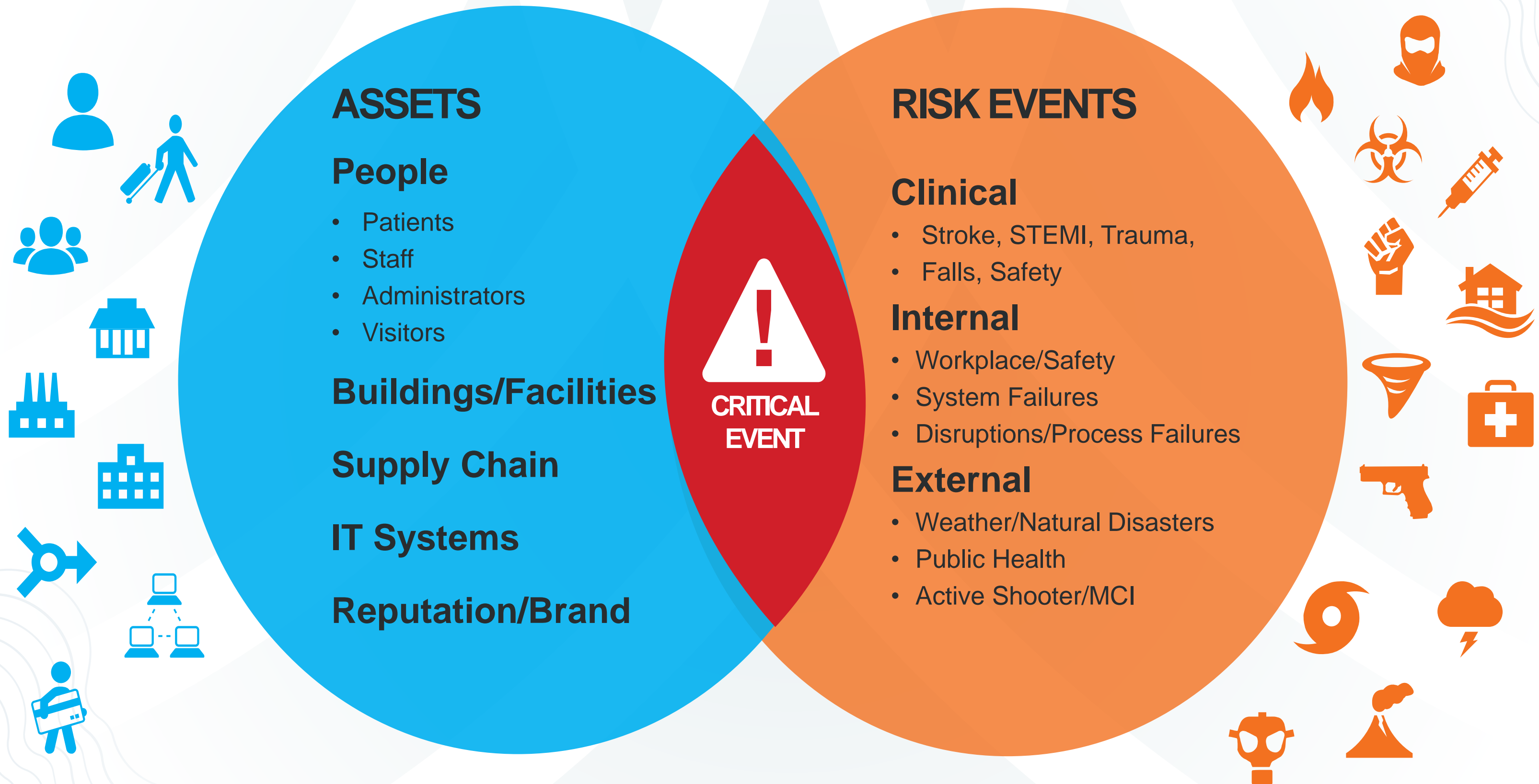




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# Key Required Capabilities to Solving COVID-19 Challenges

# What defines a critical event?



# Responding to Critical Events

## PEOPLE



**Who's impacted?**



**Who can help?**



**Who needs to know?**

## ASSETS & RESOURCES



**What's impacted?**



**What can help?**

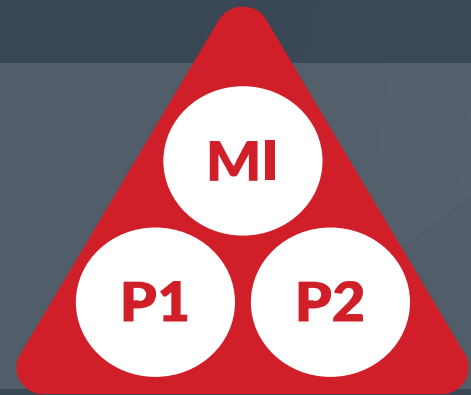


**What needs to be updated?**

# Streamline Incident Response & Accelerate Resolution

TIME TO RESTORE (M.T.T.R) →

D R I F T



INCIDENT



SERVICE RESTORED

Takes 1 Hour on average to rally IT staff

due to manual processes and no automation



Cost of downtime per minute: \$9k  
Ponemon Institute

Up to 70% of MTTR spent on the "R"  
Forrester

# Typical Ask: End-to-End Integrated Incident Response



### Monitoring

- IBM Security
- Nagios
- Tivoli Netcool
- New Relic
- solarwinds
- splunk
- dynatrace
- AppDynamics

### Ticketing

- servicenow
- bmc REMEDY
- cherwell

### Collaboration Tools

- Microsoft Teams
- Slack
- Zoom

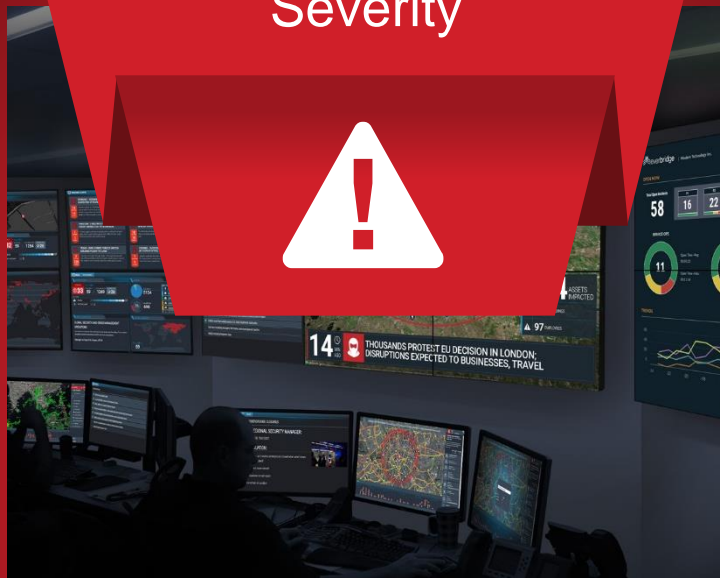
### PEOPLE

- IT STAFF
- STAKEHOLDERS
- PATIENTS

# What Managing Critical Events Really Means?

## 1 ASSESS

Context and Severity



Know What Is Happening or May Happen.

## 2 LOCATE

Identify Stakeholders and Assets



Identify Who Is Impacted, Needs to Know and Can Help.

## 3 ACT

Manage Response



Inform, Notify, Rally, Collaborate, Mitigate, Fix, Recover.

## 4 ANALYZE

Performance



Report, Comply, Learn, Improve.

Streamline critical event response and  
accelerate resolution

# COVID-19 “New Normal” Solutions

## Know Your Risks

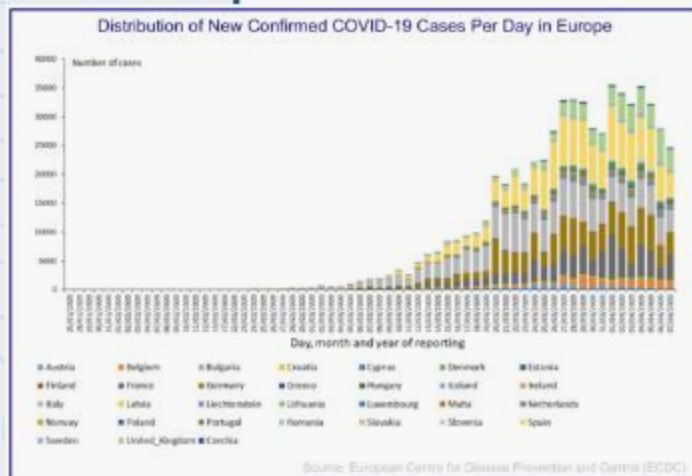
- Over 22,000 sources for risk intelligence
- COVID-19 specific intelligence:
- Quarantines, production stoppages, transportation disruptions, travel bans
- Automatically Correlated to your assets



**Situation Report**  
Global Spread of COVID-19 Drives Supply Chain Disruptions and Competition as Some Countries Consider Easing Restrictions

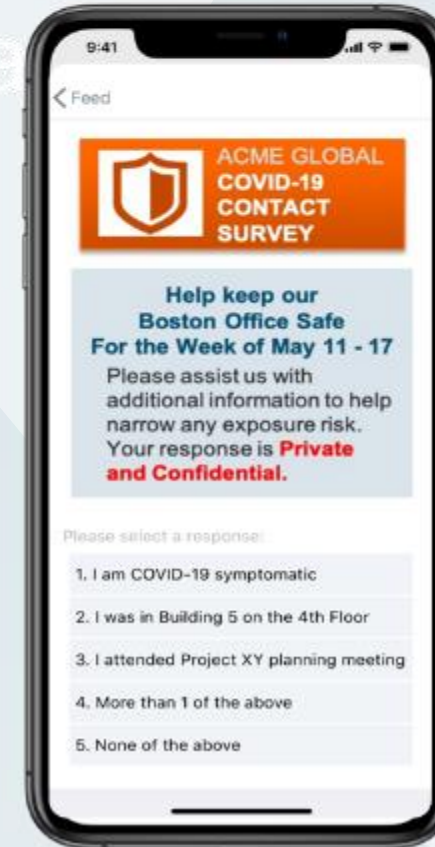
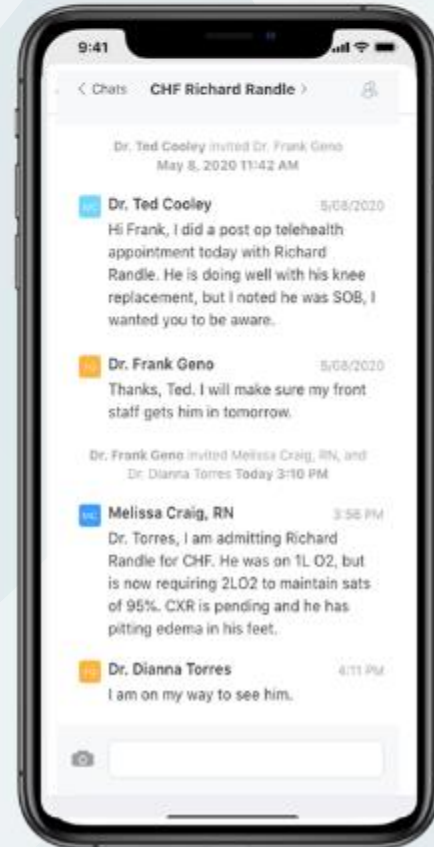


Worldwide  
April 7, 2020



## Protect Your Staff and Operations

- Patient Wayfinding – Blue/Red Zones, screening check-ins
- Patient/Staff Contact Tracing
- Telehealth/Remote Collaboration – pre & post-procedure, home health, consults
- Staff Communications – latest protocols, multi-modal, staffing needs
- Staff Wellness Checks – polling



## Protect Your Patients

- Patient Wayfinding – Blue/Red Zones, screening check-ins
- Patient/Staff Contact Tracing
- Telehealth – pre & post-procedure, home health
- Patient/Family Communications – curbside registration/waiting areas
- Remote Monitoring



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# About Everbridge



# Critical Events Impacting Health System Operations

## Environment of Care

**Natural** – e.g. hurricane, wildfire, flood

### Man-made

- Biohazard/chemical spill
- Pandemic
- Fire
- Utility failure

## Safety & Security

- Workplace Violence
- Active Assailant/Shooter
- Bomb
- Infant Abduction/Elopement

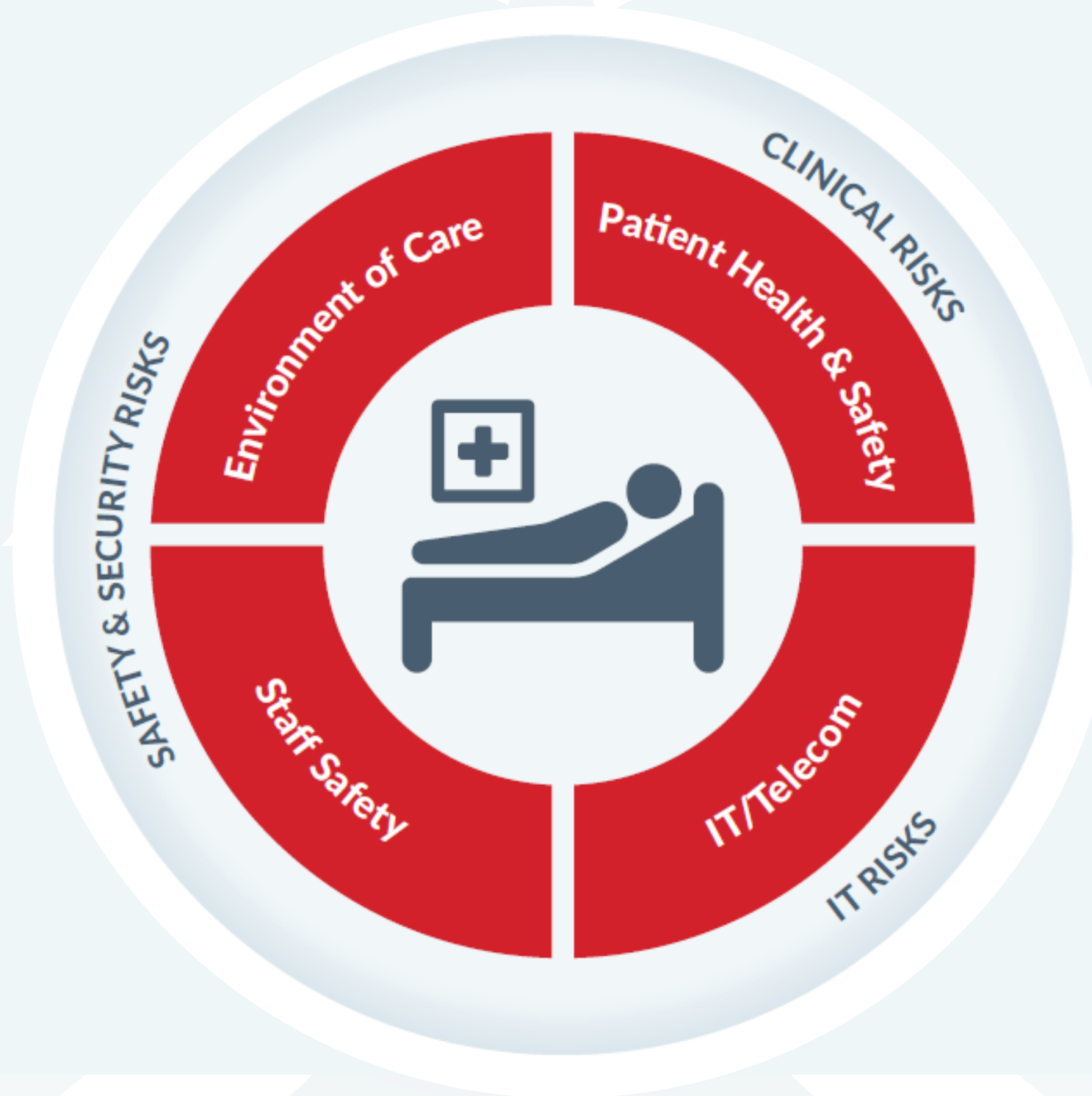
## Clinical Operations

- Emergent Patients (Stroke, STEMI, Trauma) response/coordination
- Capacity Issues (discharge, transfer, etc)
- MCI

**Wayfinding**

## IT Operations

- Ransomware
- Cyberattack
- Planned/Unplanned Downtime
- Utility failure



# Healthcare Stats



**9** OF THE **10**

largest healthcare providers

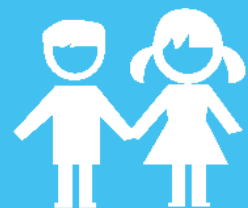
- HCA Healthcare (FKA Hospital Corporation of America)
- Universal Health Services
- Community Health Systems (CHS)
- Ascension Health
- Tenet Healthcare
- Catholic Health Initiatives (CHI)
- Trinity Health (FKA CHE Trinity Health)
- Providence St Joseph Health (AKA Providence Health & Services)
- LifePoint Health (FKA LifePoint Hospitals)

- Massachusetts General Hospital, Boston
- University of Michigan Hospitals-Michigan Medicine, Ann Arbor
- UCLA Medical Center, Los Angeles
- Cedars-Sinai Medical Center, Los Angeles
- Barnes-Jewish Hospital, St. Louis
- Northwestern Memorial Hospital, Chicago
- Vanderbilt University Medical Center, Nashville, Tenn.
- Mount Sinai Hospital, New York
- Brigham and Women's Hospital, Boston

- Boston Children's Hospital
- Children's Hospital of Philadelphia
- Texas Children's Hospital
- Children's Hospital Los Angeles
- Nationwide Children's Hospital
- Children's Hospital Colorado
- Ann and Robert H. Lurie Children's Hospital of Chicago



9 of the 20  
"Best Hospitals"  
*US News*



7 of the 10  
"Best Children's Hospitals"  
*US News*

# Everbridge Market Leadership



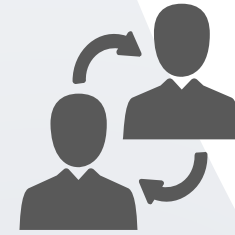
**9 OF THE 10**

largest investment banks



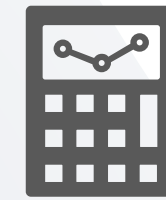
**7 OF THE 10**

largest global auto makers



**9 OF THE 10**

largest global consulting firms



**4 OF THE 4**

largest global CPA firms



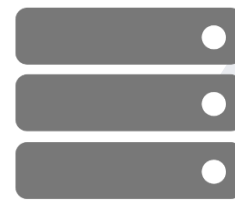
**8 OF THE 10**

largest U.S. cities



**47 OF THE 50**

busiest North American airports



**7 OF THE 10**

largest technology companies



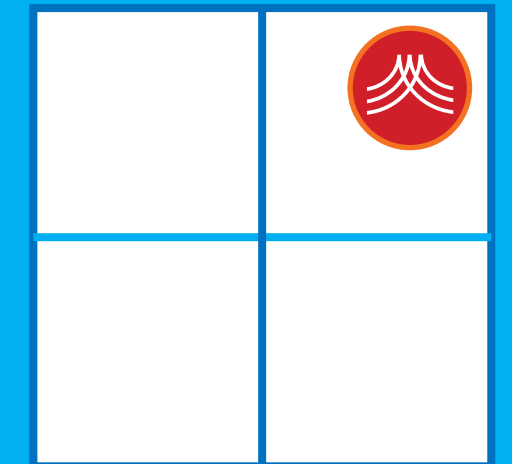
**9 OF THE 10**

largest healthcare providers

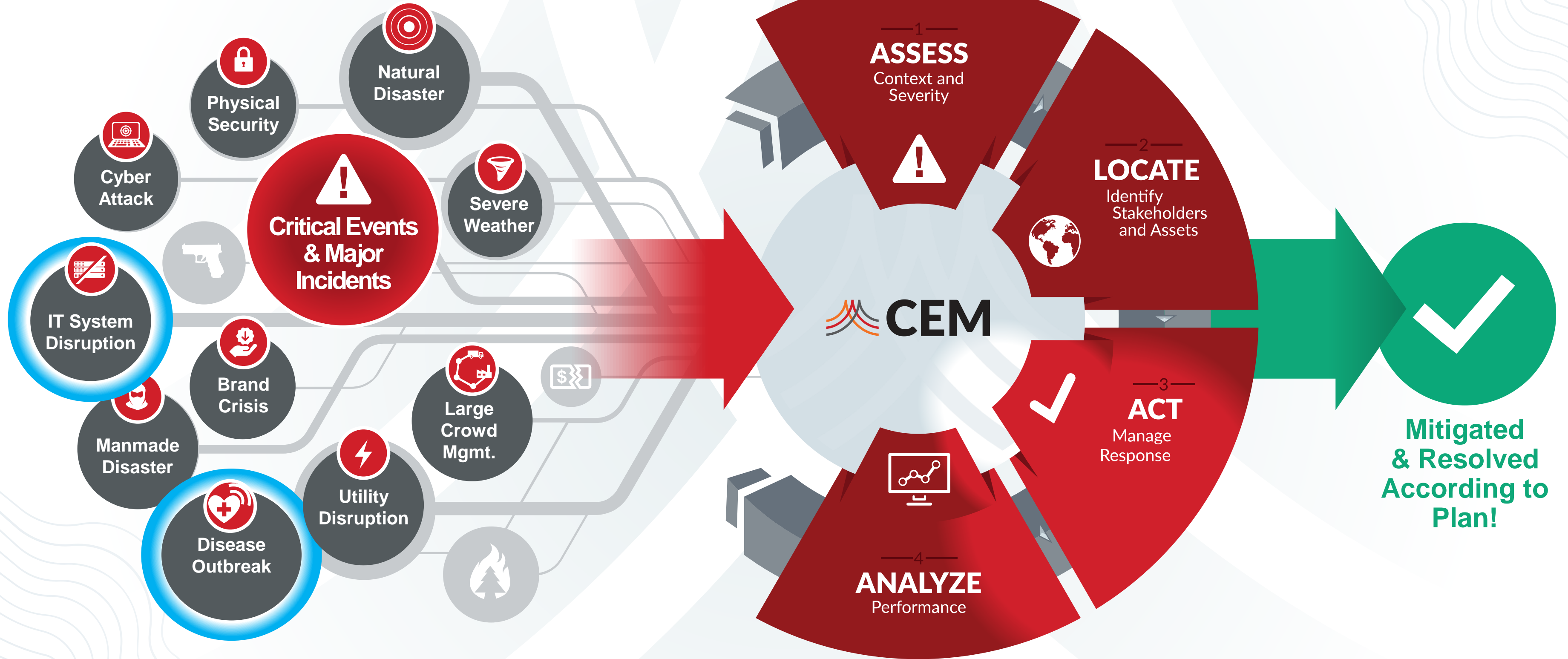


Everbridge is the only public company in the space

Gartner



Leader in Gartner Magic Quadrant



**\$18B+** Market Cap  
Nasdaq: FTNT

S&P 500

**\$2.6B**  
FY2019 Billings

Fast Growing, Solid Profitability

**660+**  
Patents

Top Innovator

# #1 Cybersecurity Company in the World

**Leading Every Evolution  
of Cybersecurity**

- ✓ *Most Deployed*
- ✓ *Most Validated*
- ✓ *Most Patented*
- ✓ *Broadest Portfolio*

**30%**  
Global Firewall Shipments

Huge Scale

**440,000+**  
Customers Worldwide

Massive Sensor Network

**30+**  
Cybersecurity Product Lines

Broadest Attack Surface Coverage

Source: Company data, Figures as of December 31, 2019

# Key Healthcare Cybersecurity Challenges



**NETWORK LATENCY:** Encryption of Electronic Protected Health Information (ePHI) is necessary for regulatory compliance but impacts availability of data for patient care.



**DATA INTEGRITY:** Incorrect or incomplete medical data can impact patient health and cause clinical risk.



**OPERATIONAL EFFICIENCY:** Digital innovations secured by point products create silos that impair operational efficiency.



**PHYSICAL DISTRIBUTION OF SITES AND PARTNERS:** Sprawling healthcare organizations must monitor and secure ePHI flowing across their networks.








**COST:** As insurance and government reimbursement program payments decline, healthcare organizations must operate with tighter budgets.



**COMPLIANCE REPORTING:** Healthcare organizations must protect a variety of sensitive data in accordance with a patchwork of privacy laws and regulations.

# Why Fortinet is the Best Choice for Healthcare Cybersecurity

Integrated Platform	Cyber-physical Coverage	Branch Networking and Security	Processing Efficiency	High-performance and Low Latency
 <ul style="list-style-type: none"><li>• Out-of-the-box connectivity to 250+ third-party vendor products</li><li>• Open-API ecosystem enables seamless integration with existing healthcare devices</li></ul>	 <ul style="list-style-type: none"><li>• Consolidated voice, networking, security and surveillance protect against both cyber and physical attacks</li><li>• Centralized visibility and management optimizes security investment and resource use</li></ul>	 <ul style="list-style-type: none"><li>• Integration and optimization of network and security solutions</li><li>• Secure network connectivity over public internet links branch offices without expensive multiprotocol label switching (MPLS) links</li></ul>	 <ul style="list-style-type: none"><li>• Application-specific circuit (ASIC) for high-performance traffic inspection</li><li>• Targeted acceleration of packet processing and content scanning minimizes network latency</li></ul>	 <ul style="list-style-type: none"><li>• Industry's best performance for encrypted traffic inspection. e.g., on vital medical data</li><li>• Low-latency NGFW performs in-depth traffic inspection with minimal operational impact</li></ul>





# Q&A

- **How are the CISOs handling work from home?**
- **Risk of contactless delivery of healthcare (Telemedicine, Prescription mail to home, etc.)**
- **What do you do about insider threats?**
- **How are you managing pervasive use of medical devices**
- **How does your security posture compare to others?**



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