

#PSCR2019



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\*Please note, unless mentioned in reference to a NIST Publication, all information and data presented is preliminary/in-progress and subject to change



**TECH TO  
PROTECT  
CHALLENGE**

Designing apps that further the mission of  
Emergency Responders



# Plenary Session & Panel



**Moderator**  
**NIST PSCR**



**Bill Schrier**  
**Senior Advisor**  
**First Responder**  
**Network Authority**



**Taunya Harris**  
**Acting Deputy CIO**  
**Deputy Director, IT**  
**Public Safety**  
**City of Houston**



**Jonathan H. Lewin**  
**Chief, Bureau of Technical**  
**Services**  
**Chicago Police**  
**Department**

# Part 1: Intro & Overview

- What, who, why, when, where, how?
- Inside view of the design process
- Co-sponsors & collaboration
- Snapshots of each contest
- Run Time: 20 minutes



# What is the Tech to Protect Challenge?



## **Open Innovation Program**

Focusing on creating early stage and prototype software solutions for emergency responders

## **Collaborative Effort**

Includes public safety, large and small business, government, and innovators across the country

## **Multi-Org Support**

Led by PSCR and implemented under contract with the RedFlash Group and SecondMuse, with support from multiple organizations

# What is the Tech to Protect Challenge?



## Scope

Includes 10 unique contests, 10 regional codeathons, and an online contest – with a national awards event

## Incentives

NIST anticipates awarding 182 prizes based on technical capabilities and commercialization potential to top performing participants, ranging from \$1K-\$100K, totaling \$2.2M

# Who is included?

## Co-sponsors



**FIRSTNET.**  
Built with AT&T



**MOTOROLA**  
SOLUTIONS



**SF STATE**

HACKERFUND™

// **FLATIRON SCHOOL**  
**galvanize**

## Government



**PSCR**



**First Responder**  
**Network Authority®**

## Public Safety



INTERNATIONAL WIRELESS  
COMMUNICATIONS EXPO



**IACP**



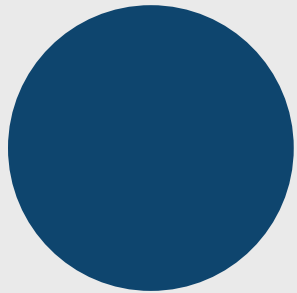
**EMSWORLD**



## Participants



# Why this approach?



## Potential to Improve Public Safety

- Digital natives entering the ranks
- Expectation of top-of-the-line technology and innovative solutions



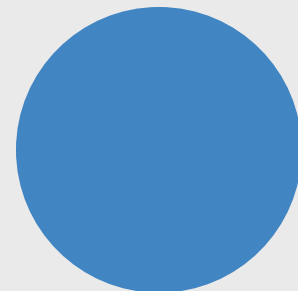
## Communicate Unique Needs

- Public Safety apps will always be better if developers understand the community's unique needs



## Unique Needs from Other App Users

- Security, reliability, privacy , etc.
- Unique laws or regulations
- Operational environments



## Concept to Prototype

- Open Innovation diversifies the potential solutions created
- Process provides time, feedback, testing, planning, and bridge

# When are the key dates?





# Where can I participate?

- Seattle, WA
- San Francisco, CA
- Los Angeles, CA
- Denver, CO
- College Station, TX
- Chicago, IL
- Pittsburgh, PA
- New York, NY
- Washington, DC
- Miami, FL
- &
- Online

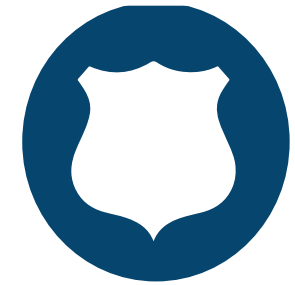
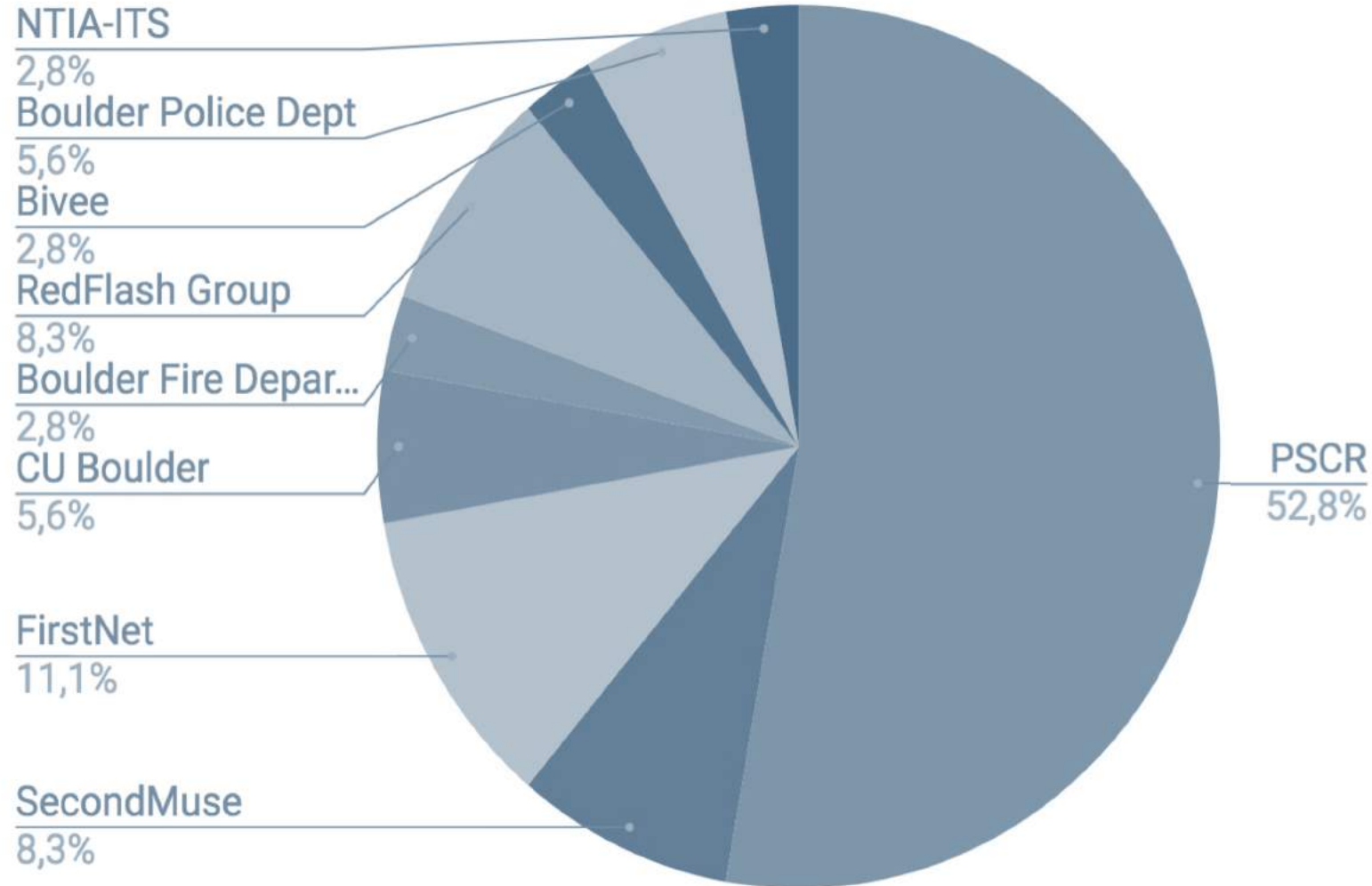


# How did we design this?



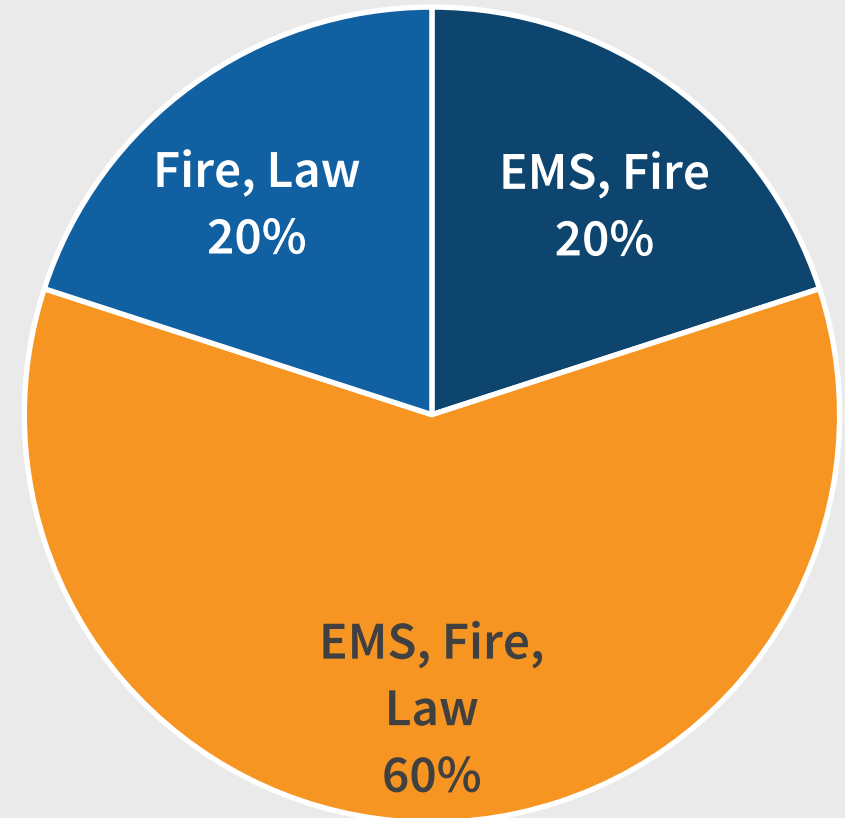
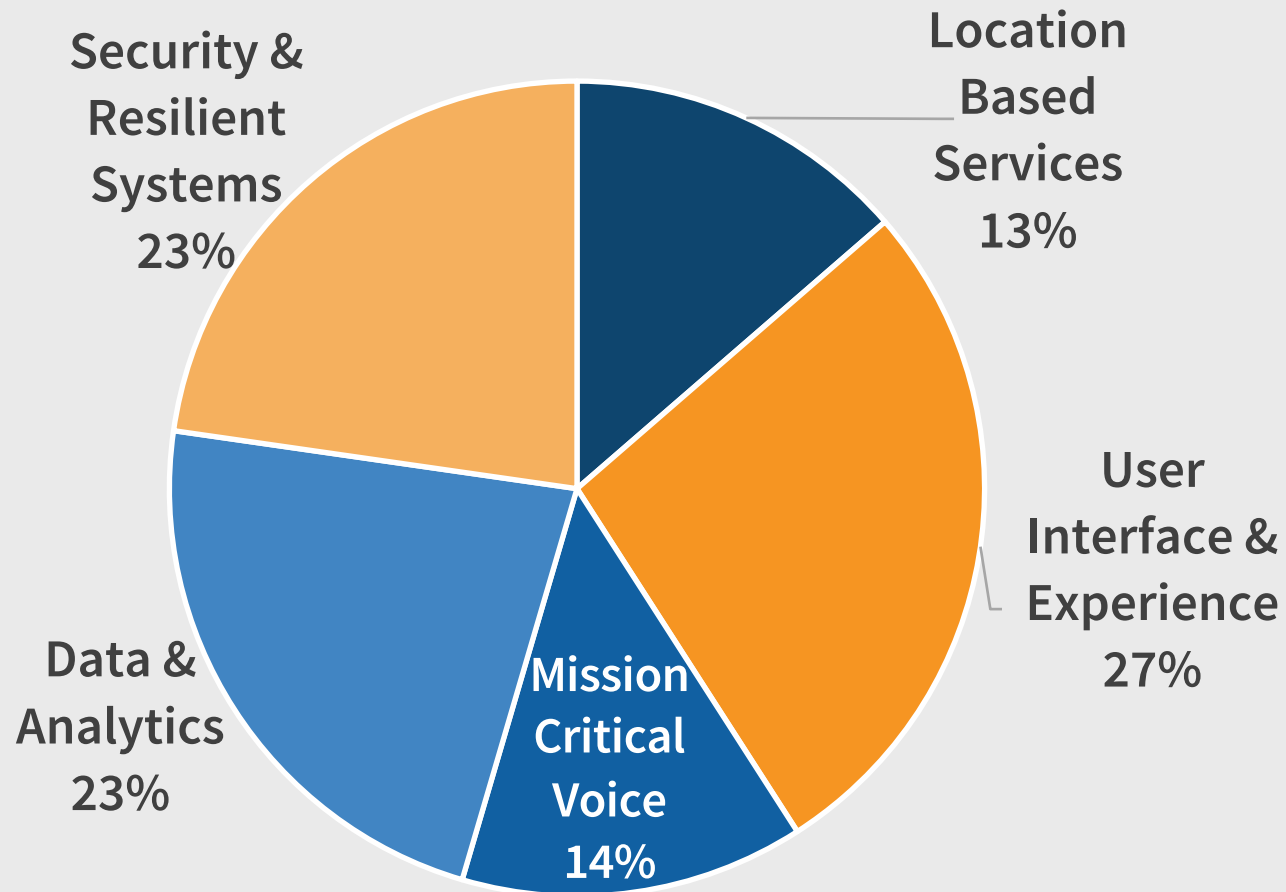


# Contest Definition Workshop



# Contest Distribution

Post-Contest Definition Workshop





# Contest Snapshot



CONTEST 001//

**360 Degree View: A Mobile Dashboard for Your Network Security**



Build a centralized mobile data dashboard to keep emergency responders continually aware of the security of their connections.



CONTEST 003//

**Looking Under the Hood: Using Augmented Reality to Help Save Trapped Passengers**



Use AR to map the safest way to extricate passengers in critical vehicle collisions.



CONTEST 002//

**No Need To Repeat: Delivering Mission Critical Communications**



Strengthen voice communications with push-to-talk technology for mission-critical response.



CONTEST 004//

**Got You Covered: Mapping LTE Capabilities to Save Lives**



Expand mapping capabilities to better assess LTE network coverage.

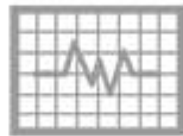
# Contest Snapshot



CONTEST 005//

**Fire Safety in 3D: Incentivizing Homeowners to Create Pre-Incident Plans for Firefighters**

Design a prototype app that incentivizes homeowners to upload 3D floor scans in order to create fire safety checklists and pre-incident plans.



CONTEST 007//

**Sensor Integration: Monitoring Emergency Responders' Health**

Leverage emergency responder sensor and sensor networks to support on-the-job safety.



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CONTEST 006//

**Voice Commands to Virtual Assistants: Hands Free Device Control**

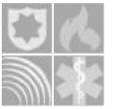
Create a customized, voice-activated virtual assistant fit for emergency response.



CONTEST 008//

**No Coverage: Placing Deployable Networks in Emergencies**

Develop a diagnostic tool that informs emergency responders on the expected and current coverage and services of LTE deployable networks.



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# Contest Snapshot



CONTEST 009//

**Making the Case: Proactive Image Protection**

Enhance digital security by creating software that detects image tampering and manipulation.



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CONTEST 010//

**Organizing Chaos: Calming Catastrophe by Tracking Patient Triage**

Improve response for locating, tagging and tracking patients in mass casualty incidents.



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[www.techtotoprotectchallenge.org/contest](http://www.techtotoprotectchallenge.org/contest)

## Part 2: Panel Discussion

- Pre-solicited questions for the panel
- Run Time: 25 minutes

# Plenary Session & Panel



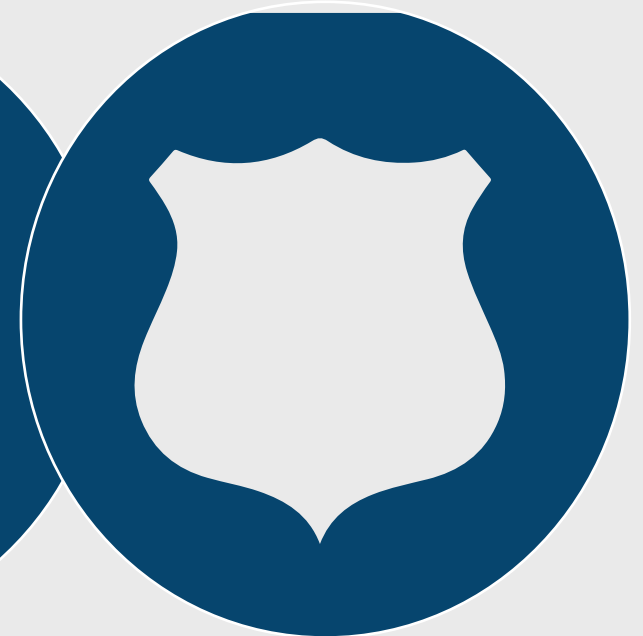
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## Part 3: Call to Action

- How we can work together to support the success of this program
- Run Time: 5 minutes

# How we can work together to support the success of this program

## Individuals, teams, and organizations

- Register and prepare to participate in-person at a regional codeathon hosted in one of 10 cities (Fall 2019) or online

## Emergency responders

- Join individually or as a team to participate in the coding contests and submit solutions
- Be a resource to participants in-person at one of the 10 regional codeathons or online as a partner public safety agency



# How we can work together to support the success of this program

## Co-sponsors & Supporters

- Join the growing list of national and regional co-sponsors by pledging in-kind support, sponsored activities, or tangential prizes for participant recognition awards or other materials to enable contestant participation





# How we can work together to support the success of this program



<https://twitter.com/techtprotect>



<https://www.facebook.com/TechtoProtect>



<https://www.linkedin.com/company/techtprotect/about>



<https://www.instagram.com/techtprotect>

The background of the slide is a blue-tinted photograph of a person rappelling down a rope. The person is wearing a helmet with a cross symbol, a vest with "SHERIFF" written on it, and a harness. The rope is attached to a metal hook at the top. The background shows a blurred, rocky or mountainous terrain.

## Part 4: Full Audience Q&A

- Questions from the audience
- Don't leave us hanging
- Run Time: 10 minutes

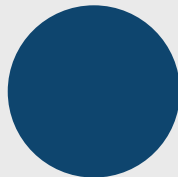




Thank You



# Thank You!



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#PSCR2019

Get your hands on the tech!

**Demos Open**

BACK AT

**10:45 AM**