

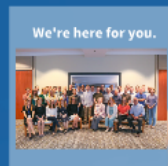
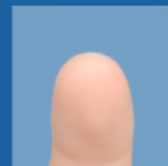
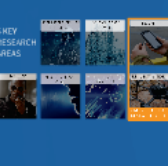
PSCR 2020: THE DIGITAL EXPERIENCE

PSCR PROGRAM OVERVIEW

Dereck Orr, *Division Chief*



#PSCR2020



The reason for this meeting is YOU



PSCR 2020 PORTAL



WE'RE HERE TO HELP.



YOUR INPUT MATTERS.



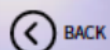
PSCR 2020 PORTAL



PSCR 2020:
THE DIGITAL EXPERIENCE







BACK

LIVE SESSIONS

TUESDAY JULY 28TH

10:00am MST / 12:00pm EST

PSCR PROGRAM OVERVIEW

FEATURING PUBLIC SAFETY KEYNOTE

TODD EARLY, TEXAS DEPARTMENT
OF PUBLIC SAFETY
DERECK ORR, PSCR DIVISION CHIEF

CLAIM YOUR SPOT

WEDNESDAY JULY 29TH

10:00am MST / 12:00pm EST

FIRESIDE CHAT

WITH FIRSTNET BOARD CHAIRMAN

DERECK ORR, PSCR DIVISION CHIEF
ED HOROWITZ, FIRST RESPONDER
NETWORK AUTHORITY

CLAIM YOUR SPOT

WEDNESDAY JULY 29TH

1:00pm MST / 3:00pm EST

HAPTIC INTERFACES:

WHAT WE LEARNED BY
PARTICIPATING IN A
PSCR PRIZE CHALLENGE

SARAH HUGHES, PSCR
CAPTAIN TODD HEINL, WEST METRO
FIRE DEPARTMENT
RYAN FIELDS-SPACK, FIRSTNET
BUILT WITH AT&T,
FELIX DESOURDY, HAPLY
SEAN HACKETT, CARNEGIE MELLON
UNIVERSITY

CLAIM YOUR SPOT

THURSDAY JULY 30TH

10:00am MST / 12:00pm EST

THIS IS NOT A GAME:

AR/VR FOR GOOD

STACEY TRUNNELL (MODERATOR),
CORNER ALLIANCE
ALISON KAHN, PSCR
CAPTAIN KIRK MCKINZIE,
CONSUMNES FIRE DEPARTMENT
GREG RINALDI, MAGIC LEAP

CLAIM YOUR SPOT



PSCR 2020
PORTAL



ON-DEMAND
SESSIONS



LIVE
SESSIONS



TECH
DEMOS



OPEN
INNOVATION



NETWORKING
LOUNGE



HELP
DESK

TECH DEMOS

MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



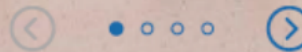
MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



MISSION CRITICAL VOICE



PSCR 2020
PORTAL



ON-DEMAND
SESSIONS



LIVE
SESSIONS



TECH
DEMOS



OPEN
INNOVATION



NETWORKING
LOUNGE



HELP
DESK

ON-DEMAND SESSIONS

**START HERE:
7-MINUTE PORTFOLIO
OVERVIEWS**

**USER INTERFACE
USER EXPERIENCE**

**LOCATION-BASED
SERVICES**

SECURITY

COMMERCIALIZATION

**MISSION CRITICAL
VOICE**

**PUBLIC SAFETY
ANALYTICS**

**RESILIENT
SYSTEMS**



PSCR 2020
PORTAL



ON-DEMAND
SESSIONS



LIVE
SESSIONS



TECH
DEMOS



OPEN
INNOVATION




NETWORKING
LOUNGE

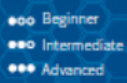


HELP
DESK

ON-DEMAND SESSIONS


 BACK
Send OTP


USER INTERFACE USER EXPERIENCE




- Beginner
- Intermediate
- Advanced


Prototyping 3D User Interfaces for First Responders

 [CLICK TO PLAY ON-DEMAND SESSION](#)


●●●  MORE INFO


Immersive Ballistic Simulation in Virtual Reality

 [CLICK TO PLAY ON-DEMAND SESSION](#)


●●●  MORE INFO

7000+ First Responders Have More to Say: Nationwide Usability Survey Results at Your Fingertips

 [CLICK TO PLAY ON-DEMAND SESSION](#)


●●●  MORE INFO


Building Virtual Reality for Public Safety

 [CLICK TO PLAY ON-DEMAND SESSION](#)

●●●  MORE INFO


CHARIoT Prize Challenge Discussion

 [CLICK TO PLAY ON-DEMAND SESSION](#)


●●●  MORE INFO

Cameras That Understand Your Needs

 [CLICK TO PLAY ON-DEMAND SESSION](#)


●●●  MORE INFO


First Responder Feedback on a VR Emergency Response Scenario and User Interface

 [CLICK TO PLAY ON-DEMAND SESSION](#)

●●●  MORE INFO

ARTEMIS: Measuring Usability in a Virtual Environment

 [CLICK TO PLAY ON-DEMAND SESSION](#)

●●●  MORE INFO



PSCR 2020
PORTAL

ON-DEMAND
SESSIONS

LIVE
SESSIONS

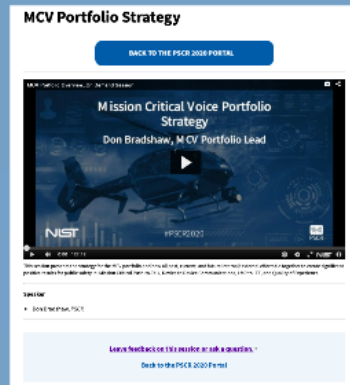
TECH
DEMOS

OPEN
INNOVATION

NETWORKING
LOUNGE

HELP
DESK

YOUR INPUT MATTERS.



A screenshot of the "MCV Portfolio Strategy Feedback Form". The form includes a thank you message, a link to "Leave feedback on this session or ask a question.", and a rating scale from 1 (Very Dissatisfied) to 5 (Completely Satisfied).



A screenshot of the "PSCR 2020 Q&A" page. The page features a "COMING SOON" banner and a section for "Please use this document to view researcher's answers to the questions you've submitted about any LNE or on-demand sessions. This document will be updated regularly as questions are submitted." Below this, there is a button to "Back to the PSCR 2020 Portal".

MCV Portfolio Strategy

[BACK TO THE PSCR 2020 PORTAL](#)



This session presents the strategy for the MCV portfolio and how all past, current, and future internal/ external efforts tie together to create significant positive results for public safety in: Mission Critical Push-to-Talk, Device to Device Communications, LMR to LTE, and Quality of Experience.

Speaker

- Don Bradshaw, *PSCR*

[Leave feedback on this session or ask a question.](#)

[Back to the PSCR 2020 Portal](#)

PSCR 2020: THE DIGITAL EXPERIENCE

PSCR.GOV



#PSCR2020

NIST

MCV Portfolio Strategy Feedback Form

Thank you for your participation in the MCV Portfolio Strategy on-demand session.

We will aim to address all questions that are received, but please understand there may be a delay. We will publish all questions and answers to the PSCR website here - <https://www.nist.gov/ctl/pscr/pscr-2020-qa>, with the exception of questions that may be more specific to your organization's needs.

Your input matters. Thank you for sharing your feedback with PSCR.

* Required

Please rate your satisfaction with this session. *

1 2 3 4 5

Very Dissatisfied

☐ ☐ ☐ ☐ ☐

Completely Satisfied



PUBLIC SAFETY
COMMUNICATIONS
PSCR RESEARCH

PSCR 2020: THE DIGITAL EXPERIENCE

HOME > [HELP DESK](#)

PORTAL CONCIERGE

Contact the
organizers for
help with a
question

SUGGESTED PATHS

Start your
journey with
suggested
sessions

HELP DESK

MOBILE APP

Build your
schedule or read
descriptions &
bios

PSCR 2020 Q&A

View submitted
session
questions and
answers



PSCR 2020
PORTAL



ON-DEMAND
SESSIONS



LIVE
SESSIONS



TECH
DEMOS



OPEN
INNOVATION



NETWORKING
LOUNGE



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PSCR 2020 Q&A

View submitted
session
questions and
answers

PSCR 2020 Q&A

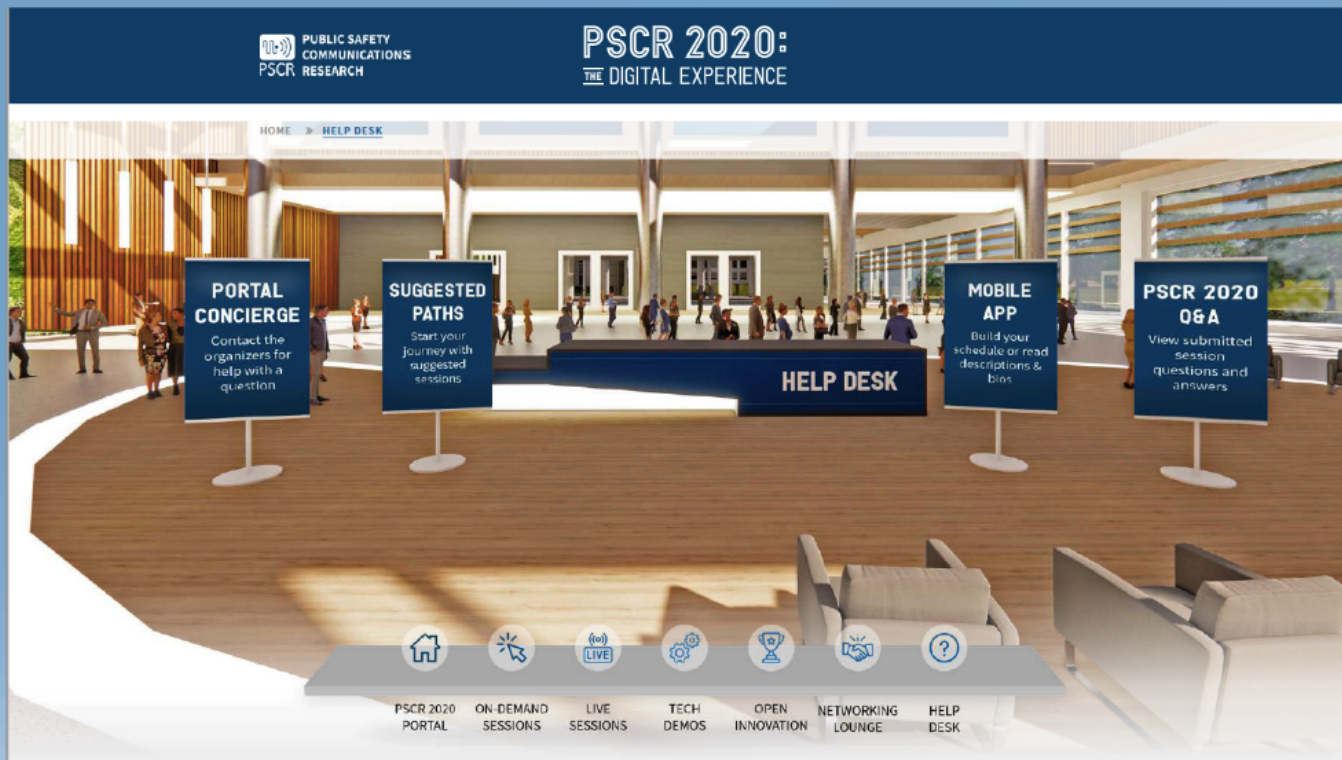
COMING
SOON 

Please use this document to view researcher's answers to the questions you've submitted about any LIVE or on-demand sessions. This document will be updated regularly as questions are submitted.

To submit a question, please visit the relevant on-demand session, linked from the PSCR 2020 portal and click "Leave feedback or ask a question about this session."

[Back to the PSCR 2020 Portal](#)

WE'RE HERE TO HELP.





NIST



PSCR Innovation Accelerator Program



Middle Class Tax Relief and Job Creation Act of 2012 passed. FirstNet is created.



Section 6303 provides \$300M to NIST to perform critical R&D to ensure success of FirstNet.



Focus on MCV & LMR to LTE



Addressing R&D necessary to push beyond current broadband technology.



Working closely with Public Safety and FirstNet every step of the way.



Open Innovation program utilizing grants and awards to address high priority public safety R&D needs.



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BACK IN 2013...

1

**ROADMAP
WORKING
GROUP**



2

**ROADMAP
PUBLICATION**



3

**ROADMAP
SUMMIT**



4

**SUMMIT
REPORT**



5 KEY RESEARCH AREAS

USER INTERFACE USER
EXPERIENCE



LOCATION-BASED
SERVICES



SECURITY



LMR to LTE



MISSION CRITICAL
VOICE



PUBLIC SAFETY
ANALYTICS



RESILIENT SYSTEMS



CROSS CUTTING
RESEARCH AREAS

If you're new to PSCR, check out
**PSCR 101 to PSCR 2020: A
Program History and Intro to
the Digital Experience**

[https://www.nist.gov/ctl/pscr/resource-library/pscr-
webinar-series](https://www.nist.gov/ctl/pscr/resource-library/pscr-webinar-series)

HOW ARE WE MEASURING SUCCESS?



PUBLISHED THIS YEAR

NIST Special Publication 1248

**Public Safety Communications
Research Division Impact Report:
Fiscal Years 2017 – 2019**

Jeremy Glenn
Isabel Shaw
Marc Leh

This publication is available free of charge from:
<https://doi.org/10.6028/NIST.SP.1248>

NIST
National Institute of
Standards and Technology
U.S. Department of Commerce



Check out the
Making an Impact
Panel
on-demand session
for more
information!

MEASURABLE IMPACT ON SAVING LIVES, PROPERTY, ETC.

↪ PSCR research indirectly supports this goal

TRANSFORMING PUBLIC SAFETY OPERATIONAL CAPABILITIES

↪ PSCR research directly supports this goal



Research
Capacity



Disruptive
Approaches &
Technology



Standards



Products



Public Safety
Methods

**PSCR PRIMARILY FOCUSES ON DEVELOPING,
EXPANDING, OR INFLUENCING THESE 5 AREAS**

PSIAP GRANT PROGRAM

OVER **\$58M**

IN **GRANTS**
AWARDED

 **TO DATE**

LOCATED IN
26  **US**
STATES

167 TOTAL
AWARD RECIPIENTS
SUBCONTRACTORS &
PUBLIC SAFETY PRACTITIONERS

LOCATED IN
11 COUNTRIES
TOTAL 
IN NORTH AMERICA & EUROPE

OPEN INNOVATION PROGRAM

OVER **\$2.1M**

**IN PRIZES
AWARDED**

TO DATE 

PARTICIPANTS

FROM **20**

STATES

& **7**

COUNTRIES

OVER **350** TOTAL

SUBMISSIONS

12 CHALLENGES 
LAUNCHED

WINNERS: 

130 TEAMS

RESEARCH HIGHLIGHTS

123 **PSCR PROFESSIONAL JOURNAL**
& CONFERENCE PUBLICATIONS 2013-2019

(This number reflects the number of publications that have been voluntarily reported to date, with final #'s (award "products") not due to be reported by PSIAP awardees until they submit final reports at the conclusion of their awards)

INTRAMURAL

46 **PSCR RESEARCH PUBLICATIONS**

33 PROFESSIONAL JOURNAL/CONFERENCE PROCEEDINGS

13 OTHER PUBLICATIONS (INCLUDING NISTIR)

EXTRAMURAL

77 **PSIAP AWARD RECIPIENT PUBLICATIONS**

73 PROFESSIONAL JOURNAL/CONFERENCE PROCEEDINGS

4 OTHER PUBLICATIONS

OVER **20** 
PUBLICALLY AVAILABLE
OPEN SOURCE CODE
INCLUDING VR ENVIRONMENTS
& ANALYTICS FRAMEWORKS

1 **PATENT GRANTED**
FOR RESILIENT SYSTEMS
AWARD RECIPIENT

3 **PATENT APPLICATIONS SUBMITTED FOR**
LOCATION-BASED SERVICES AWARD RECIPIENTS

WHAT'S NEXT?

COMMERCIALIZATION



2019 SIM CARD CHALLENGE

MOST COMMERCIALY PROMISING AWARD



SoloSIM
\$3.5K

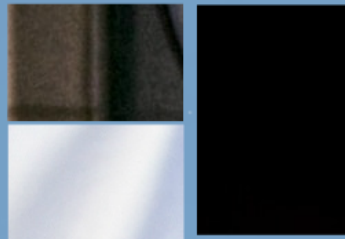
FOLLOW-ON FUNDING

TECHNICAL AND BUSINESS ASSISTANCE
AND DEMONSTRATION PROJECTS
WITH PUBLIC SAFETY AGENCIES

<https://www.grants.gov/web/grants/view-opportunity.html?oppId=327052>



WHAT'S NEXT? COMMERCIALIZATION



TECH TO PROTECT CHALLENGE



up to
\$1.93M



2019 SIM CARD CHALLENGE

MOST COMMERCIALY PROMISING AWARD



SoloSIM

\$3.5K

TECH TO PROTECT CHALLENGE



up to
\$1.93M

SEED & PROGRESS EVALUATION ROUND

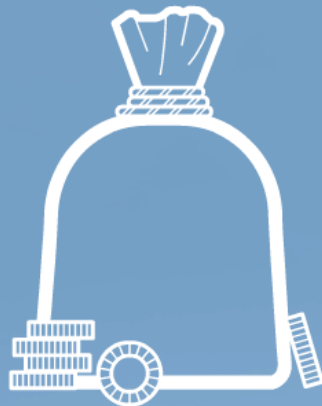
\$10K Seed Award
presented
May 1, 2020



Up to \$10K Progress Award
available in
November 2020

SEED & PROGRESS EVALUATION ROUND

\$30K Seed Award
presented
May 1, 2020

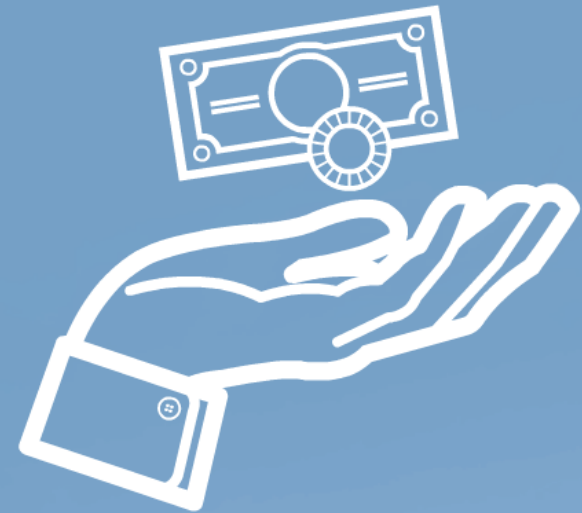


Up to \$70K Progress Award
available in
November 2020

FOLLOW-ON FUNDING

TECHNICAL AND BUSINESS ASSISTANCE AND DEMONSTRATION PROJECTS WITH PUBLIC SAFETY AGENCIES

<https://www.grants.gov/web/grants/view-opportunity.html?oppld=327052>



The work is not done yet.

2020 Mobile Fingerprint Capture
for First Responders Challenge

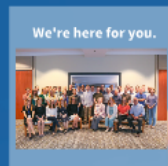
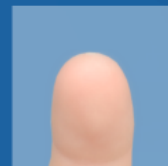
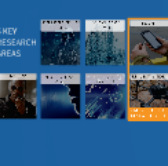
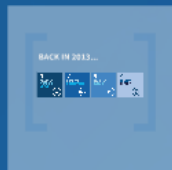


2020 Computer Vision
Datasets for Quality Analysis
Challenge

First Responder 3D Indoor
Tracking (FR3D) Prize

We're here for you.





THANK YOU QUESTIONS?

Use the chat box to ask us now.

#PSCR2020