



# MAJOR CITIES CHIEFS & MAJOR COUNTY SHERIFFS

## Survey of Technology Needs: Body Worn Cameras

*DHS Office of Emergency Communications*



Homeland  
Security

Office of Emergency Communications



# Purpose and Respondents



- **Sponsor: DHS Office of Emergency Communications**
- **Focus: Technology and Interoperability Challenges**
- **Not legal, evidentiary, or privacy issues**

<b>Agency Type</b>	
<b>Police</b>	64.9%
<b>Sheriff</b>	33.8%
<b>Metro</b>	1.3%
<b>International</b>	9.1%



# Key Findings



- **Commitment to Proceed**
- **Much Is Unknown**
- **Technology vs. Policy**
- **Comprehensive Plans are Required**



# Status of BWC Programs



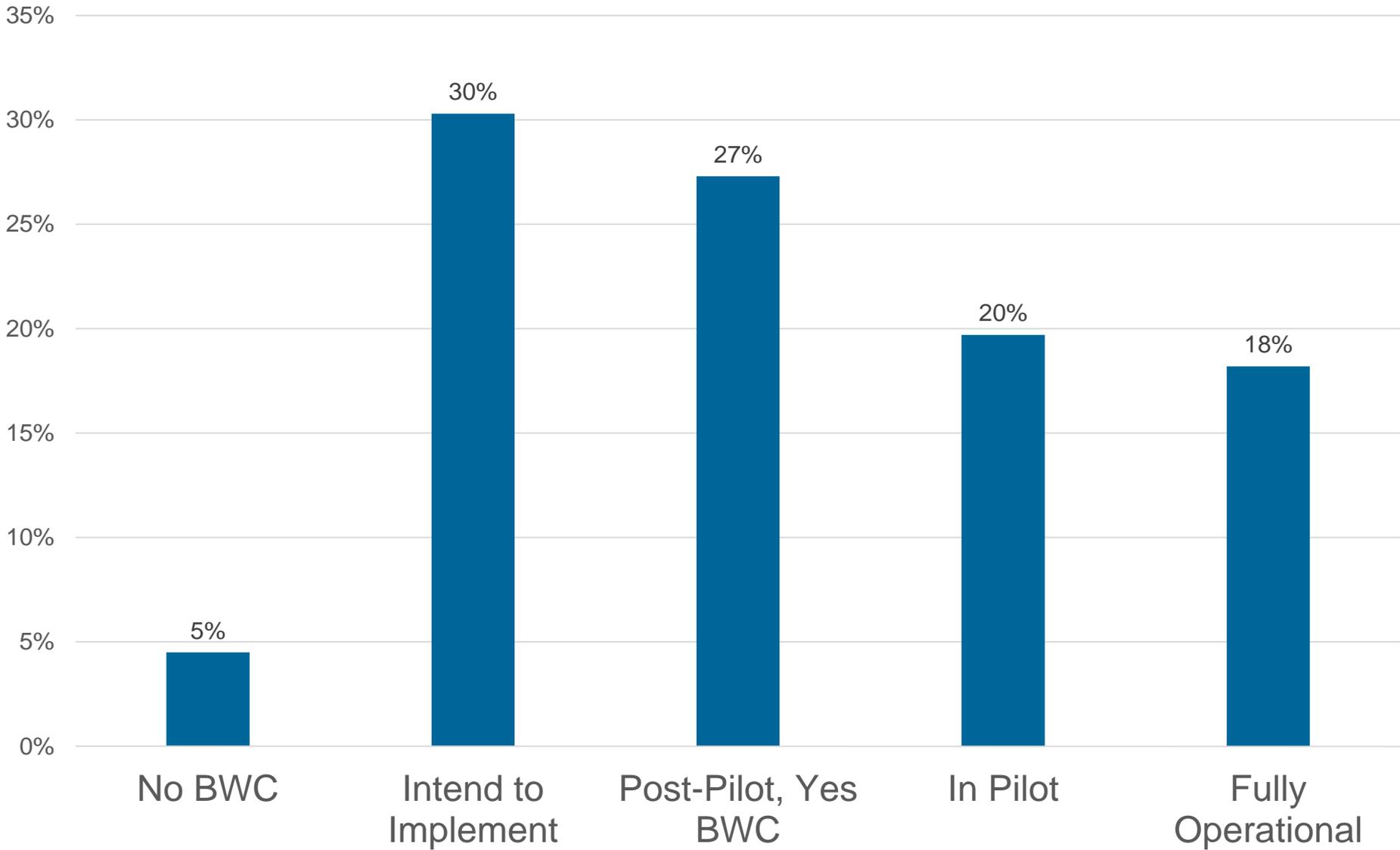
- Local agencies are moving forward with implementation
- Despite of a lack of IT infrastructure and technical solutions to fully support program

## What is the current status of BWCs in your agency?

<b>Fully Operational</b>	18.2%
<b>Committed to Program</b>	77.3%
<b>Do not Intend to Implement BWC</b>	4.5%



# Status of Body Camera Programs





# Current Status



## Modern high-bandwidth architecture – LAPD

- Fiber WAN capable of transferring data quickly
- Download to SAN (storage area network)
- Upload to cloud at scheduled intervals



## Existing network lacks capacity – DC

- Need to upgrade WAN & integrate system
- Increase storage capacity



## Major Improvements Required – Philly

- Inadequate network, could transfer only to server in building
- Infrastructure not able to accommodate volume





# Networking & Data Storage



**BWC Docking**

Transferred to HQ Server Farm



Internet



Upload to Cloud

Network



Transferred to Station Server



Officer with BWC goes to Station





# IT Infrastructure



More than 70% of respondents recognized need to expand and improve infrastructure

**Will you be required to expand/improve your current IT infrastructure?**

<b>Yes</b>	70.6%
<b>No</b>	16.2%
<b>Don't Know</b>	13.2%



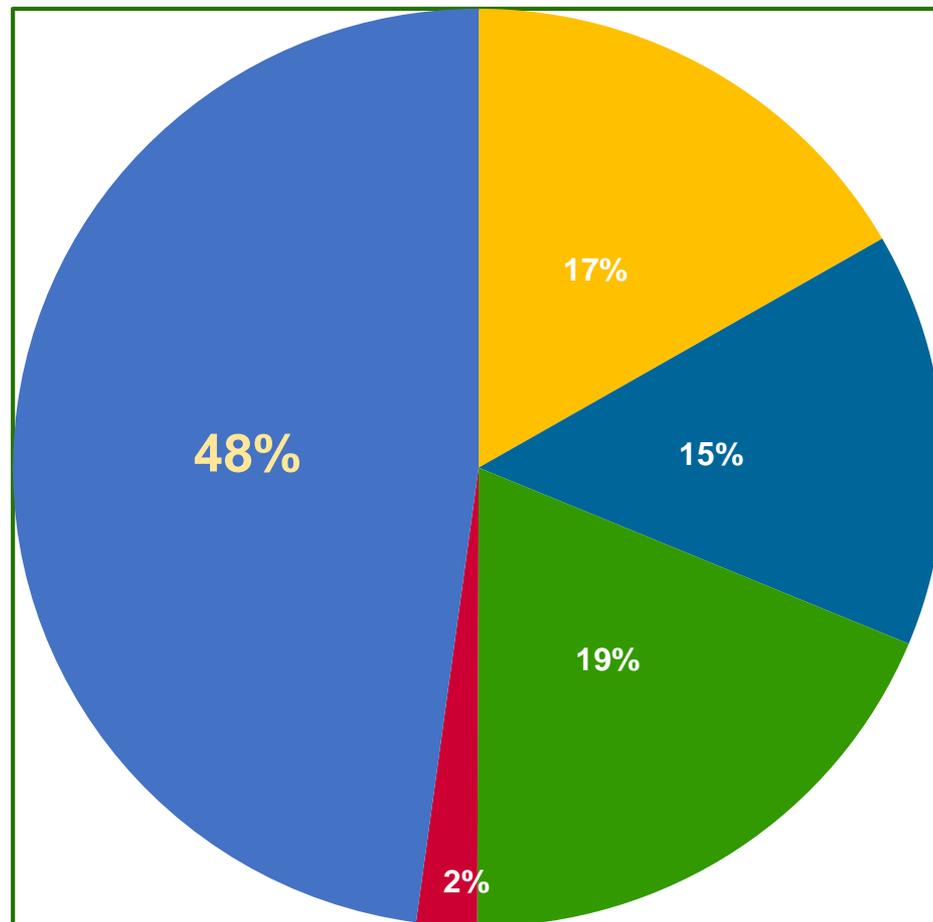


# Do the Math: Network Capacity



For your planned system, what will be the amount of bandwidth required?

10 – 100 Gbps	16.7%
1 – 10 Gbps	14.6%
100 Mbps – 1 Gbps	18.8%
10 – 100 Mbps	2.1%
1 – 10 Mbps	0.0%
Don't know	47.9%





# Do the Math: Storage



$$1 \frac{GB}{hour} \times 3 \frac{hr\ rec}{shift} \times 10 \frac{off.}{shift} \times 3 \frac{shifts}{day} = 90 \frac{GB\ rec}{day}$$

**Estimated increase in storage capacity per year considering the length of time BWC video must be stored?**

<b>Less than 100 GB</b>	0.0%
<b>100 GB - 1 TB</b>	5.9%
<b>1 TB - 10 TB</b>	8.8%
<b>10 TB - 100 TB</b>	25.0%
<b>100 TB - 1 PB (Petabyte)</b>	10.3%
<b>Greater than 1 PB (Petabyte)</b>	4.4%
<b>Don't know</b>	45.6%



# Policy Drives Requirements



**Decisions** that determine storage, retention, and transmission of the information

- Factors include technological limitations, state and local laws, and internal policies

## What is not adequate at present?

Current storage capacity	45.8%
Current network/bandwidth capability	54.2%
Don't know/Other	31.6%



# Policy: Users of Video Data



## Who Receives Video Data

Access to the system for sharing video data	
District Attorney	70.6%
City Attorney	45.6%
Internal Affairs	75.0%
FOIA unit	38.2%
Don't know	16.2%
Other	13.2%

Additional Personnel needed to manage/maintain BWC program	
No increase	11.8%
1 to 5	35.3%
5 to 10	25.0%
10 to 20	5.9%
More than 20	2.9%
Don't know	19.1%



# Policy: FOIA



- Freedom of Information Act (FOIA)
- Specialized software to review and redact before public release
- Dedicated Personnel

## Will your agency be subject to FOIA release of video?

Yes	73.5%
No	7.4%
Don't know	19.1%

## Will your department redact videos in response to FOIA requests?

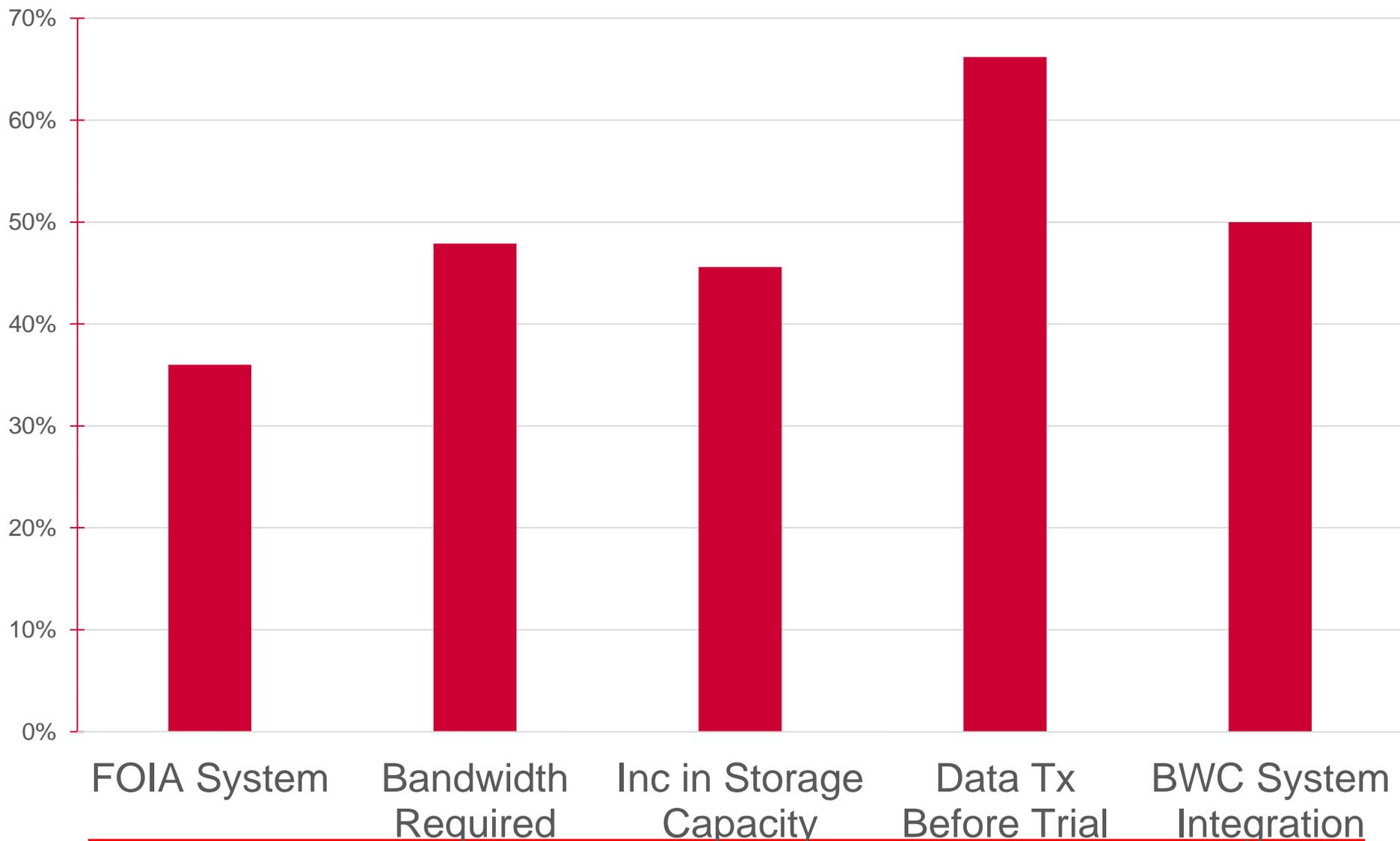
Yes	78.0%
No	4.0%
Not yet determined	16.0%
Don't know	2.0%

## What type of equipment will be needed to process videos for court and FOIA?

Software installed on pre-existing hardware	50.0%
Purpose built workstation	16.0%
Outsourced to vendor	6.0%
Not yet determined	36.0%
Other	8.0%



# More Unknown Than Known





# Key Decisions



- **On/Off (Recording) Policy:**
  - ✓ How long are cameras on and running?
- **Retention Policy:**
  - ✓ How long do you keep it?
- **City and County Partners:**
  - ✓ DA, Defense, IA
- **Public Release:**
  - ✓ Yes / No
- **FOIA Release:**
  - ✓ What does law require?
- **Storage:**
  - ✓ Cloud or On-Premise
- **Network:**
  - ✓ Centralized or Decentralized System

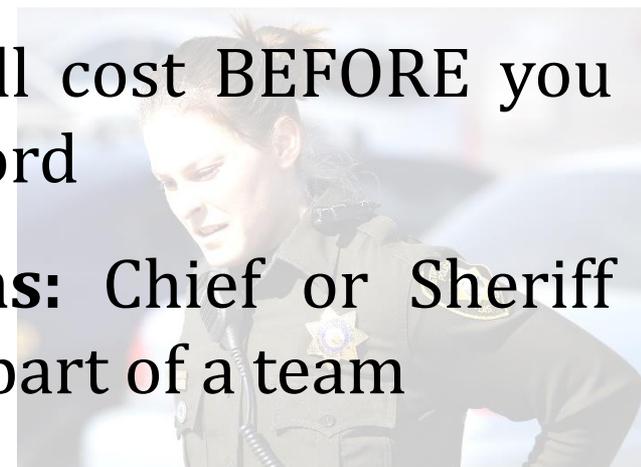




# The Way Forward



- **Adopt a Plan:** Know your destination – BEFORE you begin the journey to get there
- **Determine Policies:** Make key decisions NOW – they will drive the costs of implementation
- **Learn Technology Requirements:** Obstacles and traps – to overcome and avoid
- **Secure a Budget:** Know what it will cost BEFORE you implement a program you cannot afford
- **Make City/County Wide Decisions:** Chief or Sheriff cannot go it alone on this issue, only part of a team





# Support and Assistance



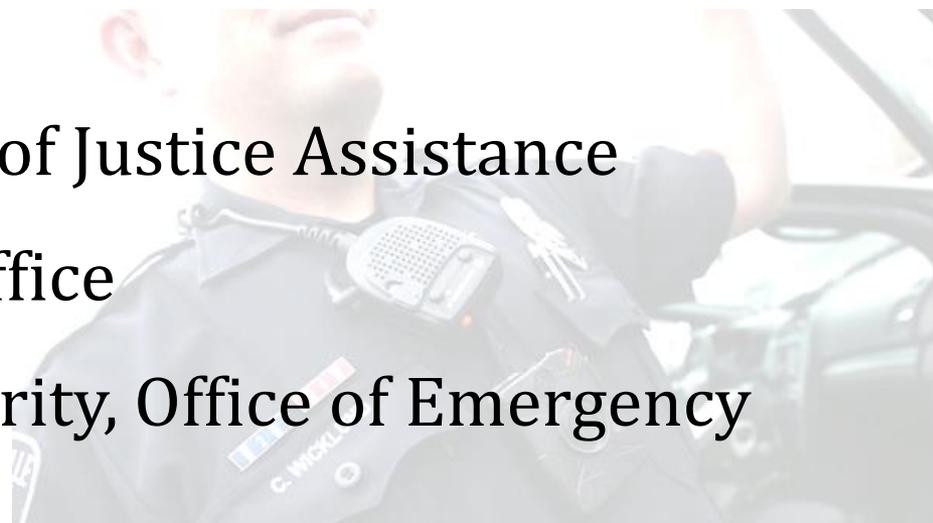
- **Seek Help and Advice**

- Colleagues who are pioneers
- Professional groups that will help you
- Vendors alone cannot guide you



- **Federal Assistance**

- Dept. of Justice, Bureau of Justice Assistance
- Dept. of Justice, COPS Office
- Dept. of Homeland Security, Office of Emergency Communications





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