



MAJOR CITIES CHIEFS & MAJOR COUNTY SHERIFFS

Survey of Technology Needs: Body Worn Cameras

DHS Office of Emergency Communications

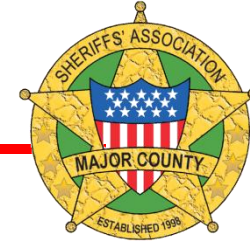


Homeland
Security

Office of Emergency Communications



Purpose and Respondents

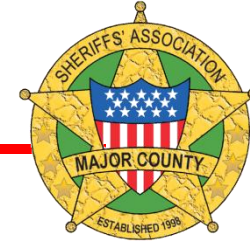


- **Sponsor: DHS Office of Emergency Communications**
- **Focus: Technology and Interoperability Challenges**
- **Not legal, evidentiary, or privacy issues**

Agency Type	
Police	64.9%
Sheriff	33.8%
Metro	1.3%
International	9.1%



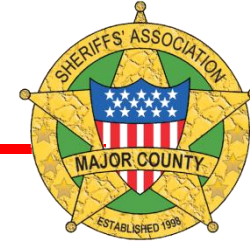
Key Findings



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



Status of BWC Programs



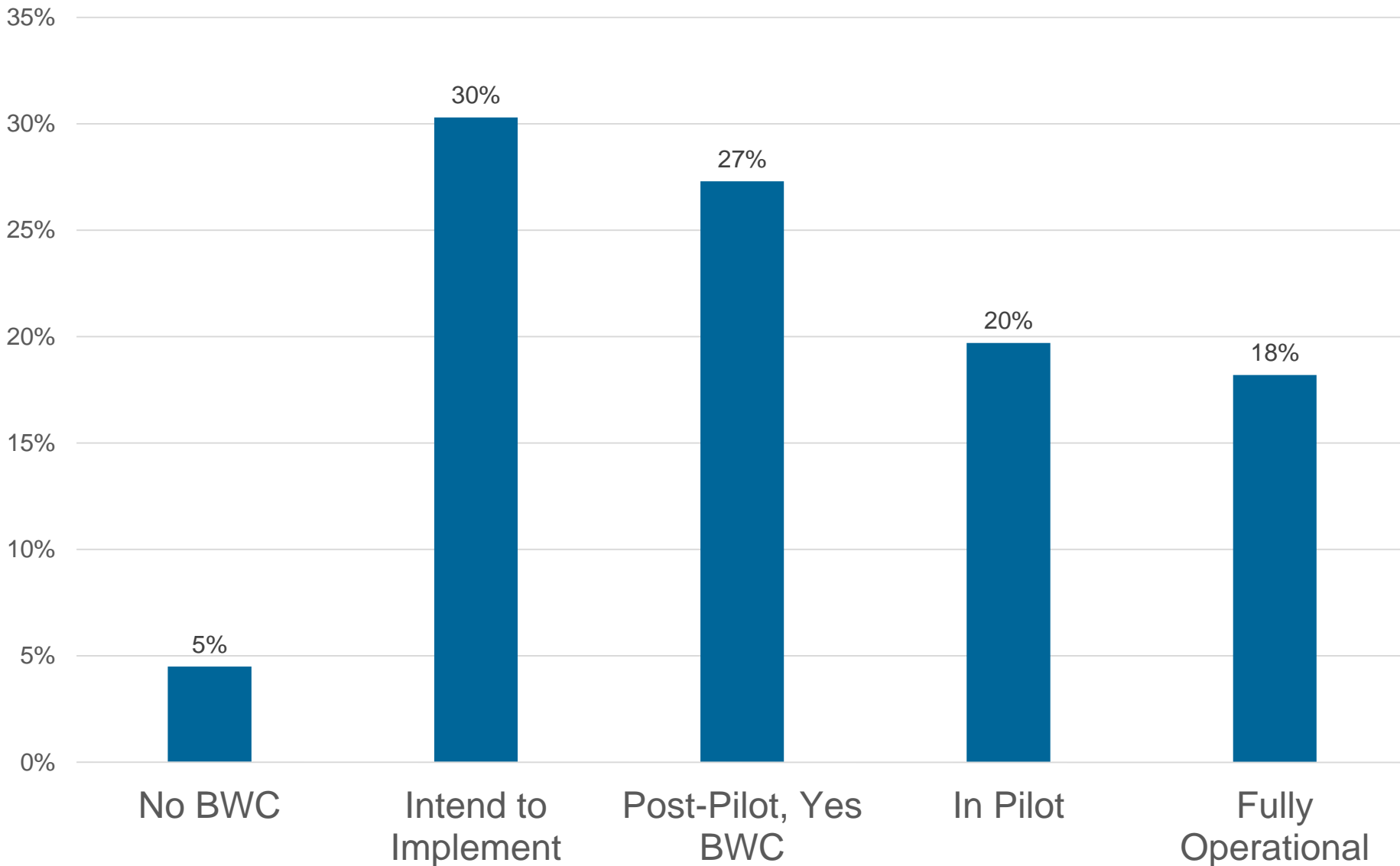
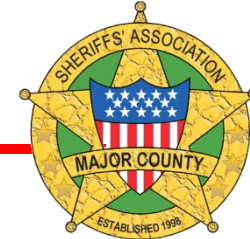
- Local agencies are moving forward with implementation
- Despite of a lack of IT infrastructure and technical solutions to fully support program

What is the current status of BWCs in your agency?

Fully Operational	18.2%
Committed to Program	77.3%
Do not Intend to Implement BWC	4.5%

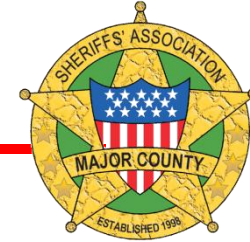


Status of Body Camera Programs





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



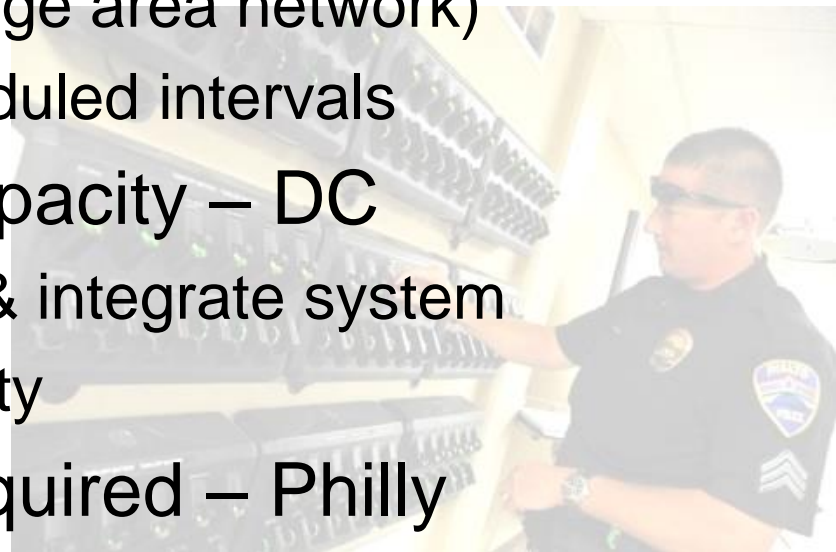
Existing network lacks capacity – DC

- 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

Officer with BWC goes to Station



Transferred to HQ Server Farm



Transferred to Station Server

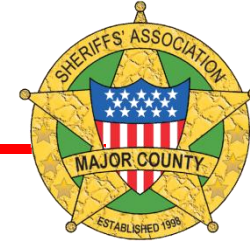


Upload to Cloud





IT Infrastructure



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

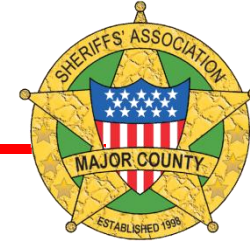
Will you be required to expand/improve your current IT infrastructure?

Yes	70.6%
No	16.2%
Don't Know	13.2%



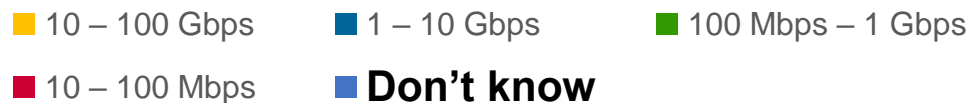
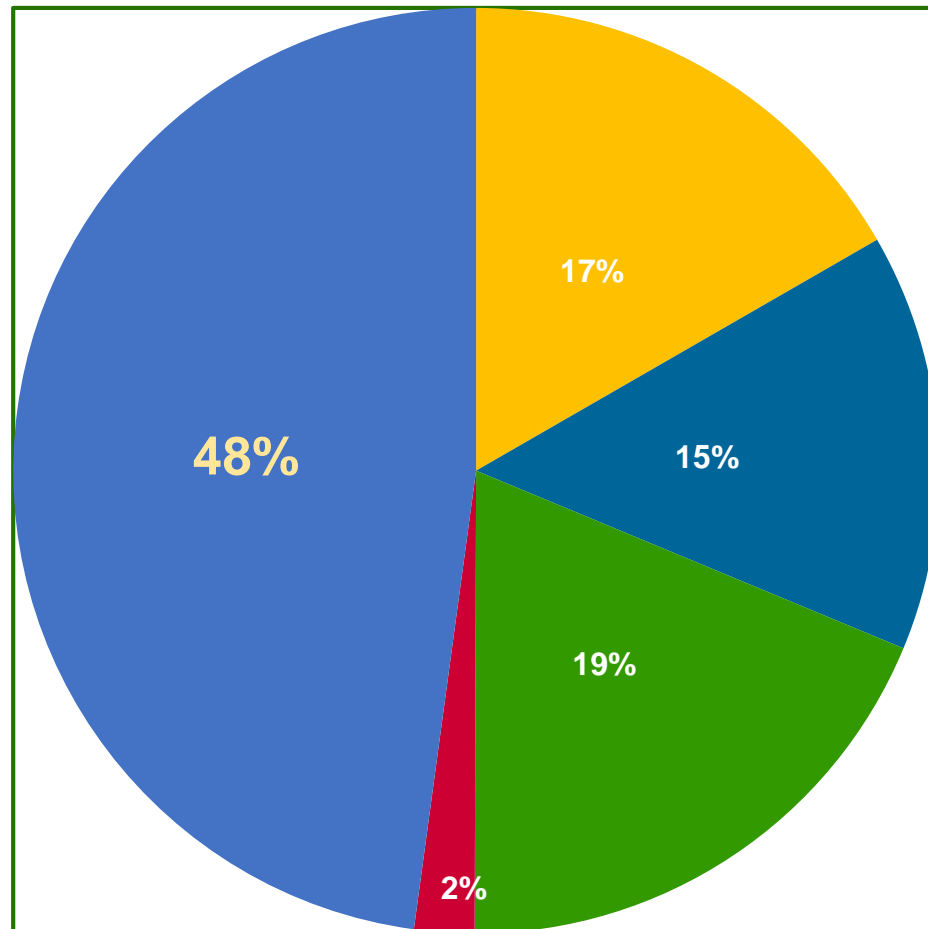


Do the Math: Network Capacity



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



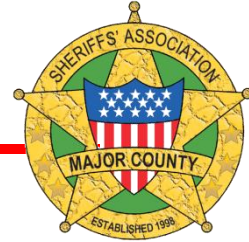
$$1 \frac{GB}{hour} \times 3 \frac{hr\ rec}{shift} \times 10 \frac{off.}{shift} \times 3 \frac{shifts}{day} = 90 \frac{GB\ rec}{day}$$

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

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



Policy Drives Requirements



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

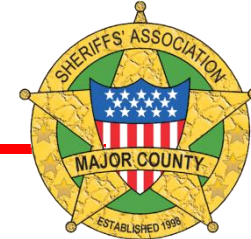
- Factors include technological limitations, state and local laws, and internal policies

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



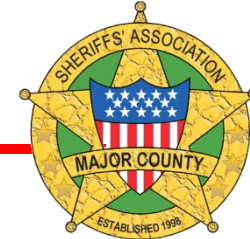
Who Receives Video Data

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?

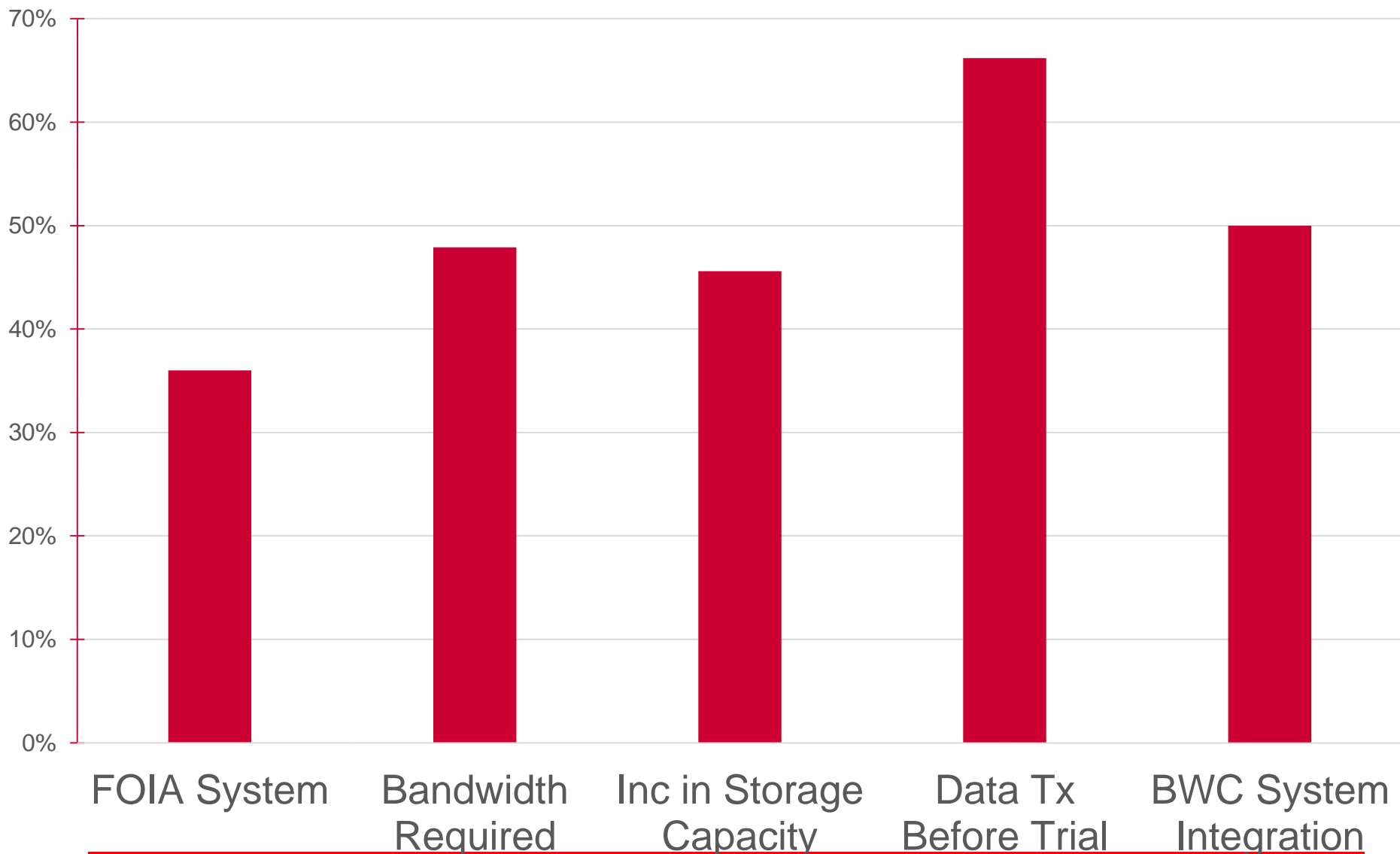
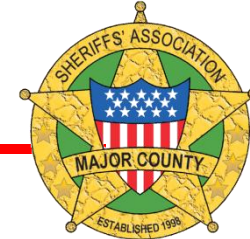
Yes	78.0%
No	4.0%
Not yet determined	16.0%
Don't know	2.0%

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

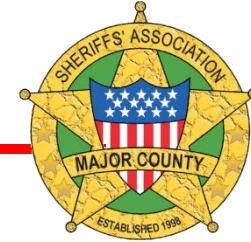


- **On/Off (Recording) Policy:**
 - ✓ How long are cameras on and running?
- **Retention Policy:**
 - ✓ How long do you keep it?
- **City and County Partners:**
 - ✓ DA, Defense, IA
- **Public Release:**
 - ✓ Yes / No
- **FOIA Release:**
 - ✓ What does law require?
- **Storage:**
 - ✓ Cloud or On-Premise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

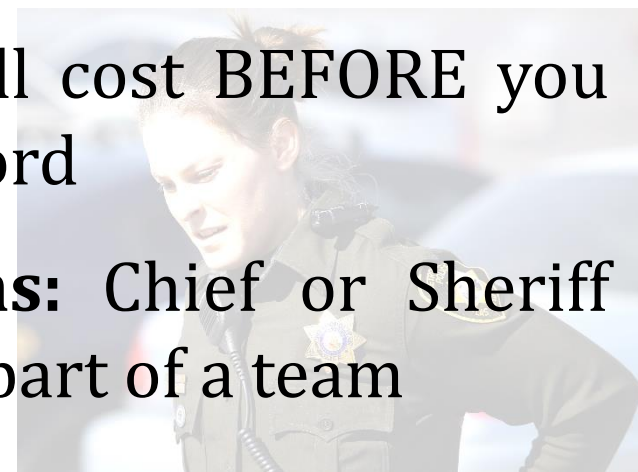




The Way Forward

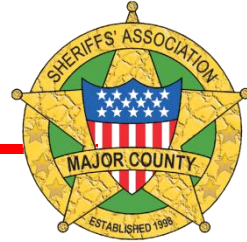


- **Adopt a Plan:** Know your destination – BEFORE you begin the journey to get there
- **Determine Policies:** Make key decisions NOW – they will drive the costs of implementation
- **Learn Technology Requirements:** Obstacles and traps – to overcome and avoid
- **Secure a Budget:** Know what it will 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



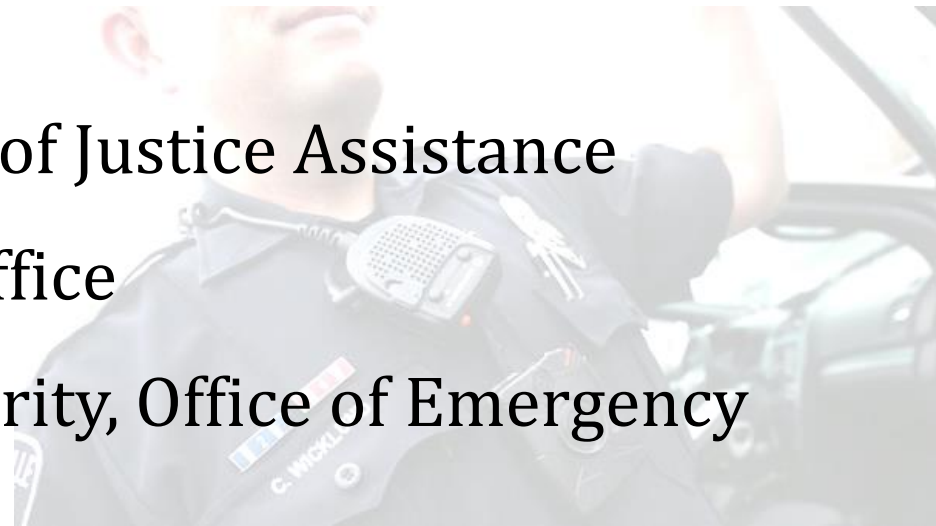
- **Seek Help and Advice**

- 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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