



MAJOR CITIES CHIEFS & MAJOR COUNTY SHERIFFS

Survey of Technology Needs: Body Worn Cameras

DHS Office of Emergency Communications

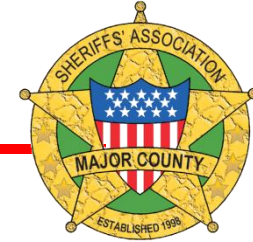


Homeland
Security

Office of Emergency Communications



Purpose and Respondents

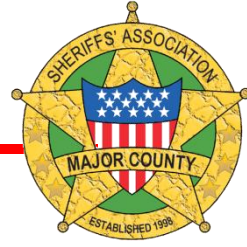


- **Sponsor: DHS Office of Emergency Communications**
- **Focus: Technology and Interoperability Challenges**
- **Not legal, evidentiary, or privacy issues**

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



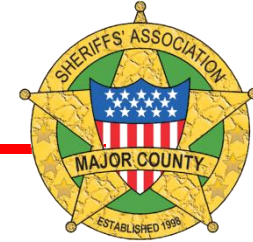
Key Findings



- **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

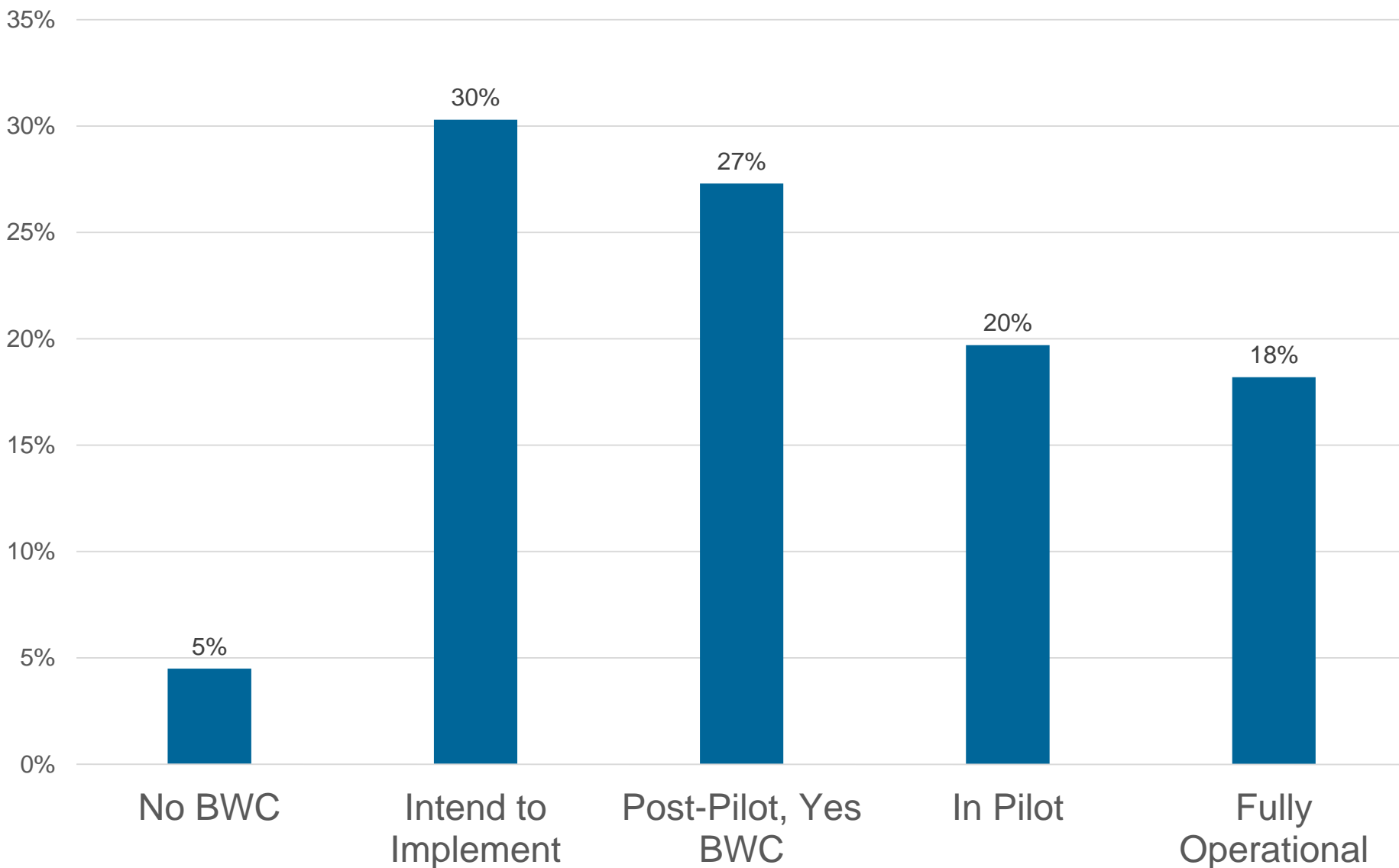
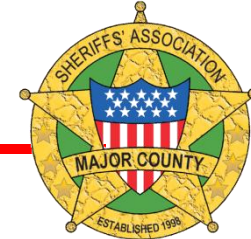
77.3%

Do not Intend to Implement BWC

4.5%

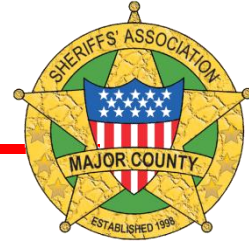


Status of Body Camera Programs





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



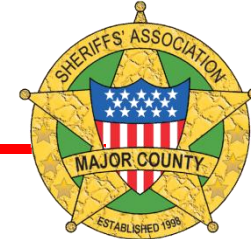
Major Improvements Required – Philly

- 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

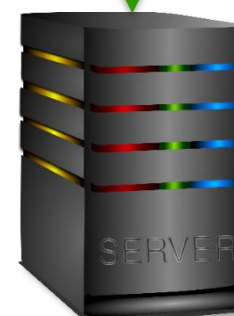


Internet

Network



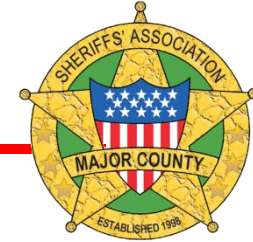
Transferred
to Station
Server



Upload to
Cloud



IT Infrastructure



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

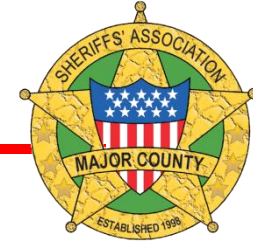
Will you be required to expand/improve your current IT infrastructure?

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



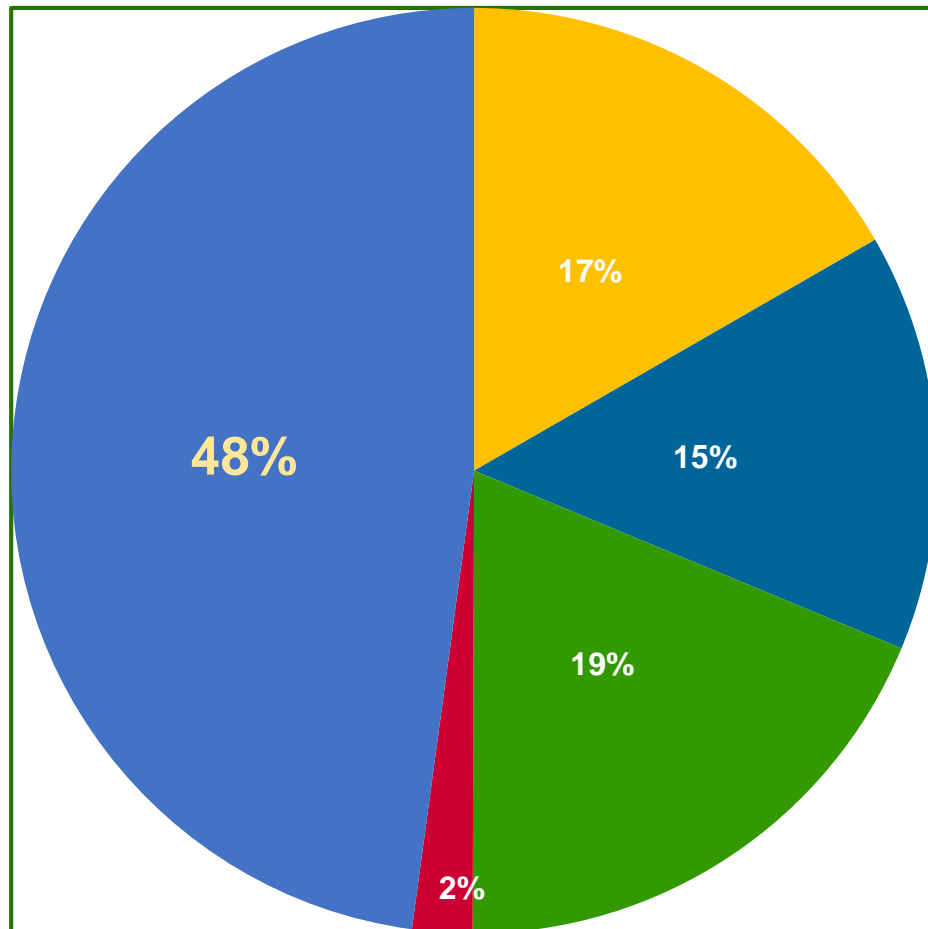


Do the Math: Network Capacity



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% |



■ 10 – 100 Gbps

■ 1 – 10 Gbps

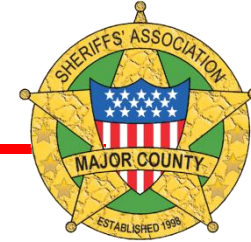
■ 100 Mbps – 1 Gbps

■ 10 – 100 Mbps

■ **Don't know**



Do the Math: Storage



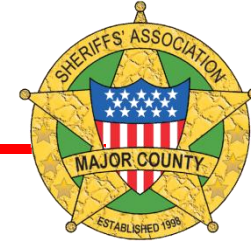
$$1 \frac{GB}{hour} \times 3 \frac{hr \text{ rec}}{shift} \times 10 \frac{off.}{shift} \times 3 \frac{shifts}{day} = 90 \frac{GB \text{ rec}}{day}$$

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

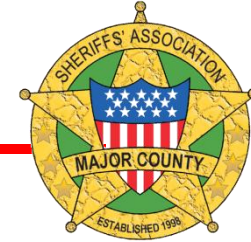
- Factors include technological limitations, state and local laws, and internal policies

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



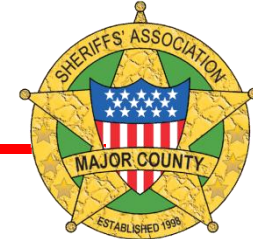
Who Receives Video Data

| 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?

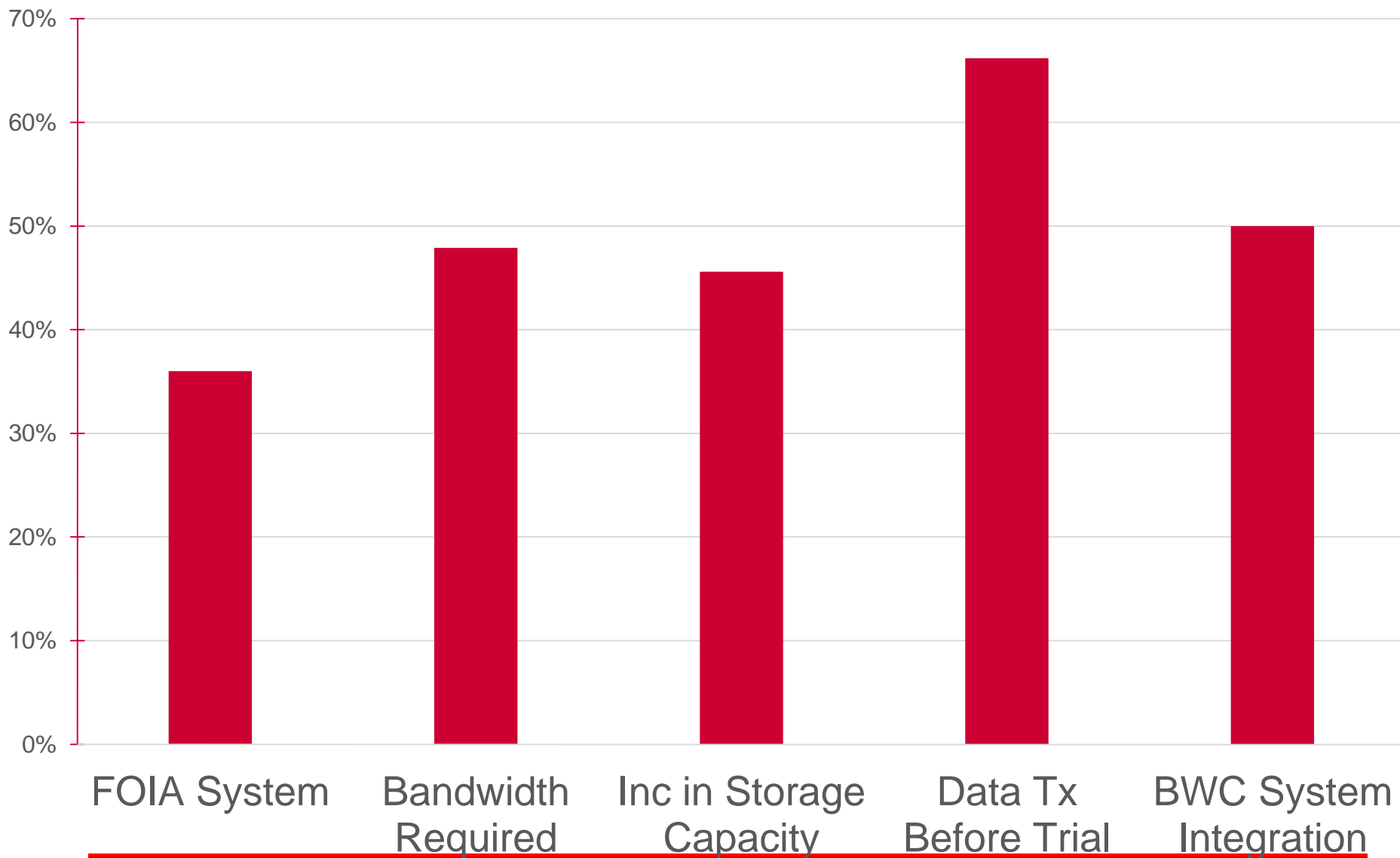
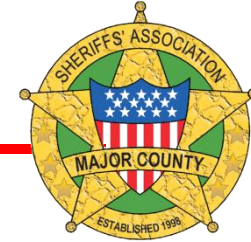
| | |
|--------------------|-------|
| Yes | 78.0% |
| No | 4.0% |
| Not yet determined | 16.0% |
| Don't know | 2.0% |

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% |

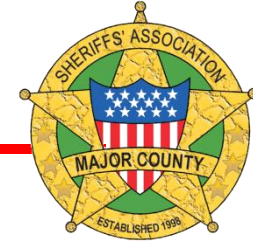


More Unknown Than Known





Key Decisions

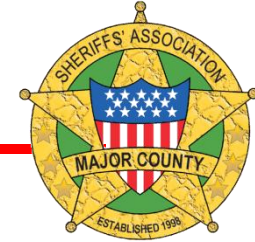


- **On/Off (Recording) Policy:**
 - ✓ How long are cameras on and running?
- **Retention Policy:**
 - ✓ How long do you keep it?
- **City and County Partners:**
 - ✓ DA, Defense, IA
- **Public Release:**
 - ✓ Yes / No
- **FOIA Release:**
 - ✓ What does law require?
- **Storage:**
 - ✓ Cloud or On-Premise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

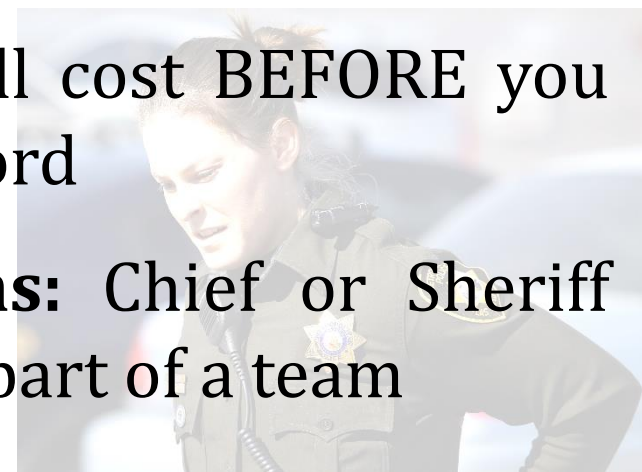
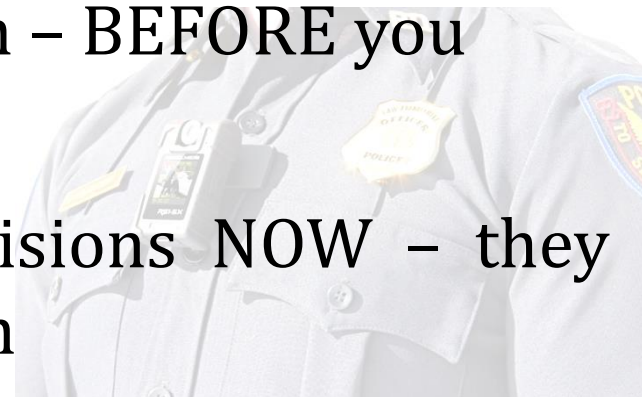




The Way Forward

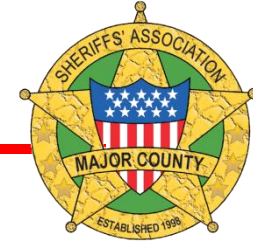


- **Adopt a Plan:** Know your destination – BEFORE you begin the journey to get there
- **Determine Policies:** Make key decisions NOW – they will drive the costs of implementation
- **Learn Technology Requirements:** Obstacles and traps – to overcome and avoid
- **Secure a Budget:** Know what it will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



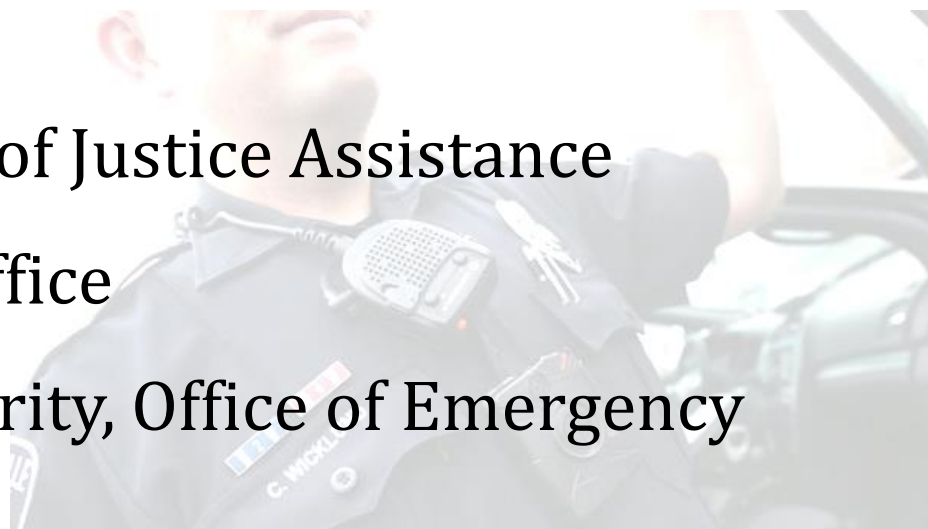
- **Seek Help and Advice**

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



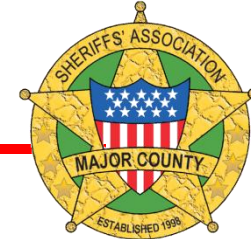
- **Federal Assistance**

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





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