

Misty Stine What You Need To Know About Systems O&M

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# What Systems Do I Need to Worry About Maintaining?

The short answer ... all of them ...



# What Systems Do I Need to Worry About Maintaining?

- Communications Systems
  - Fiber Infrastructure
  - IT Infrastructure (servers, routers, etc.)
  - Wireless (network, licensing, performance)
  - Support Infrastructure (HVAC, UPS, generators, etc.)



# What Systems Do I Need to Worry About Maintaining?

- Security Systems
  - CCTV & Video Management
  - -Access Control
  - Intrusion Detection Systems (video analytics, fence sensor, etc.)
  - Physical Security Components (fencing, bollards, gate operators, etc.)
  - Command and Control systems



### What's the Difference Between Warranty & Maintenance?

- Warranty
  - A written guarantee for a period of time
    - Manufacture defect
    - Workmanship
    - Minimum of at least one year (from acceptance?)
    - On call service
    - Spare parts inventory
    - Beware of hidden costs



### What's the Difference Between Warranty & Maintenance?

- Maintenance
  - To keep in a desirable condition
    - Monthly, Quarterly, Semi-Annual, Annual
      - Based on manufacturers recommendation
    - Some examples could include
      - Cleaning cameras
      - Minor software/firmware updates
      - Generator start/run
      - Wireless & network tuning and adjustments



#### What are Support Services?

- Service level agreement
  - Extended warranty and maintenance
  - Configuration support
    - Hardware
    - Software
- Major software release & upgrades
- Ongoing training



#### What are Support Services?

- Consulting services
  - Continuous assessment of your solution against your current or future needs
- Annual systems performance testing



### How Do I Define My Maintenance & Warranty Requirements?

- When does it start and who is going to maintain the system?
- CONOPS
  - Service response times
    - Minor
    - Major
    - Critical (Emergency)
  - Restoration period
- Budget



### What Should I Budget For On-Going Maintenance & Support Services?

Typically 15 to 20% of total system investment (annual basis)

