



# Moving Public Safety Agencies into the 21<sup>st</sup> Century:

The importance of ICT in protecting citizens  
and maintaining public safety

ICT IN ACTION – Mendocino County in California

A Datamonitor whitepaper prepared for



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[www.datamonitor.com](http://www.datamonitor.com)

**Datamonitor USA**

245 Fifth Avenue  
4th Floor  
New York, NY 10016  
USA

t: +1 212 686 7400  
f: +1 212 686 2626  
e: [usinfo@datamonitor.com](mailto:usinfo@datamonitor.com)

**Datamonitor Europe**

Charles House  
108-110 Finchley Road  
London NW3 5JJ  
United Kingdom

t: +44 20 7675 7000  
f: +44 20 7675 7500  
e: [eurinfo@datamonitor.com](mailto:eurinfo@datamonitor.com)

**Datamonitor Germany**

Kastor & Pollux  
Platz der Einheit 1  
60327 Frankfurt  
Deutschland

t: +49 69 9750 3119  
f: +49 69 9750 3320  
e: [deinfo@datamonitor.com](mailto:deinfo@datamonitor.com)

**Datamonitor Asia Pacific**

Darling Park  
Tower 2, Level 21  
201 Sussex Street  
Sydney NSW 2000  
Australia

t: +61 2 9006 1526  
f: +61 2 9006 1559  
e: [apinfo@datamonitor.com](mailto:apinfo@datamonitor.com)

**Datamonitor Japan**

Wakamatsu Bldg 7F  
3-3-6 Nihonbashi-Honcho  
Chuo-ku  
Tokyo 103-0023  
Japan

t: +813 6202 7681  
f: +813 5778 7537  
e: [jpinfo@datamonitor.com](mailto:jpinfo@datamonitor.com)

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## ICT IN ACTION

### **Mendocino County, California**

Mendocino County, California is situated approximately 100 miles north of San Francisco, and provides critical public services – from transit to justice, as well as emergency response and public safety – for a population of over 85,000 in four incorporated cities and a number of unincorporated cities across a 3,500-square mile area.

From a public safety standpoint, Mendocino's current microwave communications system is central to its communications network, providing critical radio communication for local, state and federal government agencies in the County. However, in recent years, the system had become outdated; repairs were becoming increasingly common and costly, and after conducting an in-depth study of its network, the County found that its system was in jeopardy of sudden failure, which could lead to potentially disastrous circumstances in the case of an emergency. As such, the County decided to procure a reliable and cost-effective network solution that would improve the ability of public safety agencies and first responders, as well as enhance collaboration between other County agencies. Officials recognized that along with public safety voice traffic, any new microwave system must be capable of handling the County's secure high-speed data transmission needs: mobile data, secure videoconferencing, fingerprint identification, building security and any other sources of digital traffic. In addition, the system had to be built on open standards and capable of accommodating emerging technologies that the County might consider implementing in the future.

With these specifications in mind, Mendocino launched the build-out of a network, selecting Alcatel-Lucent to provide turnkey services – consulting and design, project management, installation and deployment, integration and testing and maintenance and support. Despite encounters with mountainous terrain, forest fires – and even bears – during the implementation, the new microwave system was completed in less than 12 months, enabling Mendocino County to manage its public safety network from a single platform by leveraging Alcatel-Lucent's multi-service IP, digital microwave and end-to-end network integration services to deliver converged voice, data and video traffic.

The project has benefited Mendocino County in a number of ways. First of all, the County will realize significant cost savings; on the data build out portion of the system, the County will be able to eliminate various T1 lines it currently leases, resulting in a savings of an estimated \$15,000 per year. It also estimates a \$25,000 savings per year that was being paid to contractors to maintain the previous system. In addition, the new public safety network will help improve efficiencies and collaborations among the many agencies – including first responders and disaster recovery organizations – throughout the County. It will have the ability to handle increased capacity and reliability to support the County’s mission critical voice and data applications, providing the County’s mobile workforce improved network access while in the field. For example, when a child goes missing, the network allows images of the child to police vehicles immediately, greatly increasing the effectiveness of their search. The system will also support cross-jurisdiction functionality, a key factor as the network is built out to other areas in the County. Above all, the County has created a network capable of converging traditional mission critical telecom traffic with data traffic in a way that provides flexibility and opportunity for new IP applications and services in the future; going forward, Mendocino plans to expand the system to other rural areas in the County, such as Covell and Laytonville.

## **APPENDIX**

### **Abbreviations & Definitions**

CCTV	Closed-circuit television
CDMA	Code division multiple access
E911/E112	Enhanced 911/112
FTTH	Fiber to the Home
IP	Internet protocol
LMRCC	Land mobile radio conferencing and collaboration
PMR	Professional mobile radio
P25	Project 25
PPP	Public-private partnership
TETRA	Terrestrial trunked radio
WAN	Wide area network

## **Ask the analyst**

Ben Madgett

Senior Analyst, Government & Vertical Markets Technology

Datamonitor

E: [bmadgett@datamonitor.com](mailto:bmadgett@datamonitor.com)

T: + 1 212 652 5324

## **Contact Alcatel-Lucent**

To learn more about Alcatel-Lucent products and services, please contact:

Philippe Agard

Vice President, Public Sector, Services Division

Alcatel-Lucent

E: [Philippe.Agard@alcatel-lucent.com](mailto:Philippe.Agard@alcatel-lucent.com)