# Orange County Sheriff's Department Increases Mobile User Productivity

Orange County Sheriff's Department Investigations Division (OCSD) is responsible for solving some of the most serious crimes in Orange County, an area that includes Buena Park, Orange, Santa Ana, The Canyons, Tustin, Yorba Linda and Anaheim. The large geographic area and severity of crimes the investigators cover necessitates easy-to-use, continuous access to essential, real-time criminal information.

## OBJECTIVE

Ed Lee, Project manager for OCSD's Information Systems, was looking for ways to maximize the efficiency of the high-speed broadband solution used across the county. He and his team wanted to create a way for field officers to have seamless access to multiple data networks, key applications and criminal databases. "Orange County," Lee explains, "covers a large area. We needed to ensure that our mobile users could always have access to the OCSD intranet, state and federal databases, email and other network-based resources from wherever they might be."

"At OCSD," Lee adds, "we have two distinct groups of mobile users, investigators and patrolling officers. The investigators use laptops with Wi-Fi and cellular modem cards. While they are near an OCSD access point they use the Wi-Fi card to connect at high speed. When they're in the field, they use the cellular card which has national coverage and unlimited data. Our patrol officers have a similar wireless setup with ruggedized laptops in their vehicles." Both groups of users access similar networked resources in order to do their jobs; with the investigators mainly needing wireless access for email, intranet, shared folders on OCSD servers and also CLETS (California Law Enforcement Telecommunications System). Patrol officers also use CAD and mapping applications in addition to those used by the investigation team.

## CHALLENGES

"There were three main challenges that we dealt with," Lee continues, "first, we needed end-to-end encryption." OCSD's investigators and patrol officers spend most of the day on the road connecting via wireless networks to local and state databases. This meant that they needed to ensure data transmissions were secured by a mobile VPN.

"Another issue that we dealt with was stability of applications and connections," adds Lee. As their investigators and officers traveled across the county they would pass in and out of wireless coverage areas. When they lost network connectivity, applications such as their CAD system could not connect with their backend server and would lock up requiring the application to be restarted. In a few instances, the server also locked up needing the IT team to restart it. "Most of the applications we use require a connection to the server, so without the stability of the connection, these applications were useless," explains Lee. Application stability issues dramatically impacted the productivity of OCSD's mobile users causing frustration and requiring their IT Support team to field numerous calls from officers complaining that they, "cannot get connected," or that, "the applications are not working."

Lastly, OCSD wanted to seamlessly incorporate their Wi-Fi network into their wide area network to let their users use which ever network was available. As investigators and patrol officers drove from place to place, they would pass by OCSD Wi-Fi hot spots and Lee's team

**Organization**
Orange County Sheriff Department

**Industry**
Public Safety

**Challenges**
- OCSD wanted to ensure end-to-end encryption for protection of data
- Laptops and applications crashed when devices lost network connectivity
- Patrolling officers and detectives needed continuous wireless access, incorporating both Wi-Fi and wide area wireless networks

**Solution**
- Mobility XE VPN solution

**Results**
- Mobility XE VPN secured wireless data using FIPS-140 validated AES encryption libraries
- Applications were kept alive through wireless coverage gaps
- Application sessions seamlessly roamed between Wi-Fi and wide area networks without user intervention
- Mobility XE's speed optimizations increased data throughput across wide area networks

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wanted to find a way to "roam" their applications from the wide area network to the faster Wi-Fi connection. Currently users had to manage this switch themselves which reduced productivity and did not present a seamless solution.

## SOLUTION

OCSD's IT team brought in NetMotion Wireless' Mobility XE mobile VPN for testing. After a comprehensive and thorough evaluation, "Mobility XE," concludes Lee, "performed as advertised and exactly as we expected."

Mobility XE solved the numerous challenges that OCSD faced in their wireless deployment. Offering complete end-to-end security using FIPS 140-2 validated AES encryption libraries, Mobility XE provided a secure VPN tunnel for all data transmitted across the wireless networks.

Once Mobility's client and server software was installed, the issue of stability for both applications and connections was also resolved. Mobility XE managed the connection between applications and networks, shielding applications from lost coverage or interference that would otherwise cause them to crash. Once the mobile user returned to a coverage area, their applications restarted exactly where they left off. The user did not have to reconfigure or modify anything on their laptop. In fact, from the users' perspective, these sporadic losses of coverage were nearly imperceptible as Mobility XE managed and resumed the connections seamlessly behind the scenes.

Mobility XE's client and server design allows applications to move seamlessly from one connection type to another. So, OCSD was able to finally present its investigators and officers with a seamless roaming solution. As users approach OCSD hot spots, Mobility XE, senses the higher speed network availability and automatically moves the users' applications to the faster network. During times when only the wide area network is available, Mobility XE also optimizes and compresses the data transmission so OCSD's investigators and patrol officers will see considerably faster data transmission times across the wide area networks.

## RESULTS

With reliable and seamless access, investigators and officers are able to perform critical tasks such as real-time system queries into criminal history, local OCSD databases, as well as state and federal databases – anywhere and anytime they need. They are also able to communicate quickly with judges, obtain an arrest or search warrant, or request backup support from other sheriff's personnel while monitoring the site of suspected criminal activity.

As Lee concludes, "We've now maximized the efficiency of our wide area network and created seamless mobility. Now deputies can perform their jobs with greater flexibility and productivity."

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