



**SEA MAR**  
Community Health Centers  
Clinica de la Comunidad

## Sea Mar Community Health Centers Move to Smarter Wi-Fi to Save Doctors Time and Money

The staff at Sea Mar Community Health Centers (Sea Mar) were frustrated and so was the central IT staff of seven, already tasked with providing help desk, applications support, network management, and voice and data communication services.

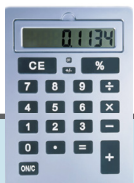
Based near Seattle, Washington, Sea Mar operates 45 medical, dental, behavioral and preventative health clinics (16 with doctors) as well as long-term care facilities spanning from Vancouver, Canada to Bellingham, Washington. A high-speed MPLS backbone connects each site to its central administrative offices in Seattle.

Like many healthcare organizations, Sea Mar's 1,200 employees, which include some 200 doctors and nurses, rely on Wi-Fi daily to access its electronic medical records (EMR) system as well as to perform a variety of billing, pharmacy and medical service tasks.

Sea Mar doctors, nurses and administrative staff were having intermittent problems staying connected to its legacy Siemens wireless network. This was costing Sea Mar time and money in delivering a wide range of health care services. Dropped connections and connectivity problems as staff moved around was forcing the manual input of important patient information into its electronic medical records system. This hampered productivity and resulted in fewer patient calls and lost revenue. For a non-profit organization, this could spell disaster.



Sea Mar Community Health Centers is a non-profit corporation operating 45 clinics throughout the Pacific Northwest. Reliable Wi-Fi was an essential element to their day-to-day practice, if only they could find it. They did.



### HOW SEA MAR JUSTIFIES BETTER WI-FI

- Five to eight doctors (on average) in 16 different clinics
- Each doctor required to see four patients per hour to meet productivity goals
- Each patient visit costs approximately \$150
- A single missed patient visit per doctor per day from a dropped Wi-Fi connection results in a loss of \$1,200 per clinic
- Total loss per clinic: \$18,000+ per day

"There are two issues in the healthcare world that differentiates us from a school or a hotel or any other vertical market," said Mark Owens, IT Director at Sea Mar. "One is the noisy RF nature of hospitals and clinics. The other is the strong linkage between Wi-Fi and the services we provide as well as the urgency associated with it,"

Owens noted that from exam room to exam room, Sea Mar doctors are required to see four patients per hour to meet productivity goals. Wi-Fi is essential for these doctors to meet these goals as they use Wi-Fi-enabled tablet and notebook computers to enter data into the EMR system."

Since EMR has no paper trail it makes it very difficult for doctors to even see the patient and painfully slow to utilize the backup paper process when Wi-Fi connections are lost," said Owens. Any Wi-Fi failure translates into staff having to fallback to documenting patient care on paper thereby causing them to see fewer patients and missing their productivity goals.

"There are real dollars associated with this problem and it adds up in a hurry," said Owens. As an example, Owens said, a single facility with eight doctors is required to see about 192 patients a day (four patients per hour per doctor) with each patient visit costing approximately \$150. If Wi-Fi connections were lost enough to cause each doctor to miss only one patient appointment a day, this results in a loss of approximately \$1,200

### COMPANY OVERVIEW

Started in 1978 with one small clinic in the South Park neighborhood of Seattle, today, Sea Mar Community Health Centers is one of the largest providers of health and human services. A non profit corporation with over 1,200 employees, Sea Mar operates 45 medical, dental, behavioral and preventative health facilities throughout the Northwest United States and Canada, providing services to low-income individuals and families.

### REQUIREMENTS

- Eliminate dropped connections and unstable Wi-Fi signals
- Consistent performance in harsh RF environment
- Ubiquitous Wi-Fi coverage
- Simplified and centralized management
- Fast, easy installation and configuration
- Dynamic RF management support
- Remote management of WLAN controllers over a wide area network

### SOLUTION

- Ruckus ZoneFlex 2942 Smart Wi-Fi 802.11g APs
- Ruckus ZoneDirector 1000 Smart WLAN controllers

### BENEFITS

- Better coverage
- Fewer access points needed for each clinic
- Dropped connections mitigated
- Longer range connectivity
- Stronger, more reliable Wi-Fi signals
- Automatic interference avoidance in noisy RF environment provides more consistent performance at range



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