



Gambit's MIMIC[®] Enables Xirrus for Superior Testing

The Wi-Fi management applications in today's growing mobile network environments are vital. They provide essential functions to ensure that the cellular network's health, performance and availability meet the rigorous business demands.

Xirrus sells enterprise level Wi-Fi Arrays. The NMS manages those Wi-Fi Arrays which embed switches, controllers, firewalls and sensors. The company chose Gambit Communications' MIMIC Simulator to make certain that the NMS software not only scales and manages hundreds of devices with real-time performance, but also correctly tracks faulty conditions of the devices.

Xirrus

Xirrus is the leader in High Performance Wi-Fi™. It designs and manufactures the patented Wi-Fi Array, which is designed for large scale networks. The Wi-Fi Array integrates 4, 8, or 16 radios and high-gain directional antennas into a single device along with an onboard Gigabit Switch, Wi-Fi Controller, Firewall, and dedicated Wi-Fi Threat Sensor, providing the performance and security to replace traditional workgroup switches with Wi-Fi technology.

Xirrus' NMS software, Xirrus Management System, manages up to 500 Wi-Fi Arrays from a central location. It centralizes the management of security policies, firmware revisions and configuration updates for up to 500 Arrays from anywhere in the network. It is available on a stand-alone dedicated network appliance (XM-3300), or as a software-only application (XA-3300) that can be loaded on an existing server in the IT closet.

Xirrus Management System gives a flexible, scalable solution that can be leveraged as the organization's Wi-Fi network grows. It carries out automatic discovery and configuration of Arrays, Policy-based management and aggregates alerts and alarms for monitoring

It uses SNMPv1 and SNMPv2 protocols with many public and private MIBs.

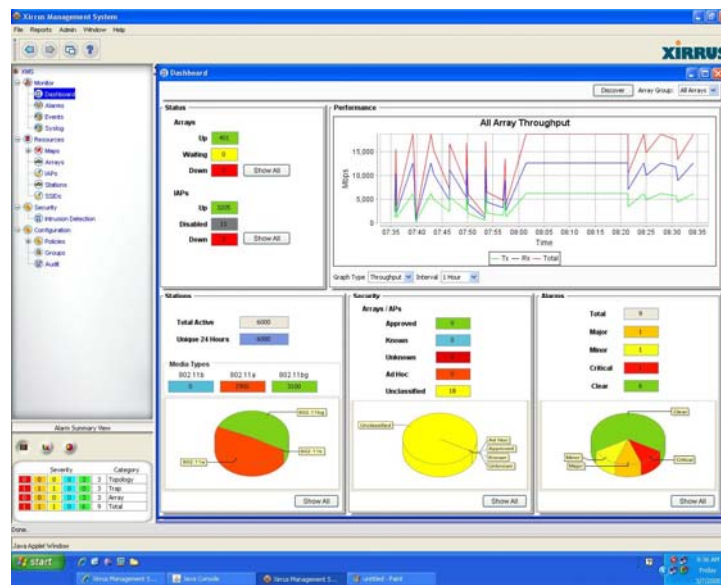
The Challenge

Xirrus Management System manages large networks with up to 500 Wi-Fi Arrays with many clients. Xirrus has 40 physical Arrays in their XMS lab, which are used for testing. It was budget prohibitive to grow that to 500 Wi-Fi Arrays along with the required networking gear. It was a challenge to test the NMS software with that size of a network.

The QA Assurance team continuously needs to verify the NMS software's performance and scalability in large networks. The tests need to cover the product features and all possible operational conditions. An affordable solution was sought to make the test lab more scalable and flexible.

The Solution – MIMIC Simulator

Xirrus purchased the MIMIC Simulator Suite, Campus edition, which supports simulation of up to 500 agents simultaneously. Each of the agents can represent any type of SNMP-manageable device.



[Xirrus Management System managing MIMIC simulated Wi-Fi Arrays]

They recorded one of their Arrays (Access Point with multiple radios) with the MIMIC Recorder, creating a simulation which was then cloned to **400 unique** simulated devices with a total of **6000 clients** connected to those arrays. Along with the simulated array devices they simulated traffic load between devices and clients. They could run their NMS against the simulated lab and test different features, along with performance measurements and negative/positive conditions.

No testing of this size was done in-house by Xirrus before using MIMIC.

The Benefits

With the use of MIMIC, Xirrus could reduce the lab budget requirement to a 10th of what was initially needed. Furthermore, MIMIC made it a lot easier to test their NMS software. They were able to perform many tests effortlessly with MIMIC, which are very hard to setup with the real devices. They could now do more complete testing, and confidently release their new software to their customers.

Additionally, with MIMIC they can now save those negative/positive scenarios, add more tests, and reuse them for regression tests during every test cycle.

The Technology – MIMIC Simulator

MIMIC Simulator can simulate 20,000 SNMP, Cisco IOS, IPMI, Telnet, TFTP and DHCP-based devices on one workstation.

MIMIC appears to management applications as if they are connected to a real network. It allows simulation of any type of SNMP-based devices (Routers, Switches, Arrays, Hubs), and combine them in the creation of many different scenarios.

MIMIC ships with 1800+ MIBs and many out-of-the-box network, device and scenario script libraries, which make it very easy to simulate a variety of networks from different manufacturers. It includes a MIB compiler, recorder, network discovery wizard and topology editor to further extend the simulation capability.

The simulator allows real-time changes of device parameters to add interfaces, change traffic patterns and error conditions.

Testimonial

Ali Fatollahi, Sr. QA Engineer, said, “We needed to test our NMS software and verify its performance and scalability in large networks. Selecting MIMIC made it easy and cost effective for us to do that. With MIMIC, it is as close as you can get virtually to have a physical local network with such a scale.

MIMIC technical support is competent and prompt. They were always there and helped so effectively that now we use MIMIC daily for our NMS development and testing.

MIMIC is a great product (ease of use and phenomenal tech support) and has saved us time and money. We strongly recommend it.”