



# What is a Channel Blanket and why it's superior to traditional WLAN technology

## The problem

Today, the greatest limitation on the 802.11 wireless standard, n and legacy a/b/g is the way it has been implemented.

The traditional cell-based WLAN topology is fundamentally challenged by its inability to adjust to channelization issues, AP-to-AP handoffs, and the unpredictability of system bandwidth. These problems are multiplied when different traffic types (voice and data) contend for the same airspace.

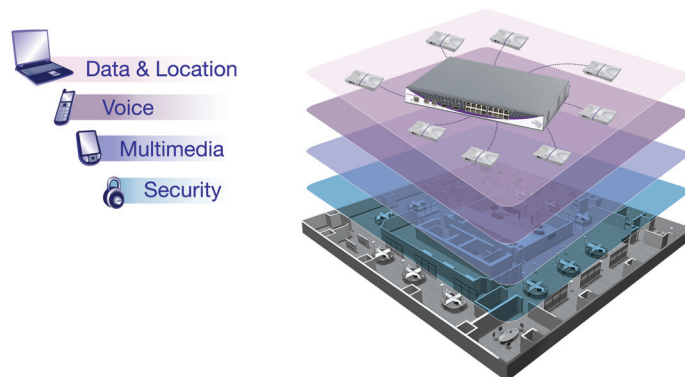
The end result is trade-offs between coverage, capacity, mobility, and security. But trade-offs that were once acceptable when WLAN was only peripheral to your networking strategy are no longer acceptable when Wi-Fi becomes a critical component to business success.

## The Solution

Extricom has eliminated all the traditional performance trade-offs by rethinking the basics of how wireless clients and the WLAN communicate with each other. In other words, it's about a smarter deployment of the 802.11 standard, powered by new technology.

The Extricom solution is based on a fully centralized WLAN architecture, in which the switch makes all of the decisions for packet delivery on the wireless network. In this configuration, the APs simply function as radios, with no software, storage capability, MAC or IP address.

Even the basics of connecting are different: clients associate directly with the switch, not with the AP. The AP rapidly funnels traffic between the clients and the switch. In essence, the Extricom architecture has centralized the 802.11 logic in the switch, while distributing only the wireless electronics in the APs.





### The Channel Blanket Difference

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Centralization of the Wi-Fi environment enables enterprises to deploy 802.11a/b/g/n channels at every AP, creating multiple overlapping "Channel Blankets" that leverage each of the radios in the multi-radio UltraThin AP. Each channel's bandwidth is delivered across the blanket's service area (i.e. the combined coverage of all APs connected to the switch), with interference-free operation and consistent capacity throughout.

As the Wi-Fi client moves, different APs will be in the best position to serve it at different times. The switch always chooses the best uplink and downlink path to serve the client. While this is going on 'behind the scenes', the client never experiences an AP-to-AP handoff (i.e. de-association and re-association), resulting in seamless mobility.

And with the inter-AP handoffs eliminated, your organization now has the flexibility to choose any mix of clients, with the confidence that they will all operate with consistent behavior on the same network.

Within each Channel Blanket, the switch avoids co-channel interference by permitting multiple APs to simultaneously transmit on the same channel but only if they won't interfere with each other. At the same time, the diversity receiver inherent in the channel blanket means that the communications link is rock-solid, virtually eliminating the problem of frequent disconnections common in all other systems. No other system can provide the link robustness of Extricom, ensuring that Wi-Fi communications succeed, even in the toughest of environments.

### One Infrastructure, Many Uses

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Extricom has the ability to enable multiple blankets from the same infrastructure. The system is therefore unique in combining multi-channel capacity with channel blanket mobility and robustness. This makes an Extricom WLAN the most operationally flexible system in the market, and has profound implications for the All Wireless Enterprise.

Extricom is able to address the ultimate challenge to Enterprise WLAN - how to support multiple applications with conflicting system requirements, such as voice and data. It is doing it by separating the applications on different Channel Blankets. The result is the only integrated system that delivers predictable grade of service, by enabling different applications to operate in parallel, without contention, on the same physical infrastructure.