

Symbol Technologies outpaces rival in multidimensional array of wireless tests

- Offers more than 2.5 times the mobile battery life with multi-BSS than provided by Cisco Aironet 1220 AP
- Outperforms Cisco Aironet 1220 AP by more than 27% in tests of multi-BSS throughput
- Delivers 30% greater throughput than the Cisco Aironet 1220 AP when handling roaming data transfers
- Adds lower latency than the Cisco Aironet 1220

Project Profile

Sponsor: Symbol Technologies, Inc.

Products under test:

- Symbol WS5000/AP100 1.1.4.30SP1
- Cisco Systems Inc. AP 1220B 5.02.12

Product class: Wireless Switch/Access Port System

Document number: 204100

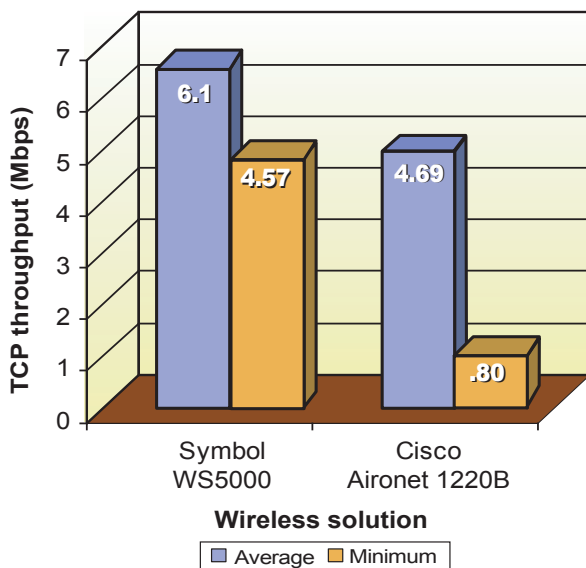
Testing window: December 2003

For more info on this test, visit: <http://www.symbol.com/tg>

The Tolly Group tested a Symbol WS 5000 wireless switch and AP 100 Access Port against a Cisco Systems Aironet 1220 Access Point. In essence, testing pitted the old-world 'fat' wireless architecture of the Aironet 1220 AP (where all wireless intelligence resides) versus the streamlined Symbol wireless switch approach, where the switch offers centralized intelligence to slimmed down access ports.

Tolly Group engineers tested the wireless TCP throughput of both solutions and found that devices offer almost identical throughput of 6.24 Mbps for the Symbol WS 5000 and 6.21 Mbps for the Cisco Aironet 1220.

Roaming Performance – TCP Throughput
(as Reported by Chariot)



Performance differences began to emerge when Tolly Group engineers measured throughput when supporting multiple wireless broadcast domains (BSSIDs) and when supporting users as they roam from AP to AP. In the case of multi-BSS performance, Symbol's WS 5000 outperformed the Cisco Aironet 1220, delivering 6.13 Mbps of aggregate throughput, or 27% more throughput than the 4.83 Mbps of the Cisco Aironet 1220. This performance indicates that the Symbol wireless switch – and its support for four wireless broadcast domains (BSSIDs) per access port delivers greater throughput than traditional intelligent access points that handle only a single BSSID.

Engineers also observed performance advantages for the Symbol WS 5000 during roaming tests. The TCP throughput tests for the roaming scenario yielded 30% greater throughput for Symbol's WS 5000 over the Cisco Aironet 1220 – 6.1 Mbps for the WS 5000 versus 4.69 Mbps for Cisco-based Aironet 1220 WLAN.

The Symbol gear even demonstrated a mobility advantage over the Cisco products when it came to sustained battery life. A PocketPC-based mobile companion demonstrated a battery life of 5.08 hours with the WS 5000 versus 1.98 hours with a Cisco Aironet 1220-based setup.

