

SAC700C

Wireless access controller

Datasheet



High capacity commercial Wi-Fi access controller

The SAC700C is a highly scalable, high performance Wi-Fi access controller used to centrally manage SKSpruce Wi-Fi access points. Designed for commercial deployments that require ultra-high speed, network reliability, and end-to-end security, the SAC700C supports up to 4,096 access points and 200,000 users and provides a feature-rich solution for access point and user access management.

The SAC700C controls and automatically configures all wireless access points, making the network easy to deploy and scale, while providing robust security, L2/L3 roaming, and support for HotSpot 2.0 to deliver a consistently superior quality of experience for users. Integrated automatic network optimization ensures high network performance even in challenging RF conditions. Through real-time network monitoring, the SAC700C continually adjusts power levels and channel assignments and uses sophisticated load balancing to optimize the data traffic and client load for each access point, delivering an extremely stable network.

Administrative features, including secure user access, role-based user management, performance monitoring, and statistics, make the SAC700C an ideal choice for commercial deployments in transit centers, retail malls, campuses and commercial buildings.

Features

Intelligent access point management

- Central configuration and management of all network access points
- Zero-touch configuration for access point deployment
- Scalable to 4,096 Wi-Fi access points
- Sophisticated load balancing optimizes the number of connected clients and data traffic per access point

Superior quality of experience for users

- Excellent coverage in commercial and enterprise deployments
- Up to 200,000 device users supported
- Up to 32,000 MAC address entries supported
- Multi-core, multi-thread processing handles up to 1,200 DHCP and 800 user authentication requests per second
- Seamless authentication and L2/L3 roaming across multiple controllers and networks

Smart RF management

- Continuously monitors the wireless network
- Automatically configures access point RF parameters and adjusts power and channel assignments
- Network self-heals in the event of an access point failure

Robust security, high reliability

- Supports various access authentication modes, including 802.1x and portal-based solutions
- Strict user access policies ensure secure access
- 802.11i data encryption
- 1+1 and N+1 redundancy and immediate switchover to the redundant controller ensures uninterrupted service

Flexible network architecture and data forwarding options

- Configurable for centralized or local data forwarding
- Centralized data forwarding routes all control and data traffic through the gateway for maximum control
- Local data forwarding provides lower latency and higher bandwidth, while maintaining centralized user management and security—optimal for large-scale deployments

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Specifications

Physical Specifications

Service ports	8 GE/optical ports
Power consumption	80W maximum
Power supply	100–240 Vac, 50–60 Hz
Dimensions (W x H x D)	17.32" x 1.75" x 12.24" (440 mm x 44.5 mm x 311 mm)
Weight	8.60 lb (3.9 kg)
Operating temperature	32°F to 113°F (0°C to 45°C)
Storage temperature	23°F to 158°F (–5°C to +70°C)
Relative humidity	5–80% noncondensing
DHCP processing	1,200 users per second
Web authentication	800 user authentication requests per second
MAC addresses	32,000
ARP table entries	32,000
VLANs	4,096
Access points	64 maximum (centralized forwarding) 4,096 maximum (local forwarding)
Users	2,000 maximum (centralized forwarding) 200,000 maximum (local forwarding)

Software Specifications

WLAN	Access point management and control Power adjustment and channel selection Dynamic bandwidth control Hotspot™ 2.0 Rogue access point detection Black-white list (based on MAC or URL) Load balancing Band steering EtherIP (RFC3378), CAPWAP GRE tunneling Performance monitoring and statistics L2/L3 seamless roaming
Wi-Fi security	Web portal authentication MAC authentication RFC 3579 RADIUS authentication RFC 3576 RADIUS authentication RADIUS CHAP RFC 3580 IEEE 802.1X RADIUS EAP authentication (EAP-TLS, EAP-FAST, EAP-SIM/AKA) DHCP accounting WEP 64 and 128 bit TKIP, AES SSL, TLS: RC4 128-bit, RSA 1024-bit and 2048-bit ACLv4 and ACLv6

L2 and L3 functions	IPv4 and IPv6 dual stack Static routing, OSPF V2, policy routing 6rd (IPv6 quick deployment) GRE tunneling DHCP server, DHCP relay, DHCP snooping VRRP NAT VLAN and super VLAN Broadcast suppression
Redundancy	1+1/N+1 stateful redundancy
System management	Configuration based on CLI or Web UI Login through console, SSH, or Telnet Syslog system monitor SNMPv3 License-based capacity (AP quantity) control Out-of-band management

Note: Specifications are subject to change.

Ordering

Product	Description
SAC700C ①②	System

License	Description
LIC-AP-16-UPG ③④	Licenses an SAC700C to manage 16 additional access points
LIC-AP-64-UPG ③④	Licenses an SAC700C to manage 64 additional access points
LIC-AP-128-UPG ③④	Licenses an SAC700C to manage 128 additional access points
LIC-AP-512-UPG ③④	Licenses an SAC700C to manage 512 additional access points

① Standard configuration

② The number of access points an SAC700C can manage is license-controlled. By default, each SAC700C can manage 64 access points.

③ Once an upgrade license is imported, the total number of access points that the SAC700C can manage is increased by the the number authorized by the license.

④ For upgrade



SKSpruce US
1885 Lundy Avenue
San Jose, CA 95131
United States
+1 408 449 5604

SKSpruce China
A1, Tianfu Software Park
1129 Century City Road
Chengdu, Sichuan, China
+86 28 8523 1119

www.SKSpruce.com

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