– Number of access points:[1]
50 for WLC-15 and 150 for WLC-30
– Access points monitoring
– WPA/WPA2/WPA3 Enterprise,
WPA/WPA2/WPA3 Personal user authorization



WLC-15



WLC-30

WLC-15, WLC-30 are enterprise-level controllers for small- and medium-sized enterprises. The devices allow building distributed wireless networks using different traffic scenarios at L2/L3 level. Firewall features are supported on WLC controllers to ensure network security. The devices can be used to create various user authorization scenarios for corporate and guest networks. LDAP, RADIUS and other corporate services are also available.
Built-in AirTune module allows managing radio parameters of access points (AP) and client balancing, as well as adapting to the current environment. Seamless roaming support (802.11r/k/v) provides the best conditions for client switching between AP.

Technical features

	WLC-15	WLC-30
Interfaces		
Ethernet 10/100/1000BASE-T (LAN/WAN)	4	4
Ethernet 1000BASE-X SFP	2	–
10GBASE-R SFP+/1000BASE-X (LAN/WAN)	–	2
Console (RJ-45)	1	1
USB 3.0	–	1
USB 2.0	1	1
HDD slot	1	1
microSD card slot	–	1
Number of CPUs by role		
Management CPU	0	
Balancing CPU	1	–
Service CPU	2–3	1–3
Switching		
Interfaces	bridge – 50 sub – 64 QinQ – 64	bridge – 250 sub – 1024 QinQ – 1024
LLDP	interfaces port policies – 8 network policies – 64	
Label switching		
MPLS	LDP neighbors – 128 pseudowires – 128 pseudowire classes – 64 Ethernet over MPLS – 64	LDP neighbors – 1024 pseudowires – 1024 pseudowire classes – 64 Ethernet over MPLS – 256

[1] Expansion of access points number is available under license: up to 100 APs for WLC-15 and up to 500 Aps for WLC-30.

Technical features (continued)

	WLC-15	WLC-30
System features		
Access points number[1]	50	150
Maximum clients number	2000	5000
Static routes	1K	11K
Concurrent sessions	4K	256K
VLAN support	up to 4K active VLANs according to 802.1Q	
MAC table	2K entries per bridge	
FIB size	1M	1.4M
VRF	32	
Object-groups		
Object-group network	instances – 500 ip prefixes in group – 1024 ip ranges in group – 1024	
Object-group address:port	instances – 500 address:port in group – 64	
Object-group service	instances – 500 port ranges in group – 64	
Object-group application	instances – 50 apps in group – 128	
Object-group content filter	instances – 64 categories per vendor – 500	
Object-group URL	instances – 31 plain URL in group – 128 regex URL in group – 128	
Object-group MAC	instances – 500 macs in group – 64	
Routing		
BGP	instances – 64 networks in instance – 128 neighbors – 1k RIB – 5M	
OSPFv3	instance, neighbors in interface – 64 summaries in instance – 128 areas – 256 networks in area – 64 virtual links – 1024 RIB – 500k	
IS-IS	instances, circuits – 64 RIB – 500k	
RIP(ng)	neighbors – 16 summaries – 8 networks – 128 RIB – 10k	

[1] Expansion of access points number is available under license: up to 100 APs for WLC-15 and up to 500 Aps for WLC-30.

Technical features (continued)

	WLC-15	WLC-30
Quality of Service (QoS)		
QoS limitations	class-maps – 50 policy-maps – 24 classes in policy-map – 76	class-maps – 256 policy-maps – 256 classes in policy-map – 768
Tunneling		
VPN tunnels	IPIP – 10 GRE – 10 Ethernet over GRE – 10 GRE SUB – 10 SoftGRE – 100 SoftGRE SUB – 250 L2TPv3 – 10 LT – 128 IPsec VTI –10	IPIP – 250 GRE – 250 Ethernet over GRE – 250 GRE SUB – 250 SoftGRE – 600 SoftGRE SUB – 1500 L2TPv3 – 250 LT – 128 IPsec VTI – 250
IPsec VPN tunnels	64	64
Remote access		
Remote Access	L2TP concurrent connections – 10 PPTP concurrent connections – 10 OpenVPN concurrent connections – 10 OpenVPN remote addresses per connection – 8	
WireGuard tunnel, RA	instance – 16 peers per instance 16 local addresses – 1 addresses per peer (address-range & obj-group) – 10k	
Services		
Source NAT	ruleset – 20 rules in ruleset – 100 pool – 20	ruleset – 100 rules in ruleset – 100 pool – 100
Destination NAT	ruleset – 20 rules in ruleset – 20 pool – 20	ruleset – 100 rules in ruleset – 100 pool – 100
DHCP Server	pools – 20 pool size – 10k static address in pool – 128	pools – 100 pool size – 10k static address in pool – 128
Security		
ACL	instances – 512 rules – 512	instances – 1533 rules – 1533
Firewall	zone – 48 zone-pair – 192 rules – 4096	zone – 128 zone-pair – 512 rules – 10k
IPS	user update servers – 32 ips-categories – 20 rules – 500	
IKE (v1/v2), IPsec (esp/ah) encryption algorithms		
Authentication	md5, sha1, sha2-256, sha2-384, sha2-512	
Encryption	des, blowfish128, aes128, camellia128, aes128ctr (IKEv2 only), blowfish192, aes192, camellia192, 3des, aes192ctr (IKEv2 only), blowfish256, aes256, camellia256, aes256ctr (IKEv2 only)	
Diffie Hellman	Regular Groups: 1,2,5,14-18. Modulo Prime Groups with Prime Order Subgroup: 22-24. NIST Elliptic Curve Groups: 19-21, 25-26. Brainpool Elliptic Curve Groups: 27-30. Elliptic Curve 25519: 31	

Technical features (continued)

	WLC-15	WLC-30
Physical specifications and environmental parameters		
RAM	4 GB DDR4	
Flash memory	8 GB eMMC	
Maximum power consumption	18 W	26 W
Power supply	100–264 V AC, 50–60 Hz	
Operating temperature	from 0 to +40 °C	from -10 to +45 °C
Storage temperature	from -40 to +70 °C	
Operating humidity	no more than 80 %	
Storage humidity	from 10 to 95 %	
Dimensions (W × H × D)	430 × 44 × 226 mm	430 × 40 × 225 mm
Weight	2.7 kg	2.9 kg
Lifetime	no less than 15 years	

Features and capabilities

Access points management

– WPA/WPA2/WPA3[1] Personal
– WPA/WPA2/WPA3[1] Enterprise
– OWE[1] open network
– Local collecting of user account information[2]
– Collecting user account information to an external RADIUS server
– IEEE 802.11r/k/v standard seamless roaming
– Integration with external portals[3]
– Automatic management of radio environment resources
– Access point authorization by certificate

Supported access points

– WEP-1L
– WEP-2L
– WEP-3L
– WEP-200L
– WEP-30L
– WEP-30L-Z
– WEP-3ax
– WEP-500K
– WEP-550K
– WEP-50L
– WOP-2L
– WOP-20L
– WOP-3L-EX
– WOP-30L
– WOP-30LI
– WOP-30LS
– WOP-50L
– WEP-2ac
– WEP-2ac Smart
– WOP-2ac
– WOP-2ac rev.B
– WOP-2ac rev.C

Switching

– Up to 4094 VLAN (802.1Q)
– Voice-VLAN
– Q-in-Q (802.1ad)
– MAC-based VLAN
– Bridge domain
– LAG/LACP (802.3ad)
– Port-security, protected port
– Jumbo-frames

MPLS

– LDP
– L2VPN VPWS
– L2VPN VPLS Martini Mode, Kompella Mode
– L3VPN MP-BGP (Option A, B, C)
– L2VPN/L3VPN over GRE, DMVPN
– Transparent transfer of service protocols

Routing

BGP:

– Address family: IPv4, IPv6, VPNv4, L2VPN, IPv4 label-unicast, Flow-spec
– Flexible management of route information by attributes. Support for Conditional Advertisement, Route Aggregation and Local-AS mechanisms
– High scalability and configuration flexibility: support for peer-group, dynamic neighbor, as-range and Route-reflector

[1] WPA3 and OWE are supported for WEP-3ax, WEP-3L, WEP-30L, WEP-30L-Z, WEP-500K, WEP-550K, WOP-30L, WOP-30LI, WOP-30LS APs.
[2] The features will be available in future firmware versions.
[3] Operation with ELTEX-NAICE, WNAM Netams, Cisco ISE is tested.

Features and capabilities (continued)

– Fall over based on BFD and Fast Error Peer Detection
– Graceful restart
– Authentication
– Flexible redistribution from/to BGP process of other protocol routes
– Ability to run up to 64 processes simultaneously
– ECMP
– Support for policy-based routing

OSPF(v3):
– Different types of zones: Normal, Stub, Totally stub, NSSA, Totally NSSA
– Operation in different types of networks: Broadcast, NBMA, Point-to-point, Point-to-multipoint, Point-to-multipoint non-broadcast
– Summarization and filtering of route information
– Authentication
– ECMP
– Passive interface
– Flexible redistribution from/to OSPF process of other protocol routes
– Ability to run up to 64 processes simultaneously
– Support for BFD
– Auto cost calculation mechanism
– Support for policy-based routing

IS-IS:
– Operation in different types of networks: Broadcast, Point-to-point
– Setting the neighbourhood of L1/L2 layers
– Metric style: narrow, wide, transition
– Authentication
– Filtering of route information
– Flexible redistribution from/to IS-IS process of other protocol routes
– Ability to run up to 64 processes simultaneously
– Support for policy-based routing

RIP(ng):
– Operation modes (RIP only): Broadcast, Multicast, Unicast
– Summarization and filtering of route information
– Managing route metrics
– Authentication
– Passive interface
– Flexible redistribution from/to RIP process of other protocol routes
– Support for policy-based routing

Static:
– Support for BFD
– Recursive search
– Managing route metrics
– Ability to select the option of notifying the sender when traffic is blocked

Quality of Service (QoS)
– Up to 8 priority or weighted queues per port
– L2 and L3 traffic prioritization (802.1p (CoS), DSCP, IP Precedence (ToS))
– Hierarchical QoS
– Queue management: RED, GRED, SFQ, CBQ, WFQ, WRR
– Session labeling
– Bandwidth management (policing, shaping)

IPsec
– Policy-based and route-based modes
– Incapsulation modes: tunnel and transport
– Authentication pre-shared key, public key, xauth (ikev1 only), eap (ikev2)
– Support for mobike (ikev2 only)
– Support for ike ikering

Remote Access
– PPTP, L2TP over IPsec, OpenVPN, WireGuard
– PPPoE/PPTP/L2TP client
– User authentication
– Connection encryption

Security
– Access Control Lists (ACL) based on L2/L3/L4 fields
– Zone-based Firewall in two modes: stateful and stateless. Rule triggering logging, counters
– Filtering by applications
– Protection against DoS/DDoS/Spoof attacks and their logging
– Intrusion Detection/Prevention system (IPS/IDS) and their logging[1]
– Signature analysis via IPS in two modes: transit and mirrored traffic analysis[1]
– Interaction with Eltex Distribution Manager to obtain licensed content: rule sets provided by Kaspersky SafeStream II[2]

[1] Activated by a license.
[2] Rule sets are available by subscription. The minimum subscription period is 1 year.

Features and capabilities (continued)

Monitoring and management

– Support for standard and extended SNMP MIB, RMONv1
– Zabbix agent/proxy
– Authentication methods: RADIUS, TACACS+, LDAP
– Protection against configuration errors, automatic configuration recovery
– CLI, Syslog
– System resource usage monitoring
– Ping, monitor, traceroute (IPv4/IPv6), packet information in the console output
– Firmware upgrade, configuration upload and download via TFTP, SCP, FTP, SFTP, HTTP(S)
– Support for NTP
– Netflow v5/v9/v10 (exporting of URL statistics for HTTP, host for HTTPS)
– Local control via RS-232 (RJ-45)
– Remote control, WEB, Telnet and SSH (IPv4/IPv6)
– LLDP, LLDP MED
– Local/remote router configuration storage

SLA

– SLA-responder for Cisco-SLA-agent
– Eltex SLA:
  – Delay (one-way/two-way)
  – Jitter (one-way/two-way)
  – Packet loss (one-way/backward/two-way)
  – Packet Error Rate
  – Out-of-order delivery (one-way/backward/two-way)

Redundancy and clustering

– VRRP v2, v3
– Tracking based on VRRP or SLA test
– Managing VRRP parameters
– Managing PBR parameters
– Managing the administrative status of the interface
– Activating and deactivating a static route
– Managing AS-PATH and preference attributes in a route-map
– DHCP failover to reserve the IP address database issued by the DHCP server
– Failover Firewall to reserve Firewall and NAT sessions
– MultiWAN
– Dual-Homing
– Certificate synchronization
– WLC state synchronization

Fault-tolerant cluster:

– Easy administration and integration: synchronization of configurations, time, versions, licences; Zero Touch Provisioning (ZTP)
– Redundancy of all connections in the cluster
– Router redundancy (in current version 1+1 redundancy is supported)

Services

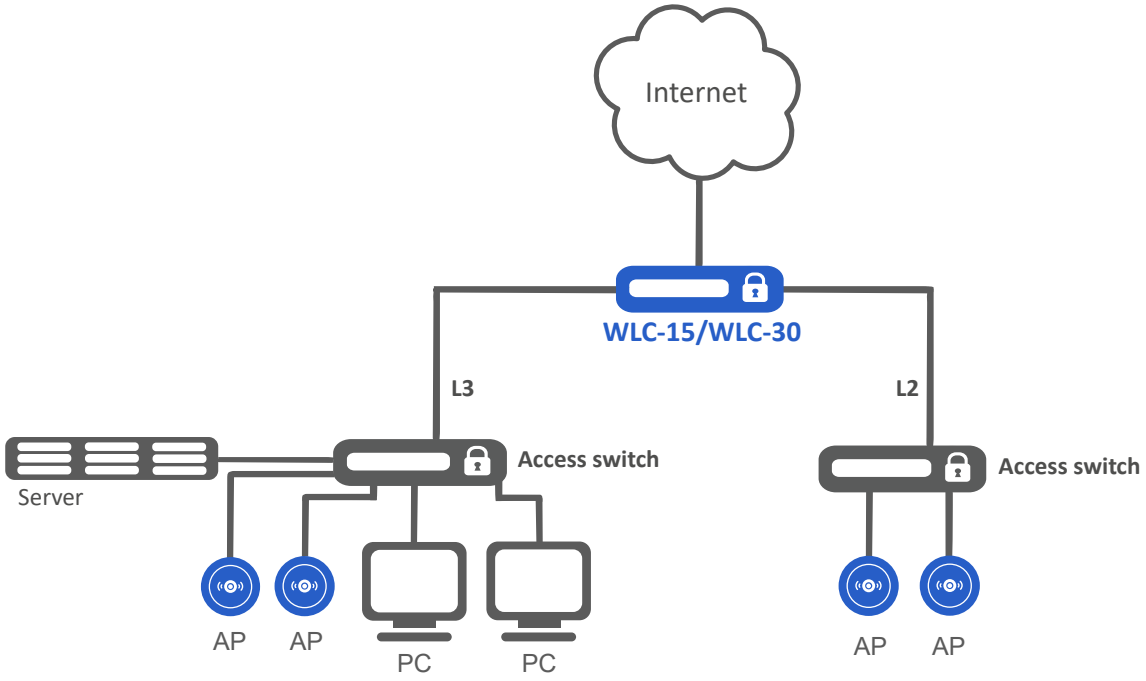
– DHCP client, DHCP server
– DHCP Relay Option 82
– DNS resolver
– NTP
– TFTP-сервер
– E1/multilink, modems

BRAS (IPoE)[1]

– Subscriber termination
– White/black URL lists
– Quotas for traffic volume, session time, network applications
– HTTP/HTTPS Proxy
– HTTP/HTTPS Redirect
– Session accounting via Netflow protocol
– Interaction with AAA, PCRF servers
– Bandwidth management by offices, SSIDs and user sessions
– User authentication by MAC or IP address

[1] Activated by a license.

Use case in the corporate network



Ordering information

Name	Description
WLC-15	WLC-15 wireless access controller, 4 × Ethernet 10/100/1000BASE-T, 2 × Ethernet 1000BASE-X SFP, 1 × Console (RJ-45), 1 × USB 2.0, 1 × HDD slot, 4 GB DDR4 RAM, 8 GB eMMC, 100–264 V AC
WLC-30	WLC-30 wireless access controller, 4 × Ethernet 10/100/1000BASE-T, 2 × 10GBASE-R SFP+/1000BASE-X, 1 × Console (RJ-45), 1 × USB 3.0, 1 × USB 2.0, 1 × HDD slot, 1 × microSD card slot, 4 GB DDR4 RAM, 8 GB eMMC, 100–264 V AC
Related software	
WLC-AP	WLC-AP option to extend the built-in license on a WLC controller for one access point
WLC-AP-R	WLC-AP-R option for extending the built-in license for plug-in access points to a backup WLC-series controller for a single access point
WIDS/WIPS-WLC-15	WIDS/WIPS-WLC-15 option: wireless intrusion detection and prevention service for the WLC-15 controller
WIDS/WIPS-WLC-15-R	WIDS/WIPS-WLC-15-R option: wireless intrusion detection and prevention service for the WLC-15 standby controller
WIDS/WIPS-WLC-30	WIDS/WIPS-WLC-30 option: wireless intrusion detection and prevention service for the WLC-30 controller
WIDS/WIPS-WLC-30-R	WIDS/WIPS-WLC-30-R option: wireless intrusion detection and prevention service for the WLC-30 standby controller

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About Eltex

Eltex Enterprise is a leading Russian developer and manufacturer of communication equipment with 30 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.