



Universal WiFi Controller for High Density Networks

Universal WiFi Controller (UWC) is a software for high density network management. High density of access points (APs) allows

- users are free to choose the location and tools of connection (even gadgets with weak antennas);
- freedom in the distribution of network coverage radio frequency resources.

UWC allows:

- centralized management of all already installed APs both in automatic and manual modes;
- clients devices connection only if communication is reliable;
- a reasonable allocation of clients devices to access points;
- turning off unnecessary APs for interferences decreasing;
- covering self-repair function;
- fast production of VXLAN/EoIP tunnels, etc.

Customers can use different regulations:

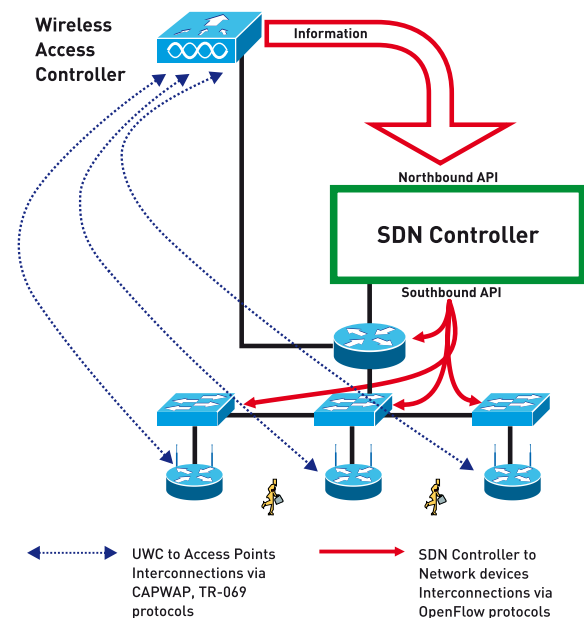
- load sharing between different interfaces of the client;
- clients devices connection only if communication is reliable;
- a reasonable allocation of clients devices to

access points;

- turning off unnecessary APs for interferences decreasing;
- covering self-repair function;
- fast production of VXLAN/EoIP tunnels, etc.

UWC is integrated with ARCCN SDN controller with allows load control through the network user interfaces.

UWC solution works for both already installed and only to be deployed networks.



UWC advantages:

Centralized management of multiple APs and (if necessary) closely operation with SDN what allows:

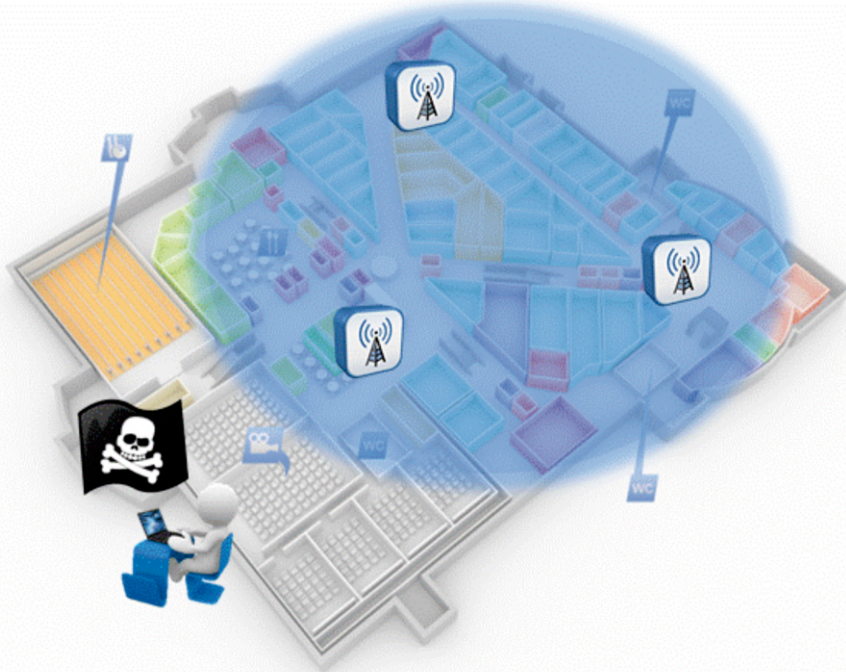
- effective load balance for traffic management (wired and wireless);
- opportunity to control the switching of users between APs and changing the route of the traffic, load balance, etc. The SDN

Controller can change politics in all parts of a network (switches, routers, firewalls). Combination «UWC+SDN» is ready for clients roaming much faster than any modern network;

- using «UWC+SDN» controllers provides the highest level of security based on users positions within one office.

Besides UWC allows to:

- Use cheap APs, if DD/OPEN-WRT firmware with our program module can be installed on them;
- Reduce the cost for support, management and service of the wireless network by automating many procedures;
- Simplify creation, coping, monitoring, and



- configuring of Wireless LANs;
- Fast WiFi networks deployment. No more needs to configure each AP separately
- Decrease of capital expenditures (CapEx). No needs to buy an expensive controller and APs from a single developer;
- Operate with an SDN controller and transfer information about wired and mobile users;
- Security is a priority: all management between APs and UWC is secured by the DTLS protocol.
- Regulate user access depending on their geographical location.

If the user is located outside the office, he is provided only with Internet access. This solution can be used to provide financial security of any enterprise.

Where can be used?

- SOHO networks (Small Office Home Office): if a customer has more than one AP
- Enterprise wireless networks with other LAN devices;
- Service providers networks: providers can offer their clients really distributed service. A user will feel everywhere like in the same VLAN: at home, at work, in parks, in airports;
- Wireless networks of Business-centers: UWC can provide dynamic radio-frequency optimization, reduce losses due to the interference APs, provide wireless high quality internet for small business as additional service. Tenants get comfortable and secure WiFi service for a modest monthly fee. For example:

