

QtZeroConf

A high-level Zeroconf interface for Qt-based client-server applications.

(c) 2012 Johannes Hildén

<https://github.com/johanneshilden/qtzeroconf>

<http://atomic.batcave.net/qtzeroconf/doxygen/>

About zero configuration networking

Zeroconf simplifies the task of finding and connecting to services on a local area network. There are normally three steps involved in this process:

1. registering a service,
2. browsing for available services, and
3. resolving a service to an actual IP address and port.

The first step concerns the server, which could be a hardware device or an application that advertises its service on the network (e.g., a chat or file sharing software). The other two steps enable a client to search for a service of some type and connect to it without having to know the host machine's IP address and port number.

About Avahi

QtZeroConf uses the Avahi library, which implements the Apple Zeroconf specification to facilitate service discovery on a local network via the mDNS/DNS-SD protocol suite. <http://avahi.org/>

QtZeroConf consists of:

ZConfService

Allows server applications built using Qt's event loop system to announce a Zeroconf service on the local area network.

ZConfServiceBrowser

This class can be used to handle Zeroconf service discovery in Qt-based client applications. ZConfServiceBrowser uses Qt's signals/slots mechanism to browse asynchronously for available services on the network.

The *browse()* function call is non-blocking and ZConfServiceBrowser will emit *serviceEntryAdded()* when a new service is discovered and *serviceEntryRemoved()* when a service is removed from the network.

ZConfBrowserWidget

QTreeWidget-based widget that uses ZConfServiceBrowser internally to browse for and display Zeroconf services available on the local network.

ZConfServiceEntry

This struct is returned by ZConfServiceBrowser and contains details about a particular Zeroconf service on the local network.