The ipq.conf file is read in by the IPQ software at startup time. It mainly contains the names of the two network interfaces used by IPQ, lists of IP addresses and address ranges, and the administrative password.

To the right you can see a sample ipq.conf file. This particular example is modelled very closely on the configuration used at CSE of UNSW.

As can be seen, lines beginning with "#" are treated as comments. The actual configuration lines can appear in any order—except for cost lines—and in any location in the file.

**Interface devices**

The two device lines name the two network interfaces used by IPQ. The internal device is the one connected to the computers owned by the site which IPQ is monitoring. The external device is the one connected to the outside world. One, and only one, of each must be specified.
Autocreate

IPQ maintains a list of accounts for users and hosts. IPQ can create a new account on-the-fly for a new user or host. For this to happen an autocreate line must appear in the configuration file—one for each account type. In the sample only user accounts will be created on-the-fly.

If autocreate is not enabled and an account does not exist for a user or host then that user or host will get a "connection refused" each time they attempt to connect to an external host.

IP addresses

IP addresses and address ranges are expressed as a dotted IP address followed by a dotted network mask. If a network mask is not given then a network mask of 255.255.255.255 is assumed. The internal, discard, trusted, cost and administration configuration lines all use this format.

Internal

Rather than use the network interface to determine if a network packet has arrived from an internal or external host, IPQ matches packets against a list of internal addresses and address ranges. Each internal configuration line specified one such address or range.

Discard

The discard configuration line is a way of telling IPQ to throw away packets. Any packet seen with a destination IP address listed in a discard line will be silently discarded.
**Trusted**

The trusted line identifies an internal IP address or range which will provide authoritative user identification via the IDENT protocol. IPQ requires such hosts to respond to IDENT requests before connections are allowed through.

**Cost**

Each cost line specifies the incoming and outgoing traffic costs associated with an external IP address or range. Following the address/range are two numbers. The first is the incoming traffic cost. The second is the outgoing cost.

When an account is over quota the user or host will only be allowed to connect to zero cost external hosts. When looking for the cost of a new connection to an external host IPQ searches the cost list in the reverse order given in the configuration file. In other words, the cost list in the configuration file should go from most general to most specific. Note that the most general case is the default cost, which is that with an address/mask of 0.0.0.0/0.0.0.0.

**Administration**

IPQ will allow administrative connections only from IP addresses or ranges specified in administration lines in the configuration file. Connections from other addresses will be summarily closed.

If the address or range is followed by a "1" then connections will only be accepted from reserved port numbers.

**Password**

The optional password line allows a password to be set for administrative connections. This does not change the effect of the administration lines, but does require that the password command be entered at the beginning of an administrative connection session before any useful commands will be accepted.