# Configuring the IdP for IP Authentication

This authentication handler supports "authenticating" users based on their IP Address.

## Define the Login Handler

This login handler is defined with the element `<LoginHandler xsi:type="IPAddress">` with the following required attribute:

- **username** - the username used for authenticated users

and the following optional attributes:

- **defaultDeny** - boolean flag that indicated whether to accept or reject specified IP addresses; default: false
- **authenticationDuration** - length of time in minutes that the authentication method associated with this login handler is active; default: 30 minutes

Additionally the login handler **must** contain one or more of the following elements:

- `<AuthenticationMethod>` - element whose content is the authentication method(s) serviced by the login handler.
- `<IPEntry>` - IP addresses and ranges to allow (if defaultDeny is true) or deny (if defaultDeny is false), in [CIDR notation](#)

## Example IPAddress Authentication Handler Configuration

```xml
<LoginHandler xsi:type="IPAddress" username="ip-user" defaultDeny="true">
  <IPEntry>192.168.0.0/16</IPEntry>
</LoginHandler>
```

The above example will allow anyone with an IP address between 192.168.0.0 and 192.168.255.255 to be authenticated as the user *ip-user*

An [IP CIDR Calculator](#) may help in calculating the CIDR notation for an IP range.