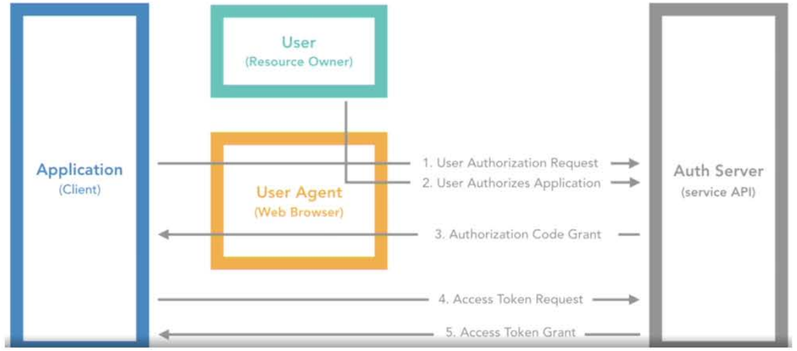
What about legacy applications?

Resource Owner Password Flow

This is not the flow you're looking for.

Authorization Code Flow



The Basics

- The user never saw the access token
- The application had the user's credentials
- Do we trust the application and its developers?

This defeats the purpose of OAuth.

There is one valid use case

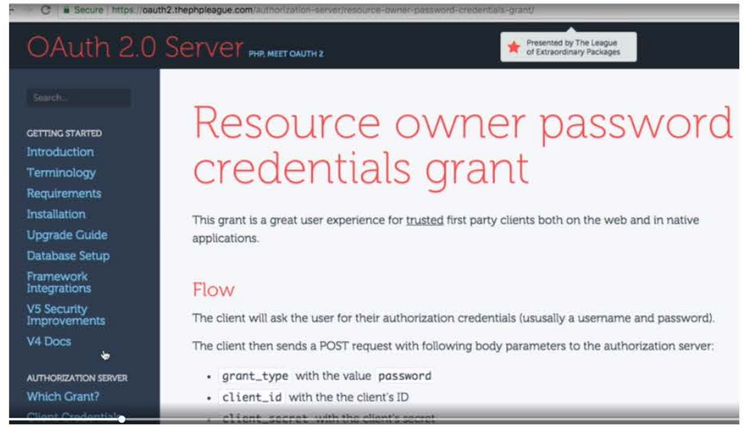
Wrapping legacy systems in an OAuth interface to bring them into the same security practices

This should be a *temporary* state.

New applications should never use Resource Owner Password Flow.

Time for some code

(that hopefully you never need).




```
~
curl -X POST "http://localhost:4444/password.php/access_token" -d
curl: option -d: requires parameter
curl: try 'curl --help' or 'curl --manual' for more information
~
curl -X POST "http://localhost:4444/password.php/access_token" -d "grant_type=password&client_id=m
yawesomeapp&client_secret=abc123&username=keith&password=keithisawesome&scope=basic%20email"
{"token_type":"Bearer","expires_in":3600,"access_token":"eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsImp0aSI6I
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dCSYiVGpC6b-gbAWNUwt8DXENJSj-PRzJvtSr7PBU9j8PwJ3hJpkBSyxk1xjUBL3agGkMHC5NAFwNQolv51UiwoBA9kIWGtWNnvTw0
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3L7AyUVNJyRoVtfb6araaD9sGwaRmUTYd3EaJ9guYh80h73MSOlLW7n1XP32SrhOQPHGMGHjUSjotF5xdHFBwWIA"}~
curl -X POST "http://localhost:4444/password.php/access_token" -d "grant_type=password&client_id=m
yawesomeapp&client_secret=abc123&username=keith&password=keithisawesome&scope=basic%20email" | ~/jq
```

```
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  1028  100   906  100   122   4620    622 --:--:-- --:--:-- --:--:--  4646
{
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  "expires_in": 3600,
  "access_token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsImp0aSI6IjNiZDY2ZWM0NWY4YThhZWEwZjI0ODZhZWMxYzJ
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}
```

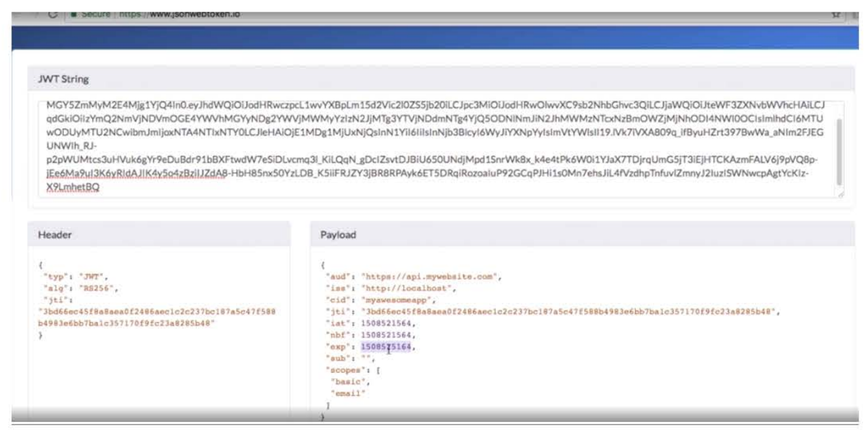

Resource Owner Password Flow Security Considerations

Security Considerations

- Protect the client_secret (backend apps only)
- Must use secure communications like TLS
- Protect the access token
- All resource servers must validate the access tokens

Security Considerations

- The actual risk is much bigger

  Your user is giving their credentials to the application.

  Do we want to train users to put their credentials anywhere?

  Do we trust the application and all the developers?

- Scopes don't protect us here
- Revoking access doesn't work either

There is one valid use case.

Wrapping legacy systems in an OAuth interface to bring them into the same security practices

!

If you can, avoid the Resource Owner Password Flow.