Expert Services

Qlikview Accesspoint Single Sign On

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QV9, QV10 IR

”A best practice is a technique or methodology that, through experience and research, has proven to reliably lead to a desired result.”

Contents

1 Introduction

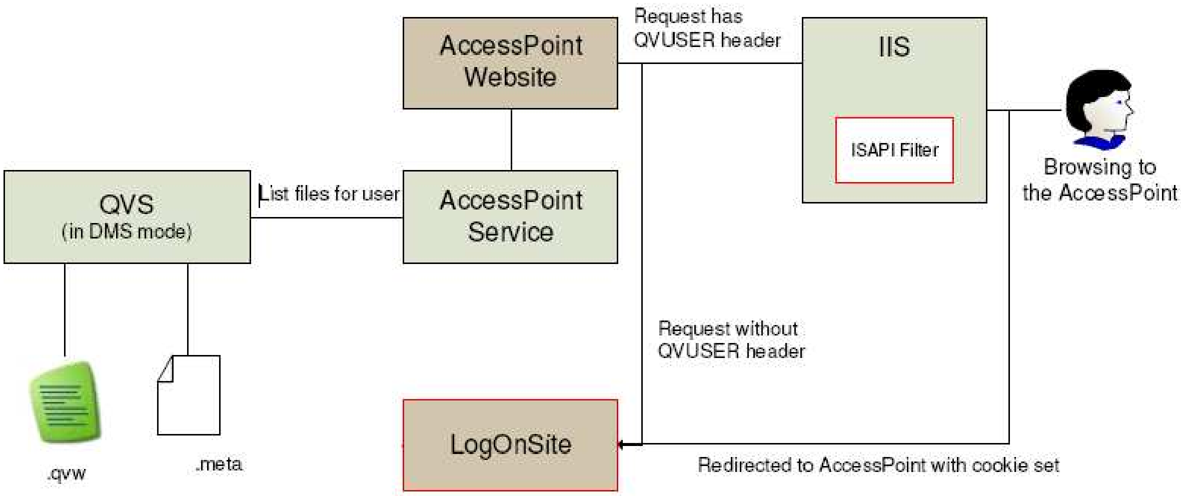
There are many single sign-on solutions in the market that protect a URL or web resource by redirecting the initial request for a protected resource to a login page prompting the user to enter their (single sign-on) credentials. Once a user is authenticated the user is again redirected, this time back to the originally requested resource, and this time the Single Sign-on solution will have also appended an HTTP header containing the user id of the logged in user. The name of the header will vary from system to system (e.g. the header name is "sm_user" for SiteMinder, ivuser for WebSEAL) and the content will be the user id.

If the Accesspoint does not find the user id in the header, the "Login address" will have Accesspoint redirect to the given URL (note in most commercial single sign-on solutions like this the redirect is handled outside of Accesspoint by the SSO piece so in many cases this will simply be a precaution that should never really get called)

This document describes how to configure Qlikview with IIS to use the existing SSO infrastructure. In the following chapter we will also mimic a SSO infrastructure. Be aware, that this example configuration is for testing only, and is not meant to be deployed in a productive environment.

1.1 Example

Attached to this document you will find the sources for a small example to mimic a SSO infrastructure.


AccessPoint Website
Request has QVUSER header
IIS
ISAPI Filter
Browsing to the AccessPoint
QVS (in DMS mode)
List files for user
AccessPoint Service
Request without QVUSER header
.qvw
.meta
LogOnSite
Redirected to AccessPoint with cookie set

The provided logon site will handle the logon. The actual site will not check the password, but allow whatever username you type in there. In a real world scenario, password checks etc. will have to be implemented.

The logon site will add a cookie to the user called QvCookie, containing the username in clear text. In a real world scenario this should be done using some kind of advanced ticket handling instead.

The user will be redirected to the Accesspoint. The ISAPI filter will now check for this cookie and if it is found, it will transfer the value to the header, named QVUSER.

The Accesspoint will trust this header and request files from the Qlikview server for this user.

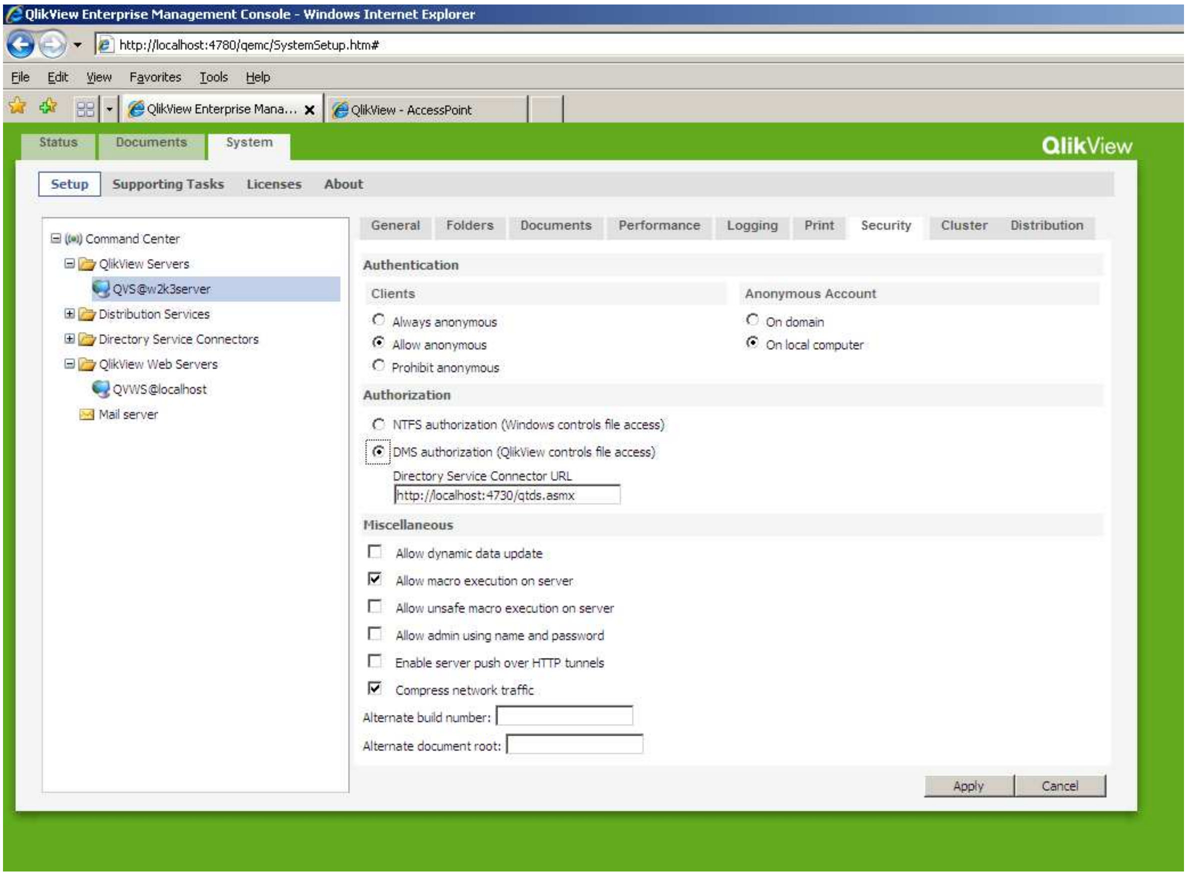
To allow us to use non windows-user with Qlikview the Qlikview Server has run in DMS mode. Additionally as we have to configure the Accesspoint to look for the HTTP-Header field. As we want to deploy an ISAPI-Filter for the SSO Example, we then need to configure IIS.

2 Configuration QV Server

Out of the box Qlikview Server uses Active Directory users in NTFS mode. Typically a SSO system is placed on top of a non-AD directory services. In such a scenario the Qlikview Server needs to run in the so called “DMS”-mode and controls Authorization by itself (.qvw.meta files typically managed by Qlikview Publisher).

2.1 QVS DMS Mode

Use the QlikView Enterprise Management Console to configure DMS mode. Go to “System|Setup|QlikView Servers| Security|DMS Authorization”. Click “Apply” and restart the Qlikview server. The screenshot slightly differ in QV9 and QV10. But the relevant setting is the same.


QlikView Enterprise Management Console - Windows Internet Explorer
http://localhost:4780/qemc/SystemSetup.htm#
File Edit View Favorites Tools Help
QlikView Enterprise Mana...
QlikView - AccessPoint
Status Documents System
QlikView
Setup Supporting Tasks Licenses About
Command Center
QlikView Servers
QVS@w2k3server
Distribution Services
Directory Service Connectors
QlikView Web Servers
QVWS@localhost
Mail server
General Folders Documents Performance Logging Print Security Cluster Distribution
Apply
Cancel

Authentication

Clients

○ Always anonymous
● Allow anonymous
○ Prohibit anonymous

Anonymous Account

○ On domain
● On local computer

Authorization

○ NTFS authorization (Windows controls file access)
● DMS authorization (QlikView controls file access)

Directory Service Connector URL: http://localhost:4730/qtds.asmx

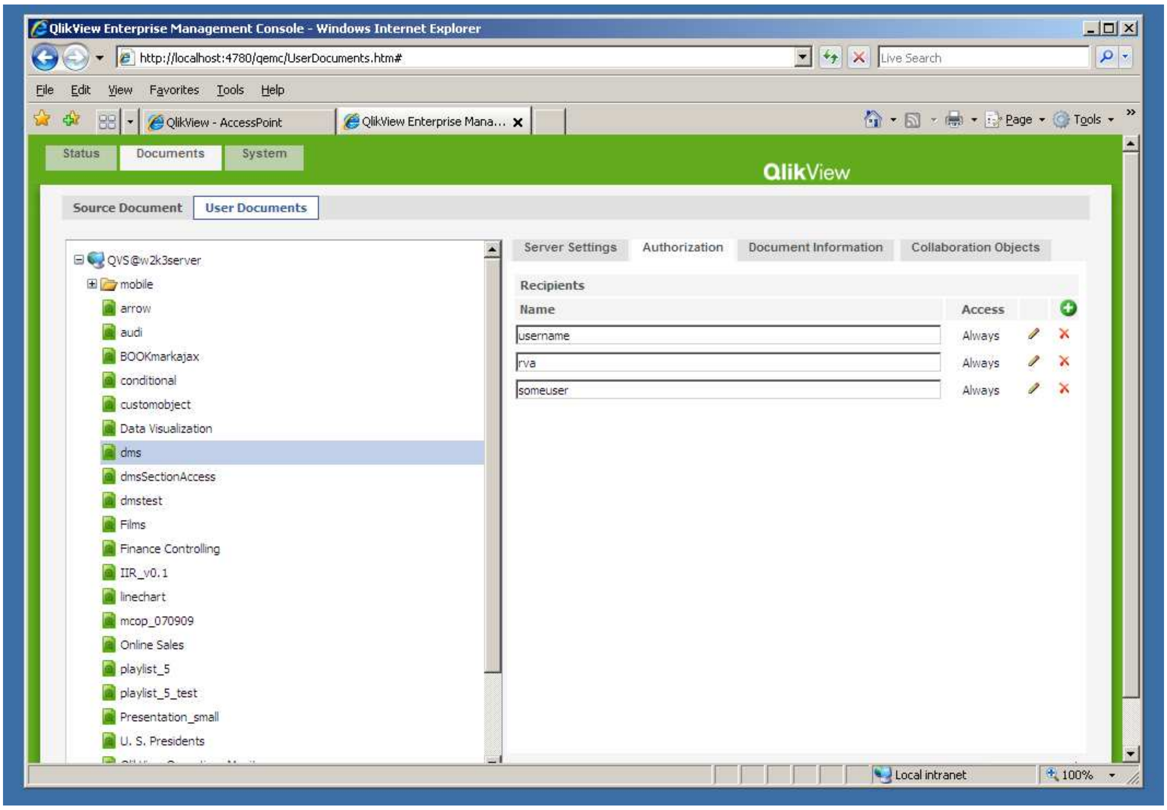
Miscellaneous

□ Allow dynamic data update
☑ Allow macro execution on server
□ Allow unsafe macro execution on server
□ Allow admin using name and password
□ Enable server push over HTTP tunnels
☑ Compress network traffic

Alternate build number:

Alternate document root:

To give users access to documents, go to “Document|User Documents”. Select a document and go to “Recipients”. Add the usernames (of your SSO system) which should have access to the document.



Recipients

Name	Access
username	Always
rva	Always
someuser	Always

In the screenshot above we give the users „username“, „rva“ and „someuser“ access to the document „dms“. In a productive environment use Qlikview Publisher and distribution tasks to manage this list.

2.2 Configure Accesspoint

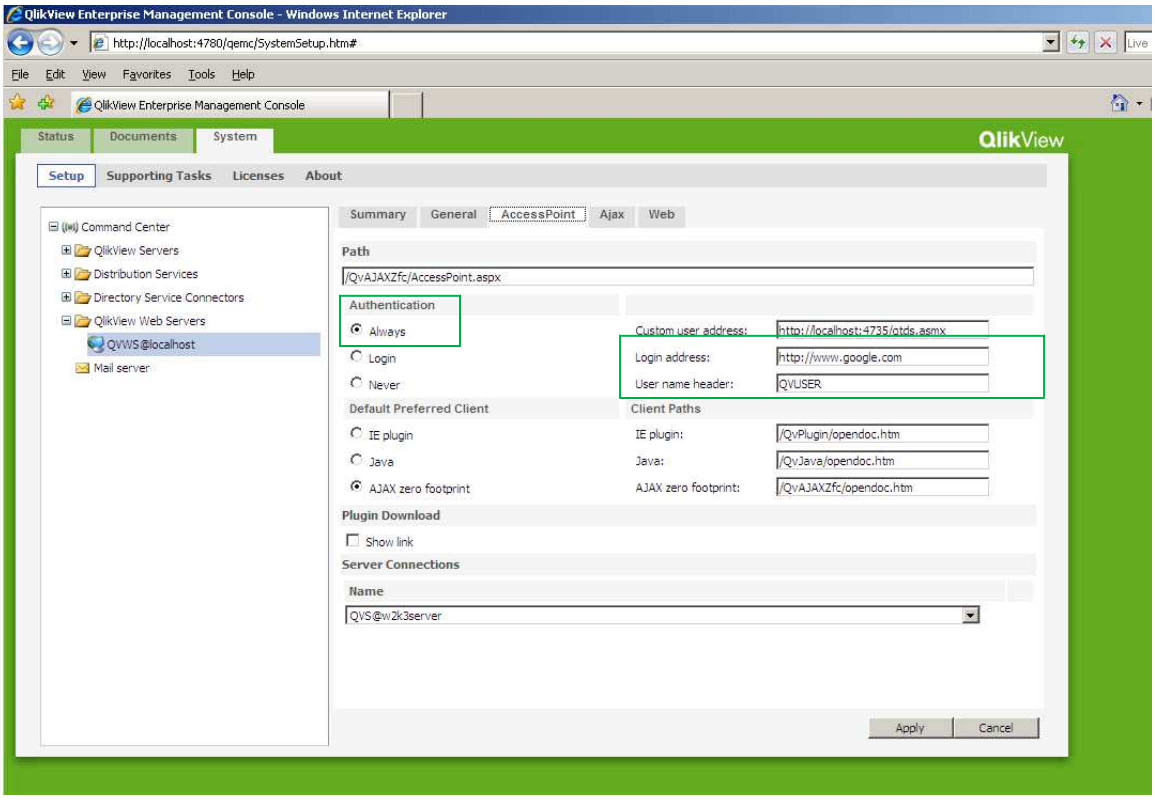
In the Enterprise Management Console go to „Qlikview Web Servers" and select the web server.

2.2.1 Qlikview 9

Go to "Accesspoint" and add to the field "User Name Header" the value "QVUSER". This makes the Accesspoint to check for the HTTP-Header field.

You can utilize the field "Login address" to make a redirect to the specified page if no HTTP-Header field was found. This should be the URL of your login-page. For testing purposes set it to http://www.google.com.

Ensure that the Authentication is set to "Always".



QlikView Enterprise Management Console - Windows Internet Explorer

http://localhost:4780/qemc/SystemSetup.htm#

Path: /QvAJAXZfc/AccessPoint.aspx

Authentication: ● Always ○ Login ○ Never

Custom user address: http://localhost:4735/qtds.asmx

Login address: http://www.google.com

User name header: QVUSER

Default Preferred Client: ○ IE plugin ○ Java ● AJAX zero footprint

Client Paths

IE plugin: /QvPlugin/opendoc.htm

Java: /QvJava/opendoc.htm

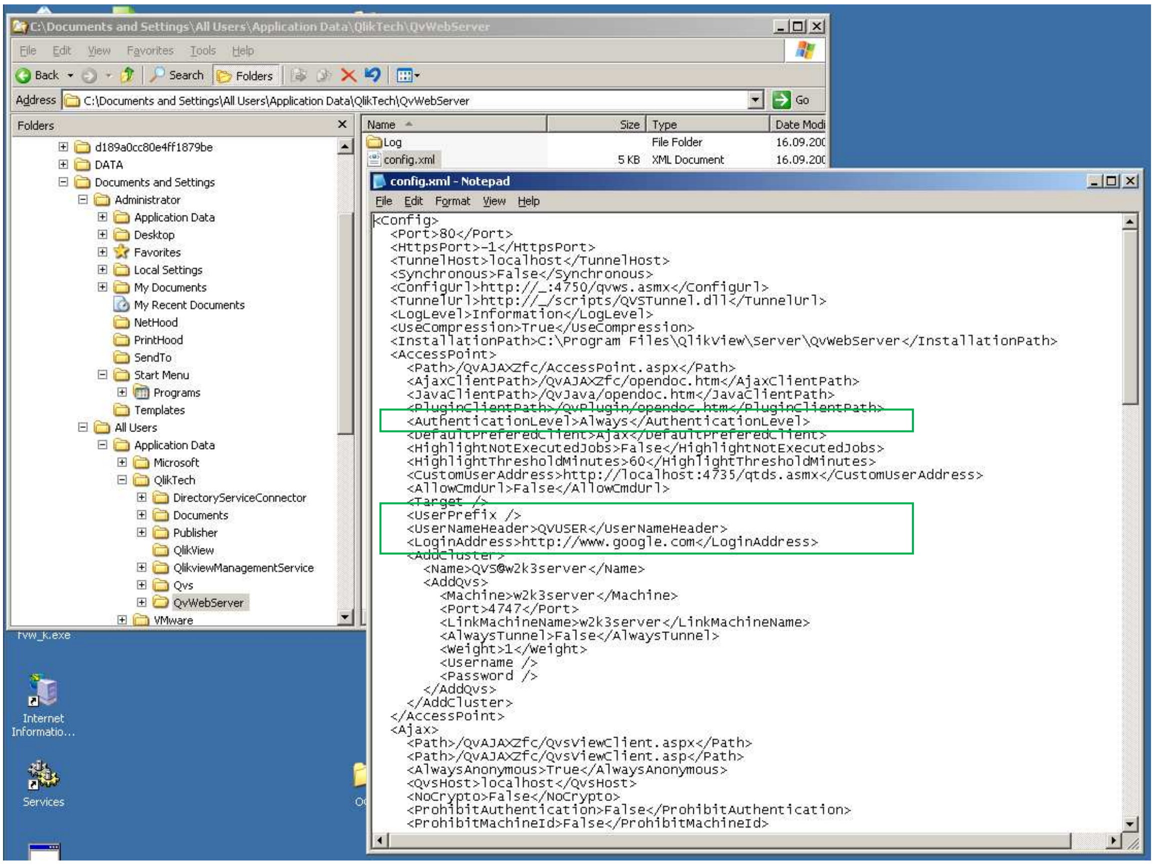
AJAX zero footprint: /QvAJAXZfc/opendoc.htm

Plugin Download: □ Show link

Server Connections

Name: QVS@w2k3server

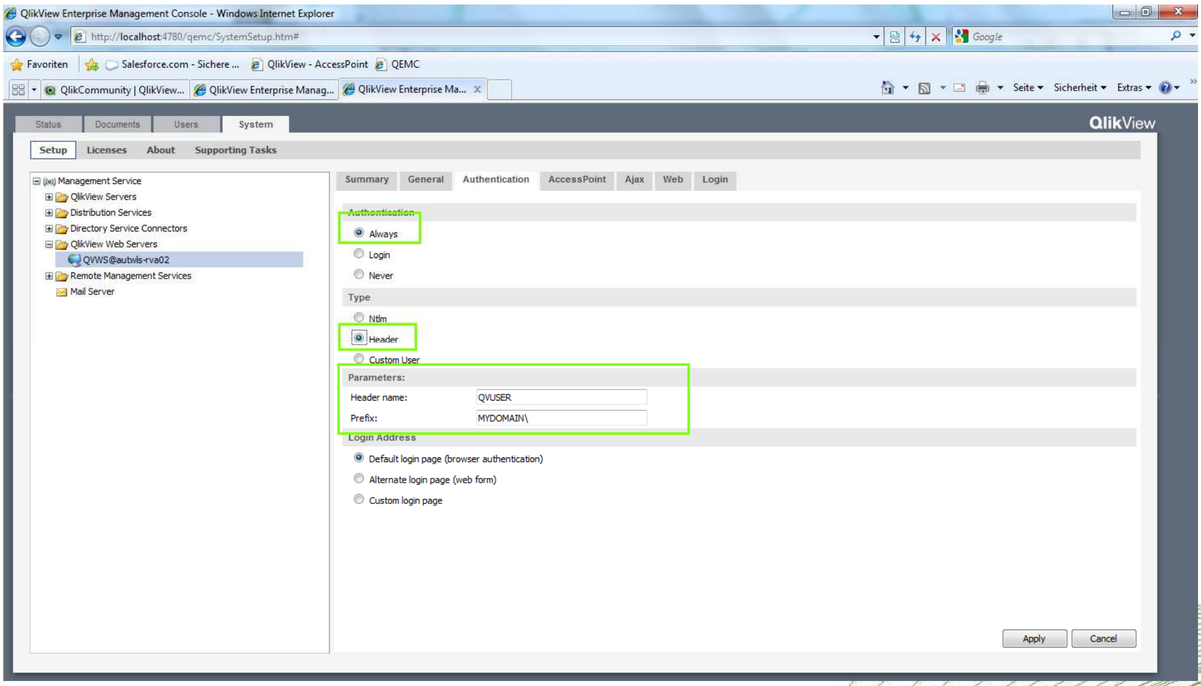
Double check the settings in the config file *C:\Documents and Settings\All Users\Application Data\QlikTech\QvWebServer\config.xml*. If you don't want to use the default prefix "CUSTOM/" for all of your users remove it from the key <UserPrefix> .



```
<Config>
  <Port>80</Port>
  <HttpsPort>-1</HttpsPort>
  <TunnelHost>localhost</TunnelHost>
  <Synchronous>False</Synchronous>
  <ConfigUrl>http://_:4750/qvws.asmx</ConfigUrl>
  <TunnelUrl>http://_/scripts/QVSTunnel.dll</TunnelUrl>
  <LogLevel>Information</LogLevel>
  <UseCompression>True</UseCompression>
  <InstallationPath>C:\Program Files\QlikView\Server\QvWebServer</InstallationPath>
  <AccessPoint>
    <Path>/QvAJAXZfc/AccessPoint.aspx</Path>
    <AjaxClientPath>/QvAJAXZfc/opendoc.htm</AjaxClientPath>
    <JavaClientPath>/QvJava/opendoc.htm</JavaClientPath>
    <PluginClientPath>/QvPlugin/opendoc.htm</PluginClientPath>
    <AuthenticationLevel>Always</AuthenticationLevel>
    <DefaultPreferedClient>Ajax</DefaultPreferedClient>
    <HighlightNotExecutedJobs>False</HighlightNotExecutedJobs>
    <HighlightThresholdMinutes>60</HighlightThresholdMinutes>
    <CustomUserAddress>http://localhost:4735/qtds.asmx</CustomUserAddress>
    <AllowCmdUrl>False</AllowCmdUrl>
    <Target />
    <UserPrefix />
    <UserNameHeader>QVUSER</UserNameHeader>
    <LoginAddress>http://www.google.com</LoginAddress>
    <AddCluster>
      <Name>QVS@w2k3server</Name>
      <AddQvs>
        <Machine>w2k3server</Machine>
        <Port>4747</Port>
        <LinkMachineName>w2k3server</LinkMachineName>
        <AlwaysTunnel>False</AlwaysTunnel>
        <Weight>1</Weight>
        <Username />
        <Password />
      </AddQvs>
    </AddCluster>
  </AccessPoint>
  <Ajax>
    <Path>/QvAJAXZfc/QvsViewClient.aspx</Path>
    <Path>/QvAJAXZfc/QvsViewClient.asp</Path>
    <AlwaysAnonymous>True</AlwaysAnonymous>
    <QvsHost>localhost</QvsHost>
    <NoCrypto>False</NoCrypto>
    <ProhibitAuthentication>False</ProhibitAuthentication>
    <ProhibitMachineId>False</ProhibitMachineId>
```

2.2.2 Qlikview 10

For Qlikview 10 the dialogs in QEMC have slightly changed. In the tab “Authorization” select the following options.



Authentication

● Always
○ Login
○ Never

Type

○ Ntlm
● Header
○ Custom User

Parameters:

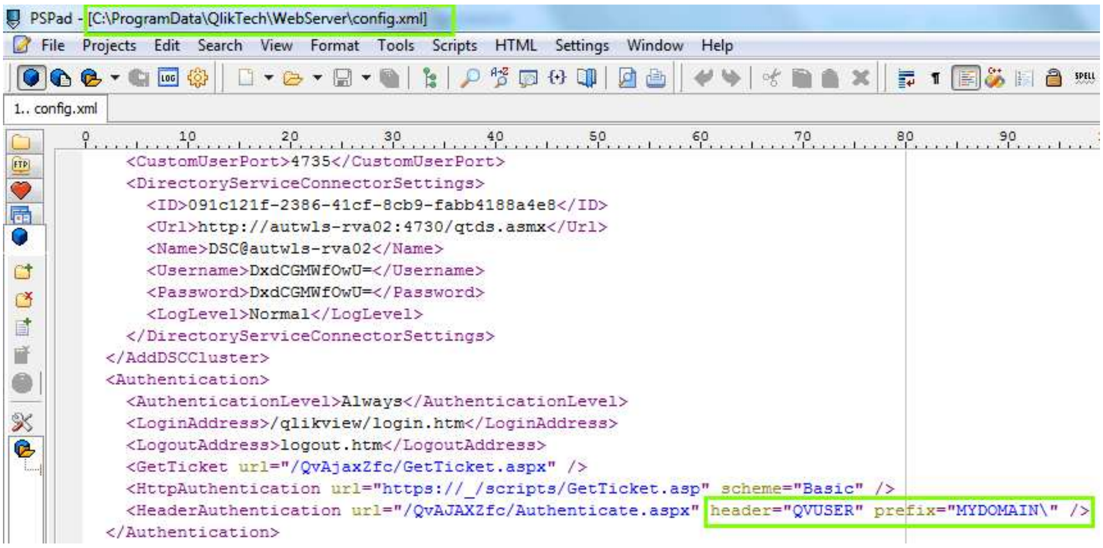
Header name: QVUSER

Prefix: MYDOMAIN\

Login Address

● Default login page (browser authentication)
○ Alternate login page (web form)
○ Custom login page

Doublecheck the settings in c:\ProgramData\Qliktech\WebServer\config.xml

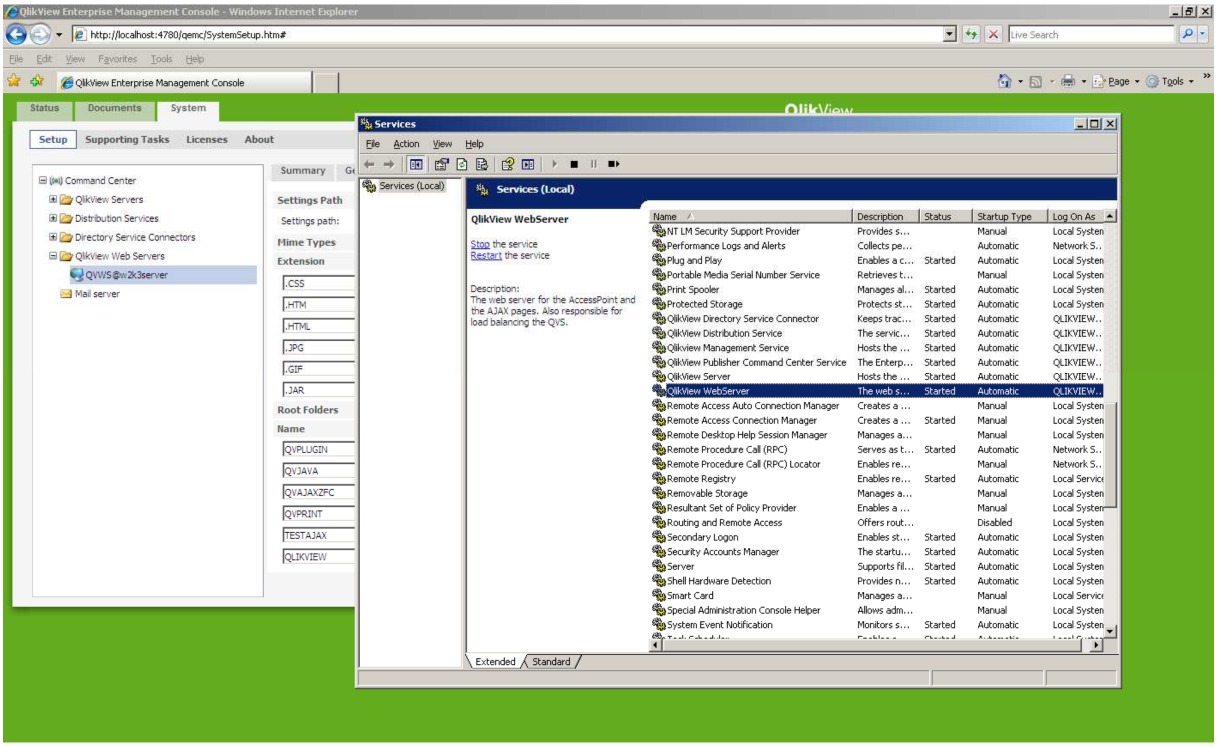


PSPad - [C:\ProgramData\QlikTech\WebServer\config.xml]
File Projects Edit Search View Format Tools Scripts HTML Settings Window Help
1.. config.xml

```
    <CustomUserPort>4735</CustomUserPort>
    <DirectoryServiceConnectorSettings>
      <ID>091c121f-2386-41cf-8cb9-fabb4188a4e8</ID>
      <Url>http://autwls-rva02:4730/qtds.asmx</Url>
      <Name>DSC@autwls-rva02</Name>
      <Username>DxdCGMWfOwU=</Username>
      <Password>DxdCGMWfOwU=</Password>
      <LogLevel>Normal</LogLevel>
    </DirectoryServiceConnectorSettings>
  </AddDSCCluster>
  <Authentication>
    <AuthenticationLevel>Always</AuthenticationLevel>
    <LoginAddress>/qlikview/login.htm</LoginAddress>
    <LogoutAddress>logout.htm</LogoutAddress>
    <GetTicket url="/QvAjaxZfc/GetTicket.aspx" />
    <HttpAuthentication url="https://_/scripts/GetTicket.asp" scheme="Basic" />
    <HeaderAuthentication url="/QvAJAXZfc/Authenticate.aspx" header="QVUSER" prefix="MYDOMAIN\" />
  </Authentication>
```

2.3 Stop QlikView WebServer

As we want to utilize IIS in our scenario, stop the service “QlikView Web Server“. You may want to set the “Startup Type” of the service to “Manual”.



Services (Local)

QlikView WebServer

Stop the service
Restart the service

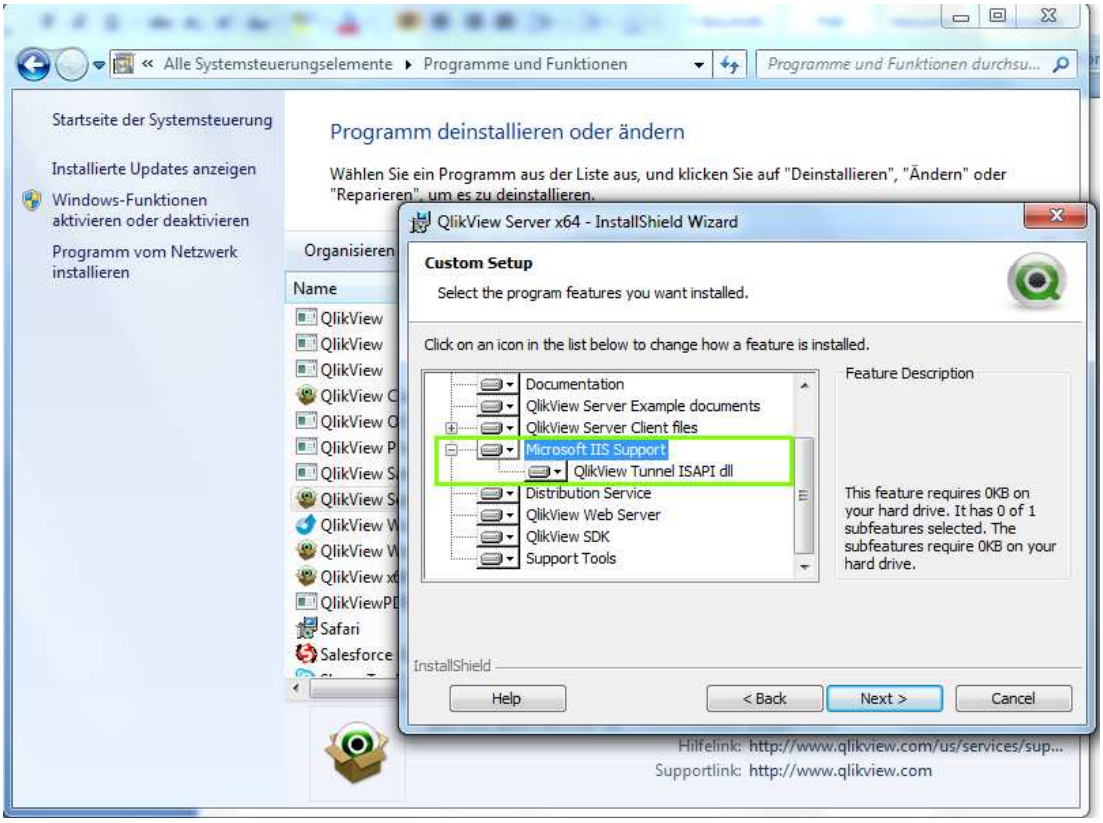
Description:
The web server for the AccessPoint and the AJAX pages. Also responsible for load balancing the QVS.

Name	Description	Status	Startup Type	Log On As
NT LM Security Support Provider	Provides s...		Manual	Local Systen
Performance Logs and Alerts	Collects pe...		Automatic	Network S..
Plug and Play	Enables a c...	Started	Automatic	Local Systen
Portable Media Serial Number Service	Retrieves t...		Manual	Local Systen
Print Spooler	Manages al...	Started	Automatic	Local Systen
Protected Storage	Protects st...	Started	Automatic	Local Systen
QlikView Directory Service Connector	Keeps trac...	Started	Automatic	QLIKVIEW..
QlikView Distribution Service	The servic...	Started	Automatic	QLIKVIEW..
Qlikview Management Service	Hosts the ...	Started	Automatic	QLIKVIEW..
QlikView Publisher Command Center Service	The Enterp...	Started	Automatic	QLIKVIEW..
QlikView Server	Hosts the ...	Started	Automatic	QLIKVIEW..
QlikView WebServer	The web s...	Started	Automatic	QLIKVIEW..
Remote Access Auto Connection Manager	Creates a ...		Manual	Local Systen
Remote Access Connection Manager	Creates a ...	Started	Manual	Local Systen
Remote Desktop Help Session Manager	Manages a...		Manual	Local Systen
Remote Procedure Call (RPC)	Serves as t...	Started	Automatic	Network S..
Remote Procedure Call (RPC) Locator	Enables re...		Manual	Network S..
Remote Registry	Enables re...	Started	Automatic	Local Service
Removable Storage	Manages a...		Manual	Local Systen
Resultant Set of Policy Provider	Enables a ...		Manual	Local Systen
Routing and Remote Access	Offers rout...		Disabled	Local Systen
Secondary Logon	Enables st...	Started	Automatic	Local Systen
Security Accounts Manager	The startu...	Started	Automatic	Local Systen
Server	Supports fil...	Started	Automatic	Local Systen
Shell Hardware Detection	Provides n...	Started	Automatic	Local Systen
Smart Card	Manages a...		Manual	Local Service
Special Administration Console Helper	Allows adm...		Manual	Local Systen
System Event Notification	Monitors s...	Started	Automatic	Local Systen

3 Configuration IIS

3.1 Install with IIS Support

While it is possible to manually configure the virtual directories in IIS, you should always install Qlikview Server with the feature “Microsoft IIS Support”. See screenshot below.


« Alle Systemsteuerungselemente ▸ Programme und Funktionen
Programme und Funktionen durchsu...
Startseite der Systemsteuerung
Installierte Updates anzeigen
Windows-Funktionen aktivieren oder deaktivieren
Programm vom Netzwerk installieren
Organisieren
Name
QlikView
QlikView
QlikView
QlikView C
QlikView O
QlikView P
QlikView S
QlikView S
QlikView W
QlikView W
QlikView x
QlikViewPD
Safari
Salesforce
QlikView Server x64 - InstallShield Wizard
Documentation
QlikView Server Example documents
QlikView Server Client files
Microsoft IIS Support
QlikView Tunnel ISAPI dll
Distribution Service
QlikView Web Server
QlikView SDK
Support Tools
Feature Description
InstallShield
Help
< Back
Next >
Cancel

Programm deinstallieren oder ändern

Wählen Sie ein Programm aus der Liste aus, und klicken Sie auf "Deinstallieren", "Ändern" oder "Reparieren", um es zu deinstallieren.

Custom Setup

Select the program features you want installed.

Click on an icon in the list below to change how a feature is installed.

This feature requires 0KB on your hard drive. It has 0 of 1 subfeatures selected. The subfeatures require 0KB on your hard drive.

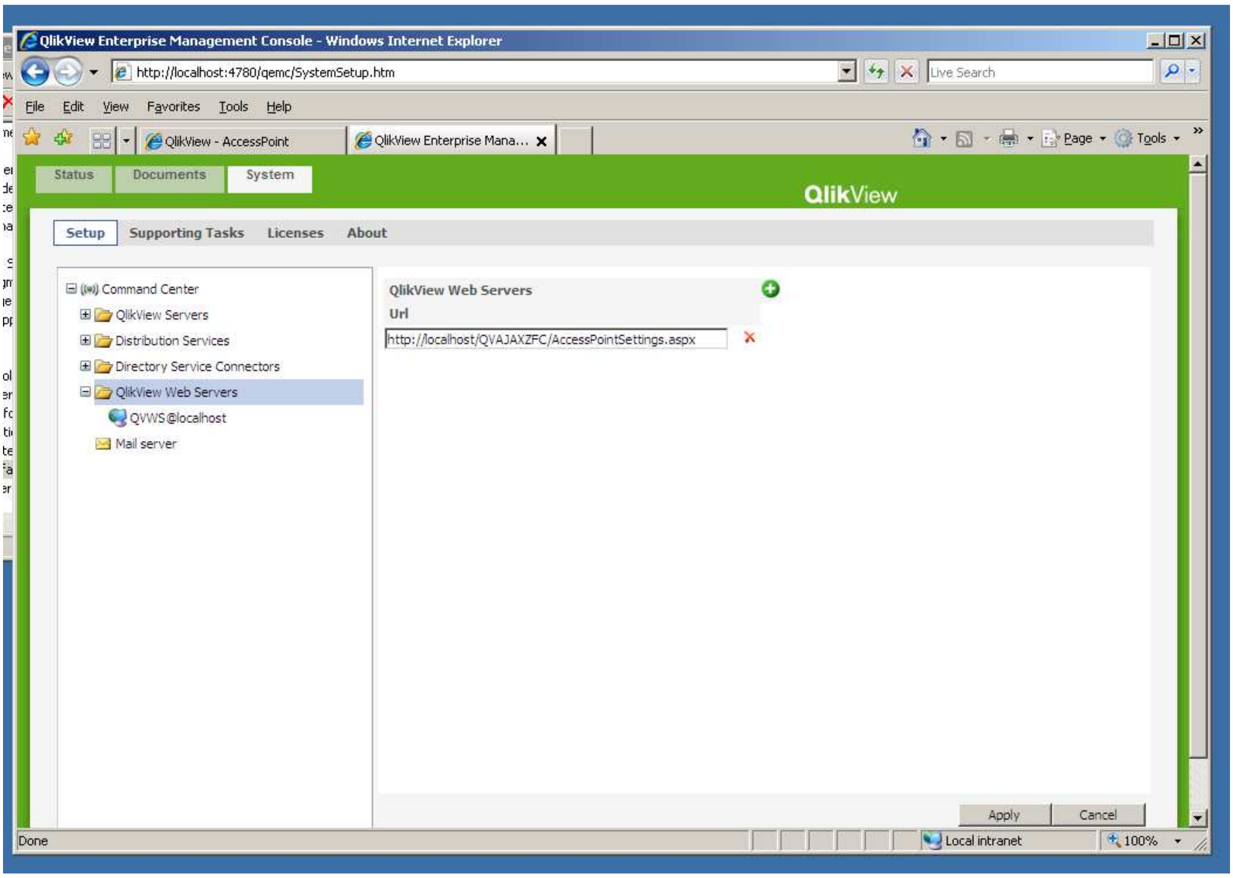
Hilfelink: http://www.qlikview.com/us/services/sup...

Supportlink: http://www.qlikview.com

For the official documentation please refer to QVS10 Reference Manual Chapter 2.5 “Completing the installation” section “Running Microsoft Internet Information Services”.

3.2 Configure QlikView Server to use IIS

To make Qlikview aware of IIS open the “Enterprise Management Console”. Go to “System|Setup|QlikView Web Servers”. Remove the old entry, and add a new URL http://localhost/QVAJAXZFC/AccessPointSettings.aspx. Press “Apply”.


QlikView Enterprise Management Console - Windows Internet Explorer
http://localhost:4780/qemc/SystemSetup.htm
Live Search
File Edit View Favorites Tools Help
QlikView - AccessPoint
QlikView Enterprise Mana...
Page Tools
Status Documents System
QlikView
Setup Supporting Tasks Licenses About
Command Center
QlikView Servers
Distribution Services
Directory Service Connectors
QlikView Web Servers
QVWS@localhost
Mail server
Apply Cancel
Done
Local intranet
100%

QlikView Web Servers

Url

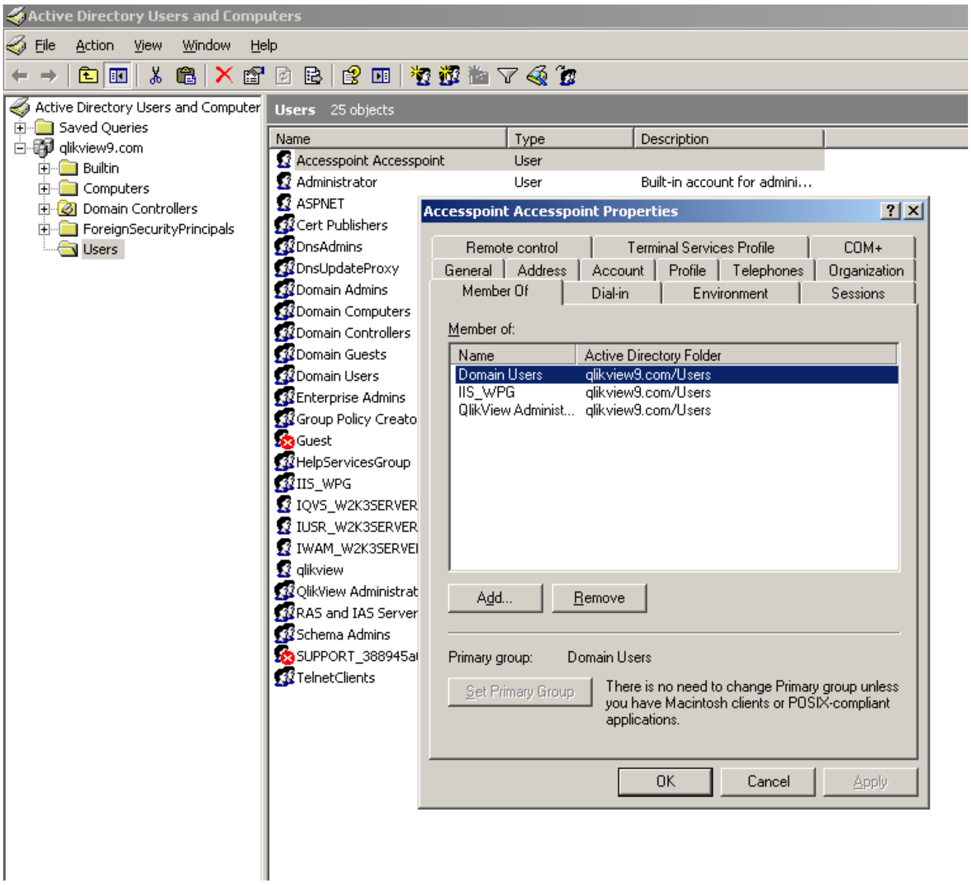
http://localhost/QVAJAXZFC/AccessPointSettings.aspx

3.3 Create user for Application Pool

This is a mandatory step for QVS9. QVS10 Setup does this automatically.

In DMS Mode a ticketing process is in place to allow users to access an application. This ticket is passed over by the QlikView Server when requested by a “QlikView administrator”. Therefore we need a user that is allowed to request such a ticket.

Create a new user “Accesspoint” that is member of the group “QlikView Administrators” and is allowed to run an IIS application pool (typically the user needs to be a member of the group “IIS_WPG” for that).



Name	Type	Description
Accesspoint Accesspoint	User	
Administrator	User	Built-in account for admini…
ASPNET		
Cert Publishers		
DnsAdmins		
DnsUpdateProxy		
Domain Admins		
Domain Computers		
Domain Controllers		
Domain Guests		
Domain Users		
Enterprise Admins		
Group Policy Creato		
Guest		
HelpServicesGroup		
IIS_WPG		
IQVS_W2K3SERVER		
IUSR_W2K3SERVER		
IWAM_W2K3SERVE		
qlikview		
QlikView Administrat		
RAS and IAS Server		
Schema Admins		
SUPPORT_388945a		
TelnetClients		

Member of:

Name	Active Directory Folder
Domain Users	qlikview9.com/Users
IIS_WPG	qlikview9.com/Users
QlikView Administ...	qlikview9.com/Users

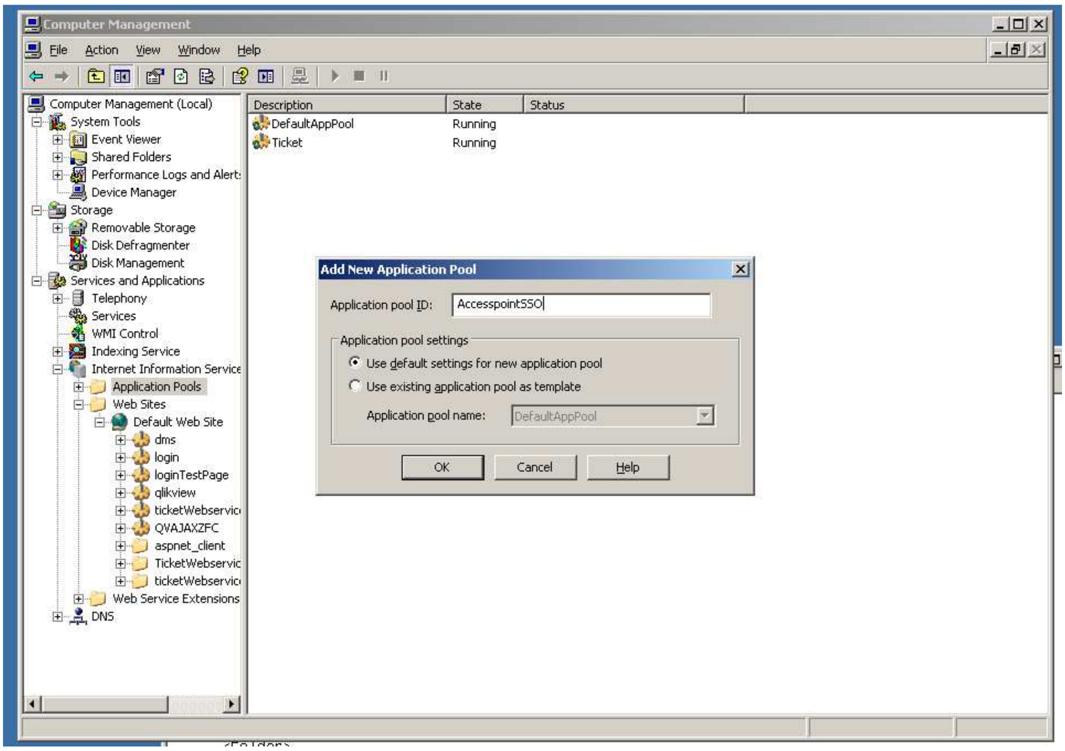
Primary group: Domain Users

There is no need to change Primary group unless you have Macintosh clients or POSIX-compliant applications.

3.4 Setup Application Pool

This is a mandatory step for QVS9. QVS10 Setup does this automatically.

Go back to IIS and create a new application pool „AccesspointSSO“. Go to “Properties|Identity” and assign the newly created user to run the application pool.



Description	State	Status
DefaultAppPool	Running	
Ticket	Running	

Add New Application Pool

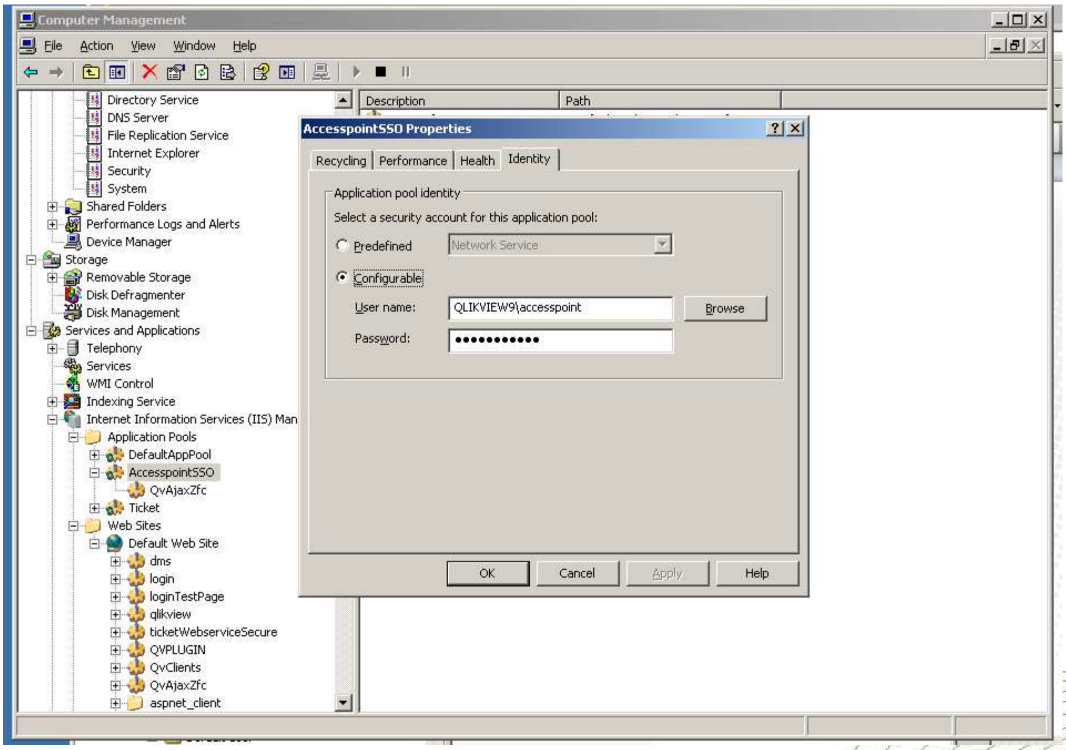
Application pool ID: AccesspointSSO

Application pool settings

● Use default settings for new application pool

○ Use existing application pool as template

Application pool name: DefaultAppPool



AccesspointSSO Properties

Application pool identity

Select a security account for this application pool:

○ Predefined Network Service

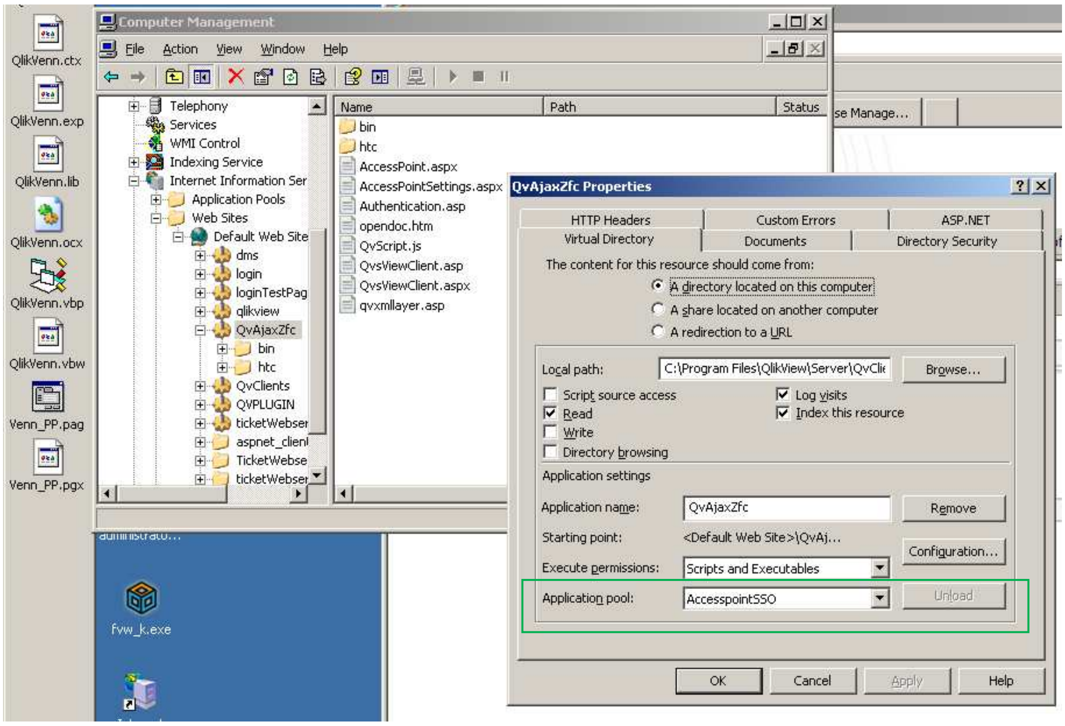
● Configurable

User name: QLIKVIEW9\accesspoint

Password: ●●●●●●●●●●●●

This is a mandatory step for QVS9. QVS10 Setup does this automatically.

To allow IIS to retrieve the ticket, you now have to assign the application pool to the virtual directory „QVAjaxZfc“. Select the virtual directory, go to “Properties|Application Pool” and select “AccesspointSSO” from the dropdown.



QvAjaxZfc Properties

The content for this resource should come from:

● A directory located on this computer
○ A share located on another computer
○ A redirection to a URL

Local path: C:\Program Files\QlikView\Server\QvClie

□ Script source access
☑ Read
□ Write
□ Directory browsing
☑ Log visits
☑ Index this resource

Application settings

Application name: QvAjaxZfc

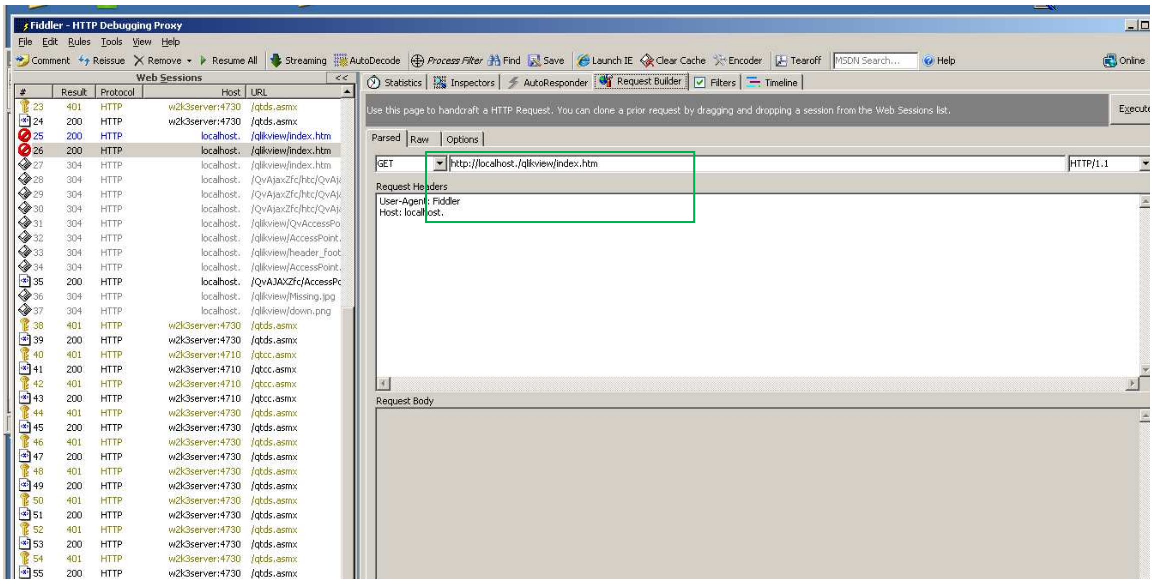
Starting point: <Default Web Site>\QvAj...

Execute permissions: Scripts and Executables

Application pool: AccesspointSSO

3.5 User Fiddler to test configuration

Optionally you can use Fiddler (http://www.fiddler2.com/fiddler2/) to test your configuration right now. Use the “Request Builder” and enter the URL http://localhost./qlikview/index.htm. (Use “localhost.” or the name of your computer; Fiddler will not log requests to “localhost”).


Fiddler - HTTP Debugging Proxy
File Edit Rules Tools View Help
Comment Reissue Remove Resume All Streaming AutoDecode Process Filter Find Save Launch IE Clear Cache Encoder Tearoff MSDN Search... Help Online
Web Sessions
Statistics Inspectors AutoResponder Request Builder Filters Timeline
Execute
Parsed Raw Options

#	Result	Protocol	Host	URL
23	401	HTTP	w2k3server:4730	/qtds.asmx
24	200	HTTP	w2k3server:4730	/qtds.asmx
25	200	HTTP	localhost.	/qlikview/index.htm
26	200	HTTP	localhost.	/qlikview/index.htm
27	304	HTTP	localhost.	/qlikview/index.htm
28	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
29	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
30	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
31	304	HTTP	localhost.	/qlikview/QvAccessPo
32	304	HTTP	localhost.	/qlikview/AccessPoint.
33	304	HTTP	localhost.	/qlikview/header_foot
34	304	HTTP	localhost.	/qlikview/AccessPoint.
35	200	HTTP	localhost.	/QvAJAXZfc/AccessPo
36	304	HTTP	localhost.	/qlikview/Missing.jpg
37	304	HTTP	localhost.	/qlikview/down.png
38	401	HTTP	w2k3server:4730	/qtds.asmx
39	200	HTTP	w2k3server:4730	/qtds.asmx
40	401	HTTP	w2k3server:4710	/qtcc.asmx
41	200	HTTP	w2k3server:4710	/qtcc.asmx
42	401	HTTP	w2k3server:4710	/qtcc.asmx
43	200	HTTP	w2k3server:4710	/qtcc.asmx
44	401	HTTP	w2k3server:4730	/qtds.asmx
45	200	HTTP	w2k3server:4730	/qtds.asmx
46	401	HTTP	w2k3server:4730	/qtds.asmx
47	200	HTTP	w2k3server:4730	/qtds.asmx
48	401	HTTP	w2k3server:4730	/qtds.asmx
49	200	HTTP	w2k3server:4730	/qtds.asmx
50	401	HTTP	w2k3server:4730	/qtds.asmx
51	200	HTTP	w2k3server:4730	/qtds.asmx
52	401	HTTP	w2k3server:4730	/qtds.asmx
53	200	HTTP	w2k3server:4730	/qtds.asmx
54	401	HTTP	w2k3server:4730	/qtds.asmx
55	200	HTTP	w2k3server:4730	/qtds.asmx

Use this page to handcraft a HTTP Request. You can clone a prior request by dragging and dropping a session from the Web Sessions list.

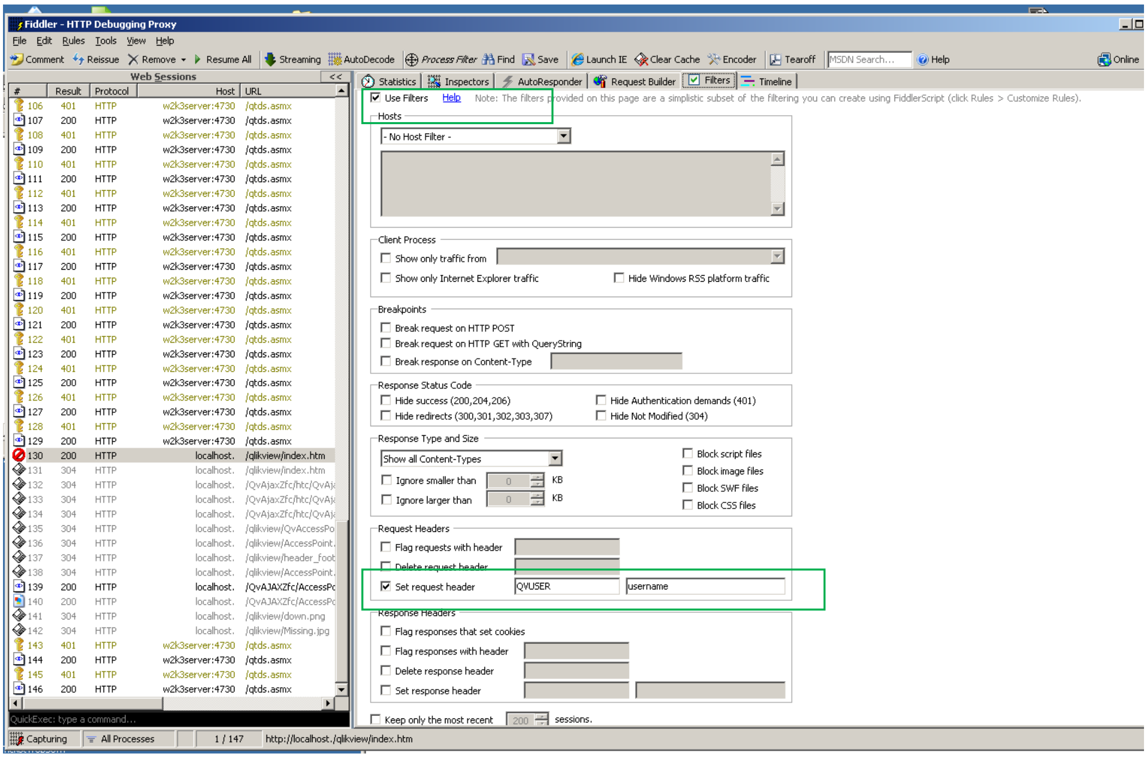
GET http://localhost./qlikview/index.htm HTTP/1.1

Request Headers

```
User-Agent: Fiddler
Host: localhost.
```

Request Body

Go to tab “Filters”. Check the checkbox “Use Filters”. Scroll down and add under “Request Headers|Set Request Header” the value “QVUSER” with “username”.


Fiddler - HTTP Debugging Proxy
File Edit Rules Tools View Help
Comment Reissue Remove Resume All Streaming AutoDecode Process Filter Find Save Launch IE Clear Cache Encoder Tearoff MSDN Search... Help Online
Web Sessions
Statistics Inspectors AutoResponder Request Builder Filters Timeline
QuickExec: type a command...
Capturing All Processes

#	Result	Protocol	Host	URL
106	401	HTTP	w2k3server:4730	/qtds.asmx
107	200	HTTP	w2k3server:4730	/qtds.asmx
108	401	HTTP	w2k3server:4730	/qtds.asmx
109	200	HTTP	w2k3server:4730	/qtds.asmx
110	401	HTTP	w2k3server:4730	/qtds.asmx
111	200	HTTP	w2k3server:4730	/qtds.asmx
112	401	HTTP	w2k3server:4730	/qtds.asmx
113	200	HTTP	w2k3server:4730	/qtds.asmx
114	401	HTTP	w2k3server:4730	/qtds.asmx
115	200	HTTP	w2k3server:4730	/qtds.asmx
116	401	HTTP	w2k3server:4730	/qtds.asmx
117	200	HTTP	w2k3server:4730	/qtds.asmx
118	401	HTTP	w2k3server:4730	/qtds.asmx
119	200	HTTP	w2k3server:4730	/qtds.asmx
120	401	HTTP	w2k3server:4730	/qtds.asmx
121	200	HTTP	w2k3server:4730	/qtds.asmx
122	401	HTTP	w2k3server:4730	/qtds.asmx
123	200	HTTP	w2k3server:4730	/qtds.asmx
124	401	HTTP	w2k3server:4730	/qtds.asmx
125	200	HTTP	w2k3server:4730	/qtds.asmx
126	401	HTTP	w2k3server:4730	/qtds.asmx
127	200	HTTP	w2k3server:4730	/qtds.asmx
128	401	HTTP	w2k3server:4730	/qtds.asmx
129	200	HTTP	w2k3server:4730	/qtds.asmx
130	200	HTTP	localhost.	/qlikview/index.htm
131	304	HTTP	localhost.	/qlikview/index.htm
132	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
133	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
134	304	HTTP	localhost.	/QvAjaxZfc/htc/QvAj
135	304	HTTP	localhost.	/qlikview/QvAccessPo
136	304	HTTP	localhost.	/qlikview/AccessPoint.
137	304	HTTP	localhost.	/qlikview/header_foot
138	304	HTTP	localhost.	/qlikview/AccessPoint.
139	200	HTTP	localhost.	/QvAJAXZfc/AccessPo
140	200	HTTP	localhost.	/QvAJAXZfc/AccessPo
141	304	HTTP	localhost.	/qlikview/down.png
142	304	HTTP	localhost.	/qlikview/Missing.jpg
143	401	HTTP	w2k3server:4730	/qtds.asmx
144	200	HTTP	w2k3server:4730	/qtds.asmx
145	401	HTTP	w2k3server:4730	/qtds.asmx
146	200	HTTP	w2k3server:4730	/qtds.asmx

1 / 147 http://localhost./qlikview/index.htm

☑ Use Filters Help Note: The filters provided on this page are a simplistic subset of the filtering you can create using FiddlerScript (click Rules > Customize Rules).

Hosts
- No Host Filter -

Client Process
☐ Show only traffic from
☐ Show only Internet Explorer traffic ☐ Hide Windows RSS platform traffic

Breakpoints
☐ Break request on HTTP POST
☐ Break request on HTTP GET with QueryString
☐ Break response on Content-Type

Response Status Code
☐ Hide success (200,204,206) ☐ Hide Authentication demands (401)
☐ Hide redirects (300,301,302,303,307) ☐ Hide Not Modified (304)

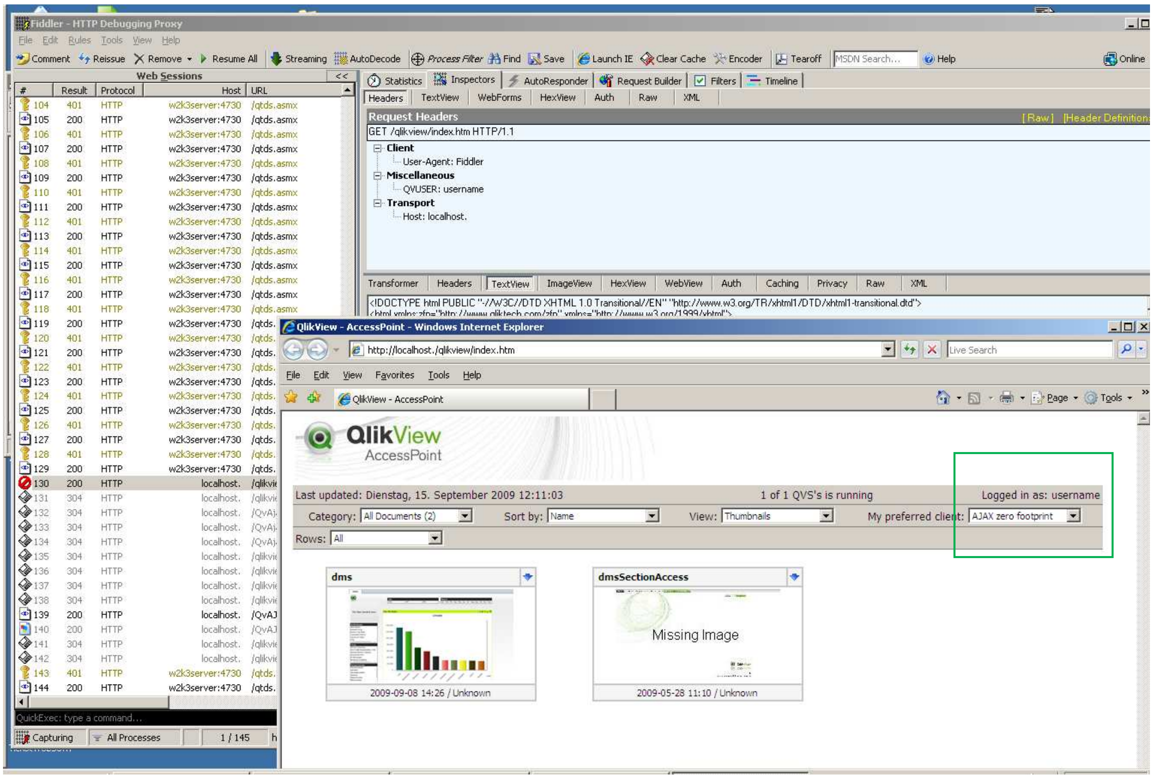
Response Type and Size
Show all Content-Types
☐ Ignore smaller than 0 KB
☐ Ignore larger than 0 KB
☐ Block script files
☐ Block image files
☐ Block SWF files
☐ Block CSS files

Request Headers
☐ Flag requests with header
☐ Delete request header
☑ Set request header QVUSER username

Response Headers
☐ Flag responses that set cookies
☐ Flag responses with header
☐ Delete response header
☐ Set response header

☐ Keep only the most recent 200 sessions.

Go back to “Request Builder” and press the button “Execute”. Fiddler now should execute the HTTP-request successfully. Select the line on the left side and click the button “Launch IE”. You now should see the user “username” logged into the Accesspoint.


Fiddler - HTTP Debugging Proxy
File Edit Rules Tools View Help
Comment Reissue Remove Resume All Streaming AutoDecode Process Filter Find Save Launch IE Clear Cache Encoder Tearoff MSDN Search... Help Online
Web Sessions
Statistics Inspectors AutoResponder Request Builder Filters Timeline
Headers TextView WebForms HexView Auth Raw XML
Transformer Headers TextView ImageView HexView WebView Auth Caching Privacy Raw XML
QuickExec: type a command...
Capturing All Processes 1 / 145
QlikView - AccessPoint - Windows Internet Explorer
Live Search
File Edit View Favorites Tools Help
QlikView - AccessPoint
Page Tools
QlikView AccessPoint
Missing Image

#	Result	Protocol	Host	URL
104	401	HTTP	w2k3server:4730	/qtds.asmx
105	200	HTTP	w2k3server:4730	/qtds.asmx
106	401	HTTP	w2k3server:4730	/qtds.asmx
107	200	HTTP	w2k3server:4730	/qtds.asmx
108	401	HTTP	w2k3server:4730	/qtds.asmx
109	200	HTTP	w2k3server:4730	/qtds.asmx
110	401	HTTP	w2k3server:4730	/qtds.asmx
111	200	HTTP	w2k3server:4730	/qtds.asmx
112	401	HTTP	w2k3server:4730	/qtds.asmx
113	200	HTTP	w2k3server:4730	/qtds.asmx
114	401	HTTP	w2k3server:4730	/qtds.asmx
115	200	HTTP	w2k3server:4730	/qtds.asmx
116	401	HTTP	w2k3server:4730	/qtds.asmx
117	200	HTTP	w2k3server:4730	/qtds.asmx
118	401	HTTP	w2k3server:4730	/qtds.asmx
119	200	HTTP	w2k3server:4730	/qtds.
120	401	HTTP	w2k3server:4730	/qtds.
121	200	HTTP	w2k3server:4730	/qtds.
122	401	HTTP	w2k3server:4730	/qtds.
123	200	HTTP	w2k3server:4730	/qtds.
124	401	HTTP	w2k3server:4730	/qtds.
125	200	HTTP	w2k3server:4730	/qtds.
126	401	HTTP	w2k3server:4730	/qtds.
127	200	HTTP	w2k3server:4730	/qtds.
128	401	HTTP	w2k3server:4730	/qtds.
129	200	HTTP	w2k3server:4730	/qtds.
130	200	HTTP	localhost.	/qlikvie
131	304	HTTP	localhost.	/qlikvie
132	304	HTTP	localhost.	/QvAj.
133	304	HTTP	localhost.	/QvAj.
134	304	HTTP	localhost.	/QvAj.
135	304	HTTP	localhost.	/qlikvie
136	304	HTTP	localhost.	/qlikvie
137	304	HTTP	localhost.	/qlikvie
138	304	HTTP	localhost.	/qlikvie
139	200	HTTP	localhost.	/QvAJ
140	200	HTTP	localhost.	/QvAJ
141	304	HTTP	localhost.	/qlikvie
142	304	HTTP	localhost.	/qlikvie
143	401	HTTP	w2k3server:4730	/qtds.
144	200	HTTP	w2k3server:4730	/qtds.

Request Headers [Raw] [Header Definition

```
GET /qlikview/index.htm HTTP/1.1
Client
    User-Agent: Fiddler
Miscellaneous
    QVUSER: username
Transport
    Host: localhost.
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns:zfp="http://www.qliktech.com/zfp" xmlns="http://www.w3.org/1999/xhtml">
```

http://localhost./qlikview/index.htm

Last updated: Dienstag, 15. September 2009 12:11:03 | 1 of 1 QVS's is running | Logged in as: username

Category: All Documents (2) | Sort by: Name | View: Thumbnails | My preferred client: AJAX zero footprint

Rows: All

dms — 2009-09-08 14:26 / Unknown

dmsSectionAccess — 2009-05-28 11:10 / Unknown

3.6 Summary

Qlikview Accesspoint is now configured to retrieve the authenticated username from a HTTP Header field. This username is matched against the Authorization-table we defined in chapter 2.1.

The actual authentication is implemented by the SSO system, or can be done manually using some hookups on the webserver (Authentication done with mod_ldap on Apache, or HTTPModules in IIS 7). For more detailed information on Authentication please contact the author of this paper. Protect the Qlikview Accespoint from attacks as shown above with Fiddler. An attacker should not be able to inject the HTTPHeader directly.

4 Configuration SSO-Example

As mentioned in the introduction this document has an example attached to mimic a single sign on scenario. All files and source codes can be found in the SSOSample.zip***. Don't use this example in a productive environment! This example does not replace a full-fledged SSO system!***

The logon site will handle the logon. The actual site will not check the password, but allow whatever username you type in there. In a real world scenario, password checks etc will have to be implemented.

The logon site will add a cookie to the user called QvCookie, containing the username in clear text. In a real world scenario this should be done using some kind of advanced ticket handling instead.

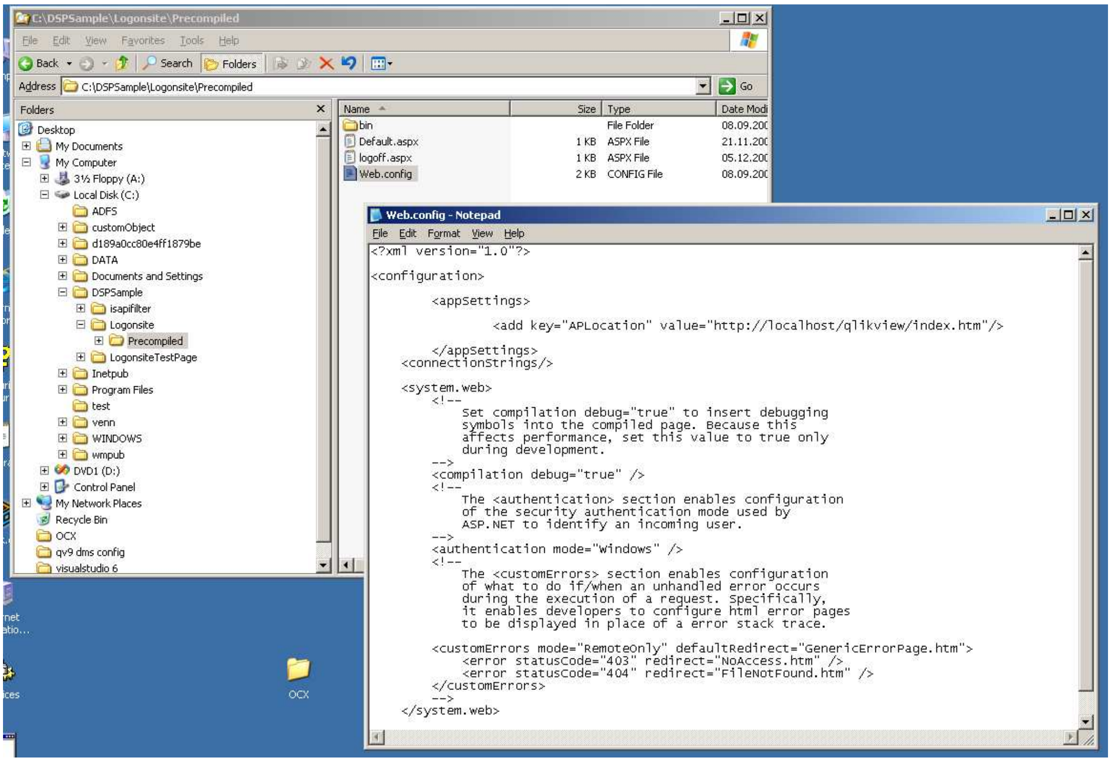
The user will be redirected to the Accesspoint. The ISAPI filter will now check for this cookie and if it is found, it will transfer the value to the header, named QVUSER.
The Accesspoint will trust this header and request files from the QlikView server for this user.

4.1 Logon site

1. Save the logon site files to disk. Go to the IIS manager. Add a virtual directory to your logon site, pointing to the files' location, for example C:*\DSPSample\Logonsite\Precompiled*.

Assume this logon site is at
http://localhost/login/ and the Accesspoint is at http://localhost/qlikview/index.htm

2. If your Accesspoint is running on a different URL, edit *web.config* for the logon site. Change the "APLocation" key.

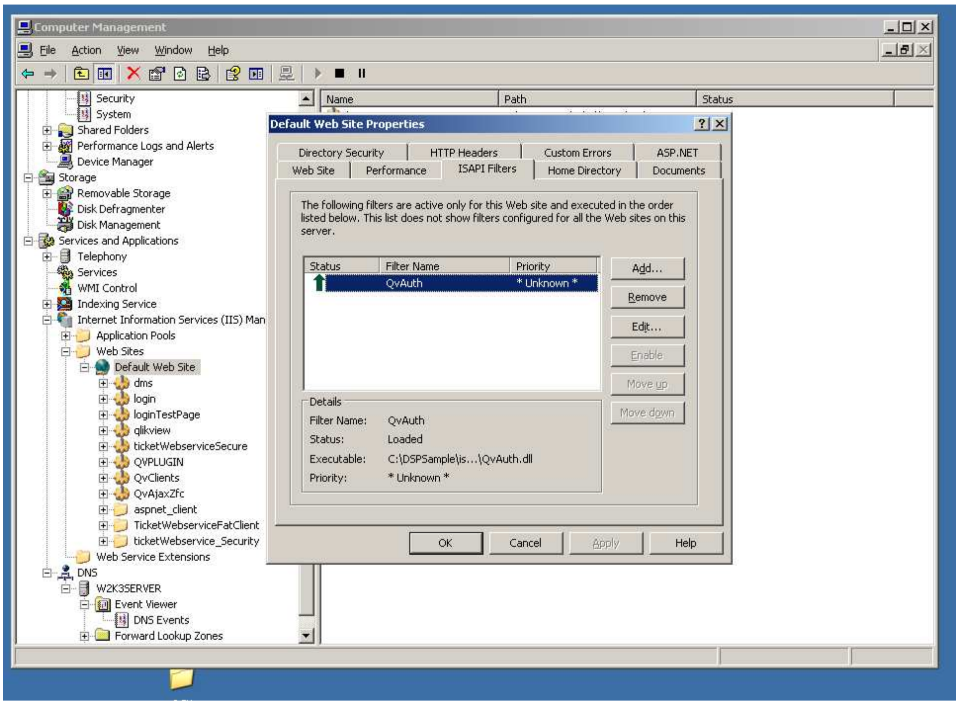


Name	Size	Type	Date Modi
bin		File Folder	08.09.20
Default.aspx	1 KB	ASPX File	21.11.20
logoff.aspx	1 KB	ASPX File	05.12.20
Web.config	2 KB	CONFIG File	08.09.20

```
<?xml version="1.0"?>

<configuration>

        <appSettings>

                <add key="APLocation" value="http://localhost/qlikview/index.htm"/>

        </appSettings>
    <connectionStrings/>

    <system.web>
        <!--
            Set compilation debug="true" to insert debugging
            symbols into the compiled page. Because this
            affects performance, set this value to true only
            during development.
        -->
        <compilation debug="true" />
        <!--
            The <authentication> section enables configuration
            of the security authentication mode used by
            ASP.NET to identify an incoming user.
        -->
        <authentication mode="Windows" />
        <!--
            The <customErrors> section enables configuration
            of what to do if/when an unhandled error occurs
            during the execution of a request. Specifically,
            it enables developers to configure html error pages
            to be displayed in place of a error stack trace.

        <customErrors mode="RemoteOnly" defaultRedirect="GenericErrorPage.htm">
            <error statusCode="403" redirect="NoAccess.htm" />
            <error statusCode="404" redirect="FileNotFound.htm" />
        </customErrors>
        -->
    </system.web>
```

4.2 Isapi-filter

For 32 bit versions select the file \isapifilter\x86\QvAuth.dll. For 64 bit versions select the file \isapifilter\x64QvAuth.dll. Start the IIS Manager.



The following filters are active only for this Web site and executed in the order listed below. This list does not show filters configured for all the Web sites on this server.

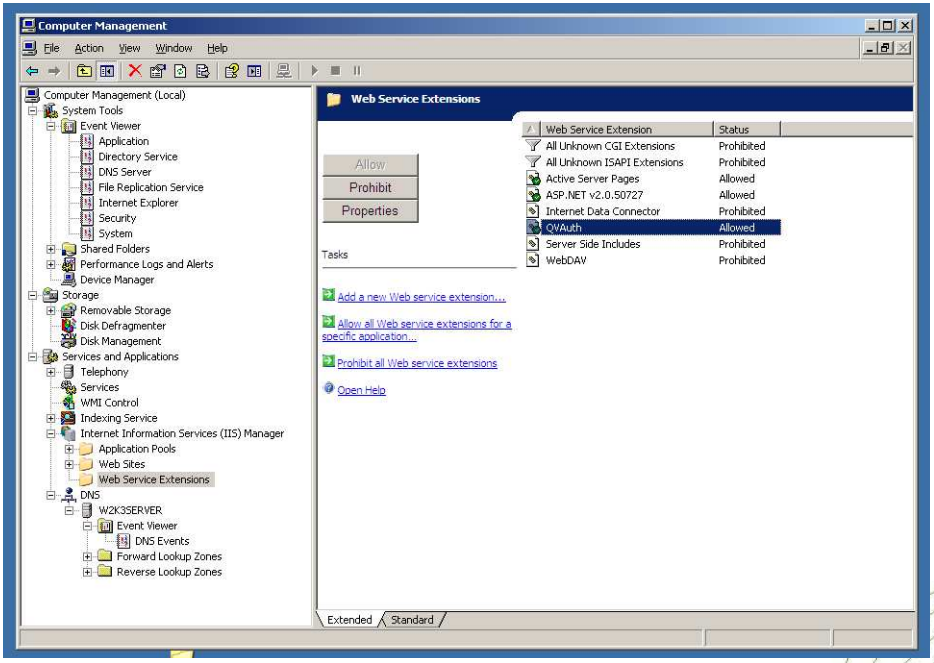
Status	Filter Name	Priority
⬆	QvAuth	* Unknown *

Details

Filter Name: QvAuth
Status: Loaded
Executable: C:\DSPSample\is...\QvAuth.dll
Priority: * Unknown *

2. Select „Properties“ for the default website. Go to the ISAPI Filters tab and add QvAuth.dll. Name it appropriately. Click ok.

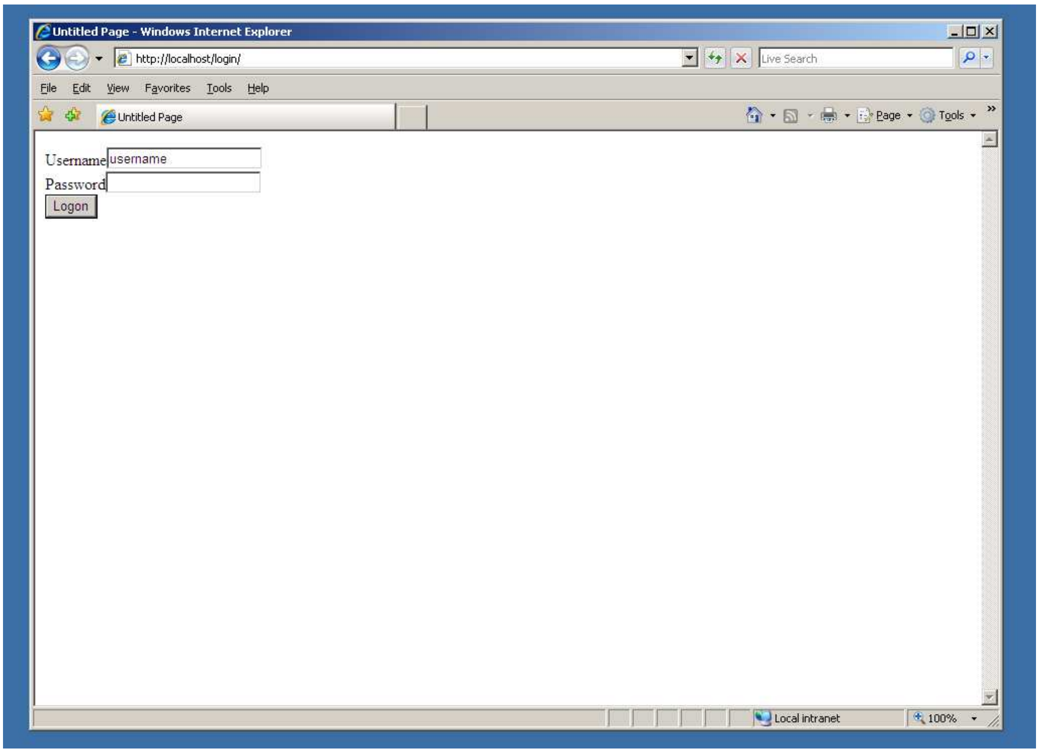
3. This step applies only to IIS version 6. Go to Web Service Extension. Right-click and select” Add New Web Service Extension… “. Set the extension name to something appropriate. Click Add and select the same .dll file. Set the extension status to “Allowed”.



Web Service Extension	Status
All Unknown CGI Extensions	Prohibited
All Unknown ISAPI Extensions	Prohibited
Active Server Pages	Allowed
ASP.NET v2.0.50727	Allowed
Internet Data Connector	Prohibited
QVAuth	Allowed
Server Side Includes	Prohibited
WebDAV	Prohibited

4.3 Test Example

Go to http://localhost/login/. Enter username “username” and click “Logon”. The logon page now redirects to the Accesspoint and puts the username in a cookie. ISAPI-filter puts in the HTTP-Header field “QVUser”. The Accesspoint then shows only the applications the user “username” is authorized to see.



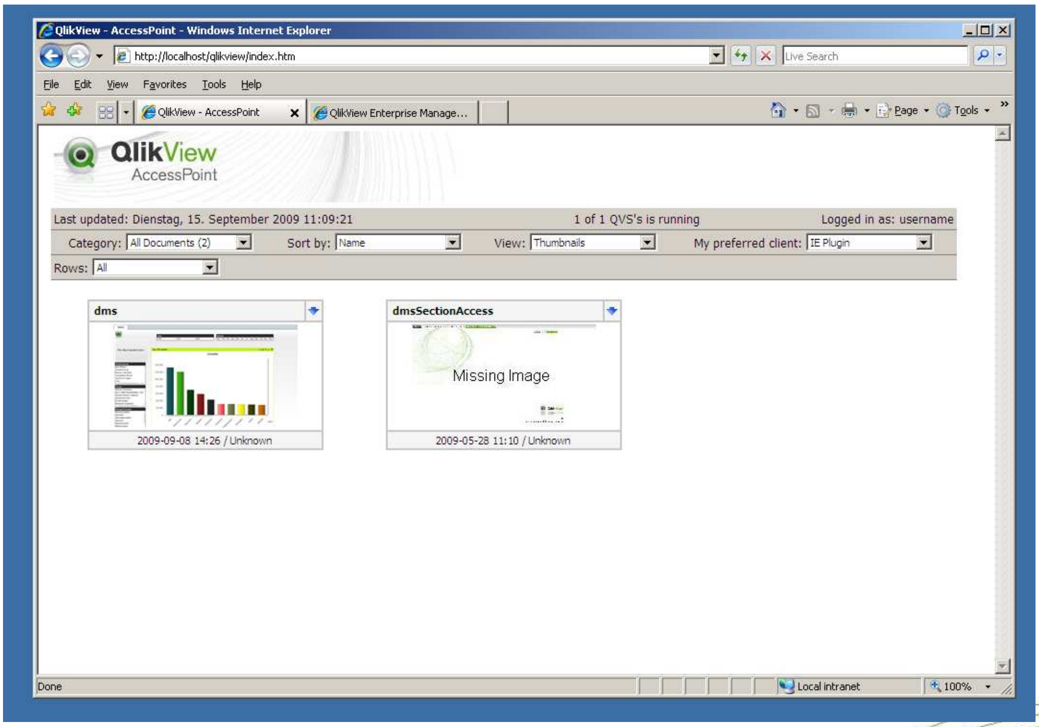
Untitled Page - Windows Internet Explorer

http://localhost/login/

Username username

Password

Logon



QlikView - AccessPoint - Windows Internet Explorer

http://localhost/qlikview/index.htm

Last updated: Dienstag, 15. September 2009 11:09:21

1 of 1 QVS's is running

Logged in as: username

Category: All Documents (2)

Sort by: Name

View: Thumbnails

My preferred client: IE Plugin

Rows: All

dms

2009-09-08 14:26 / Unknown

dmsSectionAccess

Missing Image

2009-05-28 11:10 / Unknown

Done