

SYNERGY 2015

SEATTLE, WA, USA



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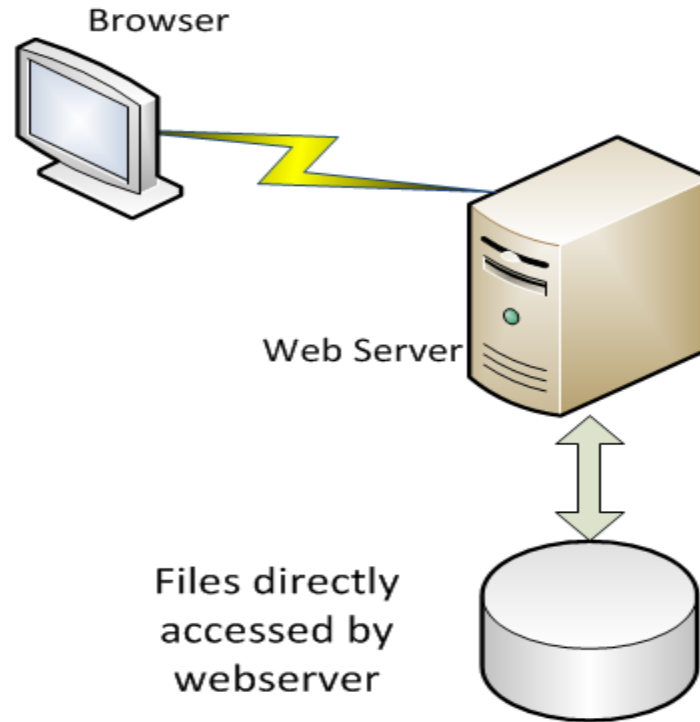
SPLF Challenges

Torben Lund
DataPower

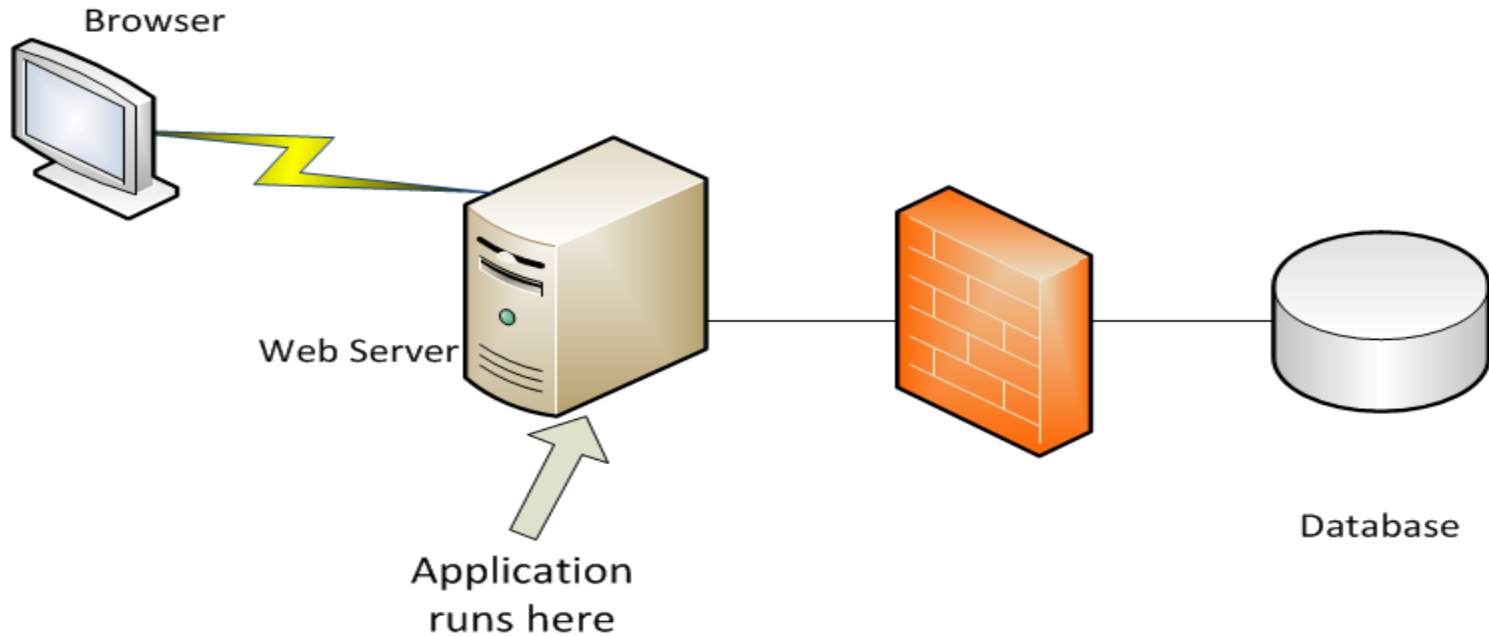
Why SPLF ?

- S – Security
- P – Performance
- L – Load Balancing
- F – Fail over

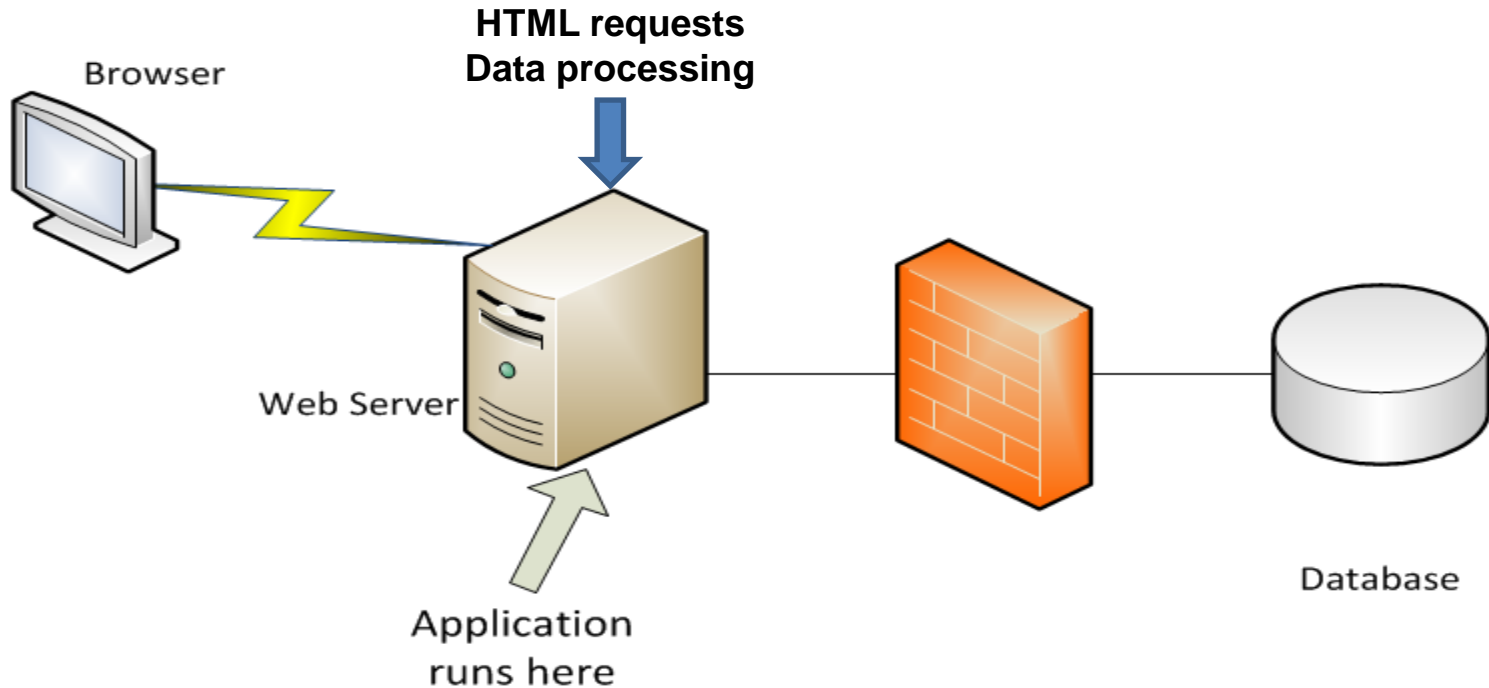
Traditional website



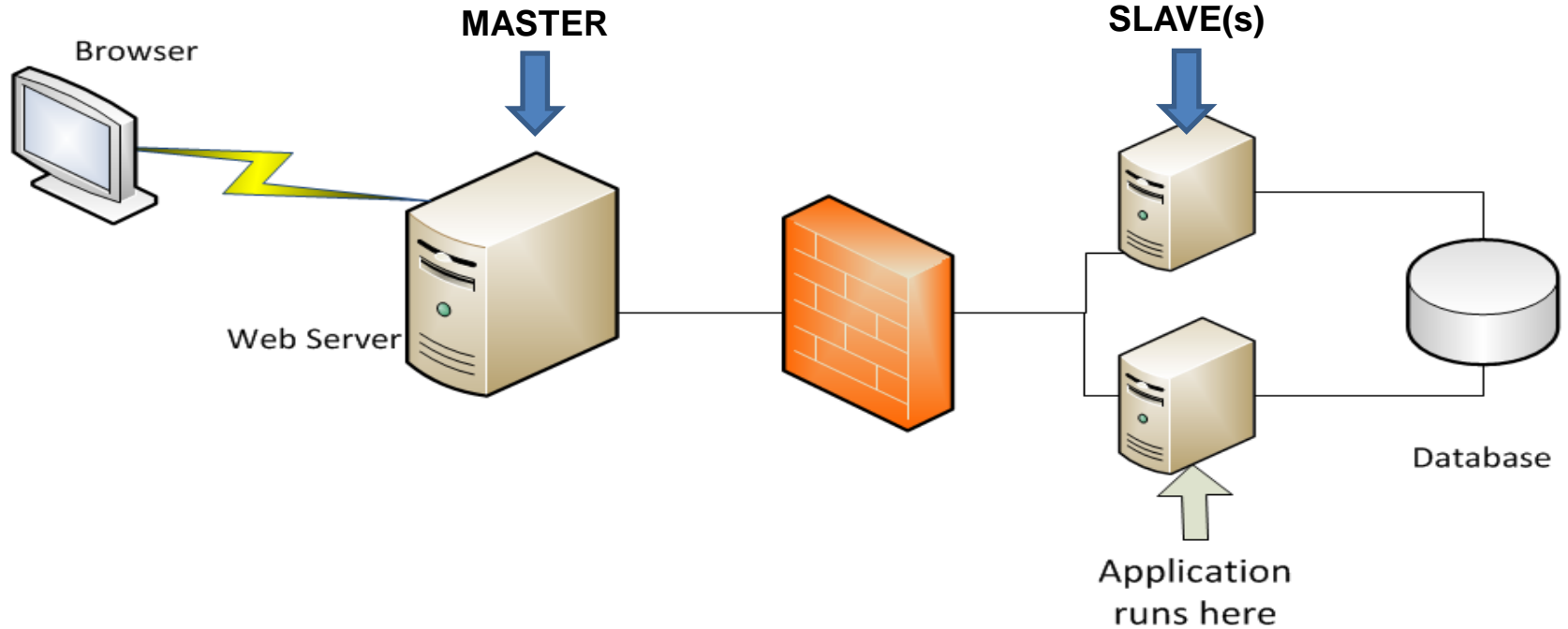
Application website



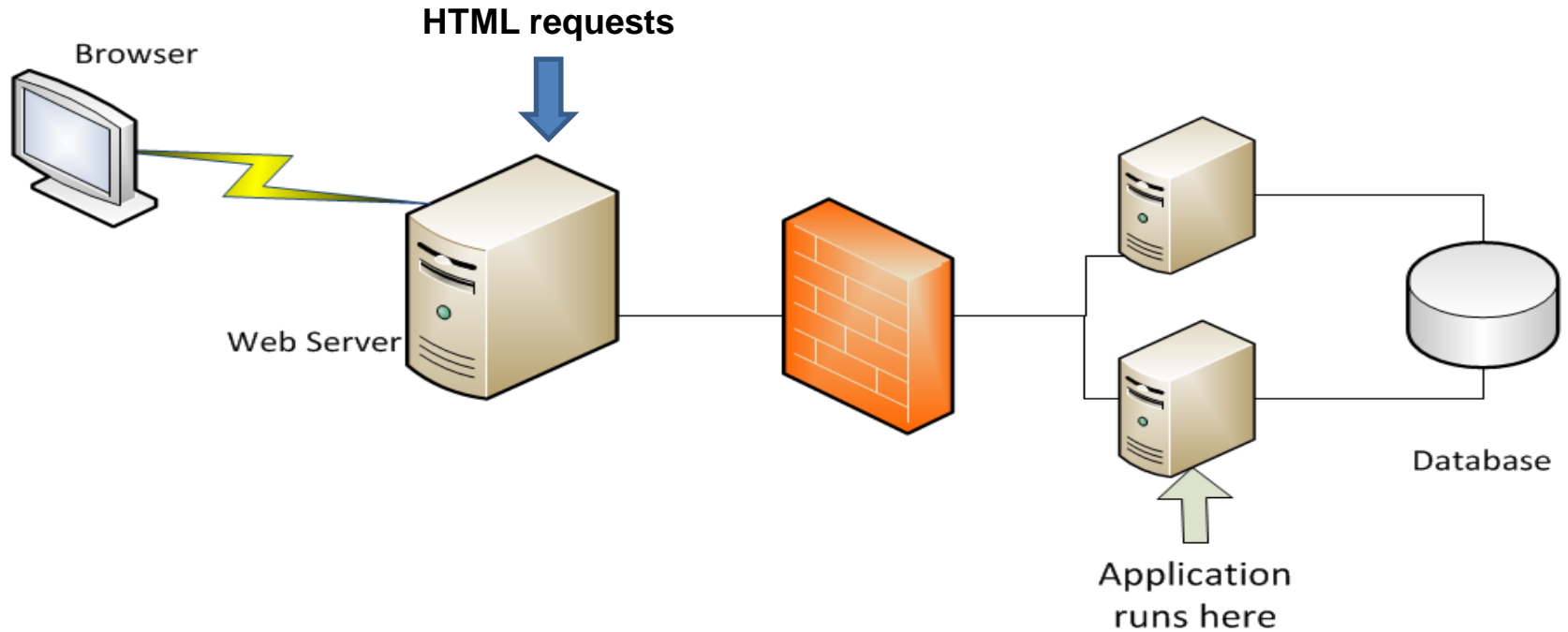
Application website



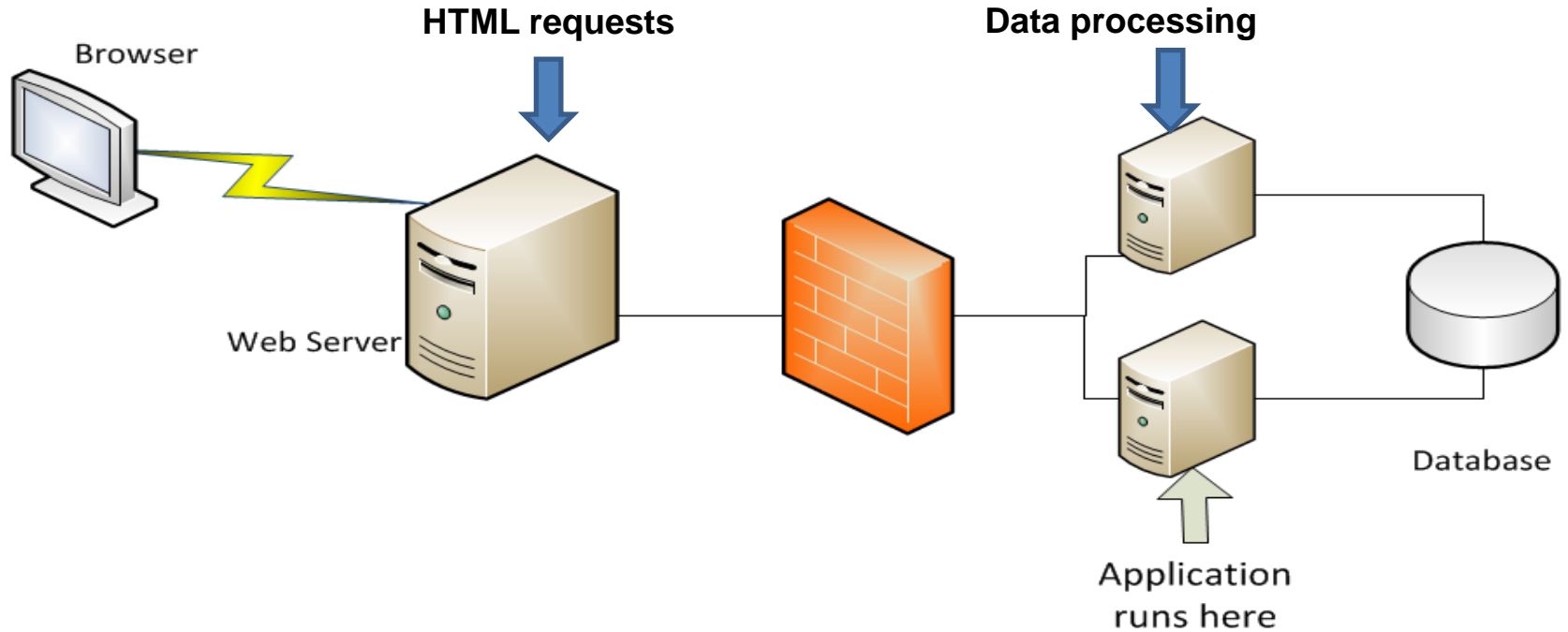
SPLF website



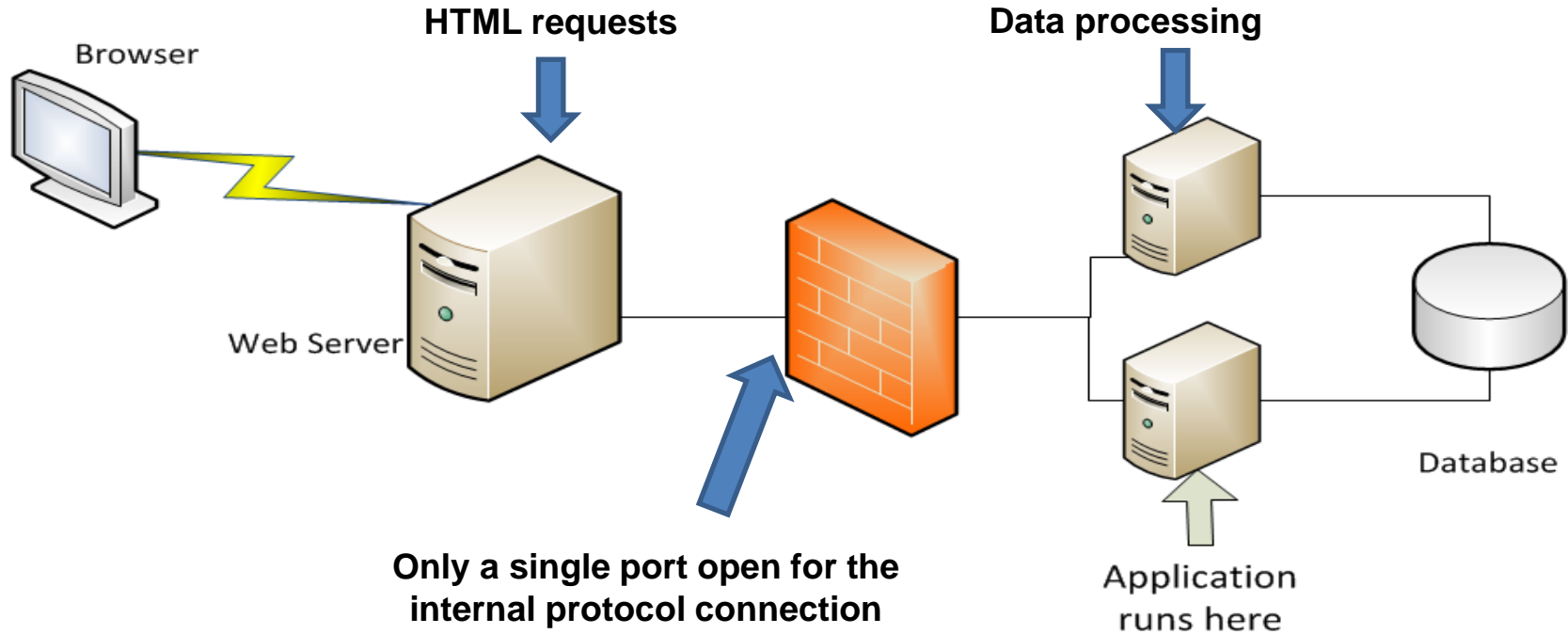
SPLF website



SPLF website



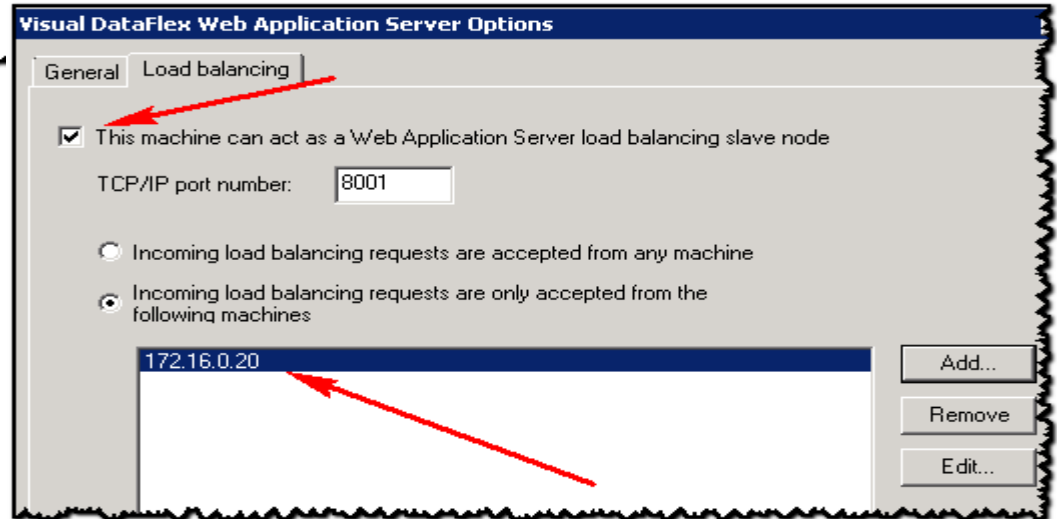
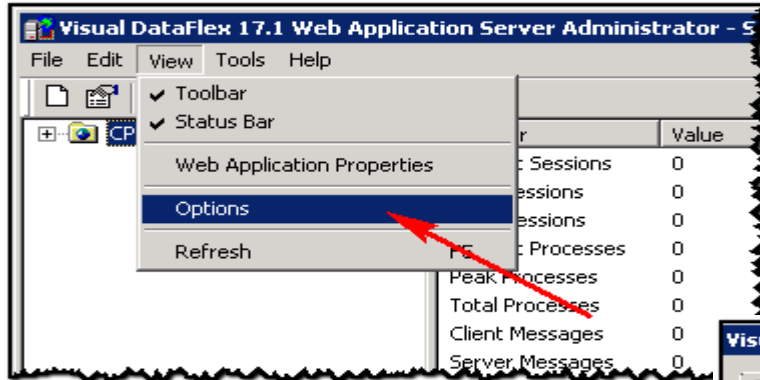
SPLF website



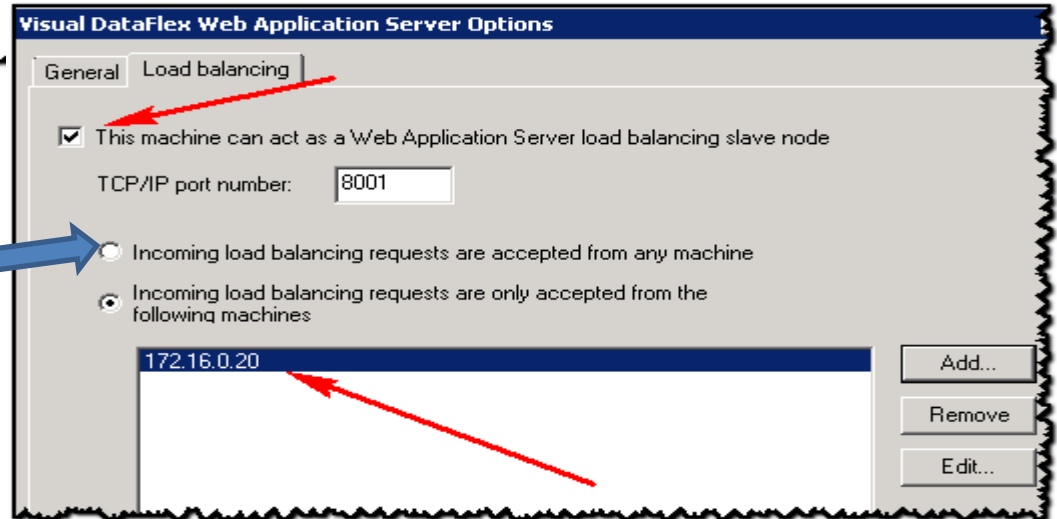
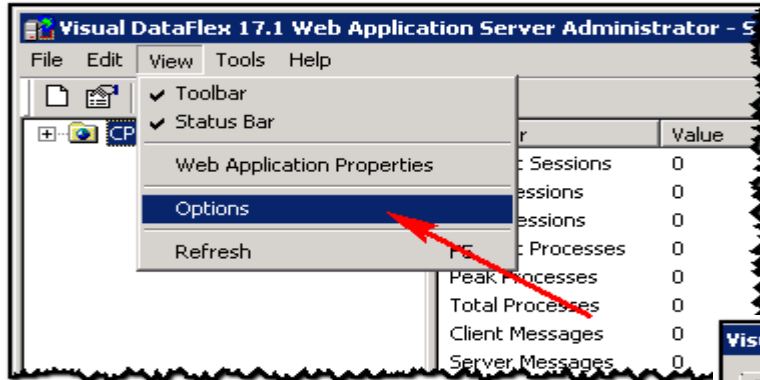
SPLF setup

- On the Master server
 - Place the AppHtml folder w/subfolders
 - Webshare the folder
 - Programs folder (only needed at setup)
- On the Slave server(s)
 - Place the programs and data folders
- Licenses
 - A webapp license required for each slave server
 - An add-on SPLF license is needed for the master

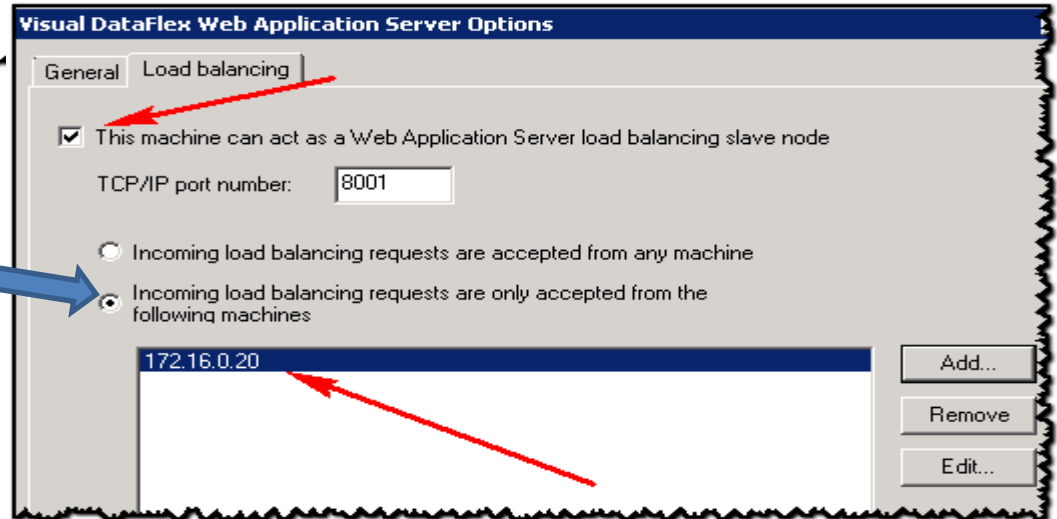
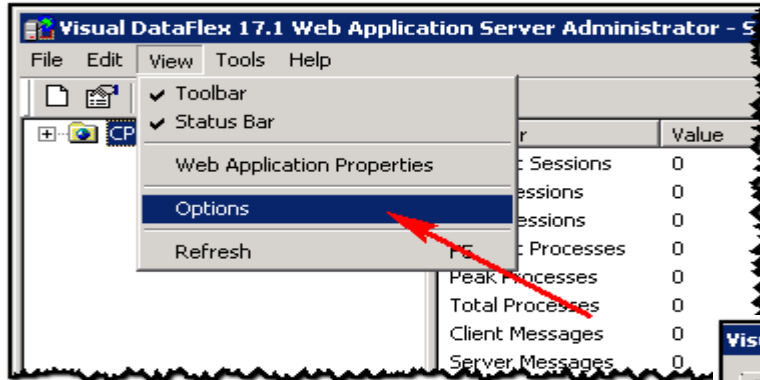
Slave side server setup



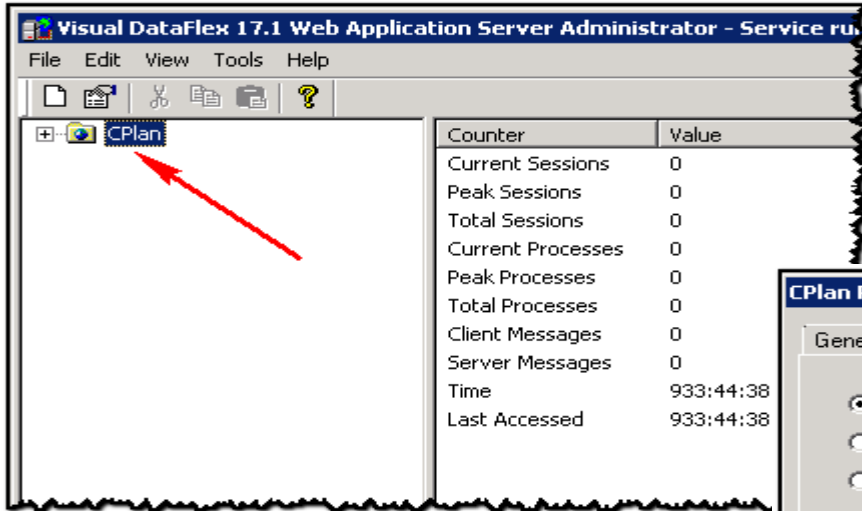
Slave side server setup



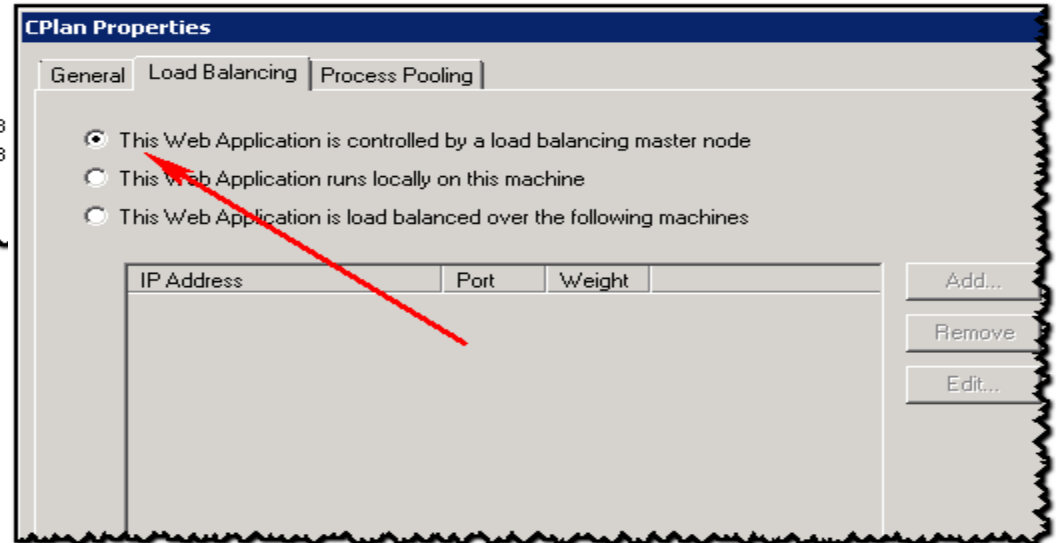
Slave side server setup



Slave side application setup



Counter	Value
Current Sessions	0
Peak Sessions	0
Total Sessions	0
Current Processes	0
Peak Processes	0
Total Processes	0
Client Messages	0
Server Messages	0
Time	933:44:38
Last Accessed	933:44:38



CPlan Properties

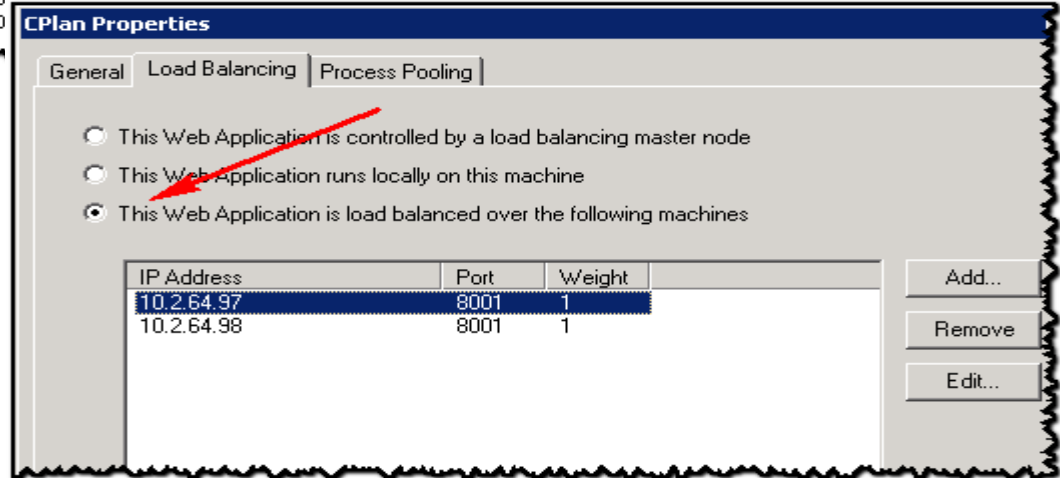
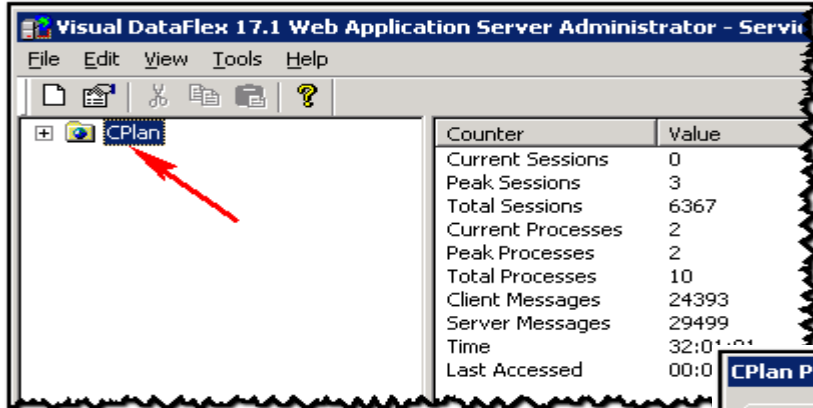
General | Load Balancing | Process Pooling

This Web Application is controlled by a load balancing master node
 This Web Application runs locally on this machine
 This Web Application is load balanced over the following machines

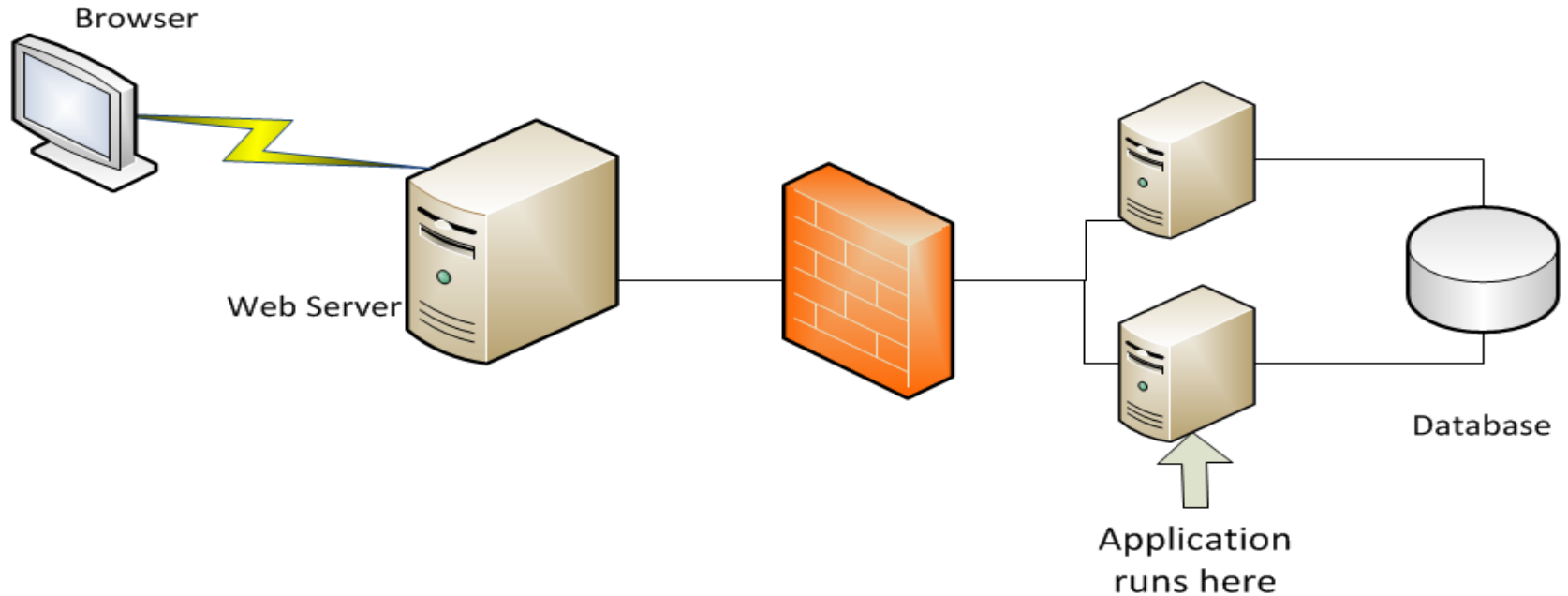
IP Address	Port	Weight
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Add...
Remove
Edit...

Master side application setup

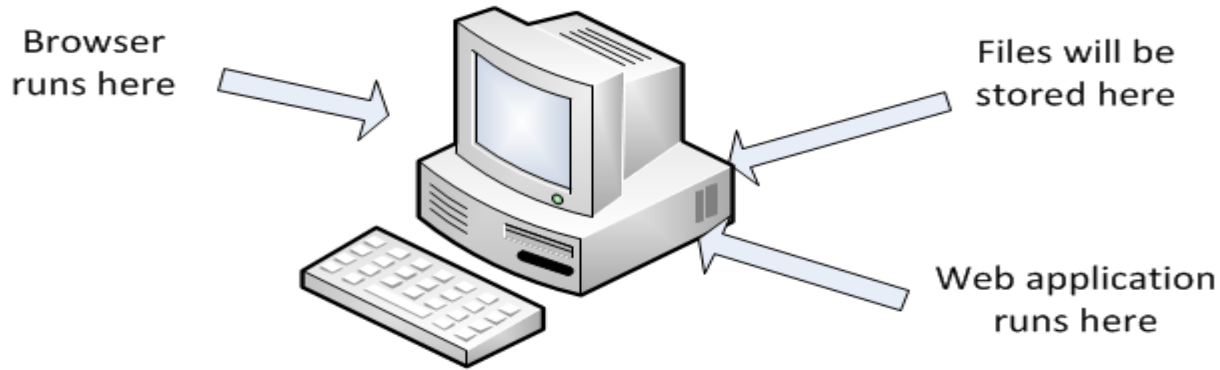


SPLF website Challenges



Simple setup (Development PC)

(Will not work in production setup)

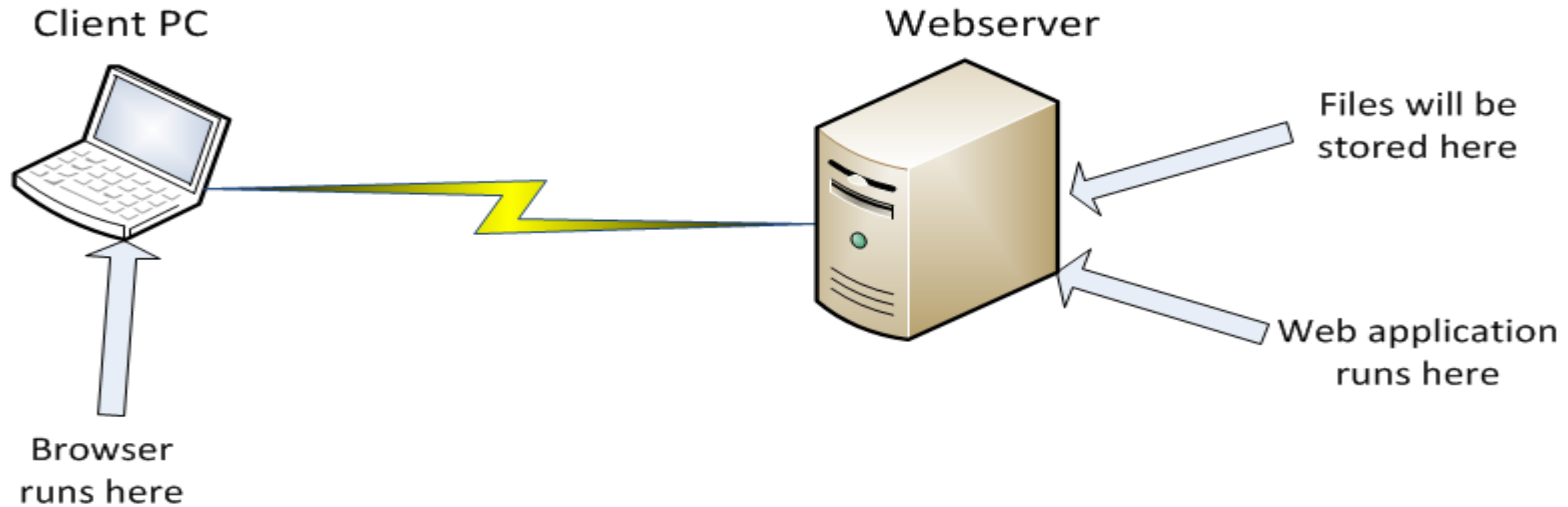


Simple setup (Development PC)

(Will not work in production setup)

```
WebGet psValue of oDateForm to dDato
WebGet psValue of oCenterForm to iCenter
Get TestPDFDatoReport of oVisDagKorsel ;
    iCenter dDato to sFileName
Send NavigateToPage sFileName btNewTab
```

Simple setup (Single webserver)



Simple setup (Single webserver)

c:/proj/18-0/CPlan/AppHtml/pdf/DagsPlan-154-2015-03-18.pdf

**Remove this part of the filename thereby
making the filelocation relative to the webroot**

pdf/DagsPlan-154-2015-03-18.pdf

Simple setup (Single webserver)

```
WebGet psValue of oDateForm to dDato
WebGet psValue of oCenterForm to iCenter
Get TestPDFDatoReport of oVisDagKorsel ;
    iCenter dDato to sFileName
Get psAppHtmlPath of (phoWorkspace(ghoApplication)) to sPath
Move (Replace(sPath,sFileName,"")) to sFileName
Send NavigateToPage sFileName btNewTab
```

Simple setup (Single webserver)

Disadvantages:

- File name is displayed in browser
- Files are public accessible (placed in webshare)
- Visitor can see other files by changing filename

Simple setup (Single webserver)

Solution:

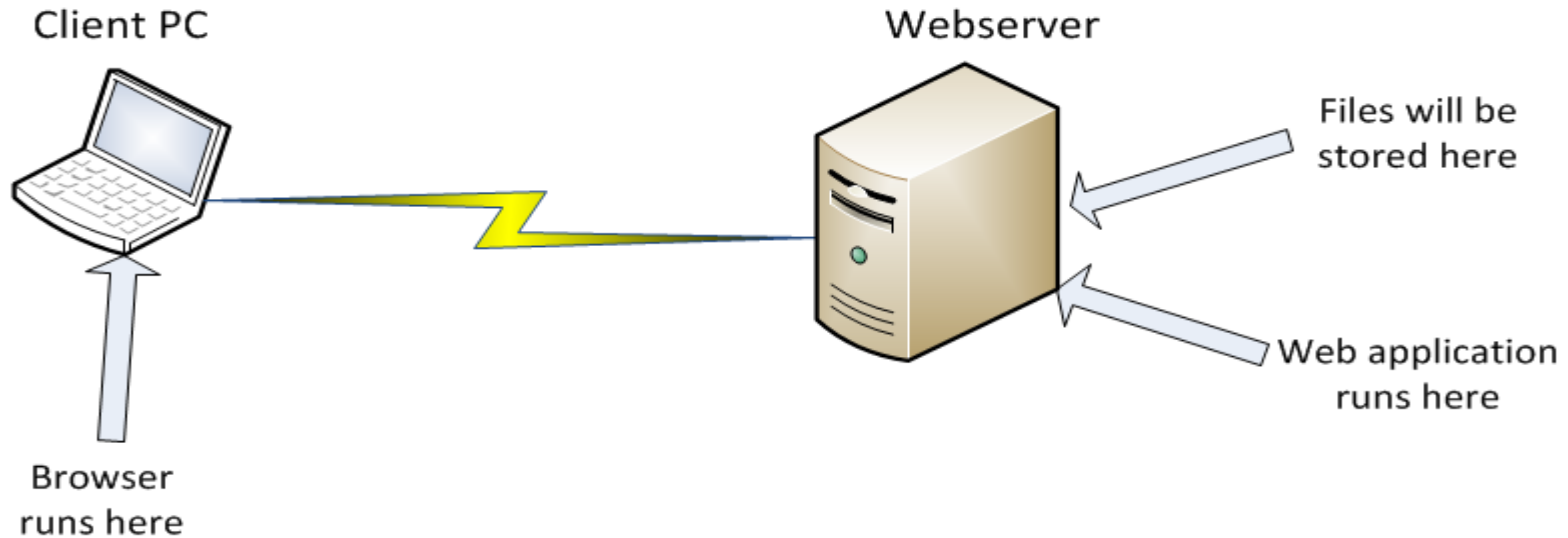
- **cWebResourceManager**
 - Creates encrypted URL
 - URL bound to current session
 - Time limited access (option)
- **Resource.ASP**
 - Javascript to load file from server

Simple setup (Single webserver)

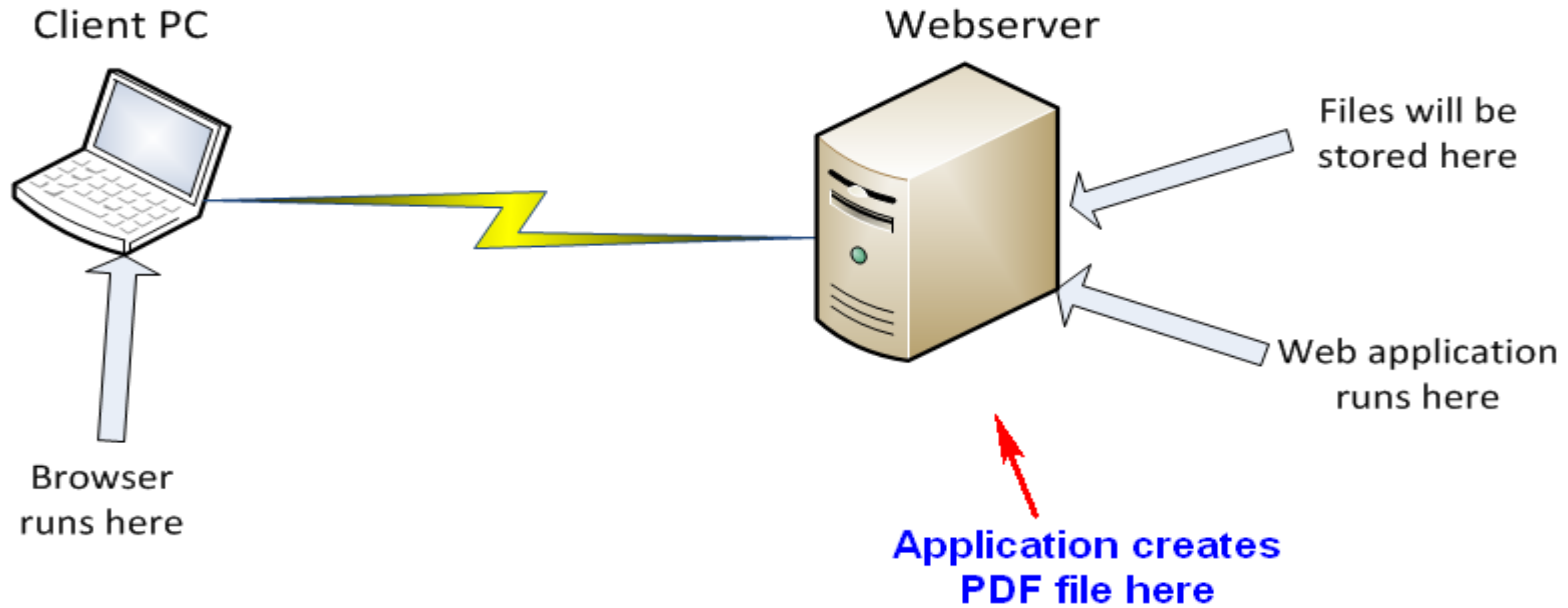
Solution:

```
WebGet psValue of oDateForm to dDato
WebGet psValue of oCenterForm to iCenter
Get TestPDFDatoReport of oVisDagKorsel ;
    iCenter dDato to sFileName
Get DownloadURL of ghoWebResourceManager sFilename to sUrl
Send NavigateToPage sUrl btNewTab
```

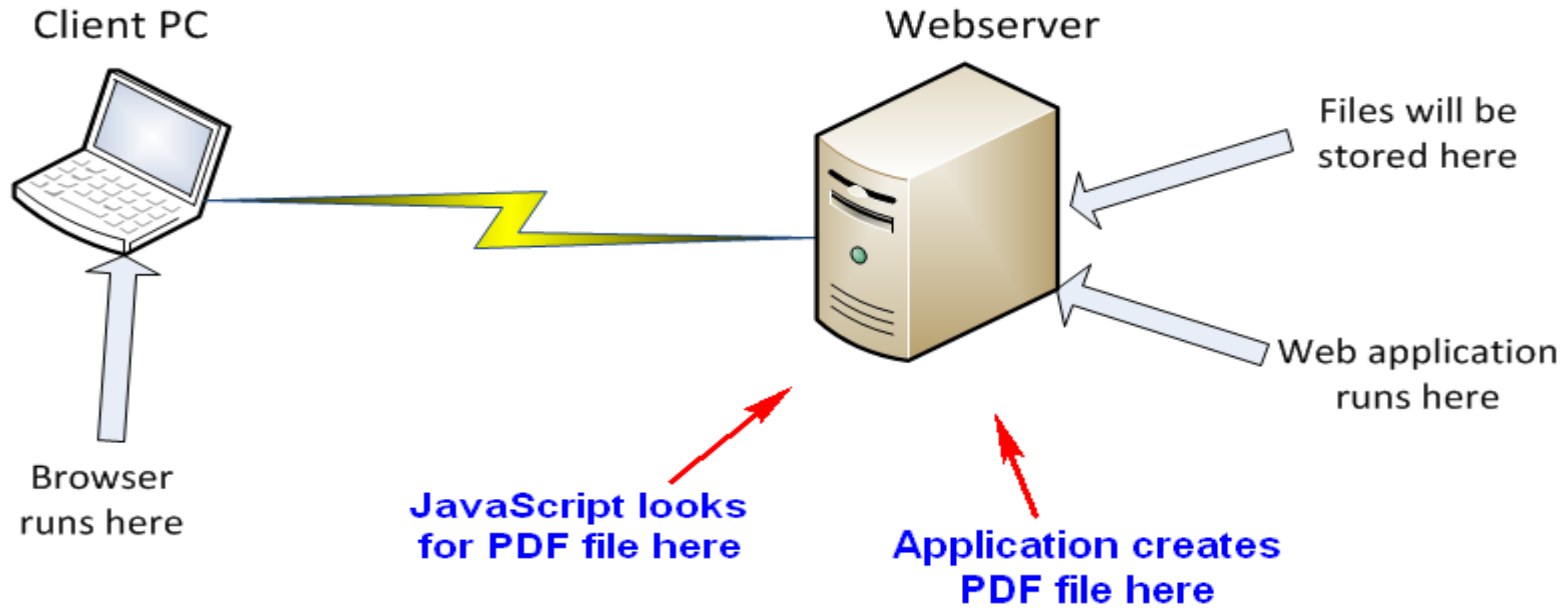
Simple setup (Single webserver)



Simple setup (Single webserver)

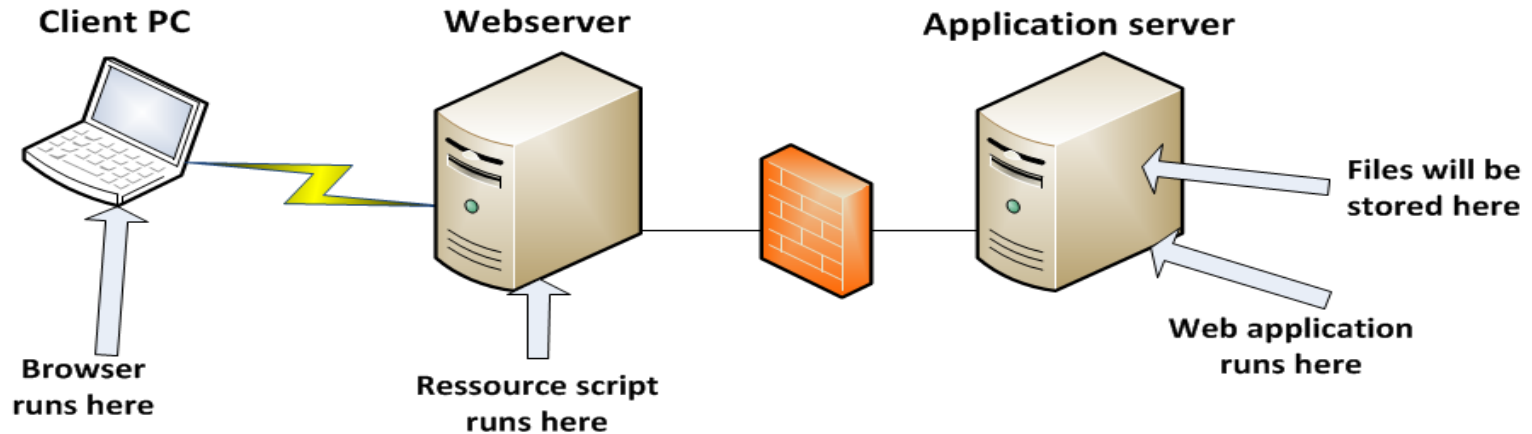


Simple setup (Single webserver)



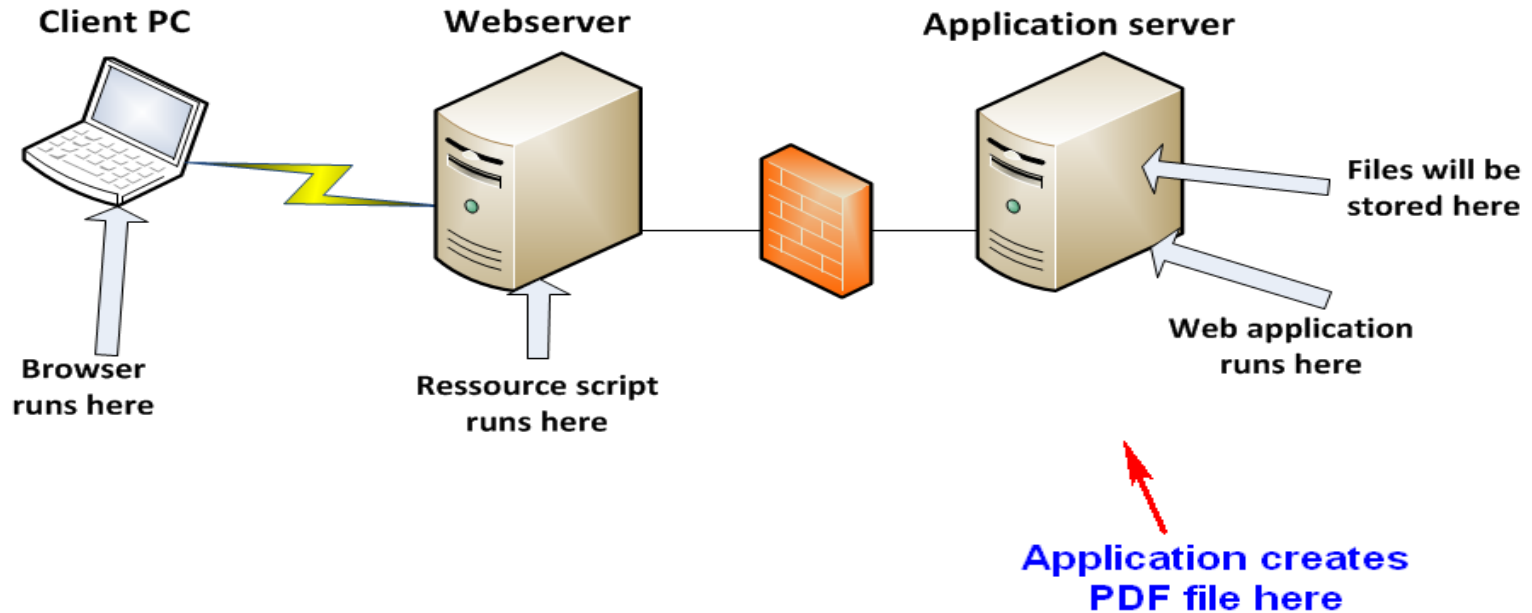
SPLF setup Web + Application server(s)

The Challenge:



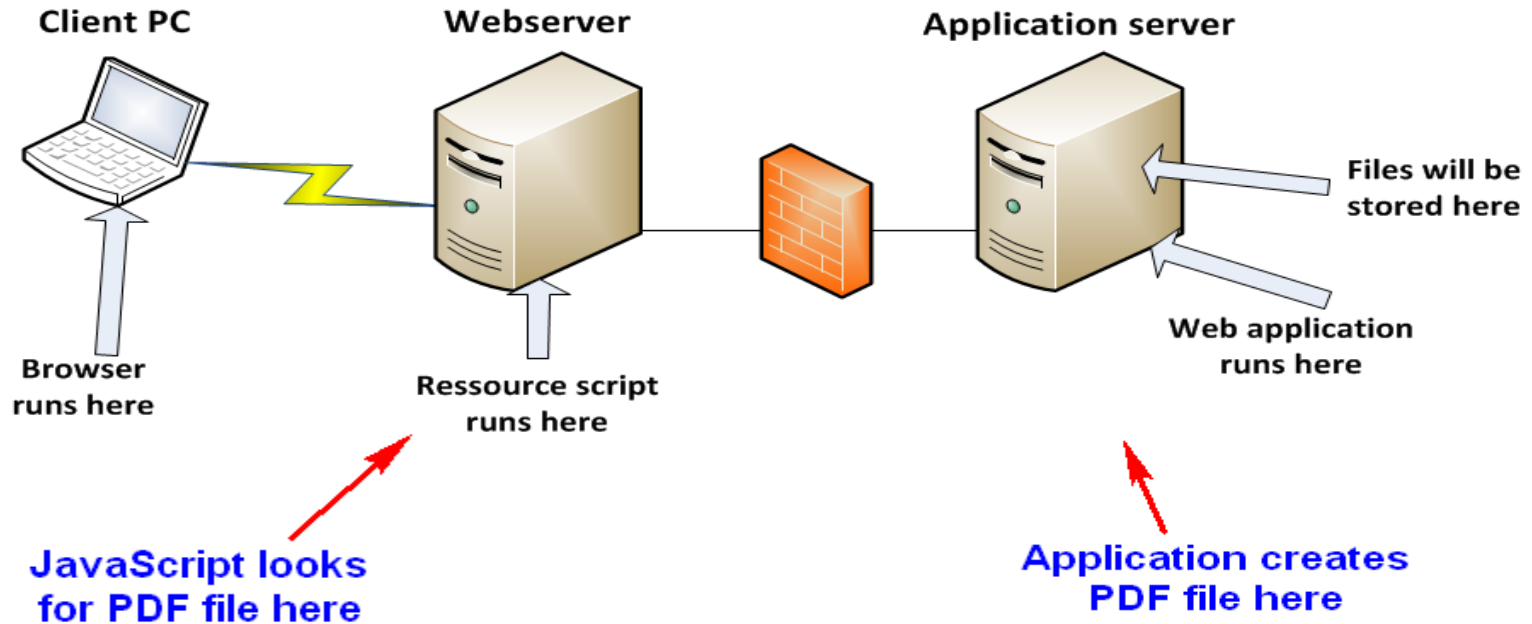
SPLF setup Web + Application server(s)

The Challenge:



SPLF setup Web + Application server(s)

The Challenge:



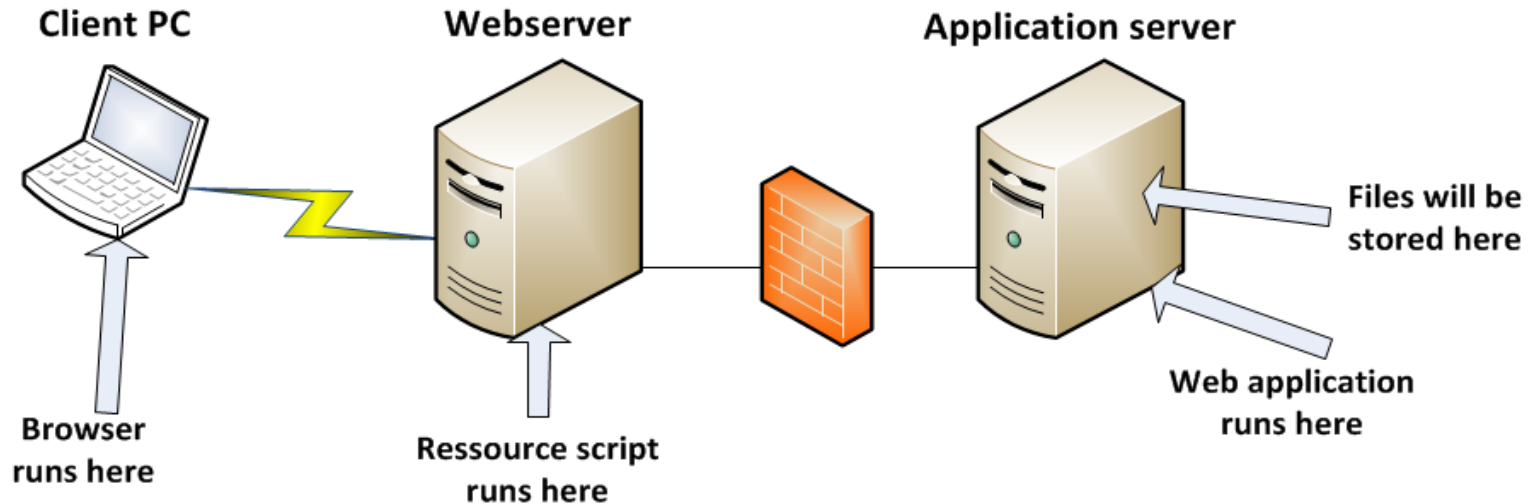
SPLF setup Web + Application server(s)

How to meet the Challenge:

- Try to place a PDF file on the same physical location on the webserver as the file created on the application server.
- See what happens...

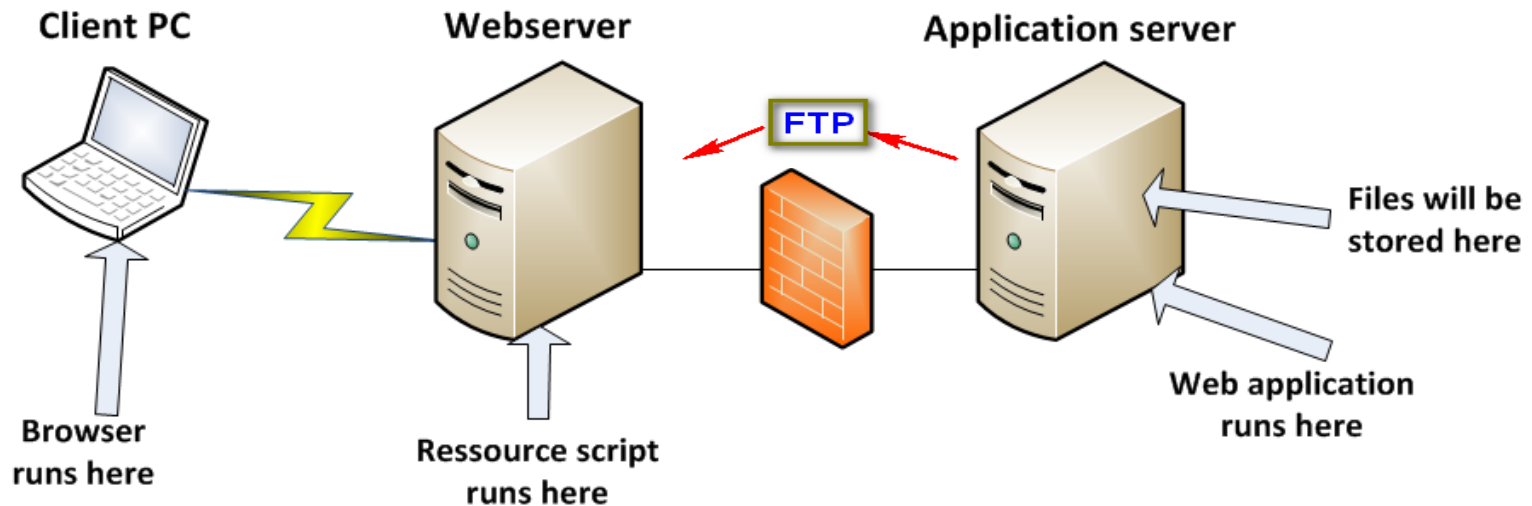
SPLF setup Web + Application server(s)

How to achieve this:



SPLF setup Web + Application server(s)

How to achieve this:



Use FTP to transfer the PDF file from the application server to the webserver.

SPLF setup Web + Application server(s)

How to achieve this:

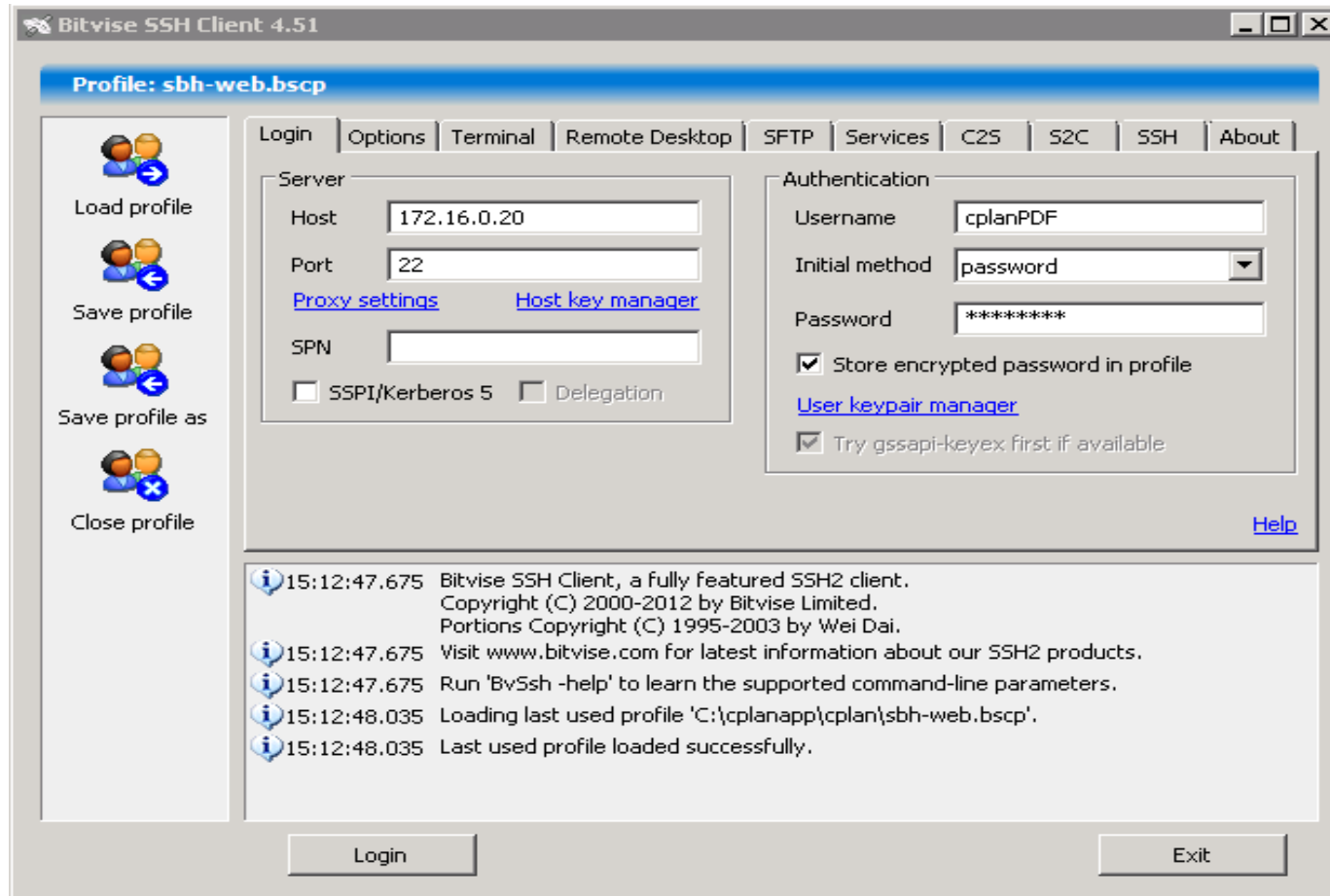
- Build this into the cWebResourceManager
 - Augment the DownloadURL method
 - Make it upload the file before returning the URL
- Limitations to this
 - Files must always be placed in the same location
 - OR you have to configure the FTP upload

SPLF setup Web + Application server(s)

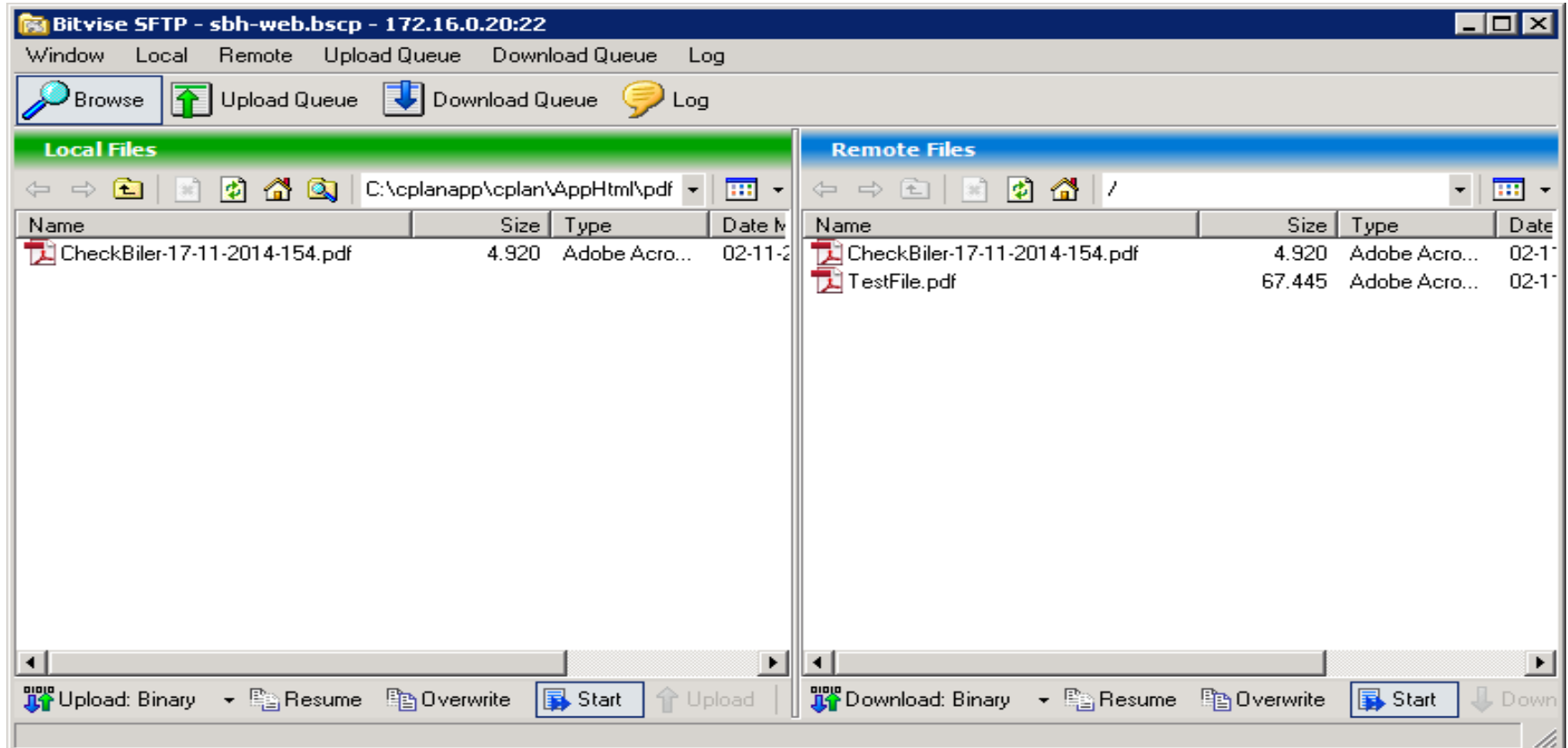
FTP transfer of files

- In this case we are using an external FTP client.
- Mainly because of security demands.
- Bitvise SSH client.
 - Can send files using a secure connection
 - Supports a command line interface

SPLF setup FTP transfer



SPLF setup FTP transfer



SPLF setup FTP transfer

- Command line interface:

```
sftpc.exe -profile=MyScript.bscp -cmd="put c:\docs\MyFile.pdf -o; quit"
```

SPLF setup Web + Application server(s)

How to achieve this:

```
Function DownloadURL String sPath Returns String
String sURL sHome sScript sCmd
Move (Trim(Params.UploadScript)) to sScript
Get psHome of (phoWorkspace(ghoApplication)) to sHome
Move ('-profile='+sHome-sScript) to sCmd
Move (sCmd*'-cmd="put '+sPath+' -o; quit") to sCmd
Runprogram Wait "sftpc.exe" sCmd
Forward Get DownloadURL sPath to sURL
Function_Return sURL
End_Function
```


Other things to be careful about

- Using system files
- Using Config.ws ini file
- Using Registry values

Using system file

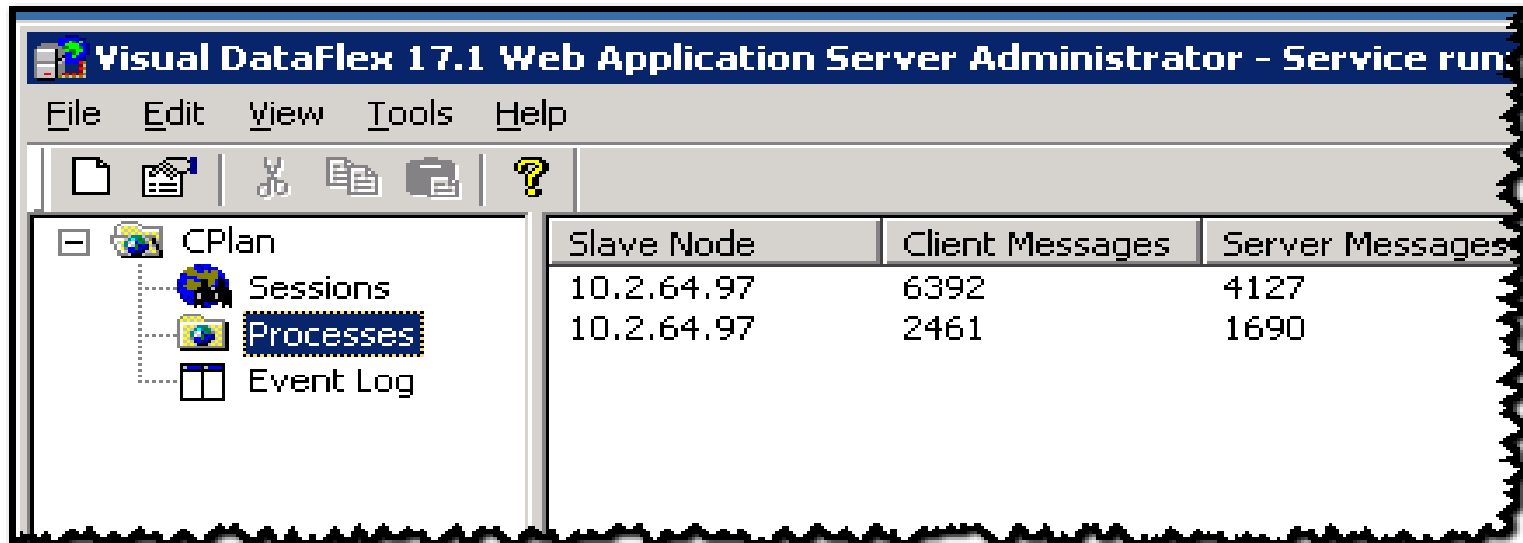
```
Object oSaveID is a cWebButton
  Set piColumnSpan to 4
  Set psCaption to "Save CenterID in System File"

  Procedure OnClick
    Integer iCenter
    WebGet psValue of oCenter to iCenter
    Reread Params
      Move iCenter to Params.Center
      SaveRecord Params
    Unlock
  End_Procedure
End_Object
```

Using system file

```
WebGet psValue of oDateForm to dDato  
Move Params.Center to iCenter ←  
Get TestPDFDatoReport of oVisDagKorsel ;  
    iCenter dDato to sFileName  
Get DownloadURL of ghoWebResourceManager sFilename to sUrl  
Send NavigateToPage sUrl btNewTab
```

Using system file



Slave Node	Client Messages	Server Messages
10.2.64.97	6392	4127
10.2.64.97	2461	1690

Using system file (with reread)

WebGet psValue of oDateForm to dDato

Reread Params

 Move Params.Center to iCenter

Unlock

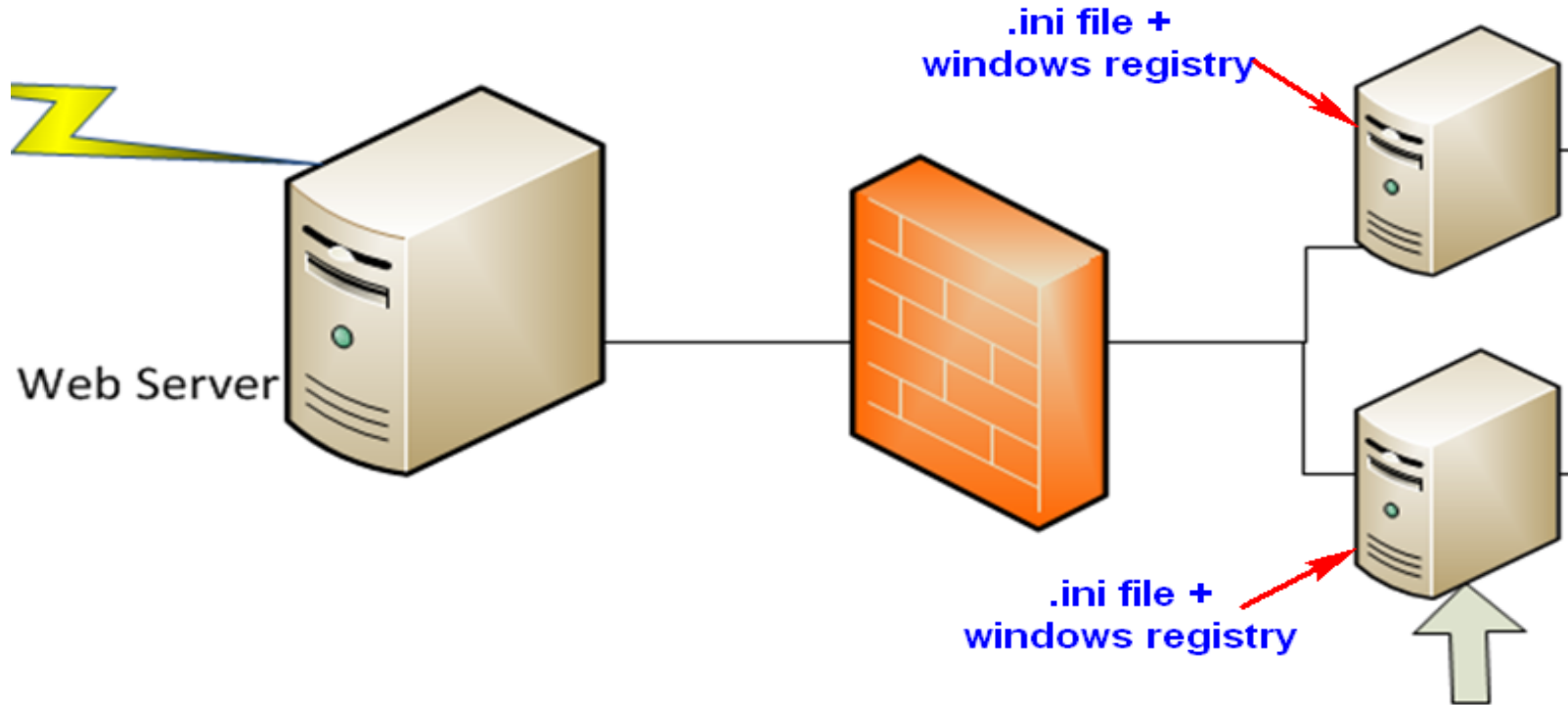
Get TestPDFDatoReport of oVisDagKorsel ;

 iCenter dDato to sFileName

Get DownloadURL of ghoWebResourceManager sFilename to sUrl

Send NavigateToPage sUrl btNewTab

Ini file + Registry



Thank you for watching



SPLF Challenges



SPLF Challenges



"The time to relax is when you don't have time for it." (Sydney J. Harris)