

# Crystal Enterprise 8.5

## Configuring Netscape iPlanet for Crystal Enterprise (NSAPI)

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### Overview

This document is intended to provide Crystal Enterprise (CE) 8.5 administrators with instructions on how to configure the web connector for Netscape iPlanet version 4 or 6. . It includes complete samples of the necessary configuration files using the Netscape Server Application Programming Interface (NSAPI) method. NSAPI was designed to provide a more robust and faster replacement for the Common Gateway Interface (CGI) method.

**Before reading this document, note the following critical information:**

- This document is intended for those with expert knowledge of both CE architecture and iPlanet
- Do NOT copy and paste the code samples included in this document directly into your system.
- When you skip to a section from the table of contents, for example Iplanet 4, read the introductory section before moving on to the code samples. Critical information is included there.
- Read the footnotes for the sections of code that apply to your environment. Critical information is included there.

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## Introduction

This document includes information on the following topics:

- How to test the web connector after installation
- The correct configuration of iPlanet files for Windows
- The correct configuration of iPlanet files for Unix
- Explanations of the configuration code pertaining to CE

## System Requirements

Please see the release notes for Operating System Requirements. You can find the release notes on the root of the Crystal Enterprise 8.5 install CD or at <http://support.crystaldecisions.com/docs> by looking for the file name `ce85_release_notes.pdf`

The supported versions of iPlanet are:

- iPlanet Web Server Enterprise Edition 6.0 (NSAPI & CGI, on Windows & Solaris)
- iPlanet Web Server Enterprise Edition 4.1 SP8 (NSAPI & CGI, on Windows & Solaris)

## Testing the Web Connector

Both the Standard and Professional editions of Crystal Enterprise include a Web Connector component that can be run on a variety of web servers and operating systems.

The web server executes the Web Connector. When the web server receives a Crystal Enterprise HTTP request (a request for a file with the extensions `.rpt`, `.cri`, `.csp`, or `.cwr`) the web server loads the Web Connector to process that URL command line.

To install the web connector components correctly on the web server ensure that the iPlanet server is running. The web connector installation automatically detects and installs to the web server that is running on the computer. For detailed information about installing the web connector, refer to the CE Installation Guide.

When the installation is complete, test whether or not the system is working correctly.

To do this, open a web browser and go to the following address:

<http://<webserver>/crystal/enterprise/admin/en/admin.cwr>

(Where `<webserver>` is replaced with the name of your web server.)

You should see a page similar to Figure 1:

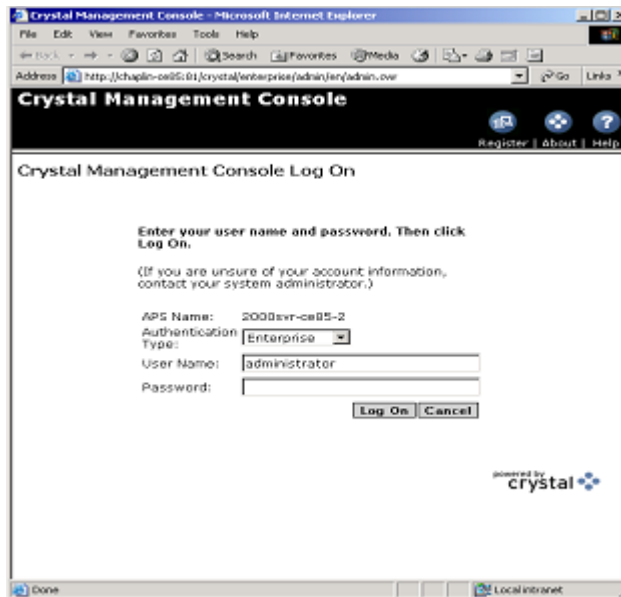


Figure 1

If you receive the page shown in Figure 1, all communication is working correctly and your system should function as expected.

If you see a page that references a Communication error as shown in Figure 2, you may need to manually configure the iPlanet web server's configuration files to correctly interface with the Crystal Enterprise system.



Figure 2

To determine if you need to manually configure the iPlanet web server's files, you have to identify whether the issue is with the web server's configuration or the virtual directory mapping or CE setup. To do this, type the following URL in your browser:

http://<web server>/admin.cwr

(Where <web server> is replaced with the name of your web server)

If this is working correctly, you should see a screen similar to that shown in Figure 3.

### Web Component Server Error

Value not found

---

Crystal Management Console Log On

Enter your user name and password. Then click Log On.

(If you are unsure of your account information, contact your system administrator.)

APS Name: CHAPLINIPLANET4  
Authentication Type: Enterprise  
User Name:   
Password:

[Log On](#) [Cancel](#)

 Powered by Crystal Decisions

### Figure 3

If you get this page, you do not need to manually configure the iPlanet files yet. Because page requests that end with “.cwr” are redirected to the WCS by the connector DLL without any virtual directory information, if the request is successful and you receive the page shown in Figure 3, you can make the following assumptions:

- The web server is correctly loading the connector DLL or .so file.
- The .cwr application mapping is correct, so ensure that all other application mappings follow its template.
- The issue is not with rights in terms of communication between the web server and WCS
- The issue may be caused by an issue with the virtual directory mapping of the web server's **Viewers** or **Webcontent** folders. This is the next thing you should test for. You may need to speak to your web administrator at this point.

If you still get the communication error shown in Figure 2, you must check the entire configuration file for errors. Please see the [Configuring iPlanet](#) section of this document for detailed information on checking this configuration.

The configuration files that you need to work with are:

- iPlanet 4: obj.conf and mime.types
- IPlanet 6: obj.conf, mime.types and magnus.conf

To locate the files on a Windows computer, search for the files listed. Several copies of each file will be returned because each iPlanet web server is comprised of two sub-servers, an administration server and a working server. The configuration files you need are located in the working server's installation path.

For IPlanet 4, the IPlanet installation directory the administration server is referenced by the following location:

```
<drive>:\<install path>\server4\https-adminserv
```

The working server installation location is referenced by the following location:

```
<drive>:\<install path>\server4\<machine name>
```

The same locations apply for any IPlanet 6 installation except that "server4" is replaced with "servers".

To locate the files on a Unix computer, consult your Unix administrator.

The file structure is the same as it is for Windows installations.

## Configuring iPlanet - Windows

This section outlines iPlanet files configured correctly for CE in a Windows environment. The section is separated into iPlanet 4 and iPlanet 6 files.

### IPlanet 4

Read this entire introductory section before going through the code. Important information about how to read the code is provided here.

When comparing your files to the ones in this document, ensure that the code pertaining to CE exists in your configuration files and is in the correct location. If it does not exist in your files you must add it.

<b>CRITICAL</b>	<p>Do <b>not</b> copy and paste the code in this document into your system's files. This will not work because the code below is an example only and uses example server names and place holders instead of actual file locations.</p> <p>When adding the specific CE sections of code to your version of these files, you must replace <b>&lt;your install path&gt;</b> with the location of your actual files, <b>&lt;opt1/user1&gt;</b> with the location of your files and name of your user and the example server names with your system's server names.</p>
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In the examples below, the lines of code pertaining to CE are displayed as

hyperlinks which link to footnotes at the end of this document. The footnotes explain the purpose of the code.

To check the configuration of the files on a Windows computer, open them in a text editor such as Windows Notepad. This allows you to view each file and edit it if necessary.

iPlanet 4 uses the configuration files Obj.conf and Mime.types.

### Obj.conf

This file contains instructions for how the server processes requests from clients such as web browsers. CE files and directories must be added to this file.

An example of a correctly configured Obj.conf file for iPlanet 4 on a windows server is below. The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```
# Use only forward slashes in pathnames--backslashes can
#cause problems. See the documentation for more
#information.

Init fn=flex-init access="C:/Netscape/Server4/https-
chaplin-CE85.crystald.net/logs/access" format.access="%Ses-
>client.ip% - %Req->vars.auth-user% [%SYSDATE%] \"%Req-
>reqpb.clf-request%\" %Req->srvhdrs.clf-status% %Req-
>srvhdrs.content-length%"

Init fn=load-types mime-types=mime.types

Init fn="load-modules" funcs="req_handler" shlib="<your
install path>/WCS/wcsnsapi.dll"

Init fn="req_init" WCSHosts="name of wcs:port"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;<your install path>\Web
Content,/crystal;.cwr;<your install path>\Web
Content,/crystal;.csp;<your install path>\Web
Content,/crystal;.cri;<your install path>\Web Content"

Init fn="load-modules"
shlib="C:/Netscape/Server4/bin/https/bin/NSServletPlugin.dll"
funcs="NSServletEarlyInit,NSServletLateInit,NSServletNameTrans,
NSServletService" shlib_flags="(global|now)"

Init fn="NSServletEarlyInit" EarlyInit=yes

Init fn="NSServletLateInit" LateInit=yes

<Object name=default>

NameTrans fn="pfx2dir" from="/viewer" dir="<your install
path>/viewers"

NameTrans fn="pfx2dir" from="/Crystal" dir="<your install
path>/Web Content"

NameTrans fn="NSServletNameTrans" name="servlet"

NameTrans fn="pfx2dir" from="/servlet"
dir="C:/Netscape/Server4/docs/servlet" name="ServletByExt"
```

```
NameTrans fn=px2dir from=/ns-icons
dir="C:/Netscape/Server4/ns-icons" name="es-internal"

NameTrans fn=px2dir from=/mc-icons
dir="C:/Netscape/Server4/ns-icons" name="es-internal"

NameTrans fn="px2dir" from="/help"
dir="C:/Netscape/Server4/manual/https/ug" name="es-internal"

NameTrans fn="px2dir" from="/manual"
dir="C:/Netscape/Server4/manual/https" name="es-internal"

NameTrans fn=document-root root="C:/Netscape/Server4/docs"

PathCheck fn=nt-uri-clean

PathCheck fn="check-acl" acl="default"

PathCheck fn=find-pathinfo

PathCheck fn=find-index index-names="index.html,home.html"

ObjectType fn=type-by-extension

ObjectType fn=force-type type=text/plain

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/csp"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cwr"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cri"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/rpt"

Service method=(GET|HEAD) type=magnus-internal/imagemap
fn=imagemap

Service method=(GET|HEAD) type=magnus-internal/directory
fn=index-common

Service method=(GET|HEAD|POST) type=*~magnus-internal/*
fn=send-file

AddLog fn=flex-log name="access"

</Object>

<Object name=cgi>

ObjectType fn=force-type type=magnus-internal/cgi

Service fn=send-cgi

</Object>

<Object name="servlet">

ObjectType fn=force-type type=text/html

Service fn="NSServletService"

</Object>

<Object name="jsp092">

ObjectType fn="type-by-extension"

ObjectType fn="change-type" type="magnus-internal/jsp092"
if-type="magnus-internal/jsp"

Service fn="NSServletService" type="magnus-internal/jsp092"
```

```
</Object>
```

```
<Object name="ServletByExt">
ObjectType fn=force-type type=magnus-internal/servlet
Service type="magnus-internal/servlet"
fn="NSServletService"
</Object>
```

```
<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object><Object ppath="<your install path>/viewers/*.exe">
```

### Mime.types

This file contains all the file extensions that the server recognizes. Because the default installation of iPlanet does not recognize CE extensions such as .rpt and .cwr, references to these extensions must be added to the file.

An example of a correctly configured mime.types file for iPlanet 4 on a Windows server is below. The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```
#--Netscape Communications Corporation MIME Information
# Do not delete the above line. It is used to identify the
file type.
```

```
type=magnus-internal/csp exts=csp
type=magnus-internal/cwr exts=cwr
type=magnus-internal/cri exts=cri
type=magnus-internal/rpt exts=rpt
type=application/octet-stream exts=bin
type=application/astound exts=asd,asn
type=application/fastman exts=lcc
type=application/java-archive exts=jar
type=application/java-serialized-object exts=ser
type=application/java-vm exts=class
type=application/mac-binhex40 exts=hqx
type=application/x-stuffit exts=sit
type=application/mbedlet exts=mbd
type=application/msword exts=doc,dot,wiz,rtf
type=application/oda exts=oda
type=application/pdf exts=pdf
```



```
type=application/postscript      exts=ai,eps,ps
type=application/studiom         exts=smp
type=application/timbuktu        exts=tbtt
type=application/vnd.ms-excel    exts=xls,xlw,xla,xlc,xlm,xlt
type=application/vnd.ms-powerpoint exts=ppt,pps,pot
type=application/vnd.ms-project  exts=mpp
type=application/winhelp         exts=hlp
type=application/x-javascript    exts=js
type=application/x-javascript; charset=UTF-8 exts=jsu
type=application/x-aim           exts=aim
type=application/x-asap          exts=asp
type=application/x-csh           exts=csh
type=application/x-dvi           exts=dvi
type=application/x-earthtime     exts=etc
type=application/x-envoy         exts=evy
type=application/x-gtar          exts=gtar
type=application/x-cpio          exts=cpio
type=application/x-hdf           exts=hdf
type=application/x-latex         exts=latex
type=application/x-javascript-config exts=jsc
type=application/x-maker         exts=fm
type=application/x-mif           exts=mif,mi
type=application/x-mocha         exts=mocha,moc
type=application/x-msaccess      exts=mdb
type=application/x-mscardfile    exts=crd
type=application/x-msclip        exts=clp
type=application/x-msmediaview   exts=m13,m14
type=application/x-msmetafile    exts=wmf
type=application/x-msmoney       exts=mny
type=application/x-mspublisher   exts=pub
type=application/x-msschedule    exts=scd
type=application/x-msterminal    exts=trm
type=application/x-mswrite       exts=wri
type=application/x-NET-Install  exts=ins
type=application/x-netcdf        exts=nc,cdf
type=application/x-ns-proxy-autoconfig exts=proxy
type=text/css                    exts=css
type=application/x-salsa         exts=slc
type=application/x-sh            exts=sh
type=application/x-shar          exts=shar
```

```
type=application/x-sprite      exts=spr,sprite
type=application/x-tar         exts=tar
type=application/x-tcl         exts=tcl
type=application/x-perl        exts=pl
type=application/x-tex         exts=tex
type=application/x-texinfo     exts=texinfo,texi
type=application/x-timbuktu    exts=tbp
type=application/x-tkined      exts=tki,tkined
type=application/x-troff-man    exts=man
type=application/x-troff-me     exts=me
type=application/x-troff-ms     exts=ms
type=application/x-troff       exts=t,tr,roff
type=application/x-wais-source  exts=src
type=application/zip           exts=zip
type=application/pre-encrypted  exts=enc
type=application/x-pkcs7-crl    exts=crl
type=application/x-fortezza-ckl exts=ckl

type=audio/basic               exts=au,snd
type=audio/echospeech          exts=es,esl
type=audio/midi                 exts=midi,mid
type=audio/x-aiff               exts=aif,aiff,aifc
#type=audio/x-midi              exts=midi,mid
type=audio/x-wav                exts=wav
type=audio/x-pn-realaudio       exts=ra,ram
type=audio/x-pac                 exts=pac
type=audio/x-epac               exts=pae
type=audio/x-liveaudio          exts=lam

type=image/fif                  exts=fif
type=image/x-icon               exts=ico
type=image/gif                  exts=gif
type=image/ief                  exts=ief
type=image/ifs                   exts=ifs
type=image/jpeg                 exts=jpeg,jpg,jpe,jfif,pjpeg,pjp
exts=jpeg,jpg,jpe,jfif,pjpeg,pjp

type=image/png                  exts=png
type=image/tiff                 exts=tiff,tif
type=image/vnd                   exts=dwg,svf
```

type=image/wavelet	exts=wi
type=image/bmp	exts=bmp
type=image/x-photo-cd	exts=pcd
type=image/x-cmu-raster	exts=ras
type=image/x-portable-anymap	exts=pnm
type=image/x-portable-bitmap	exts=pbm
type=image/x-portable-graymap	exts=pgm
type=image/x-portable-pixmap	exts=ppm
type=image/x-rgb	exts=rgb
type=image/x-xbitmap	exts=xbm
type=image/x-xpixmap	exts=xpm
type=image/x-xwindowdump	exts=xwd
type=text/html	exts=htm,html
type=text/plain	exts=txt
type=text/richtext	exts=rtx
type=text/tab-separated-values	exts=tsv
type=text/x-setext	exts=etx
type=text/x-speech	exts=talk
type=video/isivideo	exts=fvi
type=video/mpeg	exts=mpeg,mpg,mpe,mpv,vbs,mpegv
type=video/x-mpeg2	exts=mpv2,mp2v
type=video/msvideo	exts=avi
type=video/quicktime	exts=qt,mov,moov
type=video/vivo	exts=viv,vivo
type=video/wavelet	exts=ww
#type=video/x-msvideo	exts=avi
type=video/x-sgi-movie	exts=movie
type=x-world/x-svr	exts=svr
type=x-world/x-vrml	exts=wrl
type=x-world/x-vrt	exts=vrt
type=x-conference/x-cooltalk	exts=ice
enc=x-gzip	exts=gz
enc=x-compress	exts=z
enc=x-uencode	exts=uu,uue

```

type=magnus-internal/imagemap      exts=map
type=magnus-internal/parsed-html  exts=shtml
type=magnus-internal/cgi           exts=cgi,exe,bat
type=magnus-internal/jsp          exts=jsp

type=application/x-x509-ca-cert    exts=cacert
type=application/x-x509-server-cert exts=scert
type=application/x-x509-user-cert  exts=ucert
type=application/x-x509-email-cert exts=ecert

```

## Iplanet 6

iPlanet 6 uses three configuration files: Obj.conf, Mime.types and Magnus.conf.

<b>CRITICAL</b>	<p>Do <b>not</b> copy and paste the code in this document into your system's files.</p> <p>This will not work because the code below is an example only and uses example server names and place holders instead of actual file locations.</p> <p>When adding the specific CE sections of code to your version of these files, you must replace <b>&lt;your install path&gt;</b> with the location of your actual files, <b>&lt;opt1/user1&gt;</b> with the location of your files and name of your user and the example server names with your system's server names.</p>
-----------------	---

In the examples below, the lines of code pertaining to CE are displayed as hyperlinks which link to footnotes at the end of this document. The footnotes explain the purpose of the code.

### Obj.conf

This file contains instructions for how the server processes requests from clients such as web browsers. CE files and directories must be added to this file.

An example of a correctly configured Obj.conf file for IPlanet 6 on a windows server is below. The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

```

# Use only forward slashes in pathnames--backslashes can
# cause problems. See the documentation for more
# information.

```

```

<Object name=default>

```

```

NameTrans fn="pfx2dir" from="/viewer" dir="<your install path>/viewers"

```

```

NameTrans fn="pfx2dir" from="/Crystal" dir="<your install path>/Web Content"

```

```

NameTrans fn="NSServletNameTrans" name="servlet"

```

```

NameTrans fn="pfx2dir" from="/servlet"
dir="$docroot/servlet" name="ServletByExt"

```

```
NameTrans fn=pfx2dir from=/mc-icons
dir="C:/iPlanet/Servers/ns-icons" name="es-internal"

NameTrans fn="pfx2dir" from="/manual"
dir="C:/iPlanet/Servers/manual/https" name="es-internal"

NameTrans fn=document-root root="$docroot"

PathCheck fn=nt-uri-clean

PathCheck fn="check-acl" acl="default"

PathCheck fn=find-pathinfo

PathCheck fn=find-index index-names="index.html,home.html"

ObjectType fn=type-by-extension

ObjectType fn=force-type type=text/plain

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/csp"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cwr"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cri"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/rpt"

Service type="magnus-internal/jsp" fn="NSServletService"

Service method=(GET|HEAD) type=magnus-internal/imagemap
fn=imagemap

Service method=(GET|HEAD) type=magnus-internal/directory
fn=index-common

Service method=(GET|HEAD|POST) type=~magnus-internal/*
fn=send-file

AddLog fn=flex-log name="access"

</Object>

<Object name=cgi>
ObjectType fn=force-type type=magnus-internal/cgi
Service fn=send-cgi
</Object>

<Object name="servlet">
ObjectType fn=force-type type=text/html
Service fn="NSServletService"
</Object>

<Object name="jsp092">
ObjectType fn="type-by-extension"
ObjectType fn="change-type" type="magnus-internal/jsp092"
if-type="magnus-internal/jsp"
Service fn="NSServletService" type="magnus-internal/jsp092"
```

```

</Object>

<Object name="ServletByExt">
ObjectType fn=force-type type=magnus-internal/servlet
Service type="magnus-internal/servlet"
fn="NSServletService"
</Object>

<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object>

<Object ppath="<your install path>/viewers/*.exe">
ObjectType fn="force-type" type="application/octet-stream"
Service fn="send-file"
</Object>

```

### Mime.types

This file contains the extensions that the server recognizes. Because the default installation of iPlanet does not recognize CE extensions such as .rpt and .cwr, references to these extensions must be added to the file.

An example of a correctly configured Mime.types file for iPlanet 6 on a windows server is below. The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```

#--Netscape Communications Corporation MIME Information
# Do not delete the above line. It is used to identify the
file type.

type=magnus-internal/csp exts=csp
type=magnus-internal/cwr exts=cwr
type=magnus-internal/cri exts=cri
type=magnus-internal/rpt exts=rpt
type=application/octet-stream exts=bin
type=application/astound exts=asd,asn
type=application/fastman exts=lcc
type=application/java-archive exts=jar
type=application/java-serialized-object exts=ser
type=application/java-vm exts=class
type=application/mac-binhex40 exts=hqx

```

```
type=application/x-stuffit      exts=sit
type=application/mbedlet       exts=mbd
type=application/msword        exts=doc,dot,wiz,rtf
type=application/oda           exts=oda
type=application/pdf           exts=pdf
type=application/postscript    exts=ai,eps,ps
type=application/studiom       exts=smp
type=application/timbuktu      exts=tbtt
type=application/vnd.ms-excel  exts=xls,xlw,xla,xlc,xlm,xlt
type=application/vnd.ms-powerpoint exts=ppt,pps,pot
type=application/vnd.ms-project exts=mpp
type=application/winhelp       exts=hlp
type=application/x-java-jnlp-file exts=jnlp^M
type=application/x-javascript exts=js
type=application/x-javascript; charset=UTF-8 exts=jsu
type=application/x-aim         exts=aim
type=application/x-asap        exts=asp
type=application/x-csh         exts=csh
type=application/x-dvi         exts=dvi
type=application/x-earthtime   exts=etc
type=application/x-envoy       exts=evy
type=application/x-gtar        exts=gtar
type=application/x-cpio        exts=cpio
type=application/x-hdf         exts=hdf
type=application/x-latex       exts=latex
type=application/x-javascript-config exts=jsc
type=application/x-maker       exts=fm
type=application/x-mif         exts=mif,mi
type=application/x-mocha       exts=mocha,moc
type=application/x-msaccess     exts=mdb
type=application/x-mscardfile  exts=crd
type=application/x-msclip      exts=clip
type=application/x-msmediaview exts=m13,m14
type=application/x-msmetafile  exts=wmf
type=application/x-msmoney     exts=mny
type=application/x-mspublisher exts=pub
type=application/x-msschedule  exts=scd
type=application/x-msterminal  exts=trm
type=application/x-mswrite     exts=wri
type=application/x-NET-Install exts=ins
```

```

type=application/x-netcdf          exts=nc,cdf
type=application/x-ns-proxy-autoconfig exts=proxy
type=text/css                     exts=css
type=application/x-salsa          exts=slc
type=application/x-sh             exts=sh
type=application/x-shar           exts=shar
type=application/x-sprite         exts=spr,sprite
type=application/x-tar            exts=tar
type=application/x-tcl            exts=tcl
type=application/x-perl           exts=pl
type=application/x-tex            exts=tex
type=application/x-texinfo        exts=texinfo,texi
type=application/x-timbuktu       exts=tbp
type=application/x-tkined         exts=tki,tkined
type=application/x-troff-man      exts=man
type=application/x-troff-me       exts=me
type=application/x-troff-ms       exts=ms
type=application/x-troff          exts=t,tr,roff
type=application/x-wais-source    exts=src
type=application/zip              exts=zip
type=application/pre-encrypted    exts=enc
type=application/x-pkcs7-crl      exts=crl
type=application/x-forzza-ckl     exts=ckl
type=application/xml-dtd          exts=dtd

type=audio/basic                  exts=au,snd
type=audio/echospeech            exts=es,esl
type=audio/midi                   exts=midi,mid
type=audio/x-aiff                 exts=aif,aiff,aifc

#type=audio/x-midi                exts=midi,mid
type=audio/x-wav                  exts=wav
type=audio/x-pn-realaudio         exts=ra,ram
type=audio/x-pac                  exts=pac
type=audio/x-epac                 exts=pae
type=audio/x-liveaudio           exts=lam

type=image/fif                    exts=fif
type=image/x-icon                 exts=ico
type=image/gif                    exts=gif

```



```

type=image/ief                exts=ief
type=image/ifs                exts=ifs
type=image/jpeg
exts=jpeg,jpg,jpe,jfif,pjpeg,pjp

type=image/png                exts=png
type=image/tiff                exts=tiff,tif
type=image/vnd                exts=dwg,svf
type=image/wavelet            exts=wi
type=image/bmp                exts=bmp
type=image/x-photo-cd         exts=pcd
type=image/x-cmu-raster       exts=ras
type=image/x-portable-anymap  exts=png
type=image/x-portable-bitmap  exts=pbm
type=image/x-portable-graymap exts=pgm
type=image/x-portable-pixmap  exts=ppm
type=image/x-rgb               exts=rgb
type=image/x-xbitmap          exts=xbm
type=image/x-xpixmap          exts=xpm
type=image/x-xwindowdump      exts=xwd

type=text/html                exts=htm,html
type=text/plain                exts=txt
type=text/richtext            exts=rtx
type=text/tab-separated-values exts=tsv
type=text/x-setext            exts=etx
type=text/x-speech            exts=talk
type=text/xul                  exts=xul
type=text/xml                  exts=xml
type=text/xml-external-parsed-entity exts=ent

type=video/isivideo           exts=fvi
type=video/mpeg
exts=mpeg,mpg,mpe,mpv,vbs,mpegv
type=video/x-mpeg2            exts=mpv2,mp2v
type=video/msvideo            exts=avi
type=video/quicktime          exts=qt,mov,moov
type=video/vivo                exts=viv,vivo
type=video/wavelet            exts=wav
#type=video/x-msvideo         exts=avi
type=video/x-sgi-movie        exts=movie

```

```

type=x-world/x-svr           exts=svr
type=x-world/x-vrml         exts=wrl
type=x-world/x-vrt          exts=vrt

type=x-conference/x-cooltalk exts=ice

enc=x-gzip                   exts=gz
enc=x-compress               exts=z
enc=x-uuencode               exts=uu,uue

type=magnus-internal/imagemap  exts=map
type=magnus-internal/parsed-html exts=shtml
type=magnus-internal/cgi        exts=cgi,exe,bat
type=magnus-internal/jsp       exts=jsp

type=application/x-x509-ca-cert      exts=cacert
type=application/x-x509-server-cert  exts=scert
type=application/x-x509-user-cert    exts=ucert
type=application/x-x509-email-cert   exts=ecert

```

### Magnus.conf

This file sets values of variables that configure the server during initialization. The server looks at this file and executes the settings on startup. The server does not look at this file again until it is restarted. The CE directory must be added to this file.

An example of a correctly configured Magnus.conf file for iPlanet 6 on a windows server is below. The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```

#ServerRoot C:/iPlanet/Servers/https-CHAPLINIPLANET4
ServerID https-CHAPLINIPLANET4
ServerName CHAPLINIPLANET4
ExtraPath
C:/iPlanet/Servers/bin/https/bin;${NSES_JRE_RUNTIME_LIBPATH
}
ErrorLog C:/iPlanet/Servers/https-
CHAPLINIPLANET4/logs/errors
MtaHost name-of-mail-server
DNS off

```

```

Security off
ClientLanguage en
AdminLanguage en
DefaultLanguage en
RqThrottle 128

Init fn=flex-init access="$accesslog" format.access="%Ses-
>client.ip% - %Req->vars.auth-user% [%SYSDATE%] \"%Req-
>reqpb.clf-request%\" %Req->srvhdrs.clf-status% %Req-
>srvhdrs.content-length%"

Init fn=load-types mime-types=mime.types

Init fn="load-modules" funcs="req_handler" shlib="<your
install path>/WCS/wcsnsapi.dll"

Init fn="req_init" WCSHosts="wcs server:port"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;<your install path>\Web
Content,/crystal;.cwr;<your install path>\Web
Content,/crystal;.csp;<your install path>\Web
Content,/crystal;.cri;<your install path>\Web Content"

Init fn="load-modules"
shlib="C:/iPlanet/Servers/bin/https/bin/NSServletPlugin.dll"
funcs="NSServletEarlyInit,NSServletLateInit,NSServletNameTran
s,NSServletService" shlib_flags="(global|now)"

Init fn="NSServletEarlyInit" EarlyInit=yes
Init fn="NSServletLateInit" LateInit=yes

```

## Configuring iPlanet - Unix

This section outlines iPlanet files configured correctly for mixed environment in which CE is on a Windows operating system and iPlanet is on a Unix operating system. The section is separated into iPlanet 4 and iPlanet 6 files.

### iPlanet 4

Read this entire introductory section before going through the code. Important information about how to read the code is provided here.

This section outlines iPlanet 4 files configured correctly for a mixed environment in which CE is on a Windows operating system and iPlanet is on a Unix operating system.

iPlanet 4 uses two configuration files: Obj.conf and Mime.types.

The entire file is included here so that you can see the context of CE configuration information in relation to the rest of the file.

**CRITICAL**

Do **not** copy and paste the code in this document into your system's files.

This will not work because the code below is an example only and uses example server names and place holders instead of actual file locations.

When adding the specific CE sections of code to your version of these files, you must replace **<your install path>** with the location of your actual files, **<opt1/user1>** with the location of your files and name of your user and the example server names with your system's server names.

In the examples below, the lines of code pertaining to CE are displayed as hyperlinks which link to footnotes at the end of this document. The footnotes explain the purpose of the code. Ensure that you read the footnotes associated with each piece of CE configuration code before adding the code to your system.

**NOTE**

Double back slashes (\\) in the configuration file below are correct. Double slashes must be used due to a known issue in CE.

To view the contents of the configuration files, use either the vi utility or the CAT command.

**Ojb.conf**

This file contains instructions for how the server processes requests from clients such as web browsers. CE files and directories must be added to this file.

**WARNING**

Due to Unix's sensitivity to invisible characters such as spaces and carriage returns, do not copy and paste the code from this document into a Unix environment.

Formatting may be altered during this process, causing your system to fail even if the files are configured correctly.

**# Use only forward slashes in pathnames--backslashes can cause problems.**

**# See the documentation for more information.**

```
Init fn=flex-init access="C:/Netscape/Server4/https-
chaplin-CE85.crystal.d.net/logs/access" format.access="%Ses-
>client.ip% - %Req->vars.auth-user% [%SYSDATE%] \"%Req-
>reqpb.clf-request%\" %Req->srvhdrs.clf-status% %Req-
>srvhdrs.content-length%"
```

```
Init fn=load-types mime-types=mime.types
```

```
Init fn="load-modules"
```

```
shlib="<opt1/user1>/iplanet/bin/https/lib/libNSServletPlugi
n.so"
```

```
Init fn="load-modules" funcs=req_handler,req_init
shlib="<opt1/user1>/crystal/enterprise/solaris_sparc/wcs/l
ib/libnsapi.so"
```

```
Init fn="req_init" WCSHosts="name of wcs:port"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;C:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cwr;C:\\Program
```

```

Files\\Crystal Decisions\\Web
Content,/crystal;.csp;C:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cri;C:\\Program
Files\\Crystal Decisions\\Web Content"

Init fn="load-modules"
shlib="C:/Netscape/Server4/bin/https/bin/NSServletPlugin.dll"
funcs="NSServletEarlyInit,NSServletLateInit,NSServletNameTran
s,NSServletService" shlib_flags="(global|now)"

Init fn="NSServletEarlyInit" EarlyInit=yes

Init fn="NSServletLateInit" LateInit=yes

<Object name=default>

NameTrans fn="pfx2dir" from="/viewer"
dir="/<opt1/user1>/crystal/viewers"

NameTrans fn="pfx2dir" from="/Crystal"
dir="/<opt1/user1>/crystal/Web Content"

NameTrans fn="NSServletNameTrans" name="servlet"

NameTrans fn="pfx2dir" from="/servlet"
dir="C:/Netscape/Server4/docs/servlet" name="ServletByExt"

NameTrans fn=pfx2dir from=/ns-icons
dir="C:/Netscape/Server4/ns-icons" name="es-internal"

NameTrans fn=pfx2dir from=/mc-icons
dir="C:/Netscape/Server4/ns-icons" name="es-internal"

NameTrans fn="pfx2dir" from="/help"
dir="C:/Netscape/Server4/manual/https/ug" name="es-
internal"

NameTrans fn="pfx2dir" from="/manual"
dir="C:/Netscape/Server4/manual/https" name="es-internal"

NameTrans fn=document-root root="C:/Netscape/Server4/docs"

PathCheck fn=nt-uri-clean

PathCheck fn="check-acl" acl="default"

PathCheck fn=find-pathinfo

PathCheck fn=find-index index-names="index.html,home.html"

ObjectType fn=type-by-extension

ObjectType fn=force-type type=text/plain

Service fn="req_handler" method="(GET|POST)" type="magnus-
internal/csp"

Service fn="req_handler" method="(GET|POST)" type="magnus-
internal/cwr"

Service fn="req_handler" method="(GET|POST)" type="magnus-
internal/cri"

Service fn="req_handler" method="(GET|POST)" type="magnus-
internal/rpt"

Service method=(GET|HEAD) type=magnus-internal/imagemap
fn=imagemap

Service method=(GET|HEAD) type=magnus-internal/directory
fn=index-common

Service method=(GET|HEAD|POST) type=~magnus-internal/*
fn=send-file

```

```

AddLog fn=flex-log name="access"
</Object>

<Object name=cgi>
ObjectType fn=force-type type=magnus-internal/cgi
Service fn=send-cgi
</Object>

<Object name="servlet">
ObjectType fn=force-type type=text/html
Service fn="NSServletService"
</Object>

<Object name="jsp092">
ObjectType fn="type-by-extension"
ObjectType fn="change-type" type="magnus-internal/jsp092"
if-type="magnus-internal/jsp"
Service fn="NSServletService" type="magnus-internal/jsp092"
</Object>

<Object name="ServletByExt">
ObjectType fn=force-type type=magnus-internal/servlet
Service type="magnus-internal/servlet"
fn="NSServletService"
</Object>

<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
<Object ppath="/<opt1/user1>/crystal/viewers/*.exe">

```

### Mime.types

This file contains the extensions that the server recognizes. Because the default installation of iPlanet does not recognize CE extensions such as .rpt and .cwr, references to these extensions must be added to the file.

<b>WARNING</b>	<p>Due to Unix's sensitivity to invisible characters, such as spaces and carriage returns, do not copy and paste the code from this document into a Unix environment.</p> <p>Formatting may be altered during this processing, causing your system to fail even if the files are configured correctly.</p>
<b>NOTE</b>	<p>Double back slashes (\) in the configuration file below are correct. Double slashes must be used due to a known issue in CE.</p>

An example of a correctly configured Mime.types file for iPlanet 4 on a unix server is below. The file shows how to connect to a Windows server.

The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```
#--Netscape Communications Corporation MIME Information
```

```
# Do not delete the above line. It is used to identify the file type.
```

```
type=magnus-internal/csp exts=csp
```

```
type=magnus-internal/cwr exts=cwr
```

```
type=magnus-internal/cri exts=cri
```

```
type=magnus-internal/rpt exts=rpt
```

```
type=application/octet-stream exts=bin
```

```
type=application/astound exts=asd,asn
```

```
type=application/fastman exts=lcc
```

```
type=application/java-archive exts=jar
```

```
type=application/java-serialized-object exts=ser
```

```
type=application/java-vm exts=class
```

```
type=application/mac-binhex40 exts=hqx
```

```
type=application/x-stuffit exts=sit
```

```
type=application/mbedlet exts=mbd
```

```
type=application/msword exts=doc,dot,wiz,rtf
```

```
type=application/oda exts=oda
```

```
type=application/pdf exts=pdf
```

```
type=application/postscript exts=ai,eps,ps
```

```
type=application/studiom exts=smp
```

```
type=application/timbuktu exts=tbtt
```

```
type=application/vnd.ms-excel exts=xls,xlw,xla,xlc,xlm,xlt
```

```
type=application/vnd.ms-powerpoint exts=ppt,pps,pot
```

```
type=application/vnd.ms-project exts=mpp
```

```
type=application/winhelp exts=hlp
```

```
type=application/x-javascript exts=js
```

```
type=application/x-javascript;charset=UTF-8 exts=jsu
```

```
type=application/x-aim exts=aim
```

```
type=application/x-asap exts=asp
```

```
type=application/x-csh exts=csh
```

```
type=application/x-dvi exts=dvi
```

```
type=application/x-earthtime exts=etc
```

```
type=application/x-envoy      exts=evy
type=application/x-gtar       exts=gtar
type=application/x-cpio       exts=cpio
type=application/x-hdf        exts=hdf
type=application/x-latex      exts=latex
type=application/x-javascript-config  exts=jsc
type=application/x-maker      exts=fm
type=application/x-mif        exts=mif,mi
type=application/x-mocha      exts=mocha,moc
type=application/x-msaccess   exts=mdb
type=application/x-mscardfile exts=crd
type=application/x-msclip     exts=clp
type=application/x-msmediaview exts=m13,m14
type=application/x-msmetafile exts=wmf
type=application/x-msmoney    exts=mny
type=application/x-mspublisher exts=pub
type=application/x-msschedule exts=scd
type=application/x-msterminal exts=trm
type=application/x-mswrite    exts=wri
type=application/x-NET-Install exts=ins
type=application/x-netcdf     exts=nc,cdf
type=application/x-ns-proxy-autoconfig exts=proxy
type=text/css                 exts=css
type=application/x-salsa      exts=slc
type=application/x-sh         exts=sh
type=application/x-shar       exts=shar
type=application/x-sprite     exts=spr,sprite
type=application/x-tar        exts=tar
type=application/x-tcl        exts=tcl
type=application/x-perl       exts=pl
type=application/x-tex        exts=tex
type=application/x-texinfo    exts=texinfo,texi
type=application/x-timbuktu   exts=tbp
type=application/x-tkined     exts=tki,tkined
type=application/x-troff-man  exts=man
type=application/x-troff-me   exts=me
type=application/x-troff-ms   exts=ms
type=application/x-troff      exts=t,tr,roff
type=application/x-wais-source exts=src
type=application/zip          exts=zip
```



```

type=application/pre-encrypted exts=enc
type=application/x-pkcs7-crl exts=crl
type=application/x-fortezza-ckl exts=ckl

type=audio/basic          exts=au,snd
type=audio/echospeech     exts=es,esl
type=audio/midi           exts=midi,mid
type=audio/x-aiff         exts=aif,aiff,aifc
#type=audio/x-midi        exts=midi,mid
type=audio/x-wav          exts=wav
type=audio/x-pn-realaudio exts=ra,ram
type=audio/x-pac          exts=pac
type=audio/x-epac        exts=pae
type=audio/x-liveaudio    exts=lam

type=image/fif           exts=fif
type=image/x-icon        exts=ico
type=image/gif           exts=gif
type=image/ief           exts=ief
type=image/ifs           exts=ifs
type=image/jpeg          exts=jpeg,jpg,jpe,jfif,pjpeg,pjp

type=image/png           exts=png
type=image/tiff          exts=tiff,tif
type=image/vnd           exts=dwg,svf
type=image/wavelet       exts=wi
type=image/bmp           exts=bmp
type=image/x-photo-cd    exts=pcd
type=image/x-cmu-raster  exts=ras
type=image/x-portable-anymap exts=pnm
type=image/x-portable-bitmap exts=pbm
type=image/x-portable-graymap exts=pgm
type=image/x-portable-pixmap exts=ppm
type=image/x-rgb         exts=rgb
type=image/x-xbitmap     exts=xbm
type=image/x-pximap      exts=xpm
type=image/x-xwindowdump exts=xwd

type=text/html          exts=htm,html
type=text/plain         exts=txt

```

```
type=text/richtext          exts=rtx
type=text/tab-separated-values exts=tsv
type=text/x-setext          exts=etx
type=text/x-speech          exts=talk

type=video/isivideo         exts=fvi
type=video/mpeg
exts=mpeg,mpg,mpe,mpv,vbs,mpegv
type=video/x-mpeg2          exts=mpv2,mp2v
type=video/msvideo          exts=avi
type=video/quicktime        exts=qt,mov,moov
type=video/vivo              exts=viv,vivo
type=video/wavelet          exts=wav
#type=video/x-msvideo       exts=avi
type=video/x-sgi-movie      exts=movie

type=x-world/x-svr          exts=svr
type=x-world/x-vrml         exts=wrl
type=x-world/x-vrt          exts=vrt

type=x-conference/x-cooltalk exts=ice

enc=x-gzip                  exts=gz
enc=x-compress              exts=z
enc=x-uuencode              exts=uu,uue

type=magnus-internal/imagemap exts=map
type=magnus-internal/parsed-html exts=shtml
type=magnus-internal/cgi     exts=cgi,exe,bat
type=magnus-internal/jsp     exts=jsp

type=application/x-x509-ca-cert      exts=cacert
type=application/x-x509-server-cert  exts=scert
type=application/x-x509-user-cert    exts=ucert
type=application/x-x509-email-cert   exts=ecert
```

## IPlanet 6

Read this entire introductory section before going through the code. Important information about how to read the code is provided here.

This section outlines iPlanet 6 files configured correctly for a mixed environment in which CE is on a Windows operating system and iPlanet is on a Unix operating system.

iPlanet 6 uses three configuration files: Obj.conf, Mime.types and Magnus.conf.

The entire file is included here so that you can see the context of CE configuration information in relation to the rest of the file.

<b>CRITICAL</b>	<p>Do <b>not</b> copy and paste the code in this document into your system's files.</p> <p>This will not work because the code below is an example only and uses example server names and place holders instead of actual file locations.</p> <p>When adding the specific CE sections of code to your version of these files, you must replace <b>&lt;your install path&gt;</b> with the location of your actual files, <b>&lt;opt1/user1&gt;</b> with the location of your files and name of your user and the example server names with your system's server names.</p>
-----------------	---

In the examples below, the lines of code pertaining to CE are displayed as hyperlinks which link to footnotes at the end of this document. The footnotes explain the purpose of the code. Ensure that you read the footnotes associated with each piece of CE configuration code before adding the code to your system.

To view the contents of the configuration files, use either the vi utility or the CAT command.

#### **Magnus.conf**

This file sets values of variables that configure the server during initialization. The server looks at this file and executes the settings on startup. The server does not look at this file again until it is restarted. The CE directory must be added to this file.

This file shows how to connect to a Windows CE server from a Unix web server.

<b>WARNING</b>	<p>Due to Unix's sensitivity to invisible characters, such as spaces and carriage returns, do not copy and paste the code from this document into a Unix environment.</p> <p>Formatting may be altered during this processing, causing your system to fail even if the files are configured correctly.</p>
----------------	--

<b>NOTE</b>	<p>Double back slashes (\\) in the configuration file below are correct. Double slashes must be used due to a known issue in CE.</p>
-------------	--

An example of a correctly configured Magnus.conf file for iPlanet 6 on a Unix system is below.

```
#ServerRoot <opt1/user1>/iplanet/servers/https-
tssun03.ts.seagatesoftware.com

ServerID https-tssun03.ts.seagatesoftware.com
```

```

ServerName tssun03.ts.seagatesoftware.com

ErrorLog <opt1/user1>/iplanet/servers/https-
tssun03.ts.seagatesoftware.com/logs/errors

PidLog <opt1/user1>/iplanet/servers/https-
tssun03.ts.seagatesoftware.com/logs/pid

User joeb

MtaHost localhost

DNS off

Security off

ClientLanguage en

AdminLanguage en

DefaultLanguage en

RqThrottle 128

StackSize 131072

CGIWaitPid on

TempDir /tmp/https-tssun03.ts.seagatesoftware.com-51b2e33b

Init fn=flex-init access="$accesslog" format.access="%Ses-
>client.ip% - %Req->vars.auth-user% [%SYSDATE%] \"%Req-
>reqpb.clf-request%\" %Req->srvhdrs.clf-status% %Req-
>srvhdrs.content-length%"

Init fn=load-types mime-types=mime.types

Init fn="load-modules" funcs=req_handler,req_init
shlib="<opt1/user1>/crystal/crystal/enterprise/solaris_spar
c/wcs/lib/libnsapi.so"

Init fn="req_init" WCSHosts="Chapliniplanet4:8868"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;E:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cwr;E:\\Program
Files\\Crystal Decisions\\Web
Content,/crystal;.csp;E:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cri;E:\\Program
Files\\Crystal Decisions\\Web Content"

Init fn="load-modules"
shlib="<opt1/user1>/iplanet/servers/bin/https/lib/libNSServ
letPlugin.so"
funcs="NSServletEarlyInit,NSServletLateInit,NSServletNameTr
ans,NSServletService" shlib_flags="(global|now)"

Init fn="NSServletEarlyInit" EarlyInit=yes

Init fn="NSServletLateInit" LateInit=yes

```

### Obj.conf

This file contains instructions for how the server processes requests from clients such as web browsers. CE files and directories must be added to this file.

<b>WARNING</b>	<p>Due to Unix's sensitivity to invisible characters, such as spaces and carriage returns, do not copy and paste the code from this document into a Unix environment.</p> <p>Formatting may be altered during this processing, causing your system to fail</p>
----------------	--

	even if the files are configured correctly.
--	---

<b>NOTE</b>	Double back slashes (\\) in the configuration file below are correct. Double slashes must be used due to a known issue in CE.
-------------	---

An example of a correctly configured Obj.conf file for iPlanet 6 on a Unix server is below.

The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```
# Sun Netscape Alliance - obj.conf
# You can edit this file, but comments and formatting
# changes
# might be lost when the admin server makes changes.

<Object name="default">
NameTrans fn="NSServletNameTrans" name="servlet"
NameTrans fn="pfx2dir" from="/viewer"
dir="<opt1/user1>/crystal/enenterprise/viewers"
NameTrans fn="pfx2dir" from="/crystal"
dir="<opt1/user1>/crystal/webcontent"
NameTrans fn="pfx2dir" from="/servlet"
dir="<opt1/user1>/iplanet/servers/docs/servlet"
name="ServletByExt"
NameTrans fn="pfx2dir" from="/mc-icons"
dir="<opt1/user1>/iplanet/servers/ns-icons" name="es-
internal"
NameTrans fn="pfx2dir" from="/manual"
dir="<opt1/user1>/iplanet/servers/manual/https" name="es-
internal"
NameTrans fn="document-root" root="$docroot"
PathCheck fn="unix-uri-clean"
PathCheck fn="check-acl" acl="default"
PathCheck fn="find-pathinfo"
PathCheck fn="find-index" index-
names="index.html,home.html"
ObjectType fn="type-by-extension"
ObjectType fn="force-type" type="text/plain"
Service type="magnus-internal/jsp" fn="NSServletService"
Service method="(GET|HEAD)" type="magnus-internal/imagemap"
fn="imagemap"
```

```
Service method="(GET|HEAD)" type="magnus-internal/directory" fn="index-common"

Service method="(GET|HEAD)" type="*~magnus-internal/*"
fn="send-file"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/rpt"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/csp"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cri"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cwr"

AddLog fn="flex-log" name="access"

</Object>

<Object name="cgi">
ObjectType fn="force-type" type="magnus-internal/cgi"
Service fn="send-cgi" user="$user" group="$group"
chroot="$chroot" dir="$dir" nice="$nice"
</Object>

<Object name="servlet">
ObjectType fn="force-type" type="text/html"
Service fn="NSServletService"
</Object>

<Object name="jsp092">
ObjectType fn="type-by-extension"
ObjectType fn="change-type" type="magnus-internal/jsp092"
if-type="magnus-internal/jsp"
Service fn="NSServletService" type="magnus-internal/jsp092"
</Object>

<Object name="ServletByExt">
ObjectType fn="force-type" type="magnus-internal/servlet"
Service type="magnus-internal/servlet"
fn="NSServletService"
</Object>

<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object>

<Object ppath="<opt1/user1>/crystal/crystal/viewers/*.exe">
```

```

Objectype fn="force-type" type="application/octet-stream"
Service fn="send-file"
</Object>

```

### Mime.types

This file contains the extensions that the server recognizes. Because the default installation of iPlanet does not recognize CE extensions such as .rpt and .cwr, references to these extensions must be added to the file.

An example of a correctly configured Mime.types file for iPlanet 6 on a Unix server is below.

The entire file is included so that you can see the context of CE configuration information in relation to the rest of the file. The code pertaining to CE can be found on page 33 of this document, although the placement of this code in the overall file does not matter. This the only file in which the code placement does not matter.

Ensure that you read the footnotes associated with each piece of CE configuration code.

```

#--Netscape Communications Corporation MIME Information

```

```

# Do not delete the above line. It is used to identify the
file type.

```

```

type=application/octet-stream           exts=bin
type=application/astound                 exts=asd,asn
type=application/fastman                 exts=lcc
type=application/java-archive            exts=jar
type=application/java-serialized-object exts=ser
type=application/java-vm                 exts=class
type=application/mac-binhex40           exts=hqx
type=application/x-stuffit               exts=sit
type=application/mbedlet                 exts=mbd
type=application/msword                  exts=doc,wiz,rtf
type=application/oda                     exts=oda
type=application/pdf                     exts=pdf
type=application/postscript              exts=ai,eps,ps
type=application/studiom                 exts=smp
type=application/timbuktu                exts=tbk
type=application/vnd.ms-excel            exts=xls,xlw,xla,xlc,xlm,xlt
type=application/vnd.ms-powerpoint       exts=ppt,pps,pot
type=application/vnd.ms-project          exts=mpp
type=application/winhelp                  exts=hlp

```

type=application/x-javascript	exts=js
type=application/x-javascript; charset=UTF-8	exts=jsu
type=application/x-aim	exts=aim
type=application/x-asap	exts=asp
type=application/x-csh	exts=csh
type=application/x-dot	exts=dot
type=application/x-dvi	exts=dvi
type=application/x-earthtime	exts=etc
type=application/x-envoy	exts=evy
type=application/x-gtar	exts=gtar
type=application/x-cpio	exts=cpio
type=application/x-hdf	exts=hdf
type=application/x-latex	exts=latex
type=application/x-javascript-config	exts=jsc
type=application/x-maker	exts=fm
type=application/x-mif	exts=mif,mi
type=application/x-mocha	exts=mocha,moc
type=application/x-msaccess	exts=mdb
type=application/x-mscardfile	exts=crd
type=application/x-msclip	exts=clp
type=application/x-msmediaview	exts=m13,m14
type=application/x-msmetafile	exts=wmf
type=application/x-msmoney	exts=mny
type=application/x-mspublisher	exts=pub
type=application/x-msschedule	exts=scd
type=application/x-msterminal	exts=trm
type=application/x-mswrite	exts=wri
type=application/x-NET-Install	exts=ins
type=application/x-netcdf	exts=nc,cdf
type=application/x-ns-proxy-autoconfig	exts=proxy
type=text/css	exts=css
type=application/x-salsa	exts=slc
type=application/x-sh	exts=sh
type=application/x-shar	exts=shar
type=application/x-sprite	exts=spr,sprite
type=application/x-tar	exts=tar
type=application/x-tcl	exts=tcl
type=application/x-perl	exts=pl
type=application/x-tex	exts=tex
type=application/x-texinfo	exts=texinfo,txi



type=application/x-timbuktu	exts=tbp
type=application/x-tkined	exts=tki,tkined
type=application/x-troff-man	exts=man
type=application/x-troff-me	exts=me
type=application/x-troff-ms	exts=ms
type=application/x-troff	exts=t,tr,roff
type=application/x-wais-source	exts=src
type=application/zip	exts=zip
type=application/pre-encrypted	exts=enc
type=application/x-pkcs7-crl	exts=crl
type=application/x-forтеzza-ckl	exts=ckl
type=audio/basic	exts=au,snd
type=audio/echospeech	exts=es,esl
type=audio/midi	exts=midi,mid
type=audio/x-aiff	exts=aif,aiff,aifc
#type=audio/x-midi	exts=midi,mid
type=audio/x-wav	exts=wav
type=audio/x-pn-realaudio	exts=ra,ram
type=audio/x-pac	exts=pac
type=audio/x-epac	exts=pae
type=audio/x-liveaudio	exts=lam
type=drawing/x-dwf	exts=dwf
type=image/fif	exts=fif
type=image/x-icon	exts=ico
type=image/gif	exts=gif
type=image/ief	exts=ief
type=image/ifs	exts=ifs
type=image/jpeg	exts=jpeg,jpg,jpe,jfif,pjpeg,pjp
type=image/png	exts=png
type=image/tiff	exts=tiff,tif
type=image/vnd	exts=dwg,svf
type=image/wavelet	exts=wi
type=image/bmp	exts=bmp
type=image/x-photo-cd	exts=pcd
type=image/x-cmu-raster	exts=ras
type=image/x-portable-anymap	exts=pm

```
type=image/x-portable-bitmap    exts=pbm
type=image/x-portable-graymap   exts=pgm
type=image/x-portable-pixmap    exts=ppm
type=image/x-rgb                 exts=rgb
type=image/x-xbitmap            exts=xbm
type=image/x-xpixmap            exts=xpm
type=image/x-xwindowdump       exts=xwd

type=text/html                  exts=htm,html
type=text/plain                 exts=txt
type=text/richtext              exts=rtx
type=text/tab-separated-values  exts=tsv
type=text/x-setext              exts=etx
type=text/x-speech              exts=talk
type=text/xul                   exts=xul

type=video/isivideo             exts=fvi
type=video/mpeg                 exts=mpeg,mpg,mpe,mpv,vbs,mpegv
type=video/x-mpeg2              exts=mpv2,mp2v
type=video/msvideo              exts=avi
type=video/quicktime            exts=qt,mov,moov
type=video/vivo                 exts=viv,vivo
type=video/wavelet              exts=wav
#type=video/x-msvideo           exts=avi
type=video/x-sgi-movie          exts=movie

type=x-world/x-svr              exts=svr
type=x-world/x-vrml             exts=wrl
type=x-world/x-vrt              exts=vrt

type=x-conference/x-cooltalk    exts=ice

enc=x-gzip                      exts=gz
enc=x-compress                  exts=z
enc=x-uencode                   exts=uu,uue

type=magnus-internal/imagemap   exts=map
type=magnus-internal/parsed-html exts=shtml
type=magnus-internal/cgi         exts=cgi,exe,bat
type=magnus-internal/jsp        exts=jsp
```

type=magnus-internal/csp    exts=csp

type=magnus-internal/cwr    exts=cwr

type=magnus-internal/cri    exts=cri

type=magnus-internal/rpt    exts=rpt

type=application/x-x509-ca-cert    exts=cacert

type=application/x-x509-server-cert    exts=scert

type=application/x-x509-user-cert    exts=ucert

type=application/x-x509-email-cert    exts=ecert

## Appendix

### Windows

Any reference to **<your install path>** in the code samples below is indicative of the default location of the web connector. The location of the web connector may be different in your environment. Ensure that you include the correct location when adding this code to the iPlanet files.

#### Footnote 1

```
Init fn="load-modules" funcs="req_handler" shlib="<your install path>/WCS/wcsnsapi.dll"
```

This code tells the iPlanet web server what the location of the web connector is. The iPlanet web server must be able to load this file into memory.

#### Footnote 2

```
Init fn="req_init" WCSHosts="name of wcs:port"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;<your install path>\Web Content,/crystal;.cwr;<your install path>\Web Content,/crystal;.csp;<your install path>\Web Content,/crystal;.cri;<your install path>\Web Content"
```

This code is responsible for all redirection of information when the web server and web connector are on a different computer from the rest of your CE installation.

This code is not necessary if your CE installation is on the same server as your Iplanet 4 web server.

#### Footnote 3

```
NameTrans fn="pfx2dir" from="/viewer" dir="<your install path>/viewers"
NameTrans fn="pfx2dir" from="/Crystal" dir="<your install path>/Web Content"
```

This section tells the Iplanet web server what physical directory to replace the “/viewer” and “/Crystal” virtual directories with.

#### Footnote 4

```
Service fn="req_handler" method="(GET|POST)" type="magnus-internal/csp"
Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cwr"
Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cri"
Service fn="req_handler" method="(GET|POST)" type="magnus-internal/rpt"
```

This code is responsible for creating the CE application mappings using the Netscape Server Application Programming Interface (NSAPI) method. NSAPI

was designed to provide a more robust and faster replacement for the Common Gateway Interface (CGI) method.

### Footnote 5

```
<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object><Object ppath="<your install path>/viewers/*.exe">
```

This code is responsible for telling the Iplanet web server where to get the Crystal Enterprise viewers from.

## Unix

Any reference to `<opt1/user1>` below refers to the location of the web connector in the test environment used when creating this document. When configuring your iPlanet server, ensure that you replace this location with the actual location of the web connector in your environment.

### Footnote 1

```
Init fn="load-modules" funcs=req_handler,req_init
shlib="/<opt1/user1>/crystal/enterprise/solaris_sparc/wcs/lib/libnsapi.so"
```

This code tells the iPlanet web server what the location of the web connector is. The iPlanet web server must be able to load this file into memory. In this example, the web connector is on a Unix operating system.

### Footnote 2

```
Init fn="req_init" WCSHosts="name of wcs:port"
ClientPool="5" ConnectorTimeout="600000"
WCSPathMap="/crystal;.rpt;C:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cwr;C:\\Program
Files\\Crystal Decisions\\Web
Content,/crystal;.csp;C:\\Program Files\\Crystal
Decisions\\Web Content,/crystal;.cri;C:\\Program
Files\\Crystal Decisions\\Web Content"
```

This code is responsible for all redirection of information when the web server and web connector are on a different computer from the rest of your CE installation.

In this example, CE is on a Windows computer. If your environment is Unix only, be sure to change all references of "C:\\Program Files" to the correct Unix install path. Also note that the double back slashes (\\) are correct due to a known issue in CE.

This code is not necessary if your CE installation is on the same server as your iPlanet web server.

### Footnote 3

```
NameTrans fn="pfx2dir" from="/viewer"
dir="<opt1/user1>/crystal/enenterprise/viewers"

NameTrans fn="pfx2dir" from="/crystal"
dir="<opt1/user1>/crystal/webcontent"
```

This code is responsible for creating the virtual directories that CE needs to use.

**Footnote 4**

```
Service fn="req_handler" method="(GET|POST)" type="magnus-internal/csp"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cwr"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/cri"

Service fn="req_handler" method="(GET|POST)" type="magnus-internal/rpt"
```

This code is responsible for creating the CE application mappings using the Netscape Server Application Programming Interface (NSAPI) method. NSAPI was designed to provide a more robust and faster replacement for the Common Gateway Interface (CGI) method.

**Footnote 5**

```
<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object><Object ppath="<your install path>/viewers/*.exe">
```

This code is responsible for telling the Iplanet web server where to get the Crystal Enterprise viewers from.

**Footnote 6**

```
<Object ppath="<opt1/user1>/crystal/crystal/viewers/*.exe">
ObjectType fn="force-type" type="application/octet-stream"
Service fn="send-file"
</Object>
```

This code is responsible for specifying the location from which to download the viewers from.

**Footnote 7**

```
type=magnus-internal/csp exts=csp
type=magnus-internal/cwr exts=cwr
type=magnus-internal/cri exts=cri
type=magnus-internal/rpt exts=rpt
```

This code is responsible for creating the CE application mappings.

## Contacting Crystal Decisions for Technical Support

We recommend that you refer to the product documentation and that you visit our Technical Support web site for more resources.

**Self-serve Support:**

<http://support.crystaldecisions.com/>

**Email Support:**

<http://support.crystaldecisions.com/support/answers.asp>

**Telephone Support:**

<http://www.crystaldecisions.com/contact/support.asp>