

Guide to External Authentication - OpenID Connect

Guide to External Authentication

The OpenID Connect Provider Module

Introduction

External authentication allows your server's users to log in to WHM, cPanel, and Webmail through OpenID Connect-compliant identity providers. The OpenID Connect Provider Module configures a server to connect to and authenticate through the identity provider. Create the identity provider module in the `/var/cpanel/perl/Cpanel/Security/Authn/Provider/` directory and use the `Cpanel::Security::Authn::Provider::OpenIdConnectBase` base class.

Note:

Additional examples that demonstrate other methods are available in the `/usr/local/cpanel/Cpanel/Security/Authn/Provider/` directory with the `.sample` file extension.

Warning:

After you install the identity provider module, you **must** obtain credentials from that identity provider and then use WHM's [Manage External Authentications](#) interface (*WHM >> Home >> Security Center >> Manage External Authentications*) to configure the identity provider module with those credentials.

OpenID Connect's authentication chain

When you use an identity provider, the system performs the following steps:

1. The cPanel service login interface displays a list of configured and enabled identity providers.
2. The user clicks the desired identity provider.
3. The browser redirects the user to the login interface for the identity provider.
4. The user enters their credentials for the identity provider.
5. The browser returns the user to the cPanel service login interface.
6. If the user has not yet associated their authentication credentials with the account in cPanel's *Password & Security* interface (*cPanel >> Home >> Preferences >> Password & Security*), the server asks for their local server credentials.

Note:

In cPanel & WHM version 54 and earlier, cPanel's *Password & Security* interface was the *Change Password* interface.

7. If the user has associated their authentication credentials with the account, the server will automatically log them in to the cPanel service.

OpenID Connect's provider methods

The tables below contain the required, recommended, and optional methods.

Required

Warning:

You **must** configure the following methods in the `Cpanel::Security::Authn::Provider::OpenIdConnectBase` base class. If you do not configure a required method, it will die with a `Cpanel::Exception::Not`

External Authentication

Related Documentation

- [Manage External Authentication](#) — The *Manage External Authentications* interface allows you to manage your server's OpenID Connect-compliant identity providers.

Implemented exception.

Method name	Type	Description	Possible Values	Example
<code>_DISPLAY_NAME</code>	<i>string</i>	The identity provider's friendly name. cPanel & WHM interfaces display this value.	A valid string.	Izzy
<code>_PROVIDER_NAME</code>	<i>string</i>	The identity provider's system name . <div style="border: 1px solid black; background-color: #fff9c4; padding: 5px; margin-top: 10px;">Notes:</div>	A valid string in lower case.	izzy

- Guide to External Authentication - OpenID Connect — External authentication allows your server's users to log in to WHM, cPanel, and Web mail through OpenID Connect-compliant identity providers.

• This method must be unique among the installed OpenID Connect identity providers.

• This method

- [Guide to External Authentication](#)

— External Authentication modules allow users to log in through OpenID Connect-compliant identity providers.

- [WHM API 1 Functions](#)

— `set_provider_client_configurations`

— This function sets the values of configuration fields for an external authentication identity provider.

should consist of lower-cas
e letters, numbers, dashes,
periods, and underscores
in 7-bit ASCII

- WHM API 1 Functions - get_provider_client_configurations — This function retrieves the configuration details for the client of an external authentication identity provider.

C
I
I
·
W
e
r
e
r
e
c
o
m
m
e
n
d
t
h
a
t
y
o
u
e
n
t
e
r
t
h
e
i
d
e
n
t
i
t
y
p
r
o
v
i
d
e
r
n
a
m
e
i
n
l
o
w
e
r
c
a
s
e
i
n
o
r
d
e
r
t
o
a
v
o
i
d
c
a
s
e
c

		S		
<code>_WELL_KNOWN_CONFIG_URI</code>	<i>string</i>	<p>The well-known configuration URI of the OpenID Connect implementation. The system uses the configuration to discover the endpoints to use in the OpenID Connect exchange.</p>	A valid URI.	<code>https://accounts.izzy.com/.well-known/openid-configuration</code>
		<p>Notes:</p>		

- The system retrieves the configuration on demand and caches it for 24 hours.
- Upon receipt of a fr

es h c o n f i g u r a t i o n f i l e ; t h e s y s t e m w i l l u p d a t e t h e c h a n g e s i n t h e r e m o t e e n d p o i n t s f o r O p e n I D C

o
n
e
c
t
a
u
t
h
o
r
i
z
a
t
i
o

• Formore information about well-known configurations on URIs, read RFC 5785.

Suggested

We **strongly** recommend that you update the following methods in order to properly label your OpenID Connect implementation.

Method name	Description	Example
-------------	-------------	---------

<code>_BUTTON_COLOR</code>	<i>string</i>	The background color of the button on the cPanel interface. This value defaults to <code>cccccc</code> .	A valid RGB hexadecimal value.	<code>dd4b39</code>
<code>_BUTTON_ICON</code>	<i>string</i>	The icon file to display in the button on the cPanel login interface. This value defaults to empty string.	A valid Base64-encoded image file.	(see example in above code)
<code>_BUTTON_ICON_TYPE</code>	<i>string</i>	The icon file's MIME type.	A valid image format's MIME type.	<code>image/svg+xml</code>
<code>_BUTTON_LABEL</code>	<i>string</i>	The text label of the login icon on the cPanel login interface. This value defaults to Log in with an OpenID Connect.	A valid string.	Log in with Izzy account
<code>_BUTTON_TEXT_COLOR</code>	<i>string</i>	The color of the text label on the cPanel login interface. This value defaults to <code>000000</code> .	A valid RGB hexadecimal color value.	<code>ffffff</code>
<code>_DOCUMENTATION_URL</code>	<i>string</i>	The public URL of the OpenID implementation's documentation at the openid.net website.	A valid URL.	<code>https://developers.izzy.com/identity/protocols/openIDConnect</code>

Other

The following methods may not precisely conform to the specification of the OpenID Connect identity provider's protocol. Also, your identity provider may include newer or custom features that you wish to use.

Method Name	Type	Description	Possible Values	Example
<code>_CAN_VERIFY</code>	<i>Boolean</i>	Whether the OpenID Connect identity provider supports signature verification of the identity tokens that the authorization server sends. This value defaults to 1.	<ul style="list-style-type: none"> 1 — The authorization server supports signature verification. 0 — The authorization server does not support signature verification. 	1
<code>_CONFIG</code>	<i>hash</i>	A hash of the identity provider's configuration settings.	This hash contains the <code>id</code> , <code>secret</code> , <code>authorize_url</code> , <code>access_token_url</code> , <code>userinfo_url</code> , and <code>redirect_uris</code> parameters.	
<code>id</code>	<i>string</i>	The client ID that you received when you registered your application with the authorization server. For more information, read RFC-6749.	A valid string.	123456789012345678901
<code>secret</code>	<i>string</i>	The client secret that you received when you registered your application with the authorization server. For more information, read RFC-6749.	A valid string.	Victoria

authorize_url	<i>string</i>	The URI to the authorization endpoint of the authentication server. <div style="border: 1px solid black; padding: 5px;"><p>Notes:</p><ul style="list-style-type: none">• This value defaults to the URI that the system retrieves from the well-known configuration file.• For more information, read OpenID's Authorization Endpoint Introduction.</div>	A valid URI.	http://authorize.iszy.com/
---------------	---------------	--	--------------	---

<code>access_token_uri</code>	<i>string</i>	The URI to the token endpoint of the authorization server. <div data-bbox="727 176 875 1201" style="border: 1px solid black; padding: 5px;"><p>Notes:</p><ul style="list-style-type: none">• This value defaults to the URI that the system returns from the well-known configuration. For more information, read OpenID's Test Environment introduction.</div>	A valid URI.	https://accounts.izzy.com/tokens/
-------------------------------	---------------	---	--------------	---

user_info_uri	<i>string</i>	<p>The URI to the user_info endpoint of the authorization server.</p> <div data-bbox="727 191 873 1186" style="border: 1px solid black; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> This value defaults to the URI that the system retrieves from the well-known configuration. For information, read OpenID's User Information. </div>	A valid URI.	https://accounts.izzy.com/user_info/
---------------	---------------	--	--------------	--------------------------------------

redirect_uris	array of strings	<p>A list of valid redirection URIs that you sent when you registered your application to the authorization server.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> • This value defaults to the valid URIs that you registered when you created your application. • For more information, read RFC 6749. </div>	An array of valid URIs.	http://izzy.com/
__CONFIG_FIELDS	hash of hashes	A hash of the identity provider's configuration fields.	This hash contains the field_name parameter.	
field_name	hash	<p>A hash of a configuration field's parameters.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Note: The hash uses the configuration field's name as a parameter name.</p> </div>	(varies)	
label	string	The configuration entry's display name.	(varies)	
description	string	The configuration entry's description.	(varies)	
value	string	The configuration entry's default value, which will be used if the identity provider has not set a value.	(varies)	
__DISPLAY_CONFIG	hash	A hash of the identity provider's display configuration values.	This hash contains label, color, textcolor, icon, icon_type, display_name, provider_name, and documentation parameters.	
label	string	<p>The text label of the login button on the cPanel login interface.</p> <p>This value defaults to <code>__BUTTON_LABEL</code>.</p>	A valid string.	Log in to Izzy.
color	string	<p>The background color of the button on the cPanel interface.</p> <p>This value defaults to <code>__BUTTON_COLOR</code>.</p>	A valid RGB hexadecimal color value.	cccccc
textcolor	string	<p>The text color of the button on the cPanel interface.</p> <p>This value defaults to <code>__BUTTON_TEXT_COLOR</code>.</p>	A valid RGB hexadecimal color value.	000000
icon	string	<p>The icon file to display in the button on the cPanel login interface.</p> <p>This value defaults to <code>__BUTTON_ICON</code>. If <code>__BUTTON_ICON</code> returns 0, empty string, or undefined, then the hash will not include this value.</p>	A valid Base64-encoded image file.	<p>Click to view...</p> <pre> 1VB0Fw0SGgoAAANs UHEUgAAACAAAAGCA YAAABzenr0AAAKq2l DQ1B7Q0MgUH7vZmls ZQAAS1mV 1gdQ0+k0x7970xatA QBPofIeQUtoofcmKl GhbBj1ICDYEXRFVHQ RacqCrjQFV6XIK11W RFkUG/YF WRTUdBFgQ+Vd4BHee /N23rwc37/c+Z8/3 vU1+dwQNAVsr181M gQBSsEmc1A9nekRK FB3308AC </pre>

JUAC2kCFxU7nmwICf
Mdfxoe7Aajp73jKY0/
r7vv8akpy4dYAUAD
Cezx0d1rCp5DsZVMF
GqCgkARq

WRn80S5HmCZABkT46
BwnLHDPHMcU8035np
AgF4QnAMTWSxBagC
k90idna1OQHTINISN
eRwuD2FX

hb3Y1sWOwnk166emp
e3kucS11/9F3+HENG
NFMlxWgogXvmd+8K7
cdH4KK/v/317/Hakp
waV3qCJJ

ThR4B1FFGWTPGpLTV
EXM1/XzX2Qu275/nh
OFngLzE331VpkhVv
Ye6GPyAGMRVYtLzY
M5gh1yXI

CxLpx6W7BYv045g+o
h1S/EQcz3VnLnJOYk
j4Imdyw/wWOT052Hu
pxDUVUFw1DRDPHC9XF
351avJqb

m7U0Q0ziiofSbBGIG
Thxrm61019U1M/PeB
Zp81MCRP1xKR6ienp
maGhtBnLAFjmaJ5RWw
p8MgZh/A

AMeGfEK6CAOewBSYI
41M1K3bu5MA5cOfc
Am5CYQMcgtYaOzuS
xdEXppsYmFgDM3cGF
v/jd9fm7

BcnGLTWyKfUrv1Nnk
bBDi13gWdGk7s9agm
lun8aBnBLiayofy
oed+MIALxANycF3
XA254wbI

ZJbADjgBN+AF/EET1
ASrARakg1QqAF1ga9
gK8kEh2A32gUpQAw6
BbnAMnAd4Aw4Dy6D
e+AGuXMe

ghEwD16CKfAbzEAQh
1MoEBW5g5QhDUgPMo
MaIQfIDfK8gqB1KAZ
KghIQENoAbYMKoRKO
EgqFGqfI

oNFOeaagfGouLQ6PQJ
FGH+qKJTDjMgYVtDd
gItOYZzDccAg+CE+C
1cA6cB++Cy+E6+Cjc
Dp+Hr8F3

4BH4JTYNA1gSSga1g
jTAWaNCUP6oKPF08So
DakCpAlahQUC0oL1Q
f6hzgBPUK9mNRVPR
dLQ82g7t

1Q5F89Fr0ZVQRehkd
AO6HXORfQa91p5CF8
dQMAoYPYwthom3wCR
geJDSmDLMEUwbSLm
DwTc8wL

xcpgtLbWWE9eJDYJu
x5bbD2AbcX2Y1ewy9
hpHA4nh9PD2EP8cSx
cB14fV4E71juHu4kb
x33CK/DK

eFO8Oz4Kz8Pn4evwT
fhu/E38c/wMqTKyGh
Al+BM4GxCMeEwoYt
wnTBomCFKExWI9eQQ
YhJxK7Gc

2EK8RhxKfEciKVRJN
qRAEpe0hVROOK66Qh
o1fSLkXKXLUroapC
8ilxP71HfJ7+JUCia
FCDKFCWD

sovSLLAeULSJEYVM
xRjImHENotV1bWL3R
R7LQ4Q1xBniK8WzxE
vEz8pf1381QRBQ1PC
RV1sTmi

SuK0xLDeTcRVOkTSX
eTvKiySbJfckIKJ6
Up5SbfKcQ70IR1QWq
MiqKqUV2ob0o26mHq
Jeo4DUVT

oJFpSbRC2jhaRG1XW
KrxXpWep101fK5K
EZ1IymDPMeRAZY5oT
MXZkvyXSMZBFLAu5
+GXZzWuf

ZZfLOangyBttsrek
f01R5dzk0uWzYFXIF
dHh1zVx8ampV/UP6
S/Kv1tOV2y9nLcSaf
WFSAAVbQ

VQhSWK9wSGFAYpRS
dPDka9YoXhB8ZWSJ7
KTUpJ8qVK30QqYd1
Bmatcqx0+QVdms69
p9DL6RFp

IyoKfP4gQpValUGVg
VUt1VDVXVW1cdqRD
VrtX11UrVetS11ZXV
f9Q3qzeoFNagalbq7
Gvsl+3Q+

ampphmvu00zQnNCS1
WJg5Wg1az3Spmg7aq
/VrtO+YFVedZ01jm
geD0K1rXQ7dSt0r2u
B+tZ6nHl

DugN6Wp0bFR5+nXf6w
wzKA4ZBpkGzwa1hJK
GPYa5hh+Fr:3WjKMM
9Rn1G340t jFOMDxa/
NjBy8TLJ

NekyeWuga8ozrTF9b
UfxczfbNz9+9eZezz
z0/KD5PQuqha/FD0c
ei2+WpYCyxbLSSt1
qxiraqth

a5p1gIMR9RUBjI2zz
WaMzaafBS1LM2xP2P
51ZCXhdhN7FcaDX
ciaMxuxV7Vn2tcfj
DnSHG1ef

HEYcVrkZjnwOT53Un
DhOR5yeM3QSYyjjN
FOxs4C5zbnjy62Lht
deLxrh6uBa6DbL0u
oW6Vbk/c

Vd0T3JwdpawsPNZ79
HhiPL0993qcmxwZkg
Yjc8rLymu j10Vvane
wd6X1Ux9dH4FPly/a
6+W71/eR

n4Yfz6/DH/gz/f56P
w7QClgb8SagN3Aqsc
rWZBj0IagvmBq8Jr
gpaAP1c4hxSEPQ7VD
haG9YeTh

0WGNVR/DXcNLwkc1j
CT2R1y1l1/kRnZ04a
LC0o5Etn90Wf1v5Xl
ORXR+9N1VWqWrepf
Lb86ZfXZ

NeJrWGT0xmb1wmoaY
r6y/f11r0LYzmx17B
Tbhb2f/ZLjxcn17Md
Zx5XEPY+3jy+Jn01w
r918Wtno

mFiW+Irrwq3kvknyT
KpJ+pJanlyfJesSnt
Kaik+NST3Nk+118y6
mKaWtSxv16/Hz+SNr
bdfuWzai

8BYcSVfSV6V3zLAqe
m9182u45m0m9WZX
7KCa6uU5yHw/dQLZ
u9e7e5znuOT+VR69n
r+/dolJh

64bRjYyNtZugTbGbe
Jercb7bPL7FY0vDvu
LMSKJ/Srenlus+3ka
+rStPMW9L3th2j+3N
+ML5gvzh

HXY7am5A/8D9YXcn2
c6Knd8LOAVXC40Lyw
q/FRGLrv5o8mP5j70
74ncMPLaW9yN3c3b
FxeP456g

EemSbnKxvbs720vpp
QW17/et2ddfz15We5
+4X7h/pNynvLNCVWJ
3xdfkxMo7Ve5VrdUK
1TurPk7g

HLh5001g8411TWBN1
5+4P92r9ahtr90aKa
uEPZ856NnhaMN9P1v
/3HhE/kjhkV/1vPqR
hgOG141W

JYINCK3FzXCsaHnya
PFRG8dcj3W2GLTUtS
q0F4h4XHX/WS89v
dE94nek9an2w5pXGq
uo3aVtAO

tWe3T3Ukdox0RnYon
fY63dt119X2q+Gv9M
dUz1Sd1T5b3E3szuu
eF2dzbrgh3/PqfML5
sd41vq8v

Rfy4fTtw4ua170LXL
rtfvtdW6Dt3xf7kmX
7b/tNXra92XLO81j5
gm3D2m8VvbYOWG+3X
ra533rc5

0TW0Yqj7puPNS7dcb
12+zbw9Y7fna070x
fvDUCP9zj3tu4n3L
/zYPMBzMPtzzCPQ4
LFG47Inc

k7rfdX5VhbEOTVq0
jrcwFjpwzH22Ms/0v
/40p73jPKS7Lny48F
/04kx+67N16sfdH+
kv9y51X+

n5J/Vz/Wfn3qL6e/B
qY1pabfCN7Mv1167/
eu/r35+97pgOknH1I
/zhwa+CT3qez9ee+
L+PfnasK

FcV9Lf+m863ru/f3R
7Ope7N81oA1bwOQZw
Dg+Hga3tYDQ1kEgHo
DAKLYgkeed2jB18BT
+Dte8Nnz

YQnA4RA45qwa0wmaC
oS1EKZuAWDO0iHWCD
YeE+U/lz3eHRB1yy
PWJ0e2dm3ewDgYgD4
Njg70LW+

O/utDBKw8dfn/Ba8+
byP4QK9/g7AOJX9jX
VbWf/EPwCGQVDR7
I2wAAALwSF1zAAL
EwAACxMB

A7gcGAAAARpVfW0W
Z1M0wNvS5hZ91ZS
54bXAAAAAADX4Gnh
tCG11dGEGeG1sbm6
eD01YWRV

YmU6bnM6bWVOYS8I
Hge6G1wdG9111mUC
Bb3311DUAN34WtJ4
KICAgPHJkZjpsRfYg
eG1sbm6

cmRmP5JodHRwO18vd
3d3LnczLn9yZy8xOT
k5LsAylzIylXfKz11
zew50YXgtbnMj1j4K
ICAgTCAg

PHJkZjpsRfYgZjpsRfYg
G1vb1ByZy6YwJvdX
Q9111KICAgICAgICAg
gICAgEg1sbm6Zkxp
Zj01aHR0

cDovL25zLmFKb271L
mNvS91eS1mLzEUMC
8ICICAgICAgICAgICAg
gIHhtbS5zOnRpZmY9
Imh0dHA6

Ly9ucy5hZG91ZS5jb
20v8G1mZi8xLjAvJ
4KICAgICAgICAgICAg
4mY6UGl4ZkxZRGlt
ZW5zaW9u

PjM5MzZkZjpsRfYg
Xh1bF1Ea11bnNpb2
4+CICAgICAgICAgICAg
1eG1m01BpeGvWwERp
bWVuc21v

bj41NTU8L2V4aWY6U
G14ZkxYRGltZW5zaW
9uPgogICAgICAgICAg
8dG1mZjpsRfYgcm11bnRh
dG1vb34x

PC90aWZmZm91ZS5jb
GF0a9u9ogICAgICAg
A8L3kZkZjpsRfYgcm11bnRh
dG1vb34xICAgICAgICAg
Zy6UkRG

Pgo8L366eG1wbWV0Y
74KxTfVqQAACgP7RE
FUMaANv11v9cZPFW
cL8N9EIm11cag+9eE
aZAU6WU

CVD0pb+1r31x3/otL8
hKgaOOiQVugRV1OSZ
G2d1GntqPElmz21iW
LE1m7KkxKfchh5Ye
71LWQ2c9

HXI4w5k793zL+c53R
3mc24T/Y+M4NURTNH
UcJYYDml1brgMaLp
LnTtWoPhzv7YJrPH1
1V/1o1yZ

AA/6XTx//CmKu3nYg
y86/QE87rzb-HC5d
ehi23jnlDN9AvrGnS
ZeDK5AE32ycgJehHn
JSq1Atwe

E51mKceVfEq6NTTqP
RQL27jly/ewuvIZwT
WwRuh0rL41VcKcSB
UD4q76hbbaazEm11b
o9F1Gbeb

38ctX/wUrUZfjZe5d
Rr+oB8ejwfBk11IPI
PgfA4f/eG3KB3uqdd
15c1rgCFXpnu4Doz
17m829a

Pglpt5oYjmy4XC643
W410WBq4Y8fvdW4
OF8+cx1V5QwAd7GzS
oBZfhQmwBq/P5FMM
njl+gFgy

icRU+geJjg5NwCdhu
M643F40juoWmp1uv
ofhtLAOBjBPThA/OI
12rVDHOS341/GGe4a
n+0TzIDH

68dxowCFPwg2OMSFq
xe4X2L6ew38+oMPEK
ME/WBQFBSRP1m6F
T/ZH//Bq2may5NLgN
LzyayUa

q9Vbu9PFxt0Kuod59
G0X6kU3V01DWhkAL
MLZ7D29K1Kkdc0NbB
6+De//o3153v4zpuX
UC5uwz1/

hXk7TfVeYr4qEIXdtr
oXK2gJMOqDg1ezkM
u9RK9tMRKz+Nb3vat
7OnIVPafC6TOYnk1h
evYURp0q

U+bmua5e5kr45EU20
zE/Oo/v4b3f4ZA0I
ZaJou26TTS6TR1OR1
CwSCJ84DF9MEYDGM
dLrv1SVB

rCwMC9h8t0qdw0z
6cxf3oej5ZK0Kx38e
73r2N16QRuXbuKuVY
5HB830LcaVktVn9+7
j93NEqw3

stg/a1Ebd0XM/sRun
j9/hkq1gS7H+o0nka
kEMp1qGH/501+Pvc4
gNZ1CN5HIBJA6VOX
OCqkT01

l7m5Gdy9ex+fsi28/
do5FHLb8iFCrJWen5
vFTn4H4SVVQpTnI4
AsTJq1QpW6728SQ4k
OGf2VAap

qZTihGc2/aQz3dRr
zfg8jj6jZer63jy6C
m2clao1coomYJ7mSn
YFJ1LINBH92h0W9W
N/1IDDe4

e+40UjM59QmcoMf
D4fR1RAmkrSU3uHh
gs0Xar14P9A2yu57C
2to7c7QKqtSgEd5KG
bdYDw888

mAG/IanAtrWpccFOO
+98jKXZMOW8/cE
L+ARJPT5KATFuzJp
jlp+blRBFeiADwVM
HYJc2Yq4

du011jfyG1PrUGmBy
zDp9XWVX7PWxadb
Rds5Xi0Ja/poCK
zbQgZm44nkhj/7CC
kdvFHM84

NZaox+dHLGLira9eQ
Iq5K1fr6Pb6Njg5TK
dU5TsbTbh1MpxE8f
lu1N1XkLqDQzgzBvvt
/WQgcCEU

DmAgE1l0G0mMgUUp
5HDmBbk1otHpRx9z
99x0NhjJgVp600e04
s5kHw+OCTo8GtgVn
2ACVS+V6

UKqhzxK9/MzrgLR76
FVie2YJZz1J7BM
dQg+3YNDwOmuBARK
rxBULpSSFFM1Gh9qe
w1GFHTeR

h5M0qa9ghk60/rjWQ
P1oh2NH1JLV8g0Ny
61y0mSvd39ccl1gw
Sdlz/DC+Hx11U5bjv
r1Q8f0o+

QwLA+9KZVJvUUE9h
kZeIEKGuAthmhGYSa
aVuH98LLRCCKGQDQ
afAaU23Sk37dQK0z1
95efo1nr

cUxSt6k8kg2p08LJg
7vIv0aBUK101Cgy5
f4TAfoTRce0+cM+n0
06bmb0SsvPLqKIG1
EbxqdsQS

RQST5+ANVIEV3c86b
gE+1PQqR66mVSmh1
hFXqaEaeFYCKk6kWT
Jx6YS5EBUDKdbf/C
I+e0h1JW

WATukshyTdyjVq/u
b6FK1cvYo51PTa7gw
7fp16t1BH3wGfT3ge
SFIaqlj7+P+KZOWbu
gS8SIFVZ

n1wjC92Xmx17fEjo
Rvi3giYgtgN1VA45
XMybaUBI3SGapyqY4
LFxYRCQVU1N0eFL/X
g0n1ERJG

kmGe3lANG26kz7MUF
zd+ /+ePkGbfFttus
Cokqza/jB8HopdmDo
QheY0koQTcn7nKW0g
TuQoBaJd

TqewJHeBkpyj0H3y8
R0Ut.NLZrP0kP8M4g
GqrR5uvv9zHCCr+9
7nU+EXTMARxkg+JBz
0qhzx-JEK

OtagFLkheaEIMAGVh
wRep0OWSot7A0Me4
rC003qesSukySf8E1
Mho0miiFL73mb7dZ
uhVa7Jsw

VThk81pAkVxw6diJh
MMpQVDgo+XamMqGt
jBmtSv8pM3CKowxt
Vtzo6VR5CpheF7T21
4abfxbXj

G15PeVwco+xxziot
GhMCRn50eS2d2Dee4
jM3Cmm5A4Fz1LSSyw
lpxIEpkKcPh+FnGqT
C/JRFVAg

				<pre> obcZuJzGGRRJFkoHY MgJyzwWJapJqXKM7F wUlpGSF8BUHXB5m7 3W9jObamKCFZ+amIS LzCoSafi oEJS/7kgcUSIFa8IO hISqGGKpV167gIcH km205+D4uLc2rxabu 7rxgRtUrU7qbzQaO KNE7+8Le +uabFKBeTK4MRzZXE eLMIQCC7krrJBOCK 9NLz8CLhvlkmsREYZ ouizPcOuzNK12F/IG 00L60SGz q/Um7t5/iFxdy222 KNGGVeunOGL2Qa12I Uq+gRc/JZKkBW/yx tkMbyQCbnKk/zyaw ihBpD7ou 5o/xWUKiYroy5Jjip DkuZGen8WB5HCOOYw PE21//B15FonC3iu zcbmHfLuyJcOg4E6m U/Dy88w S2IcJ51Na0ARoJegm chVGI1kablKNOqCpE VCL1706XNk8cmfFt x5ezZVvykXkQpPpFI Ik/wjU1W 11xzDhkt6QnKzS8uJ CQwSHISzjIPF0VZn lroXC1SSRjOhhK2e hb01D17Es8koiIxG2 yyRx9djp zGeTFBifCm+AxIVBI wjgD/uVEcnckx8xRD 66m8wkdTcyQ0BHL 54+tkmu+Gins+Px+ V140eXtQ Yo/g5Lwr7BYDfa7UA R9Ljrxh5ERocly6wa 6pdaE/HOHOKqKqgB U5Hmin14vJlL1146 ir0CrIqo jDoZqR4y/Li/tIIBx 8diIZYelwbMURClR kHieqVyxKcuXofD5t oNntclh1xH0Lg4k1I 1LQqF30v u5pcF3weV6w0X02os BX4etCLCm249wUJ0 zFBVxES/zyz4BjMc dLDcSRafxD6IAS9xm ZuIq9/LO MM7+JPCCLhFmoVo8 no9YmLzJ8T6jQB51 id:94WjevZLLRCFz nd3/H96hYrjX64bJ piIeyLRL D5/j5q9ued0wTTKpu 6mLTkqEtBNHXRj15f //Ah9jPXoB29cAAA AAElFTkSuQmCC </pre>
icon_type	string	The icon file's MIME type.	A valid image format's MIME type.	image/svg+xml
display_name	string	The identity provider's friendly name. This value defaults to <code>_DISPLAY_NAME</code> .	A valid string.	Izzy
provider_name	string	The identity provider's system name. This value defaults to <code>_PROVIDER_NAME</code> .	A valid string.	izzy
documentation	string	The public URL of the OpenID implementation's documentation at the openid.net website.	A valid publicly-available URL.	https://developers.izzy.com/identity/protocols/OpenIDConnect

<p>_POSSIBLE_DISPLAY_USERNAME_KEY_NAMES</p>	<p>array</p>	<p>An array that contains a list of keys in an attempt to get the display username from the use rInfo response.</p> <div data-bbox="727 201 870 1934" style="border: 1px solid black; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> • This value defaults to the email, name and the usernames that the email address is not available. • You may need to adjust this value in order for the information recorded on the OpenID's Userinfo response. • For more information, see the OpenID Connect specification. </div>	<p>An array of valid strings.</p>	<p>email, name</p>
<p>_POSSIBLE_DISPLAY_USERNAME</p>	<p>array</p>		<p>An array of valid strings.</p>	<p>preferred, account,</p>

AME_SUBKEY_NAMES

An array that contains a list of sub keys in an attempt to get the display username from the UserInfo response.

business, personal

Notes:

• This value depends on the results of the procedure and the uses of the account entry if the procedure entry is not available.

• You may need to adjust this value in order to match the desired value for your identity provider.

• Form or information regarding the OpenID SUSE reference documentation.

<p>__POSSIBLE_ID_TOKEN_KEY_NAMES</p>	<p>array</p>	<p>An array that contains a list of ID Token keys in an attempt to get the ID token from the Token response.</p> <div data-bbox="727 226 873 1579" style="border: 1px solid black; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> • This value describes the default ID token key names. • You may need to adjust this value in order to match the desired value for your identifier. • Form or information re ad Ope ni D' s T ok en R es po ns e do cu m en tat io n. </div>	<p>An array of valid strings.</p>	<p>id_token</p>
--------------------------------------	--------------	--	-----------------------------------	-----------------

<p>_POSSIBLE_UNIQUE_IDENTIFIER_KEY_NAMES</p>	<p>array</p>	<p>An array that contains a list of keys in an attempt to get the subject unique identifier from the access token response.</p> <div data-bbox="727 201 875 1898" style="border: 1px solid black; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> • This value describes the format and the uses of the name entry if the email address entry is not available. • You may need to adjust this value in order to match the desired value for your identifier entity provider. • For more information, read OpenID's Token Endpoint. </div>	<p>An array of valid strings.</p>	<p>email_name</p>
--	--------------	--	-----------------------------------	-------------------

_GET_SECRET_BASED_SIGNING_KEY_PLAINTEXT	<i>string</i>	This method returns the secret that the system used to verify the signature of the ID tokens. <div style="border: 1px solid orange; padding: 5px;"> <p>Note: This value defaults to the client's secret.</p> </div>	A valid string.	Victoria
_SCOPE	<i>string</i>	This method allows you to declare an alternate or add an additional scope to the claim of your authorization request. <div style="border: 1px solid orange; padding: 5px;"> <p>Notes:</p> <ul style="list-style-type: none"> • This value defaults to the client's secret. • For more information about the default scope, see the OpenID Connect specification. </div>	A valid string.	openid profile email

Example

The following example uses the `Cpanel::Security::Authn::Provider::OpenIdConnectBase` base class and overrides the necessary methods to create an identity provider that connects to Google's authentication service:

```

package
Cpanel::Security::Authn::Provider::Izzy;

# cpanel -
Cpanel/Security/Authn/Provider/Izzy.pm
#
Copyright(c) 2015 cPanel, Inc.
#
All rights Reserved.
# copyright@cpanel.net
http://cpanel.net
# This code is subject to the cPanel
license. Unauthorized copying is
prohibited

use strict;

```

```
use parent
'Cpanel::Security::Authn::Provider::OpenIdConnectBase';
```

```
my $image = <<EOF;
iVBORw0KGgoAAAANSUgAAACAAAAAgCAYAAAB
zenr0AAAKq21DQ1BJQ0MgUHJvZmlsZQAASImV
lgdQU+kWx7970xstAQEpoffeQUroofcmKiGhhBJ
iICDYEXEFVhQRacqCrjQFV6XIKiIWRfKUG/YF
WRTUdbFgQ+Vd4BHee/N23rwzc3J/c+Z8/3vul++
b+QNAvsfi81NgCQBSeRmCIA9nekRkFB3308AC
JUAC2kCFxU7nMwICfMDfxoe7AJp73jKY0/r7vv8
akpy4dDYAUADCsZx0dirCp5DsZvMFGQCgkARq
WRn8OS5HmCZABkT46BwnLHDPHMcU8035npAgF4Q
nAMCTWSxBAgCk90idnslOQHTINISNeRwuD2FX
hb3YiSwOwnkI66emps3xcYS1Y/9FJ+HfNGNFmix
WgogXvmU+8K7cdH4KK/v/3I7/HakpwsV3qCJJ
ThR4BiFPGWTPGpLTvEXMi/XzX2QuZ75/nhOFnqG
LzE53iVpkDsvVe5GFyaGMRWYJltZyM5ghiyxI
CxLpx6W7BYv045g+ohlS/EQcz3VnLnJOYkj4Imd
yw/wWOT052Hupx0VUFwiDRDPHC9xF35iavjQb
m7U0Q0ZiiOfSbBGiGThxrm6iOi9U1M/PcBZp81M
CRP1xKR6ienpmsGhtBnLAFjmJ5RWwpBMg2h/A
AMEgFEk6CAOewBSYI41MlRG3bu5MA5c0fraAm5C
YQWcgtyaOzuSxDfXppsYmFgDM3cGFv/jd9fm7
BcnGLtWykPURviNnkbBUi3gKwDGkJs9aqmluBkA
aBUBbLlsoyFyooed+MIAIxAENyCF3XA254wbI
ZJbADjgBN+AF/EEIiASrARskglQgAF1gA9gK8kE
h2A32gUpQAw6BBnAMnAA4Aw4Dy6Da+AGuAMe
ghEwDl6CKfABzEAQhIMoEBWSg5QhDUgPMoWsIQf
IDfKBgqBIKAZKgHiQENoAbYMKoRKoEqqFGqFf
oNPQeagfGoLuQ6PQJPQW+gKjYDJMgxVhTdgItOY
ZsDccAq+CE+C1cA6cB++Cy+E6+CjcDp+Hr8F3
4BH4JTyNAigSSgalgjJAWaNcUP6oKFQ8SoDahCp
AlaHqUC2oLlQf6hZqBPUK9RmNRVPRdLQB2g7t
iQ5Fs9Fr0ZvQRehKdAO6HX0RfQs9ip5Cf8dQMAo
YPYwthomJwCRgsjD5mDLMEUwb5hLmDmYc8wGL
xcpgtbBWE9sJDYJux5bhD2AbcX2YIewY9hpHA4
nh9PD2eP8cSxcBi4fV4E7ijuHu4kbx33Ck/DK
eFO8Oz4Kz8Pn4svwTfhu/E38c/wMQYKgQbAl+BM
4hGxCMeEwoYtwnTBOmCFKERWI9sQQYhJxK7Gc
2EK8RHxEfEcikVRJNqRAEpe0hVROok66QholfSZ
LkXXJLuRospC8ilxP7iHfJ7+jUCiaFCdKFCWD
sovSSLlAeUL5JEYVMxRjinHENotVibWL3RR7LU4
Q1xBniK8WzxEvEz8pfl381QRBQ1PCRYIlsUmi
SuK0xLDEtCRV0kTSXzJVskiySbJfckIKJ6Up5Sb
FkcqTOiR1QWqMiqKqUV2obOo26mHqJeo4DUvT
ojFpSbRC2jHaIG1KWkraXDpMep10lfrZ6REZlIy
mDFMmRaZY5oTMXZkvyxSXMZbFLdu5rGXZzWUf
ZZfL0snGyRbItsrekf0iR5dzk0uW2yPXIfdYHi2
vKx8onyV/UP6S/KvltOV2y9nLC5afWP5AAVbQ
VQhSWK9wSGFAYVpRSdFDka9YoXhB8ZWSjJKTUpJ
```

SqVK30qQyVdlBmatcqnX0+QVdms6gp9DL6Rfp
UyoKKp4qQpValUGVGVUt1VDVXNVW1cdqRDVrtXi
1UrVetS11ZXVf9Q3qzeoPNAgalhqJGvs1+jQ+
ampphmvu0OzQnNCS1WJq5Wg1az3Spmg7aq/VrtO
+rYPVsdZJ1jmgc0MX1rXQTdSt0r2uB+tZ6nH1
DugN6WP0bfr5+nX6wwZkA4ZBpkGzwaihjkGPYa5
hh+FrI3WjKKM9Rn1G340tjFOMDxs/NJEy8TLJ
NekyeWuqa8o2rTK9bUYxczfbNzP9sZczzzO/KD
5PQuqha/FDotei2+WVpYCyxbLSSt1qxiraqth
a5p1gHWR9RUbjI2zzWabMzafbS1tM2xP2P51Z2C
XbNdkN7FCa0XcisMrxuxV7Vn2tfYjDnSHGief
HEYcVRxZjnWOT53UnDhOR5yeM3QYSYyjjNfOxs4
C5zbnjy62LhtdelxRrh6uBa6Db1JuoW6Vbk/c
Vd0T3JvdpzwsPNZ79HhiPL0993gOMxWZbGYjc8r
Lymuj10Vvsnewd6X3Ux9dH4FPly/s6+W71/eR
n4Yfz6/DH/gz/ff6Pw7QC1gb8GsgNjAgsCrwWZB
J0IagvmBq8JrgpuAPic4hxSEPQ7VDhaG9YeJh
0WGNyR/DXcNLwkcijCI2RlyLlI/kRnZG4aLCoo5
ETa90W71v5Xi0RXX+9N1VWqvWrepfLb86ZfXZ
NeJrWgtOxmBiwMoaYr6y/F11r01YZmx17BTbhb2
f/ZLjxCnlTMbZx5XEPY+3jy+Jn0iwT9ibMJno
mFiW+Irrwq3kvknyTKpJ+pjsnlyfPJsSntKaik+
NST3Nk+I18y6mKaWtSxvi6/Hz+SNrbdFuWzsl
8BYcSYfSV6V3ZtAQszMg1BZuF45mOmRWZX7Kcss
6uU5yHW/dQLZu9s7s5znuOT+vR69nr+/doLJh
64brjYyNtZugTbGbejerbc7bPL7FY0vDVuLW5K2
/5RrnluS+3xa+rStPMW9L3th2j+3N+WL5gvzh
HXY7an5A/8D9YXCn2c6Knd8LOAVXC40Lywq/FrG
Lrv5o8mP5j7074ncNF1sWH9yN3c3bfXeP456G
EsmSnJKxvb5720vppQW17/et2ddfZ15Ws5+4X7h
/pNynvLNCvWJ3xdfKxMo7Vc5VrdUK1TurPx7g
HLh500lgS41iTWHN15+4P92r9ahtr90sKzuEPZR
56NnhsMN9P1v/3HhE/kjhkW/1vPqRhqCGi41W
jY1NCK3FzXCzsHnyaPTRG8dcj3W2GLTUtsq0Fh4
Hx4XHX/wS88vde94nek9an2w5pXGquo3aVtAO
tWe3T3Ukdox0RnYOnfY63dt119X2q+Gv9WdUz1S
dlT5b3E3szuuePZdzbrqH3/PqfML5sd41vQ8v
RFy4fTHw4uAl70tXLrtfvtdH6Dt3xf7KmX7b/tN
Xra92XL081j5gMdD2m8VvbYOWg+3Xra533rC5
0TW0Yqj7puPN87dcb12+zbx97Y7fnaG7oXfvdUc
Pj9zj3Ju4n3L/zYPMBzMPtzzCPCp4LPG47InC
k7rfdX5vHbEcOTvqOjrwNPjpwzH22Ms/0v/4Op7
3jPKs7Lny88YJ04kzk+6TN16sfDH+kv9y51X+
n5J/Vr/Wfn3qL6e/BqYipsbfcN7Mvil6J/eu/r3
5+97pgOknH1I/zHws+CT3qeGz9ee+L+ffns9k
fcV9Lf+m863ru/f3R7Ops7N81oAlbwUQZwDg+Hg
A3tYDQIkEgHoDAKLYgkeeD2jB188T+Dte8NHZ
YQnA4R4A5qwa0wmACoS1EKZuAWDOIiHWCdYZE+U
/Iz3ezHRBiyyPWJOe2dm3swDgYgD4Njg701M+
O/utDBkW8dfn/Ba8+byP4QKg/g7AOjX9jXVbwH/
EPwCGGQVDbR7I2wAAAA1wSF1zAAALEwAACxMB
AJqcGAAAAGRpVFh0WE1MOmNvbS5hZG9iZS54bXA
AAAAADx4OnhtcG1ldGEgeG1sbnM6eD0iYWRv

xIdOja/poOCKzbQgXmH4nkghj/7CCkdvFHM84
NZaox+dHLGLira9eQIq5K1fr6Pb6NJq5TKdU5TS
bTbhIrMpxE8fluiNixLqDQzGzbVvt/MOqcCEU
DmAqEUc0GnMMqUUpR5HDKmBbklotHpRx9z99xON
hjJgvP600e04s5skHw+OCTo8GtgVn2ACVS+V6
UKqhzxK9/MZrqLR76PVtisziJEzLAJTBMDqg+3
YPJDwOnuBAPKrrBULpSSFKM1Gh9qewlGFHtEr
h5M0qA9dhk60/rjWQP1oh2NHijLVsWgUnY6lyOV
nSvd29tC1lgw5dlz/DC+Bx11U5hjvrlQ8foO+
QwLA+9KZVJuVUte9hkZeiEKgUathmhGYSsaVuHg
8B1LRCKJGDQaFaAU23Sk37dQKOzig5sfolNr
oUxSt6kRkgZp08IJg7vIvUaBUkI0JICgy5f4Taf
oTRce0+cM+n006bmb0bSsvpLqKIG1EbXqdSQS
EQST5+ANVfeV3cB6bgtrlPQgQrB6HVSKh1hfXqa
EAeFYckk6kWTJx6YS5EBUDKDbdF/CI+eOhIJW
WATuk5hyTdJyjVq/ub6FK1cvYo51PTs7gw7Fp16
tIBHJwGHTSqcSFJsqlij7+F+KZOWbUgS8SIFVZ
nlwjCJ92Xmxi7fejoRvi3giYgtgN31VA45XMybm
UBI3SGapyqY4LFxYRCQVUiNOsFL/XgOn1KRJG
kmGs3L4NG26kZ7MUFzd+/+ePkGbFdFttusCokqz
s/jB8HopdmDoQhsY0koQTcn7nKWOgTuQoBsjd
TqevJHeBkpyjGH3y8R0Ut/NIZrPokPHN4gGqrR5
uvv9zHLCCrr97nU+BXTMARxkg+JBz0QhZxjEK
0tAGFLkheaEiMAGVhwRepUOWVSot7A0Mc4rCdO3
qeaSnkySfH8lMho0miifLT3Dnb7dZuhVs7JSw
VThk81pAkVXw6dIjhMMhpQVDgo+XamMMqTjBmTs
v8pM3CKowXtVtzo6vR5CpheF7T214abfxbBJ
GI5PsVsWcO+zxziotGhMCKn50eS2d2Dee4jM3Cm
m5A4Fz1LSSywlpxIEpkKcFh+FnGqTC/JRFvAg
obcZujzZGGRJFkoHVMgjyrwPJapjqXKM7fwulpg
Sf8BUHbXB5mJ3W9jObamKCZF+smISLZCoisfi
oEJS/7kgcUSiFA8IOhISqGGKpV1670glcHkm205
+D4uLc2rxsbu7rxqRTcUrU7qbzQaOKNE7+SLe
+uabFKEeTK4XRzXZEeLNiQECr7KrrjECCk9NLz8
CLhvlkmSRRYZouiZPcOuzNK12F/IG00L60SGz
q/Um7t5/iFxdy222KNGGveunOGizQalZlUq+gR
c/JZKkBAw/yxtkWhyQCbnKmk/zyaWihBpDJ0u
5o/xWUKiYroy5JjipDkuZGen8WB5HS00YwPE21/
/Bi5fPonC3iuzcbnHfIuyjcOg4E6mU/Oy88vG
S2Icj5INa0ARojeqmchVGilkabLkNOqCpEVC170
6XNwk8cmffftx5ezZWVyKXkQpPpFiie/wjUlW
11xzDhkt6QnKzS8sUCQUwSHISZglPF0VZnlroXC
I5SRjOhbHk2ebB01DI7Es8kOiIxGZyyRx9dJp
zGeTFBifCm+AxIVBIwjQD/uVECnckx8xRD66m8v
wkdTcyQ0BGHL54+bEkmu+OinS+Px+VI40sXtQ
Yo/g5Lwr7BYDfaJuAR9Ljrxh5ERocly6wa6pdaE
/HOH0KsQKRqBU5Hmiml4vJ1LtiI46ir0Crlqo
jDoZqR4y/Li/tIIBx8diIZYelwbMsURClrkHieq
VyxXcuXOfD5toNNtclh1xH0lG4k1IILQQR3Uv
u5pcFJweV6w0X02osBX4eKCLQcm24pWVJ0zFBvX
eBS/zyzdBjNcdLDcSRafxD6iAS9xnZuIq9/LO
MM7+JPCCLhFhmoVo8no9YNlZJ8RT6jQB51idr94
Wjev2LIRCEfzmd3/H9s6hYrjX64bJpiIeyLRL

```
D5/j5q9ucd0wTTkPu6mLTkqEtBNHxRj15f//Ah9
jPXoBZ9CgAAAAAE1FtkSuQmCC
EOF
```

```
sub _DISPLAY_NAME          { return
'Izzy'; }
sub _PROVIDER_NAME         { return
'izzy'; }
sub _WELL_KNOWN_CONFIG_URI { return
'https://accounts.izzy.com/.well-known/
openid-configuration'; }
sub _DOCUMENTATION_URL     { return
'https://developers.izzy.com/identity/p
rotocols/OpenIDConnect'; }

sub _BUTTON_LABEL          { return 'Log in
with a Izzy Account'; }
sub _BUTTON_COLOR          { return
'dd4b39'; }
sub _BUTTON_TEXT_COLOR    { return
'FFFFFF'; }
sub _BUTTON_ICON           { $image =~
s/\n//g; return $image; }
sub _BUTTON_ICON_TYPE     { return
'image/svg+xml'; }
```



```
sub _CAN_VERIFY      { return 1; }  
  
1;
```

Package the module

```
package  
Cpanel::Security::Authn::Provider::Goog  
le;
```

This declaration instructs Perl to treat all of the file's functions as part of the `Cpanel::Security::Authn::Provider::Izzy` namespace.

For more information, read [perldoc.perl.org's package](http://perldoc.perl.org/package) documentation.

Set the strict pragma

```
use strict;
```

This declaration instructs Perl to return errors if the file contains potentially unsafe code.

For more information, read [perldoc.perl.org's strict](http://perldoc.perl.org/strict) documentation.

Specify the class's parents

```
use parent  
'Cpanel::Security::Authn::Provider::Ope  
nIdConnectBase';
```

This declaration instructs Perl to use the `Cpanel::Security::Authn::Provider::OpenIdConnectBase` module as a parent to this module.

Set the image variable

```

my $image = <<EOF;
iVBORw0KGgoAAAANSUHEUgAAAAEAAAABACAYAAAC
qaXHeAAAKq2lDQ1BJQ0MgUHJvZmlsZQAASImV
lgdQU+kWx7970xstAQEpoffeQUroofcmKiGhhBJ
iICDYEXEFVhQRacqCrjQFV6XIKiIWRfKUG/YF
WRTUdbFgQ+Vd4BHee/N23rwzc3J/c+Z8/3vul++
b+QNAvsfi81NgCQBSeRmCIA9nekRkFB3308AC
JUAC2kCFxU7nMwICfMDfxoe7AJp73jKY0/r7vv8
akpy4dDYAUADCsZx0dirCp5DsZvMFGQCgkARq
WRn8OS5HmCZABkT46BwnLHDPHMcU8035npAgF4Q
nAMCTWSxBAGCk90idnsloQHTINISNeRwuD2FX
...

```

This declaration sets the value of the `$image` variable to a Base64-encoded image.

Note:

To encode an icon file into Base64, use an online decoder such as [askapach.com's base64-image-converter](http://askapach.com's-base64-image-converter).

Set required parameters

```

sub _DISPLAY_NAME          { return
  'Izzy'; }
sub _PROVIDER_NAME        { return
  'izzy'; }
sub _WELL_KNOWN_CONFIG_URI { return
  'https://accounts.izzy.com/.well-known/
  openid-configuration'; }
sub _DOCUMENTATION_URL    { return
  'https://developers.izzy.com/identity/p
  rotocols/OpenIDConnect'; }

```

This set of declarations overrides the required parameters for the module:

- The display name of the identity provider is `Izzy`.
- The identity provider's name is `izzy`.
- The well-known configuration URL is `https://accounts.izzy.com/.well-known/openid-configuration`
- The documentation for the Izzy identity provider is `https://developers.izzy.com/identity/protocols/OpenIDConnect`

Set suggested parameters

```
sub _BUTTON_LABEL      { return 'Log in
with a Izzy Account'; }
sub _BUTTON_COLOR      { return
'dd4b39'; }
sub _BUTTON_TEXT_COLOR { return
'FFFFFF'; }
sub _BUTTON_ICON       { $image =~
s/\n//g; return $image; }
sub _BUTTON_ICON_TYPE  { return
'image/svg+xml'; }
sub _CAN_VERIFY        { return 1; }
```

This set of declarations overrides the suggested parameters for the module:

- The button's label is `Log in with a Izzy Account`.
- The button's color is `dd4b39`, or light reddish brown.
- The button's text color is `FFFFFF`, or white.
- The module strips line breaks from the `$image` variable before it sets that value as the icon for the button.
- The icon's MIME type is `image/svg+xml`.
- The identity provider is set to verify authentication.