

Enviar una cadena segura (System.Security.SecureString) entre un cliente y un servidor cifrando la comunicación mediante el protocolo TCP/IP con un certificado X509 autofirmado en PowerShell

The `ConvertFrom-SecureString` cmdlet converts a secure string (`System.Security.SecureString`) into an encrypted standard string (`System.String`). Unlike a secure string, an encrypted standard string can be saved in a file for later use. The encrypted standard string can be converted back to its secure string format by using the `ConvertTo-SecureString` cmdlet.

Servidor que envía una cadena segura cifrando la comunicación

Utiliza un certificado X509 generado anteriormente <https://www.jesusninoc.com/11/18/exports-a-certificate-to-a-personal-information-exchange-pfx-file/>

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Cliente que recibe una cadena

segura

Utiliza un certificado X509 generado anteriormente
<https://www.jesusninoc.com/11/18/exports-a-certificate-to-a-personal-information-exchange-pfx-file/>

[crayon-6a9d60ca690d1927549971/]

```
1 $Certificate = New-Object System.Security.Cryptography.X509Certificates
2 $port = "1234"
3
4 $TcpListener = [System.Net.Sockets.TcpListener]([int]$port)
5 $TcpListener.start()
6
7 $TcpStream = $TcpListener.AcceptTcpClient()
8 $SslStream = New-Object System.Net.Security.SslStream $TcpStream, $false, [System.Security.Cryptography.X509Certificates.X509CertificateValidator]::RemoteOnly, $Certificate
9 $SslStream.AuthenticateAsServer($Certificate, $false, [System.Security.Cryptography.X509Certificates.X509CertificateValidator]::RemoteOnly, $Certificate)
10
11 $Mensaje = (New-Object System.IO.StreamWriter $SslStream)
12
13 # Enviar password seguro
14 $var = (Get-Credential).Password | ConvertFrom-SecureString
15
16 $Mensaje.Write($var)
17 $Mensaje.Dispose()
18
19 $TcpListener.Stop()
```

cmdlet Get-Credential en la posición 1 d... ? X

Proporcione valores para los parámetros siguientes:

Usuario:

Contraseña:

Aceptar Cancelar

```
7 $SslStream = New-Object System.Net.Security.SslStream $TcpStream, $false, [System.Security.Cryptography.X509Certificates.X509CertificateValidator]::RemoteOnly, $Certificate
8
9 $SslStream.AuthenticateAsClient((New-Object System.Security.Cryptography.X509Certificates.X509CertificateValidator)::RemoteOnly, $Certificate)
10
11 $Certificate = $SslStream.RemoteCertificate
12
13 if ($Certificate) {
14     if ($Certificate -isnot [System.Security.Cryptography.X509Certificates.X509Certificate]) {
15         $Certificate = New-Object -TypeName System.Security.Cryptography.X509Certificates.X509Certificate
16     }
17     Write-Output $Certificate
18 }
19
20
21 $Mensaje = New-Object System.IO.StreamReader $SslStream
22
23 $Credenciales = $Mensaje.ReadLine() | ConvertTo-SecureString
24
25 $BSTR = [System.Runtime.InteropServices.Marshal]::SecureStringToBSTR($Credenciales)
26 $PlainPassword = [System.Runtime.InteropServices.Marshal]::PtrToStringAuto($BSTR)
27
28 $SslStream.Dispose()
29 $TcpClient.Dispose()
```

\$PlainPassword = [System.Runtime.InteropServices.Marshal]::PtrToStringAuto(\$BSTR)

\$SslStream.Dispose()

\$TcpClient.Dispose()

Thumbprint	Subject
4D3935F7204A35FCB0F2C3E345F3A8E319DDDD3C2	CN=jesusninoc

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