
Question

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How could we debug a web service?

Hello,

We would like help to know why our web service which gets Patient's ID number, does not accept messages?

We observe its Event Log, and it contains the following pattern:

We detail each log to give info to discover what's happening:

First there is a new connection:

Then it suddenly disconnects

After that it looks like the service restarts:

ID:	9850645
Type:	Info
Text:	ConfigItem 'Servicios.GestionPacientes.ConsultaPacientesv01r00' started in job 1513
Logged:	2020-02-06 12:31:02.699
Source:	Servicios.GestionPacientes.ConsultaPacientesv01r00
Session:	(none)
Job:	1513
Class:	Ens.Job
Method:	Start
Trace:	(none)
Stack:	

The next one is interesting: it outputs that UTF-8 encoding is invalid, inside EnsLib.SOAP.InboundAdapter

ID:	9850646
Type:	Error
Text:	ERROR <Ens>ErrGeneral: invalid HTTP version'encoding="UTF-8"?>'
Logged:	2020-02-06 12:31:02.700
Source:	Servicios.GestionPacientes.ConsultaPacientesv01r00
Session:	(none)
Job:	1513
Class:	EnsLib.SOAP.InboundAdapter
Method:	OnConnected
Trace:	(none)
Stack:	• \$\$^zGetErrorTrace+3 ^Ens.Util.Trace.1 +1 • DO^zLogNoTrace+10^Ens.Util.Log.1 +1 • DO^zLog+2^Ens.Util.Log.1 +1 • DO^zLogStatus+4^Ens.Util.Log.1 +1 • \$\$^zEnsError+2^Ens.Util.Error.1 +1 • \$\$^zOnConnected+22 ^EnsLib.SOAP.InboundAdapter.1 +2 • \$\$^zOnTask+5^EnsLib.TCP.InboundAdapter.1 +1 • \$\$^zOnTask+29^Ens.BusinessService.1 +1 • \$\$^zStart+62^Ens.Job.1 +2 • DO^zconnectedJob+2 ^EnsLib.TCP.InboundAdapter.1 +1

We have searched for UTF-8 inside SOAP.InboundAdapter and we find it here:

```
Set tCT=$S(tCST:"binary/CST; charset=UTF-8", ""=tCT:tCT, 0=tLen:"", tSOAP12:"application/soap+xml",
1:"text/xml")
```

After this, the following two logs are related with not having a TCP connection opened:

```
ERROR <Ens>ErrException: <UNDEFINED>zOnConnected+158
^EnsLib.SOAP.InboundAdapter.1 *tSOAP12 -- - registrado como '-'
número - '@'
Set: ""=$G(tStreamOut)||($IsObject(tStreamOut)&&tStreamOut.Size&&$S(tStreamOut.%E
xtends("%Library.AbstractStream"):$D(tStreamOut.Attributes),1:1))
tStreamOut=..faultString(tSC,..BusinessHost,$S(tSOAP12:"1.2",1:"1.1"))'
```

Besides there is a new disconnection:

TCP closes:

```
ID:      9850650
Type:    Info
Text:    Closing TCP Connection Job
Logged:  2020-02-06 12:31:02.702
Source:  Servicios.GestionPacientes.ConsultaPacientesv01r00
Session: (none)
Job:     1513
Class:   EnsLib.SOAP.InboundAdapter
Method:  OnTask
Trace:   (none)
Stack:
```

And it shows a new Error and Warning related to TCP connection:

```
ERROR <Ens>ErrorException: <UNDEFINED>zOnConnected+158
^EnsLib.SOAP.InboundAdapter.1 *tSOAP12 -- - registrado como '-'
número - '@'
Set: "" = $G(tStreamOut) || ($IsObject(tStreamOut) && tStreamOut.Size && $S(tStreamOut.%E
xtends("%Library.AbstractStream"): '$D(tStreamOut.Attributes), 1:1))
tStreamOut = ..faultString(tSC, ..BusinessHost, $S(tSOAP12:"1.2", 1:"1.1"))'
```

```
Terminating Job 1513 / 'Servicios.GestionPacientes.ConsultaPacientesv01r00'
with Status = ERROR <Ens>ErrorException: <UNDEFINED>zOnConnected+158
^EnsLib.SOAP.InboundAdapter.1 *tSOAP12 -- - registrado como '-'
número - '@'
Set: "" = $G(tStreamOut) || ($IsObject(tStreamOut) && tStreamOut.Size && $S(tStreamOut.%E
xtends("%Library.AbstractStream"): '$D(tStreamOut.Attributes), 1:1))
tStreamOut = ..faultString(tSC, ..BusinessHost, $S(tSOAP12:"1.2", 1:"1.1"))', %QuitTask=1
```

As we see it looks like there is something related to utf-8 encoding.

In addition our web service code is the following:

```
Class Servicios.GestionPacientes.ConsultaPacientesv01r00 Extends (EnsLib.SOAP.Service
, ITB.HL7.BS.XMLService) [ ProcedureBlock ]
{

Parameter ADAPTER = "EnsLib.SOAP.InboundAdapter";

/// Nombre del Webservice
Parameter SERVICENAME = "ConsultaPacientesv01r00";

/// Namespace SOAP para el Servicio Web
```

```

Parameter NAMESPACE = "http://Servicios/GestionPacientes";

/// Se utilizarán namespaces de clases referenciadas en WSDL
Parameter USECLASSNAMESPACES = 1;

/// Use xsi:type attribute for literal types.
Parameter OUTPUTTYPEATTRIBUTE = 0;

/// Determines handling of Security header.
Parameter SECURITYIN = "ALLOW";

/// This is the SOAP version supported by the service.
Parameter SOAPVERSION = 1.1;

/// Non-default elementFormQualified for types XML namespace.
Parameter ELEMENTQUALIFIED = 0;

ClassMethod IsServiceEnabled() As %Boolean
{
    #dim tSC as %Status
    #dim productionName as %String
    #dim productionStatus as %Integer
    set tSC= ##class(Ens.Director).GetProductionStatus(.productionName,.productionSta
tus)

    #dim config as Ens.Config.Production
    set config = ##class(Ens.Config.Production).%OpenId(productionName)
    #dim item as Ens.Config.Item
    set item=config.FindItemByConfigName(..%ClassName(1))

    quit item.Enabled
}

Method findCandidatesXML(mensEntrada As %XML.String) As %XML.String(XMLNAME="mensSali
da") [ Final, ProcedureBlock = 1, SoapAction = "http://Servicios/GestionPacientes/fin
dCandidatesXML", SoapBindingStyle = document, SoapBodyUse = literal, WebMethod ]
{
    #dim tSC as %Status
    if ('..IsServiceEnabled()){
        set tSC = $SYSTEM.Status.Error(60333,"Web Service Not Enabled")
        if $$$ISERR(tSC) do ..ReturnMethodStatusFault(tSC)
    }

    set pRequest = ##class(Mensajes.Request.GestionPacientes.GestionPacientesRequest
).%New()
    set pResponse = ##Class(Mensajes.Response.GestionPacientes.operacionResponse).%Ne
w()

    // string to stream
    set pInputStream = ##class(%Stream.GlobalCharacter).%New()
    do pInputStream.Write($zcvrt(mensEntrada,"0","UTF8"))

    // convert incoming HL7 (xml) to ER7
    set tSC = ..StreamProcessInput(pInputStream,.ackCommit,1,0,.msgER7)
    if $$$ISERR(tSC) $$$ThrowStatus(tSC)

    set pRequest.mensaje = msgER7

    //proceso el mensaje

```

```

        set tSC = ..SendRequestAsync("EnrutadorConsultaPaciente",pRequest, .pResponse)
        if $$$ISERR(tSC){ $$$TRACE("Error en la llamada al destino"_$system.Status.GetErrorText(tSC))}

        set mensSalida = ##class(%XML.String).%New()
        set mensSalida = ##class(ITB.HL7.Util.Convert).ER7ToXML(pResponse)

        Quit mensSalida
    }

Method findCandidatesER7(mensEntrada As %String) As %String(XMLNAME="mensSalida") [ Final, ProcedureBlock = 1, SoapAction = "http://SCS.Servicios/GestionPacientes/findCandidatesER7", SoapBindingStyle = document, SoapBodyUse = literal, WebMethod ]
{
    set mensajeHL7 = ##class(EnsLib.HL7.Message).ImportFromString(mensEntrada)

    //Establece DocType
    set tipo = mensajeHL7.GetValueAt("1:9.3")
    do mensajeHL7.DocTypeSet("2.5:"_tipo)
    do ..OnProcessInput(mensajeHL7, .pResponse)

    Quit pResponse.OutputToString()
}

Method OnProcessInput(pInput As Ens.Request, ByRef pOutput As Ens.Response) As %Status
{
    Quit ..SendRequestSync("EnrutadorConsultaPaciente",pInput, .pOutput)
}

ClassMethod OnGetConnections(Output pArray As %String, item As Ens.Config.Item)
{
    Set (tValue,tIndex)=""
    For {
        Set tIndex = item.Settings.Next(tIndex) Quit:tIndex=""
        Set tSetting = item.Settings.GetAt(tIndex)
        If (tSetting.Name="Target"){
            if tValue="" {
                Set tValue=tSetting.Value
            }else{
                Set tValue=tValue_", "_tSetting.Value
            }
        }
    }
    For i=1:1:$L(tValue,",") {
        Set tOne=$P(tValue,",",i)
        Continue:""=tOne
        Set pArray(tOne)=""
    }
    Quit
}

```

How could we debug this web service, in an effective way?

We have read:

- <https://docs.intersystems.com/irislatest/csp/docbook/DocBook.UI.Page.cls...>
- <https://community.intersystems.com/post/ensemble-soap-client-misses-soap...>
- <https://docs.intersystems.com/irislatest/csp/docbook/DocBook.UI.Page.cls...>
- <https://cedocs.intersystems.com/latest/csp/documatic/%25CSP.Documatic.cl...>

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Source URL: <https://community.intersystems.com/post/how-could-we-debug-web-service%E2%80%BD>