

# How to implement the SIVI Document api of Visma .Net HRM for third parties

Version 1.5 (30-11-2023)

## Summary

This integration facilitates the placement of the documents directly in the E-dossier of the employee in Visma .Net HRM when integrated with this API. When a doctor of the arbo-service creates for example a "Plan van approach document" for a sick employee, it will appear directly in the E-dossier of the employee in Visma .Net HRM. Employees and managers can also be notified when a document is placed/stored.

## Description

This API will import a SIVI document message and place the document in the E-dossier of the employee

## SIVI Version

Visma .net HRM supports the SIVI Document api for both SIVI 2017 and 2021

## URL

<https://<CompanyName>.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument>

For example the url's of our test servers are:

<https://talent3a.stag.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1>

<https://talent4c.stag.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1>

### Background information about the Visma configuration

Every Visma .Net HRM customer has its own environment with an unique url, for example: <https://companyA.visma.net>.

But that customer environment can have multiple companies on it that are identified by a CompanyID.

### Unique employer keys in SIVI

In SIVI message a company is uniquely identified by a "IdWrkgvrArbdnst" and a "AansltnrGeguitwlngArbdnst". Almost all Visma .Net HRM companies have a separate IdWrkgvrArbdnst/AansltnrGeguitwlngArbdnst

In practice this means that for every "IdWrkgvrArbdnst" a separate url is required.

For example:

<https://CompanyA.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=10>

<https://CompanyB.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=11>

## Example of configurations needed on the arbo-service side:

Customer	IdWrkgvr-Arbdnst (SIVI)	User account	Server name	Company ID	Webservice URL
Company A	1111111	<a href="mailto:arboA@arbo.nl">arboA@arbo.nl</a>	<a href="https://companyA.visma.net">https://companyA.visma.net</a>	5	<a href="https://companyA.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=5">https://companyA.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=5</a>
Company B1	2222222	<a href="mailto:arboB1@arbo.nl">arboB1@arbo.nl</a>	<a href="https://companyB.visma.net">https://companyB.visma.net</a>	1	<a href="https://companyB.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1">https://companyB.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1</a>
Company B2	3333333	<a href="mailto:arboB2@arbo.nl">arboB2@arbo.nl</a>	<a href="https://companyB.visma.net">https://companyB.visma.net</a>	2	<a href="https://companyB.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=2">https://companyB.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=2</a>

NB: It is possible to use one user account for all customers but it is highly recommended to use a separate user for every company for security reasons!

## Validations

All three validation must be good. Only then the document is imported.

If one of the validation fails an error is returned in the retour-message

NB: IdWrknmr is a combination of "companyID '.' employeeID"

Level	Validation	SIVI Field	Error message
Company	Check if the IdWrkgvrArbdnst and AansltnrGeguitwlngArbdnst belong to the url	<Wrkgvr> <IdWrkgvrArbdnst> <AansltnrGeguitw>	<SrtFoutCd>06</SrtFoutCd> <Toelchtng>Werkgever(Wrkgvr) is niet bekend in SIVI administratie</Toelchtng>
Employee	Check if the employee valid Check if the company in IdWrknmr the same as in the url Check if the employee reported under the IdWrkgvrArbdnst and AansltnrGeguitwlngArbdnst	<Document> <Wrknmr> <IdWrknmr>	<SrtFoutCd>06</SrtFoutCd> <Toelchtng>Werknemer is niet bekend in SIVI administratie</Toelchtng>
Sickness	Check if the start date of the sickness matches. Check if the field "Vrzmglld" of the sickness case matches. The check on the Vrzmglld can be turned off.	<Dnstvbnd> <Vrzm> <DatEerstVrzmDg> <Vrzmglld>	<SrtFoutCd>06</SrtFoutCd> <Toelchtng>Het verzuimgeval kan niet geïdentificeerd worden op grond van het veld "Datum eerste verzuimdag"/"Vrzmglld".</Toelchtng>

# Name document in E-dossier Visma .Net HRM

The name of the document in Visma s a composition of the next three parts:  
(So the this might influence what the arbo will fill in the field "Bestandsnm")

- Message Field "Bestandsnm" (for example: SIVITestfile.xml)
- Message Field "SrtDocumentCd" (for example: Problem analysis (100))
- Sickness startdate: (for example: Sickness: 22-01-2022)

## Parameters

Parameter	Type	Description	Required / Optional
CompanyID	Integer	company ID in the customers database (also specified on the URL during POST)	Required
SIVI Document message		<p>Need to be passed as attachment. It needs to be sende in two parts: First you send an empty xml/json. ("x:1") Then you send the file as attachment with "form-data/name/ filename"</p> <p>It need to be send with <b>"multipart/form-data"</b> And also with: <b>"form-data; name=bestandsnaam; filename=bestandsnaam.xml"</b> See code sample in VB .NET see appendix.</p>	Required

## Authentication

When doing an API call, we need an authorized user.

***So you need to provide an email address to us. We will create an user with that email-address and you will get an mail to define the password for it. You need to use that user for authentication.***

You do this by getting a gsld to authentication via HTTP POST

Get gsld to authenticare

There is a <https://<CompanyName>.visma.net/Webframework/Login.aspx> available that when Posted to will return the **gsld** to use for subsequent calls.

This Login.aspx does not require 2FA even if that is enabled for the target company and is only available for these specific 'service accounts'.

The body of the POST to this page should contain:

```
{  "eMailAddress": "x@y.z",  
  "password": "something" }
```

The return value will be like below if the login is successful, the returned gsld can be used on the target company website for about two hours:

```
{  "gsId": "x-y-z-r-t" }
```

If the login is not successful a 4xx or 5xx error will be returned and the connection terminated.

## Process

User does a call **POST** method to the next url to retrieve the gsID:

<https://<CompanyName>.visma.net/Webframework/Login.aspx>

User does a call **POST** method to the next url

(with the gsID included and the SII Document as attachment)

<https://<CompanyName>.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=#>

An return message us returned with the information if the document is uploaded in the E-dossier of the employee in Visma .Net HRM.

If the message was not processed correctly one of the errors in “appendix: supported errors” is returned.

And caller can take action on that.

## Return message

After an API call, a “retourmelding” is send, for example:

```
<?xml version="1.0" encoding="UTF-8"?>
<Retourmelding xsi:schemaLocation="http://www.sivi.org/Verzuimmanagement/Retourmelding/2017 Retourmelding2017.xsd"
xmlns="http://www.sivi.org/Verzuimmanagement/Retourmelding/2017"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <BrAlg>
    <BrCd>99999</BrCd>
    <VnrBrCd>00001</VnrBrCd>
    <AandatBr>2021-12-23</AandatBr>
    <AantijdBr>15:04:15</AantijdBr>
    <IdInzndr>Visma</IdInzndr>
    <IdOntvngr>Visma</IdOntvngr>
    <Berrefnr>86048.00100.150.105.9160-269712</Berrefnr>
    <BerrefnrIngzndnBer>86048.00100.150.105.9160</BerrefnrIngzndnBer>
    <TestJN>N</TestJN>
    <OntvngstbevJN>N</OntvngstbevJN>
    <SrtRetmldngCd>04</SrtRetmldngCd>
  </BrAlg>
</Retourmelding>
```

### On success

Only then the document is imported in the Edossier

```
<SrtRetmldngCd>04</SrtRetmldngCd>
```

### On error

```
<SrtRetmldngCd>03</SrtRetmldngCd>
```

## Appendix: supported errors in the return message:

```
<Foutmldng>
  <SrtFoutCd>02</SrtFoutCd>
  <Toelchtng>Onbekende fout bij het inlezen van het bericht. Neem contact op de Visma
  helpdesk.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>02</SrtFoutCd>
  <Toelchtng>SIVI versie wordt niet ondersteund door Visma Talent. Neem contact op de
  Visma helpdesk.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Werkgever(Wrkgvr) is niet bekend in SIVI administratie</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Werknemer is niet bekend in SIVI administratie</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Meerdere werkgevers(Wrkgvr) in en bericht wordt niet
  ondersteund</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Bericht bevat ongeldige IdWrknmr</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Het verzuimgeval kan niet geïdentificeerd worden op grond van het veld
  VrzmgvlId.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>06</SrtFoutCd>
  <Toelchtng>Het verzuimgeval kan niet geïdentificeerd worden op grond van het veld
  "Datum eerste verzuimdag".</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>99</SrtFoutCd>
  <Toelchtng>Ongeldige EDossier configuratie: Kan de locatie van de EDossier
  directorie niet ophalen. Neem contact op de Visma helpdesk.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>99</SrtFoutCd>
  <Toelchtng>Het importeren van het SIVI Document is mislukt. Neem contact op de
  Visma helpdesk.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>99</SrtFoutCd>
  <Toelchtng>Er is een probleem opgetreden bij het ophalen van gegevens van de
  gebruiker. Neem contact op de Visma helpdesk.</Toelchtng>
</Foutmldng>
<Foutmldng>
  <SrtFoutCd>99</SrtFoutCd>
  <Toelchtng>De voorbereiding va het importeren van het bestand in het Edossier is
  mislukt. Neem contact op de Visma helpdesk.</Toelchtng>
</Foutmldng>
```

# Appendix: sample data for testing talent4c.stag.visma.net:

## Server url:

https://talent4c.stag.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1

## Test employee 1 parameters:

IdWrkgvrArbdnst=654321

AansltnrGeguitwlngArbdnst=88877777

IdWrknmr=1.9001

VrzmglId=3022

DatEerstVrzmDg=2022-03-02

IdDnstvbnd=1001 (not required)

## Test employee 2 parameters:

IdWrkgvrArbdnst=654321

AansltnrGeguitwlngArbdnst=88877777

IdWrknmr=1.2001

IdDnstvbnd=1001

VrzmglId=3020

DatEerstVrzmDg=2022-03-02

## Sample message:

```
<?xml version="1.0" encoding="UTF-8"?>
<Documenten xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns="http://www.sivi.org/Verzuimmanagement/Documenten/2017">
  <BrAlg/>
  <Wrkgvr>
    <HndlsnmOrg>Naam</HndlsnmOrg>
    <IdWrkgvrArbdnst>654321</IdWrkgvrArbdnst>
    <AansltnrGeguitwlngArbdnst>88877777</AansltnrGeguitwlngArbdnst>
  </Wrkgvr>
  <Document>
    <IdDocument>2903</IdDocument>
    <DatDocument>2022-01-10</DatDocument>
    <SrtDocumentCd>217</SrtDocumentCd>
    <KenmerkZendPartij>ZvdZ/Doc</KenmerkZendPartij>
    <BestandTypCd>06</BestandTypCd>
    <Bestandsnm>SIVI Test Doc 11052023-2017.pdf</Bestandsnm>
    <Datastring>JVBERi0xLjUNCiW1tbW1DQo.....xIDA3MTUNCiU1RU9G</Datastring>
    <Wrknmr>
      <IdWrknmr>1.9001</IdWrknmr>
    </Wrknmr>
    <Dnstvbnd>
      <IdDnstvbnd>1001</IdDnstvbnd>
      <PersNr>9001</PersNr>
      <Vrzm>
        <VrzmglId>3022</VrzmglId>
        <DatEerstVrzmDg>2022-03-02</DatEerstVrzmDg>
      </Vrzm>
    </Dnstvbnd>
  </Document>
</Documenten>
```

## Appendix: code sample of api call in VB .NET

```
Imports Microsoft.VisualBasic
Imports System.Net
Imports System.IO
Imports System.Data
Imports System.Text
Imports Newtonsoft.Json

Public Class frmMain
    Private Sub postSIVIDocument(ByRef aSIVIDocMessage As String)
        Dim aMessageBody As String = ""
        Dim theRequest As HttpWebRequest
        Dim theResponse As HttpWebResponse
        Dim targetURL As String
        Dim gsId As Cookie = Nothing
        Dim errStr As String = ""
        Dim reader As StreamReader
        Dim theResponseStream As Stream
        Dim webresponse As String
        Dim myStreamWriter As StreamWriter = Nothing
        Dim postRequestStream As Stream = Nothing
        Dim myBoundary As String = "ZZ--mySimpleBoundary--" & Now.Ticks.ToString("x")

        'Url:'https://talent4c.stag.visma.net/GenImport/PostReceiver.aspx/ImportSIVIDocument?CompanyID=1
        targetURL = txtTargetWebServer.Text
        'Authentication: get the gsID (cookie)
        gsId = getAuthenticationCookie(targetURL, serviceUserEmail, serviceUserPassword, errStr)
        If Not IsNothing(gsId) Then
            'clearSampleData()

            theRequest = HttpWebRequest.Create(targetURL)
            If IsNothing(theRequest.CookieContainer) Then theRequest.CookieContainer = New CookieContainer()
            theRequest.CookieContainer.Add(gsId)
            theRequest.Method = "POST"
            theRequest.ContentType = "multipart/form-data; boundary=" & myBoundary

            postRequestStream = theRequest.GetRequestStream()
            myStreamWriter = New StreamWriter(postRequestStream, System.Text.Encoding.UTF8)

            'then the XML with is empty
            myStreamWriter.WriteLine("--" & myBoundary)
            myStreamWriter.WriteLine("Content-Disposition: form-data; name=""Payload.xml"";
                filename=""Payload.xml""")
            myStreamWriter.WriteLine("Content-Type: text/xml")
            myStreamWriter.WriteLine("{x:1}")
            myStreamWriter.WriteLine(vbCrLf)

            'then the file as attachment
            myStreamWriter.WriteLine("--" & myBoundary)
            myStreamWriter.WriteLine("Content-Disposition: form-data; name=""RIVM Volksgezondheid
                Talent4c_9001""; filename=""RIVM Volksgezondheid Talent4c_9001.xml""")
            myStreamWriter.WriteLine("Content-Type: text/xml")
            Dim strBytes() As Byte
            Dim binReader As System.IO.BinaryReader

            myStreamWriter.WriteLine("")
            myStreamWriter.Flush()

            Dim binReader As System.IO.BinaryReader
            Dim MyFileStream As New FileStream("C:\sivitestbestand.xml", FileMode.Open, FileAccess.Read)

            binReader = New System.IO.BinaryReader(MyFileStream)
            While True
                strBytes = binReader.ReadBytes(4096)
                If strBytes.Length = 0 Then Exit While
                myStreamWriter.BaseStream.Write(strBytes, 0, strBytes.Length)
            End While
            binReader.Close()
            binReader = Nothing
            myStreamWriter.Flush()
            myStreamWriter.WriteLine()

            ' trailing boundary
            myStreamWriter.WriteLine("--" & myBoundary & "--")
            myStreamWriter.Flush()
            myStreamWriter.Close()
        End Sub
    End Class
```

```

        postRequestStream.Close()

        theResponse = theRequest.GetResponse()
        theResponseStream = theResponse.GetResponseStream()
        reader = New StreamReader(theResponseStream)

        webresponse = reader.ReadToEnd()
        txtResult.Text = webresponse

    End If
End Sub

Private Function getAuthenticationCookie(ByVal targetWebServer As String, ByVal emailAddress As
    String, ByVal thePassword As String, ByRef errStr As String) As Cookie

    Dim gsIdCookie As Cookie = Nothing
    Dim targetURI As Uri = Nothing
    Dim loginURI As Uri = Nothing
    Dim loginStr As String
    Dim theRequest As HttpWebRequest = Nothing
    Dim theResponse As HttpWebResponse = Nothing
    Dim sReader As StreamReader = Nothing
    Dim aStr As String
    Dim jO As Newtonsoft.Json.Linq.JObject
    Dim jS As Newtonsoft.Json.JsonSerializerSettings

    If Not Uri.TryCreate(targetWebServer, UriKind.RelativeOrAbsolute, targetURI) Then
        errStr = "Not a correct targetURL"
        GoTo cleanUp
    End If
    If Not Uri.TryCreate(targetURI, "/WebFramework/Login.aspx", loginURI) Then
        errStr = "Could not parse for Login"
        GoTo cleanUp
    End If
    ' make the JSON by hand here
    loginStr = "{ ""emailAddress"": "" & emailAddress & """" & ", ""password"": "" &
        thePassword & """" & " }"

    Try
        theRequest = HttpWebRequest.Create(loginURI)
        theRequest.Method = "POST"
        theRequest.AllowAutoRedirect = False
        With New StreamWriter(theRequest.GetRequestStream())
            .WriteLine(loginStr)
            .Flush()
            .Close()
        End With
        theResponse = theRequest.GetResponse()
        If Not IsNothing(theResponse) Then
            sReader = New StreamReader(theResponse.GetResponseStream())
            aStr = sReader.ReadToEnd()
            If aStr.Substring(0, 1) = "{" Then
                ' good response, get value for session cookie
                jS = New Newtonsoft.Json.JsonSerializerSettings
                jS.DateFormatHandling = Newtonsoft.Json.DateFormatHandling.IsoDateFormat
                jS.TypeNameHandling = Newtonsoft.Json.TypeNameHandling.None
                Try
                    jO = Newtonsoft.Json.JsonConvert.DeserializeObject(aStr, jS)
                    gsIdCookie = New Cookie("gsId", jO.Value(Of String)("gsId"))
                    gsIdCookie.Domain = theRequest.RequestUri.DnsSafeHost
                Catch ex As Exception
                    errStr = ex.Message
                End Try
            Else
                errStr = "Incorrect login return"
            End If
        End If
    Catch ex As Exception
        errStr = ex.Message
    End Try
    ' fall thru
cleanUp:
    jO = Nothing
    jS = Nothing
    If Not IsNothing(sReader) Then sReader.Dispose()
    If Not IsNothing(theResponse) Then theResponse.Dispose()
    Return gsIdCookie
End Function

End Class

```



