Logius
*Ministerie van Binnenlandse Zaken en Koninkrijksrelaties*

# Digipoort Service Description WUS 2.0 Companies Supply

Interface version 1.2

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|---|---|
| Version | 1.1 |
| Date | April 2015 |
| Status | Final |

# Publisher's imprint


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|---|---|
| Project name | Digipoort |
| Version number | 1.1 (Final) |
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Attachment(s)

# Content

# 1 Introduction

## 1.1 Objective and target group

This document describes the supply of structured electronic messages through Digipoort.

This document is intended for developers of software that supplies structured messages through Digipoort. It describes how the web service provided to this end by Digipoort can be used: the Supply Service.

Note: the specification of the message content to be delivered through Digipoort (the so-called payload) does not form part of this document. The specification of this payload differs for each message type.

**Generic and specific**

The services offered by Digipoort have a 'generic' interface. In other words, they can be used to exchange different 'message types'. Other services can use these generic services. That is done, for example, through the services of DigiProcurement and its predecessor, E-invoicing.

This document only describes the generic aspects of the service. Additional requirements may be stipulated by other specific services, for example, for certain attributes and/or values to be awarded that have to be included in the generic message. In addition, specific services have their own 'substantive' message (for example, an invoice under DigiProcurement), for which separate requirements can be stipulated. More information about similar additional requirements can be found in the documentation relating to the specific service.

*Differences with prior versions*

- statusDetails, statusErrorCode and statusDescription have been added to supply response
- Old endpoints/addresses have been replaced by new endpoints.

## 1.2 Outline of the report

This document forms part of a series of documents that provide an insight into the use of Digipoort. This document describes a service that forms part of the "WUS 2. Companies" interface of Digipoort.

This service description is composed as follows:

- The first chapter contains general information, such as version history and contact information;
- The second chapter gives a broad description of the supply operation.
- The third chapter describes the structure and content of the SOAP message;
- The fourth chapter describes the web service in more detail.

All individual attachments are examples of SOAP requests, SOAP responses and the detail specification of the web service (the WSDL) that are available.

## 1.3 Status

This document describes a service under the "WUS 2.0 for Companies" interface of Digipoort. Expectations are that the open standards that are used will continue to develop in future years and that the communication need will also be subject to change. The consequence of this is that, during future years, there will be new releases of Digipoort. That can have an effect on the interfaces. Logius is aiming to develop new releases in close consultation with the market. To enable market parties to quickly and easily use Digipoort, a decision has been made to use open standards and existing tools as far as possible. Examples of that are the use of the SOAP protocol under the WS Interoperability standards Basic Profile 1.2 and Basic Security Profile 1.0 and the application of PKIoverheid certificates.

## 1.4 Assistance

Information relating to assistance with the use of Digipoort services is available on the website:
www.logius.nl/producten/gegevensuitwisseling/digipoort.

# 2 Supply of electronic messaging

## 2.1 Introduction

This chapter provides an overview of the supply of electronic messages by a company to Digipoort. Digipoort offers a Supply Service (‘aanleverservice’) to this end. Messages will be sent by Digipoort to the government organisation that is the recipient.

An overview of the Digipoort services that play a role in this electronic messaging, including the Supply Service are shown in the diagram below.

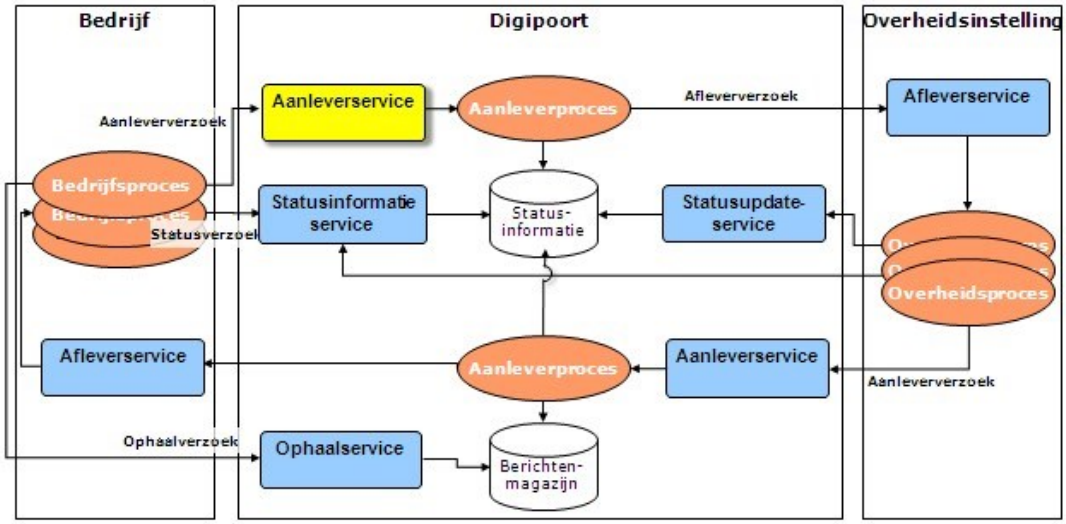


*Figure 1 Position of the Supply Service in respect of companies (marked in yellow) in Digipoort*

The Supply Service (‘Aanleverservice’) establishes whether a Supply Request (‘aanleverRequest) of a supplier complies with the "WUS 2.0 for Companies” interface specification.

If the supply request meets the specifications, the Supply Service starts a new handling process (‘aanleverproces’) with a unique reference number (‘kenmerk’). This reference number is commonly called the message ID of Digipoort.

In a synchronous process, the Supply Service provides a response to this request. This response consists of the notification that the request was successful together with the process ID (in a SOAP response) or the notification that the request was unsuccessful (in a SOAP fault). If the

request is successful, the Supply Service sends the relevant request message to the underlying handling process.

**English – Dutch naming**
Please note that the naming of the specific Digipoort services and their elements uses a combination of Dutch names in conjunction with the English naming convention for specific types of elements.

*Example:*
*The Dutch name for supplying is 'aanlever(en)' and the English convention for naming services is that their names end with 'service'. So the supply service is named 'aanleverservice'. The same goes for the message that you can sent to the aanleverservice. This supply request is a combination of the Dutch 'aanlever' and English 'request', which forms 'aanleverRequest'.*

The specific elements within an aanleverRequest, aanleverResponse use a Dutch naming convention.

## 2.2 Tasks of the Supply Service

The Supply Service ('aanleverservice') performs the following tasks:

- Validate the Supply Request ('aanleverRequest');
- Accept the validated Supply Request;
- Determine the handling process;
- Place the Supply Request for further processing;
- Send the Supply Response ('aanleverResponse').

Once the Supply Response has been sent, the step "queue the Supply Request for further processing" will follow. During this step, the actual handling process is performed. This step falls outside of the scope of the Supply Service and is not described further.

The Status Information Service ('statusinformatieservice') is used to obtain information about the progress of the handling process.

### *2.2.1 Validate Supply Request*

A supply request is sent to Digipoort using a pre-defined structure. This structure is specified in an XML Diagram (XSD), that is incorporated in the WSDL that formally describes the Supply Service. The supply request is monitored using the XSD.

The WSDL for the Supply Service has been recorded in a separate file, which is attached to this service description.

Two actions can be performed with the Supply Service:

- A new process can be started, by supplying data.
  Based on the data that is sent, a process is started where a new unique reference number (‘kenmerk’) is created to identify the process. This reference number is returned with the Supply Response to the supplier;

- It is also possible to supply data based on an existing process. This functionality is not yet used in the current processes.

#### *2.2.2 Accepting a Supply Request*

Every request to the Supply Service is recorded in the message administration system. The message administration system acts internally within Digipoort as an audit trail.

#### *2.2.3 Determining the handling process*

After the Supply Request has been tested against the interface and the scope of the Supply Request has been determined, the handling process to be performed is determined. This is done using the message type (‘berichtsoort’) element from the Supply Request.

#### *2.2.4 Queue the Supply Request for further processing*

The relevant Supply Request is placed in the correct processing queue for further processing.

#### *2.2.5 Send a Supply Response*

When the supply request fulfils all stipulated requirements and the handling process has been determined, the supply response is sent.

# 3 SOAP message

## 3.1 Structure of the SOAP request

The SOAP request contains the "supply" request. The figure below shows the compilation of the SOAP request. This depends on whether or not MTOM is used (message optimisation; for more information, see the document *Digipoort Interface Description: WUS 2.0 Companies*).


*Figure 2 SOAP Request for the Supply Service (with and without the use of MTOM)*

The SOAP message comprises:

- the transport protocol header ;
- the SOAP envelope in which there is:
  - the SOAP header;
  - the SOAP body.
- the message content can be sent through MTOM.

## 3.2 Header elements

The WS Security and WS Addressing elements are detailed in the *Digipoort Interface Description: WUS 2.0 Companies* document.

## 3.3 Structure of the supply request (*SOAP request*)

The SOAP body contains the Supply Request. The functional data (also called the business document) can form part of this. If MTOM is used, the functional data is included in a separate 'MIME part' of the message.

A supply request contains the following elements:

### *3.3.1 kenmerk (reference number)*

The unique reference number of an instance of the handling process. When a reference number is not included in the Supply Request, Digipoort assumes that a new handling process has to be started (which is assigned a unique reference number). This reference number can be used when requesting message processing statuses through the Status information service ('statusinformatieservice').

If data is supplied through an existing process, the reference number of this process has to be included in this field.

### *3.3.2 berichtsoort (message type)*

The message type element describes the type of handling process that is initiated with a supply request. The value of the message type element has to be a type that is known within Digipoort.

### *3.3.3 aanleverkenmerk (supplier reference number)*

The supplier reference number contains its own reference that is given by the supplier of the Supply Request. This reference is maintained throughout the Digipoort process and enables the supplier to ling return messages to the Supply Request.

### *3.3.4 eerderAanleverkenmerk (previous supplier reference number)*

This reference characteristic is used in electronic messages that are sent or received and enables the sender to respond, in a supply message, to a message that was received in the past (that was supplied by a different

party). Using the previous supply reference, reference can be made to the supply reference provided by the supplier of the message received in the past.

*3.3.5 identiteitBelanghebbende (identity stakeholder)*

The stakeholder's identity is a number by means of which the person to whom the content of the business document (or who is responsible for taking cognisance hereof) can be identified. This identity can be used to make a match with an identity which may appear in the business document. The stakeholder can therefore also be a party different to the supplier or inquirer of messages.

*3.3.6 rolBelanghebbende (role stakeholder)*

A clarification of the role of the stakeholder in the handling process.

*3.3.7 identiteitOntvanger (identity recipient)*

The identity of the recipient is a number, based on which it can be established to which party the message ultimately has to delivered.

*3.3.8 rolOntvanger (role recipient)*

A clarification of the role of the recipient in the handling process.

*3.3.9 berichtInhoud (message content)*

The message content is that part of the message that contains the actual business process information.

The business document contains the (structured) information that is intended for the recipient. The specification in this document does not form part of this service description. The specification differs in each message type and is made available by the person responsible for the handling process. The maximum size of the message content is 20 MB (base64 coded). This is the total size of the messages including possible attachments. For each handling process, a smaller maximum size can be stipulated.

*3.3.10 berichtBijlagen (message attachments)*

One or more attachments to the business document. Whether or not attachments can actually be added depends on the handling process.

*3.3.11 autorisatieAdres (authorisation address)*

The authorisation address contains the endpoint of the web service that is used to establish the relationship between the supplier or inquirer on the one hand, and the stakeholder. The endpoint has to be registered in Digipoort. This element is optional for the Supply Service, but can be made compulsory by the handling process.

## 3.4 Structure supply response (*SOAP response*)

The SOAP response contains the Supply Response. This consists of the following elements:

| **Element** | **Clarification** |
|---|---|
| kenmerk<br>(reference number) | The unique reference number of an instance of the handling process. The reference can be used when requesting the status of the process. |
| berichtsoort<br>(message type) | The message type element describes the type of handling process that is initiated with a supply request. |
| aanleverkenmerk<br>(supplier reference) | The reference characteristic supplier contains its own attribute that is given by the supplier to the "supply" request. This attribute means that the further process remains as is and enables the supplier to link return messages to the supply request. |
| eerderAanleverkenmerk<br>(previous supplier reference) | The reference characteristic original supply contains the supply attribute that was provided in a past supply request by the supplier. |
| tijdstempelAangeleverd<br>(time stamp supplied) | The date and time at which Digipoort successfully received the supply request. |
| identiteitBelanghebbende<br>(identity stakeholder) | The identity of the stakeholder is a number with which the person to whom the content of the business document relates, (or who is responsible for taking cognisance thereof) can be identified. This identity can be used to make a match with an identity which may appear in the business document. The stakeholder can therefore also be a party different to the supplier or inquirer of messages. |
| rolBelanghebbende<br>(role stakeholder) | A clarification of the role of the stakeholder in the handling process. |
| identiteitOntvanger<br>(identity recipient) | The identity of the recipient is a number, based on which it can be established to which party the message has to be delivered. |

| | |
|---|---|
| rolOntvanger<br>(role recipient) | A clarification of the role of the recipient in the handling process. |
| autorisatieAdres<br>(authorisation address) | The authorisation address contains the endpoint of the web service that is used to establish the relationship between the supplier or inquirer on the one hand, and the stakeholder. The endpoint has to be registered in Digipoort. This element is optional for the Supply Service, but can be made compulsory by the handling process. For the status information service and the notification service, the element is compulsory when the identity of the stakeholder does not match the identity of the inquirer. |
| statuscode<br>(status code) | The code with which a status is identified. |
| tijdstempelStatus<br>(time stamp status) | The date and the time at which the status is registered in Digipoort. |
| statusomschrijving<br>(status description) | The description of the status in comprehensible wording. |
| statusFoutcode<br>(status error code) | The error that occurred with a status. Contains a combination of error code and error description. |
| statusdetails<br>(status details) | Additional information with a status. |

A number of elements in the Supply Response are copied directly from the Supply Request. This improves the traceability of request and response messages which belong together, for example, in archives.

The Supply Response also contains a digital Digipoort signature under the WS Security standard. This is explained in paragraph 3.5 and in more detail in the *Interface Description Digipoort: WUS 2.0 Companies* document.

## 3.5 Signing a message (WS-Security)

The company has to digitally sign the body and the header elements of a supply request. Likewise, the body and header elements of the supply response are signed by Digipoort. These have to be signed using an electronic signature and using a PKIoverheid certificate issued by a

Certificate Service Provider (CSP) (for the *pre-productio*n version of this service, *test certificates* can be used). The certificate, the signature and the algorithms that are used have to be included as WS Security elements in the header. This is described in more detail in the *Interface Description Digipoort: WUS 2.0 Companies* document.

Example:

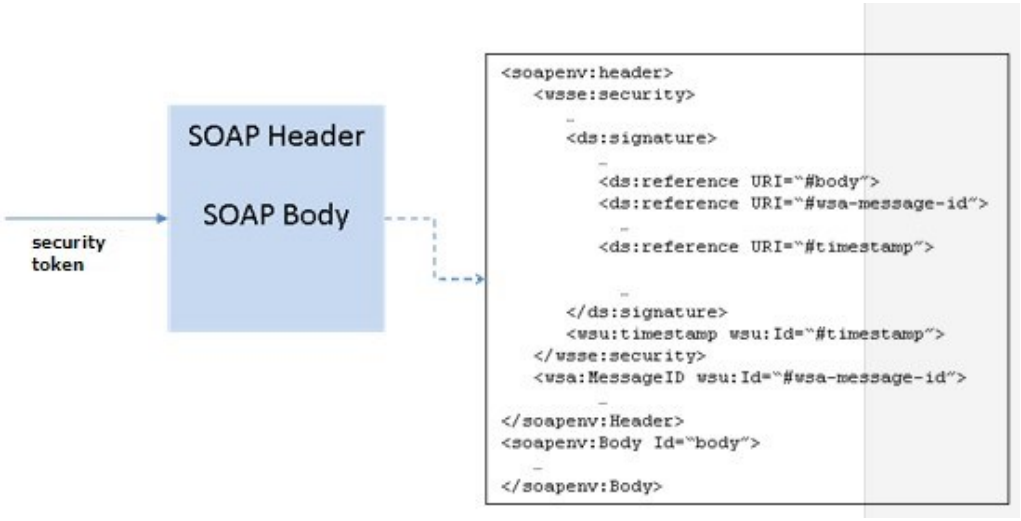


*Figure 3 Digital signature under WS Security*

## 3.6 Signing the message content (enveloping signature)

Depending on the message type, the message content can also be signed using a PKIoverheid certificate[1]. The signature can be checked by the government body to which the message is delivered. Digipoort does not check this signature.

Because the message content, depending on the message type, can be binary or XML, four variations are possible:

[1] *As a rule, in this case the messages are signed by the message owner (stakeholder).*

With enveloping signature:

- Binary (such as a PDF document): the binary content is base64 coded, before this is signed with an enveloping signature. This content, including signature, is base64 coded, saved in the message content element;

- XML (such as XBRL and UBL): the XML is signed with an enveloping signature. This content, including signature, is base64 coded, saved in the message content element;

Without enveloping signature:

- Binary (such as a PDF document): the binary content is base64 coded, saved in the message content element;

- XML (such as XBRL and UBL): the XML is base64 coded, saved in the message content element.

The illustration below shows how the electronic signature is placed on an XBRL document :

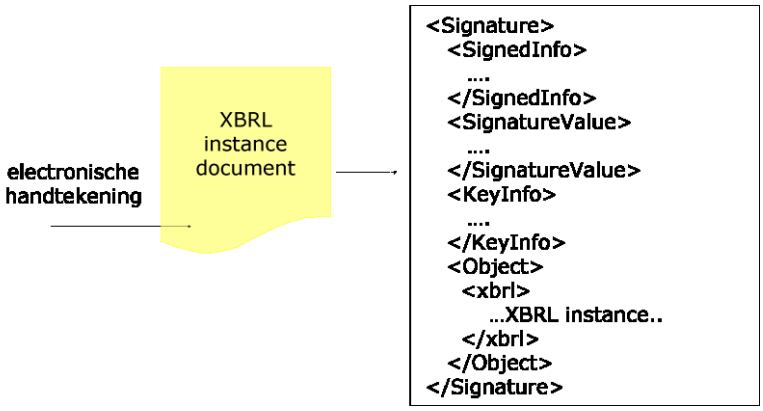


*Figure 4 Enveloping signature for an XBRL report*

Outlined below is how a signature is placed on a PDF document. The PDF document is base64 coded and here the MIME type and the encoding are also given as attributes:

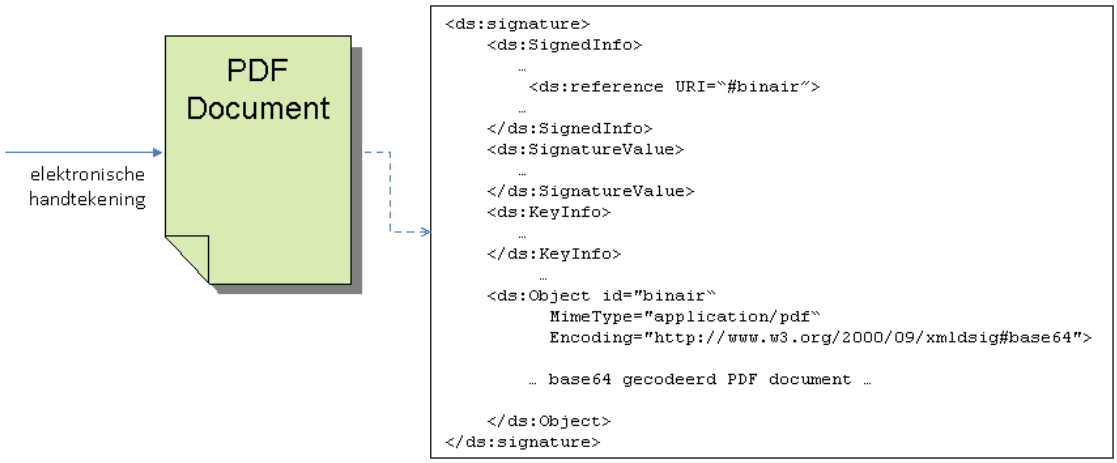


*Figure 5 Enveloping signature on a PDF document*

The signature is placed as described in the XML-DSig standard (http://www.w3.org/TR/xmldsig-core/). The signature is placed around the content as a so-called "Enveloping signature".

### 3.7 MTOM

The content data are recorded in the "message content" element. It is also possible to include additional attachments. Attachments can be included in the message in two ways: as Base64 coded binary data, or based on MTOM. When using MTOM, this is also sometimes referred to as an optimised message. MTOM is described in WS-I Basic Profile 1.2 (see http://www.w3.org/TR/soap12-mtom/). For more information, also see *Digipoort Interface Description: WUS 2.0 Companies* document.

# 4 Details Digipoort WUS 2.0 Companies - Supply Service

### 4.1 Type of messages

The Supply Service ('aanleverservice') has three types of messages:

| **Division** | **Clarification** |
|---|---|
| aanleverRequest (SOAP request) | the request message to the supply service by which structured messages can be delivered to Digipoort. |

| | |
|---|---|
| aanleverResponse (SOAP response) | a response message that is sent when the structured message has been processed by the Supply Service. |
| SOAP fault | an error message that is sent when an error is found by the Supply Service. |

The structure of the messages is described in the WSDL that is attached as a separate file to this Service description.

## 4.2 Address Supply Service

The address of the Supply Service (production environment):

- https://dgp.procesinfrastructuur.nl/wus/2.0/aanleverservice/1.2

The address for the pre-production environment is:

- https://preprod-dgp.procesinfrastructuur.nl/wus/2.0/aanleverservice/1.2

## 4.3 SOAP Request

For an example (with as content an invoice in UBL format), see document:

- *voorbeeldRequest_Digipoort_WUS 2.0 Bedrijven_Aanleveren-v1.2_FACTUUR-UBL.xml*

## 4.4 SOAP Response

For an example see document:

- *voorbeeldResponse_Digipoort_WUS 2.0 Bedrijven_Aanleveren-v1.2_FACTUUR-UBL.xml*

## 4.5 SOAP Fault

If errors are present in the message, for example when the signature is missing or when information is missing, a SOAP fault is generated.

The following elements are included in the "SOAP fault" message:

| **Element** | **Clarification** |
|---|---|
| faultcode | Field that indicates the type of error. There are two options for Digipoort, which are:<br><br>Client : The supplier of the information caused the fault.<br>Server : Digipoort caused the error. |
| faultstring | Shows the nature of the error in a language which people can understand. |
| faultactor | A description of what caused the error. |
| detail/foutCode<br>(error code) | A unique Digipoort code with which an error can be identified. |
| detail/foutOmschrijving<br>(error description) | A description of the error. |

For an example see document:[2]

- *voorbeeldSOAPFault_Digipoort_WUS 2.0 Bedrijven_Aanleveren-1.2.xml*

The possible error messages are described in the attached document *Error messages and status notifications Digipoort v1.2.pdf*.

[2] *Known issue: example of a SOAP fault is not yet available.*