

About Pathways DoS Web Services

The Pathways Web Service supports multiple methods to allow external systems to interrogate the Pathways Directory of Service (DoS) and allows for the retrieval of specific reference data that is relevant for searching the DoS.

The following methods are supported in the Pathways Web Service:

- CheckCapacity
- CheckCapacitySummary
- Dispositions
- ExceptionCapture
- ServiceCare
- ServiceCareException
- ServiceDetailsById

SOAP versions 1.1 and 2.0 are currently supported and all examples within this document are defined as SOAP 2.0 request/responses.

The Pathways web service does not provide any triaging functionality, it is the responsibility of external systems to triage and collect the relevant information required to make Pathways web service requests.

About this guide

This guide provides comprehensive documentation on how to use and what to expect to be returned for each of the methods mentioned above inc error definitions for each method.

Note this documentation refers to the v 1.1 of the Pathways web service and the term "ServiceCare item" is now referred to as "Service".

Assumptions

- The reader has an understanding of SOAP and associated technologies
- The reader has an understanding of Pathways terminology

Web Service Change Log

The following changes have been made in this version of the web service:

Enhancements to CheckCapacity/CheckCapacitySummary:

- Supports Gender parameter
- Supports Search Distance parameter
- Returns the ODS code of the service
- Returns the service type of the service
- Returns the root parent of the service

The following methods have been deprecated:

- test
- ServiceCareAll
- ServiceCareUpdates
- SymptomGroups

CheckCapacity

Description

This method returns appropriate services based on the specific clinical/location criteria for a patient. This web service method does not provide any clinical triaging functionality.

The method will only return service ids and the current capacity status of a service. If further service details are required then an additional call to the ServiceCare method, passing in the service id, will provide this extra information.

NOTE:

- The CheckCapacitySummary method provides the same functionality but returns the services full details in one request. CheckCapacitySummary should be used, as CheckCapacity may be removed in a future release.

Request definition

	Type	Optional	Comments
soap:Header			
serviceVersion	string	No	
soap:Body			
▪ userInfo	UserInfo		
▪ username	string	yes	
▪ password	string	yes	
▪ c	Case		
▪ caseRef	string	Yes	
▪ caseId	string	Yes	
▪ postcode	string	No	
▪ surgery	string	Yes	
▪ symptomGroup	int	No	
▪ symptomDiscriminatorList	Array: int	No	
▪ searchDistance	int		
▪ gender	string: M/F/I		

Response definition

CheckCapacityResult - optional; type ArrayOfServiceCareDestination

- ServiceCareDestination - optional, unbounded, nillable; type ServiceCareDestination
 - id type int
 - capacity type Capacity - type string with restriction - enum { 'High', 'Low', 'None' }

Web Service return value	Maps to DoS Capacity Indicator
High	Green
Low	Amber
None	Red

Error definitions

Error Number	Description	
105	Parameter Validation: Search distance must be greater than 0km and less than maximum system distance.	The maximum is a configuration parameter set in DoS.
106	Parameter Validation: Invalid ageFormat supplied - supported values	Valid characters are: <ul style="list-style-type: none"> • M • F • I
	Parameter Validation: Invalid gender supplied - supported values	
101	Postcode Validation: Postcode not found	
100	System search failure	
104	Postcode Validation: Postcode not found	
102	Service Search: No services found	
107	WSDL Validation: (107) - Unsupported Webservice version	
109	WSDL Validation: (109) - Unable to find version	
300	Generic LDAP error (usually a system level issue)	
301	The web service is unavailable	
302	<i>Failed authentication (usually an incorrect username and/or password)</i>	
303	<i>Missing Role from user</i>	

Examples

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion>1.1</web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:CheckCapacitySummary>
      <userInfo>
        <web:username>{replace}</web:username>
        <web:password>{replace}</web:password>
      </userInfo>
      <c>
        <caseRef>2342</caseRef>
        <caseId>23423</caseId>
        <postcode>AB12 3CD </postcode>
        <surgery>UNK</surgery>
        <age>37</age>
        <ageFormat>Years</ageFormat>
        <disposition>1008</disposition>
        <symptomGroup>1097</symptomGroup>
        <symptomDiscriminatorList>
          <int>4052</int>
        </symptomDiscriminatorList>
        <searchDistance>30</searchDistance>
        <gender>M</gender>
      </c>
    </web:CheckCapacitySummary>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:CheckCapacityResponse>
      <ns1:CheckCapacityResult>
        <ns1:ServiceCareDestination>
          <ns1:id>132175</ns1:id>
          <ns1:capacity>High</ns1:capacity>
        </ns1:ServiceCareDestination>
        <ns1:ServiceCareDestination>
          <ns1:id>132178</ns1:id>
          <ns1:capacity>High</ns1:capacity>
        </ns1:ServiceCareDestination>
      </ns1:CheckCapacityResult>
    </ns1:CheckCapacityResponse>
  </env:Body>
</env:Envelope>
```


CheckCapacitySummary

CheckCapacity

Description

This method returns appropriate services based on the specific clinical/locational criteria for a patient. This web service method does not provide any clinical triaging functionality.

Request definition

soap:Header	Type	Optional	Comments
serviceVersion	string	No	
soap:Body			
▪ userInfo	UserInfo		
▪ username	string	yes	
▪ password	string	yes	
▪ c	Case		
▪ caseRef	string	Yes	
▪ caseId	string	Yes	
▪ postcode	string	No	
▪ surgery	string	Yes	
▪ symptomGroup	int	No	
▪ symptomDiscriminatorList	Array: int	No	
▪ searchDistance	int		
▪ gender	string: M/F/I		

Response definition

CheckCapacityResult - optional; type ArrayOfServiceCareDestination

- ServiceCareDestination - optional, unbounded, nillable; type ServiceCareDestination
 - id type int
 - capacity type Capacity - type string with restriction - enum { 'High', 'Low', 'None' }

Web Service return value	Maps to DoS Capacity Indicator
High	Green
Low	Amber
None	Red

Error definitions

Error Number	Description	
105	Parameter Validation: Search distance must be greater than 0km and less than maximum system distance.	The maximum is a configuration parameter set in DoS.
106	Parameter Validation: Invalid ageFormat supplied - supported values	Valid characters are: <ul style="list-style-type: none"> • M • F • I
	Parameter Validation: Invalid gender supplied - supported values	
101	Postcode Validation: Postcode not found	
100	System search failure	
104	Postcode Validation: Postcode not found	
102	Service Search: No services found	
107	WSDL Validation: (107) - Unsupported Webservice version	
109	WSDL Validation: (109) - Unable to find version	
300	Generic LDAP error (usually a system level issue)	
301	The web service is unavailable	
302	<i>Failed authentication (usually an incorrect username and password)</i>	
303	<i>Missing Role from user</i>	

Examples

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion>1.1</web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:CheckCapacitySummary>
      <userInfo>
        <web:username>{replace}</web:username>
        <web:password>{replace}</web:password>
      </userInfo>
      <c>
        <caseRef>2342</caseRef>
        <caseId>23423</caseId>
        <postcode>AB12 3CD </postcode>
        <surgery>UNK</surgery>
        <age>37</age>
        <ageFormat>Years</ageFormat>
        <disposition>1008</disposition>
        <symptomGroup>1097</symptomGroup>
        <symptomDiscriminatorList>
          <int>4052</int>
        </symptomDiscriminatorList>
        <searchDistance>30</searchDistance>
        <gender>M</gender>
      </c>
    </web:CheckCapacitySummary>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:CheckCapacitySummaryResponse>
      <ns1:CheckCapacitySummaryResult>
        <ns1:ServiceCareSummaryDestination>
          <ns1:id>132175</ns1:id>
          <ns1:capacity>High</ns1:capacity>
          <ns1:name>North Tyneside General Hospital A&E</ns1:name>
          <ns1:contactDetails>0844 811 8111</ns1:contactDetails>
          <ns1:address>North Tyneside General Hospital, Rake Lane, North Shields,
Northumberland, NE29 8NH</ns1:address>
          <ns1:postcode>NE29 8NH</ns1:postcode>
          <ns1:northings>570200</ns1:northings>
          <ns1:eastings>434200</ns1:eastings>
          <ns1:notes>Disposition Instructions: If the disposition is agreed, give the
patient the address and inform them to make their own way to the
department.</ns1:notes>
          <ns1:obsolete>>false</ns1:obsolete>
          <ns1:updateTime>2012-05-30T15:19:53+01:00</ns1:updateTime>
          <ns1:openAllHours>>true</ns1:openAllHours>
          <ns1:rotaSessions/>
          <ns1:serviceType>
            <ns1:id>40</ns1:id>
            <ns1:name>Emergency Department</ns1:name>
          </ns1:serviceType>
          <ns1:odsCode>NE287877</ns1:odsCode>
          <ns1:rootParent>
            <ns1:id>1000000008</ns1:id>
            <ns1:name>North East</ns1:name>
          </ns1:rootParent>
        </ns1:ServiceCareSummaryDestination>
        ....
      </ns1:CheckCapacitySummaryResult>
    </ns1:CheckCapacitySummaryResponse>
  </env:Body>
</env:Envelope>
```

Dispositions

Description

This method returns all Pathways Disposition codes to be used by external systems.

Disposition codes are primarily updated on a new Pathways release, therefore it is recommended that this information is cached locally and refreshed at a set period of time. E.g. nightly

Request

parameters [type Dispositions](#)

- userInfo - [optional; type UserInfo](#)
 - username - [optional; type string](#)
 - password - [optional; type string](#)

Response

parameters [type DispositionsResponse](#)

- DispositionsResult - [optional; type ArrayOfDisposition](#)
 - Disposition - [optional, unbounded, nillable; type Disposition](#)
 - code [type int](#)
 - description - [optional; type string](#)

Error definitions

Error Number	Description
100	System Search failed
107	WSDL Validation: (107) - Unsupported Webservice version
109	WSDL Validation: (109) - Unable to find WSDL version on the system
300	Generic LDAP error (usually a system level issue)
301	The web service is unavailable
302	<i>Failed authentication (usually an incorrect username and password)</i>
303	<i>Missing Role from user</i>

Example

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion></web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:Dispositions>
      <web:userInfo>
        <web:username>?</web:username>
        <web:password>?</web:password>
      </web:userInfo>
    </web:Dispositions>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:DispositionsResponse>
      <ns1:DispositionsResult>
        <ns1:Disposition>
          <ns1:code>1002</ns1:code>
          <ns1:description>Attend Emergency Department
Immediately</ns1:description>
        </ns1:Disposition>
        ....
      </ns1:DispositionsResult>
    </ns1:DispositionsResponse>
  </env:Body>
</env:Envelope>
```

ExceptionCapture

Description

This method returns a full list of Exception reasons and Exception codes that can be displayed to a call handler should a patient reject a service that has been identified to treat the patients' condition.

Request

parameters type [ExceptionCapture](#)

- userInfo - optional; type [UserInfo](#)
 - username - optional; type string
 - password - optional; type string

Response

parameters type [ExceptionCaptureResponse](#)

- ExceptionCaptureResult - optional; type [ArrayOfExceptionCapture](#)
 - ExceptionCapture - optional, unbounded, nillable; type [ExceptionCapture](#)
 - exceptionid type int
 - reason - optional; type string

Error definitions

Error Number	Description
107	WSDL Validation: (107) - Unsupported Webservice version
109	WSDL Validation: (109) - Unable to find WSDL version on the system
300	Generic LDAP error (usually a system level issue)
301	The web service is unavailable
302	<i>Failed authentication (usually an incorrect username and password)</i>
303	<i>Missing Role from user</i>

Example

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion></web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:ExceptionCapture>
      <!--Optional:-->
      <web:userInfo>
        <!--Optional:-->
        <web:username>{replace}</web:username>
        <!--Optional:-->
        <web:password>{replace}</web:password>
      </web:userInfo>
    </web:ExceptionCapture>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nwww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:ExceptionCaptureResponse>
      <ns1:ExceptionCaptureResult>
        <ns1:ExceptionCapture>
          <ns1:exceptionid>21</ns1:exceptionid>
          <ns1:reason>Caller Unable To Access Service Due To Transport /
Distance</ns1:reason>
        </ns1:ExceptionCapture>
      </ns1:ExceptionCaptureResult>
    </ns1:ExceptionCaptureResponse>
  </env:Body>
</env:Envelope>
```

ServiceCareException

Description

This method provides a mechanism for Exceptions code to be captured in Pathways DoS for reporting on the reasons why a service is rejected by a patient.

This information can be co-related using the case reference of the host system, which should be provided when calling this method.

The Exception codes and related description can be retrieved using the ExceptionCapture method.

Request

parameters type ServiceCareException

- userInfo - optional; type UserInfo
 - username - optional; type string
 - password - optional; type string
- serviceCareExp - optional; type ServiceCareException
 - caseRef - optional; type string
 - id type int
 - exceptionid type short

Response

parameters type ServiceCareExceptionResponse

- ServiceCareExceptionResult - optional; type string

Error definitions

Error Number	Description
107	WSDL Validation: (107) - Unsupported Webservice version
109	WSDL Validation: (109) - Unable to find WSDL version on the system
300	Generic LDAP error (usually a system level issue)
301	The web service is unavailable
302	<i>Failed authentication (usually an incorrect username and password)</i>
303	<i>Missing Role from user</i>

Example

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion?</web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:ServiceCareException>
      <web:userInfo>
        <web:username>{replace}</web:username>
        <web:password>{replace}</web:password>
      </web:userInfo>
      <web:serviceCareExp>
        <web:caseRef>123</web:caseRef>
        <web:id>123</web:id>
        <web:exceptionid>24</web:exceptionid>
      </web:serviceCareExp>
    </web:ServiceCareException>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:ServiceCareExceptionResponse>
      <ns1:ServiceCareExceptionResult>Success</ns1:ServiceCareExceptionResult>
    </ns1:ServiceCareExceptionResponse>
  </env:Body>
</env:Envelope>
```

ServiceCare

Description

This method will return details of the service based on the service id passed in, this is normally used in conjunction with CheckCapacity method.

Request

parameters type ServiceCare

- userInfo - optional; type UserInfo
 - username - optional; type string
 - password - optional; type string
- serviceCareId type int

Response

parameters type ServiceCareResponse

- ServiceCareResult - optional; type ServiceCareItem
 - id type int
 - name - optional; type string
 - contactDetails - optional; type string
 - address - optional; type string
 - url - optional; type string
 - notes - optional; type string
 - obsolete type boolean
 - updateTime type dateTime
 - openAllHours type boolean
 - rotaSessions - optional; type ArrayOfServiceCareItemRotaSession
 - ServiceCareItemRotaSession - optional, unbounded, nillable; type ServiceCareItemRotaSession
 - startDayOfWeek type DayOfWeek - type string with restriction - enum { 'Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday' }
 - startTime - optional; type TimeOfDay
 - hours type short
 - minutes type short
 - endDayOfWeek type DayOfWeek - type string with restriction - enum { 'Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday' }
 - endTime - optional; type TimeOfDay
 - hours type short
 - minutes type short
 - status - optional; type string

Error definitions

Error Number	Description
100	System search failure: {fail reason}
103	Request Response: Service not found
107	WSDL Validation: (107) - Unsupported Webservice version
109	WSDL Validation: (109) - Unable to find WSDL version on the system
300	Generic LDAP error (usually a system level issue)
301	The web service is unavailable
302	<i>Failed authentication (usually an incorrect username and password)</i>
303	<i>Missing Role from user</i>

Example

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion?></web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:ServiceCare>
      <!--Optional:-->
      <web:userInfo>
        <!--Optional:-->
        <web:username?></web:username>
        <!--Optional:-->
        <web:password?></web:password>
      </web:userInfo>
      <web:serviceCareId?></web:serviceCareId>
    </web:ServiceCare>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:ServiceCareResponse>
      <ns1:ServiceCareResult>
        <ns1:id>912312</ns1:id>
        <ns1:name>North East</ns1:name>
        <ns1:address>Not Available, Not Available</ns1:address>
      </ns1:ServiceCareResult>
    </ns1:ServiceCareResponse>
  </env:Body>
</env:Envelope>
```

```
<ns1:notes>Disposition Instructions:</ns1:notes>
<ns1:obsolete>true</ns1:obsolete>
<ns1:updateTime>2012-03-02T13:53:47Z</ns1:updateTime>
<ns1:openAllHours>true</ns1:openAllHours>
<ns1:rotaSessions/>
</ns1:ServiceCareResult>
</ns1:ServiceCareResponse>
</env:Body>
</env:Envelope>
```

ServiceDetailsById

Description

This method returns attributes for a given service id, this can currently return the following details:

[contactdetails](#)

This attribute can contain any contact details for the specified service id.

- tag: a short tag for the contact detail. E.g. itk, telno, faxno, dts
- name: the friendly name of the contact detail. E.g. 111 routing, Telephone No, Fax No, DTS
- priority: The priority of the contact detail for the service. -
- value: The actual contact detail value. To delimit this string use '\'

Request

parameters type [ServiceDetailsById](#)

- userInfo - optional; type [UserInfo](#)
 - username - optional; type string
 - password - optional; type string
- serviceId type string

Response

parameters type [ServiceDetailsByIdResponse](#)

- ContactDetails - optional; type [ArrayOfContactDetail](#)
 - ContactDetail - optional, unbounded, nillable; type [ContactDetail](#)
 - tag type [contactType](#) - type string with restriction - enum { 'dts', 'itk', 'telno', 'email', 'faxno' }
 - name type string
 - value type string
 - order type int

Error definitions

Error Number	Description
110	Request Response: No contact details are profiled on this service
103	Request Response: Service not found
111	Mandatory attributes are missing: {list of missing attributes}
107	WSDL Validation: (107) - Unsupported Webservice version
109	WSDL Validation: (109) - Unable to find WSDL version on the system
300	Generic LDAP error (usually a system level issue)
301	The web service is unavailable
302	<i>Failed authentication (usually an incorrect username and password)</i>
303	<i>Missing Role from user</i>

Example

Request:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:web="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <soap:Header>
    <web:serviceVersion></web:serviceVersion>
  </soap:Header>
  <soap:Body>
    <web:ServiceDetailsByld>
      <web:userInfo>
        <web:username>{replace}</web:username>
        <web:password>{replace}</web:password>
      </web:userInfo>
      <web:serviceId>912312</web:serviceId>
    </web:ServiceDetailsByld>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
xmlns:ns1="https://nww.pathwaysdos.nhs.uk/app/api/webservices">
  <env:Body>
    <ns1:ServiceDetailsByldResponse>
      <ns1:ContactDetails>
        <ns1:ContactDetail>
          <ns1:tag>itk</ns1:tag>
          <ns1:name>ITK Routing information</ns1:name>
          <ns1:value>itk\|http://somewhere.com</ns1:value>
          <ns1:order>1</ns1:order>
        </ns1:ContactDetail>
      </ns1:ContactDetails>
    </ns1:ServiceDetailsByldResponse>
  </env:Body>
</env:Envelope>
```