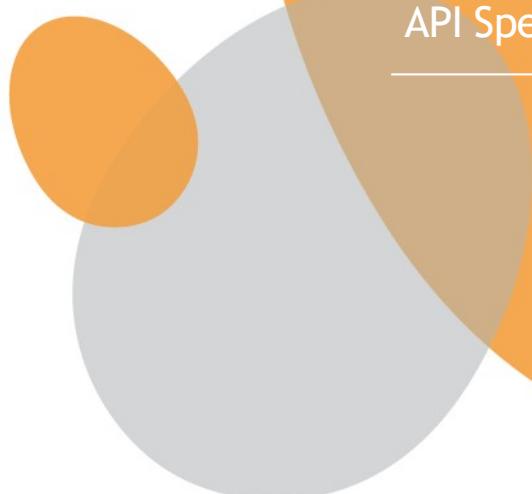# NEST

web services

API Specification Guide

These documents are the property of NEST. If you would like to request a set please visit the NEST web services registration page at

If you have obtained these documents from a third party, please notify us.

This information may be subject to change. We don't give any undertaking or make any representation or warranty that the content of this document is complete or error free. We don't accept responsibility for any loss caused as a result of reliance on the information contained in this document, nor do we accept responsibility for loss caused due to any error, inaccuracy or incompleteness. Reproduction of all or any part of this document or the information contained in it is not allowed. Any links in these documents to other websites and resources provided by third parties are given for your information only and we have no control over, and cannot take any responsibility for any loss caused to you by, the content of those sites or resources.

Contact

For enquires regarding this document, please email:
feedback.webservices@nestpensions.org.uk

Purpose

The 'web services' channel allows payroll software providers and others to more easily integrate their products and systems with NEST. This channel provides a solution which will enable most of an employer's day-to-day automatic enrolment obligations to be met without needing to log into NEST online.

The purpose of this document is to provide the necessary API specifications for Payroll software providers (PSPs) to integrate their respective payroll applications directly with the NEST pension scheme.

Contents

List of Figures

List of Tables

Terminology

Here are some terms and abbreviations you'll come across later in this document.

Term	Definition
API	Application Programming Interface
Basic Authentication	Method of providing a username and password when making a service request.
Enquiry service	Uses the HTTP GET method to make a service request with query string parameters
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure
MB	Megabyte (1 million bytes)
Message Digest	The hash value of the message body of a process service used to identify duplicate Process service requests
MIME	Multipurpose Internet Mail Extensions
NA	Not Applicable
NEST	National Employment Savings Trust
Payload	The message (XML) body of a Process service
Process service	Uses the HTTP POST method to make a service request with XML in the message body
PSP	Payroll Software Provider
SQL	Structured Query Language
SSL	Secure Sockets Layer
TLS	Transport Layer Security
UID	Unique Identifier
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
XML	Extensible Markup Language
XSD	XML Schema Definition

1 Introduction

1.1 List of web services

The following is a list of NEST web services that will be available to payroll providers:

1. **Enrol Workers** – Member Enrolment web service
2. **Update Contributions** – Contribution Schedule web service
3. **Approve for Payment** – Make Payment web service
4. **Set Up a New Employer –** Employer setup web service
5. **Retrieve Opt-outs** - Opted out members' information web service
6. **Retrieve Schedules** - Schedule Summary information web service
7. **Retrieve Current Set-up Details** - Group and Payment source information web service
8. **Retrieve Member-notified Stopped Contributions** - Member notified stopped contribution details web service
9. **Retrieve Refunds** - Employer refund details web service

These services can be grouped into two categories;

(i) Process services

Process services (1 to 4) must use the POST method with an associated extensible markup language (XML) message body when making the web service request.

(ii) Enquiry services

Enquiry services (5 to 9) must use the GET method with query strings for input criteria when making the web service request.

2 Generic principles

2.1 General Considerations

1. The connection between payroll software provider (PSP) software and web services will be encrypted using transport layer security (TLS) 1.1 and TLS 1.2 (all the other versions of TLS will be disabled as will all versions of secure sockets layer (SSL)).

2. Credentials are expected to be submitted by the client software for every service request (Make a Service Request, Retrieve Status and Retrieve Response).

3. Post requests can only have `content-type` as application/xml in the hyper text transfer protocol (HTTP) header and any other content-type will return an error.

4. All the responses will be sent with the following headers to instruct client and proxies not to cache the response:

    1. `Cache-Control:no-cache, no-store`

    2. `Pragma: no-cache`

    3. `Expires: 0`

5. There will be additional standard headers (e.g. Content-Length, Set-Cookie) sent by the server. They are not captured in the examples below as they are inconsequential to the implementation and sent as part of standard response.

6. '*Retrieve Response'* will have a real time authorization check. There will be no realtime authorization check for '*Make a Service request'* and '*Retrieve Status'* request types.

7. If there is Authentication Failure, no further checks or validations will be performed. Request will be returned with Authentication failure response.

8. If Authentication is successful, then security vulnerability validations (e.g. SQL injection, Cross site scripting, Recursive payloads, Maximum size of payload, Malformed XML) will be applied. If any of the positives are identified, further validations will not be performed and an error response will be provided. Security validations will report only one error at a time.

9. If security validations are successful, then transformation of XML will occur. If there are any Schema validation errors, all the errors are reported in a single response (If the XML is well formed). However, if a single element has more than 1 validation error (for example, first name having more than limited character length and unsupported characters in it) then only one error will be reported due to technical limitation in the parser. The client software shall make a request to the NEST system with required credentials in the HTTP header for Basic Authentication.

10. It is strongly recommended that the client software checks for strict compliance with the NEST payroll XML schema definitions (XSDs) when generating the message (XML) body of a Process service request.

11. The message (XML) body of a Process service request has a maximum size restriction of 2 MB. In a normal scenario more than 1,000 member records can be contained in the message body of a Process service request.

12. The unique acknowledgement identifier in `X-ACKID` uniquely identifies web service requests, it may contain up to 50 digits (0-9) and doesn't contain leading zeros (e.g. 1, 234, 56789, 1234567890).

13. The expected completion time in `X-EXP-TAT` (dd/mm/yyyy hh:mm) is always in 24 hour format.

14. InfoCode and InfoMessage tags are reserved for future use and they are unused in the current implementation.

2.2 Backward Compatibility

Efforts have been made to keep the API backward compatible by versioning them. However, backward compatibility will depend on the nature of changes in the later versions.

For example, if regulatory changes are required which needs a request to send additional mandatory information, prompting changes to the core system, we would expect all integrating clients, i.e. PSPs, to update to the changes.

If the changes do not impact core processing of the system (for example, an additional header field is requested by one of the PSPs), then the API can support backward compatibility. Client software that are ready with changes can work with new URIs provided as an upgrade, and those that are not yet ready can continue to use old URIs.

2.3 Idempotent

All the Process services are idempotent for a given duration.

For Enrol Workers and Set Up a New Employer Process services, the Message Digest of Payload and user name will be verified in the database for any earlier requests (requests not more than 30 calendar days old).

For Update Contributions and Approve for Payment Process services, the Message Digest will additionally include the date along with Payload and user name. For:

- o Update Contributions requests, idempotency is maintained for 15 minutes.
- o Approve for Payment requests, idempotency is maintained for a given calendar day only.

If Message Digest of the request has been found, then the response will be provided as detailed in section 2.4.1.1. If the Message Digest of request has not been found, it will be treated as a new request and will follow regular sequence.

Please note that even a space addition/deletion in the Payload XML and change in user name will alter the Message Digest. While submitting the duplicate requests (in case of failure scenario, when PSP client have not received an acknolwedgement for the submitted request) the payload and user name should be exactly the same as original request. HTTP header will not be included in hash value comparison.

2.4 Request and response processing

The sequence of events described is illustrated below:
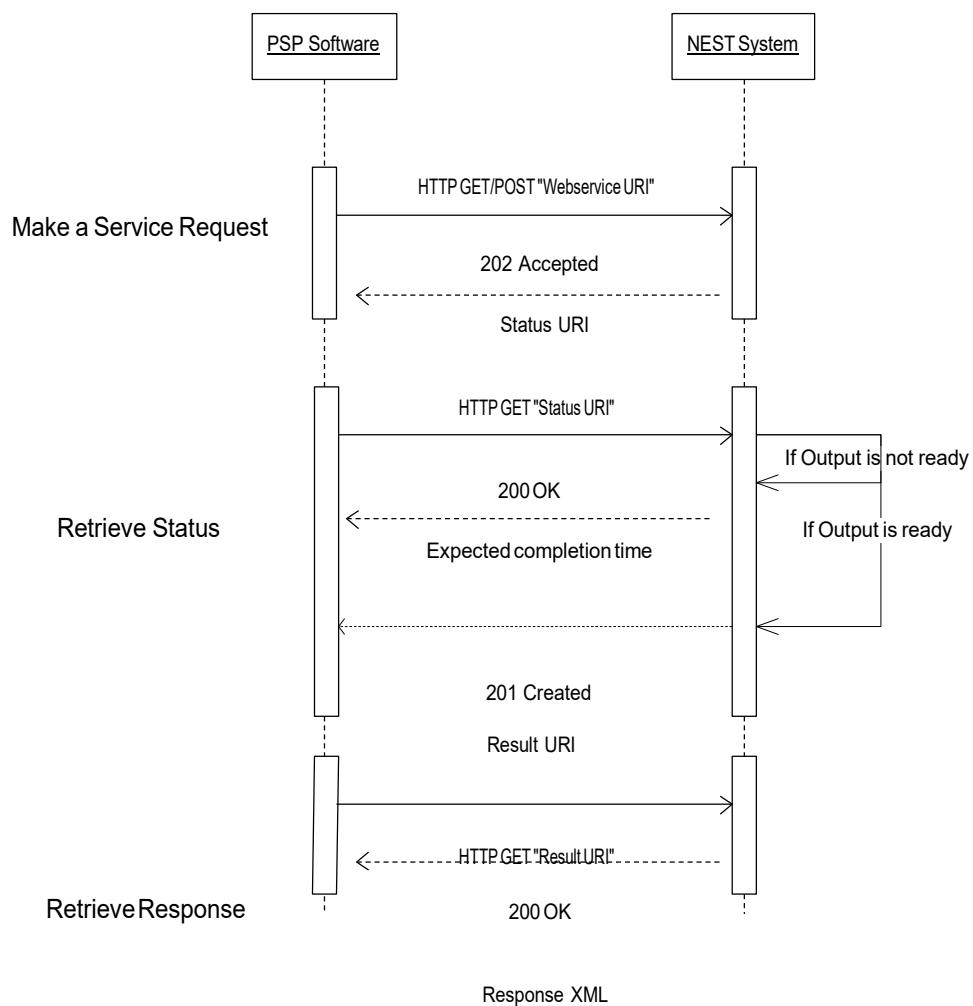
Figure 1: Web services Client - NEST scheme request and response processing

2.4.1 Make a Service Request web service

2.4.1.1 Success Response

NEST will return an Acknowledgement message that contains:

- o "202 Accepted" status code
- o the status of request in the header `X-NEST-STATUS` = SUCCESS to indicate that the submitted Payload has passed initial validations (authentication, XSD validations and security validations)

- o Unique Acknowledgement Identifier in the header `X-ACKID` to uniquely identify the request.
- o URI in the header `Location` that can be used to check the request status.
- o Indication of expected completion time in the header `X-EXP-TAT`.
- o There will be no XML body if the request has passed initial validations.

2.4.1.2 Error Response

NEST will return an Error message that contains:

- o "400 Bad Request" status code or appropriate 4xx client error codes
- o the status of request in the header `X-NEST-STATUS` as FAILED to indicate that the submitted Payload has failed initial validations (structural and security validations)
- o If the error code contains appropriate 4xx errors, client software is expected to make necessary corrections and resubmit the request. There will be a XML in the response body detailing the errors.
- o If the error code contains 5xx errors, client software can resubmit the request without making any corrections as they are server related errors. There will be no XML in the response body.

2.4.2 Retrieve Status web service

The client software (PSP's) should avoid polling for the status earlier than the informed response times (provided in the `X-EXP-TAT` header) or continuously as a background process. This ensures all users of the services are treated fairly and NEST scheme solution to manage the expected response times.

2.4.2.1 Processing incomplete

If the processing has not been completed for the given request, NEST will return

- o "200 Ok" status code
- o Contains an indication of expected completion time in the header `X-EXP-TAT`.
- o There will be no XML body in the response.

2.4.2.2 Processing complete

If the processing has been completed for the given request,

- o NEST will return "201 Created" status code
- o The response would contain an URI in the header `Location` to retrieve response for the submitted request.
- o There will be no XML body in the response.

2.4.3 Retrieve Response web service

After receiving the successful completion notification for the status of original web service request, the Retrieve Service Response web service can be invoked.

It MUST use the "Location" URI provided as part of the response to "Obtain the status of web service" and NOT construct the URI based on X-ACKID provided in the initial acknowledgment.

A Retrieve Service Response request will return:

2.4.3.1 For Enrol Workers and Update Contributions Process web services

If the processing has been completed successfully for all the records submitted for the given request,

- o NEST system will return "200 OK" status code
- o The response will contain the status of processing in the header `X-NEST-STATUS` as SUCCESS
- o There will be XML body in the response as per the results processed for the Contributions and enroll worker by the payroll system.

If the processing has completed successfully for some of the records and failed for some of the records,

- o NEST system will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as PARTIAL
- o There will be XML body in the response indicating the failed records and the details of failure.

If the processing has failed for all the records submitted for the given request,

- o NEST will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as FAILED
- o There will be XML body in the response indicating the failed records and the details of failure.

2.4.3.2 For 'Approve for Payment' and 'Set up a New Employer' Process web services

If the processing has been completed successfully for the given request,

- o NEST system will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as SUCCESS
- o There will be XML body in the response as per the expected outcome.

If the processing has failed for the given request,

- o NEST will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as FAILED
- o There will be XML body in the response indicating the details of failure.

2.4.3.3 For Enquiry web services

If the processing has completed successfully for the given request,

- o NEST will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as SUCCESS
- o There will be XML body in the response.

If the processing has failed for the given request,

- o NEST will return "200 OK" status code
- o The response would contain the status of processing in the header X-NEST-STATUS as FAILED
- o There will be XML body in the response indicating the details of failure.

2.5 Authentication

The PSP web service request should submit their delegate credentials with every request.

The public key of NEST will be made available that should be used to verify the authenticity of the server.

Server authentication takes place during the TLS handshake, when the server presents its public-key certificate. In order for the TLS connection to be secure, the client must carefully verify that the certificate has been issued by a valid certificate authority, has not expired (or been revoked), the name(s) listed in the certificate match(es) the name of the domain that the client is connecting to, and perform several other checks.

Please refer to the appendix in 4.2 (A research paper published by University of Texas, on the best pratices to consider non browser based TLS implementation).

It should be the PSP software responsibility to ensure that they are sending their requests to verified NEST servers. If the server identity can not be verified through certificate (HTTPs can not be established) PSP software should not submit the requests on HTTP. It should always communicate on HTTPS.

We strongly recommend that delegate credentials that are to be submitted in the webservice requests, are encrypted and stored as per the security standards defined by the respective PSP information security procedures.

If delegate credentials cannot be encrypted, we recommend they are not stored but captured through a form at the time of submission to NEST.

PSP Client software should submit the credentials using Basic Authentication.

For example

```
String authString = username + ":" + password;
String authEncString = encodeBase64(authString)
setRequestAuthorizationHeader ("Authorization", "Basic " + authEncString);
```

Sample request provided below:

```
POST https://ws.nestpensions.org.uk/psp-webservices/employer/v1/enrol-workers HTTP/1.1
Authorization: Basic aHR0cHsRtXweZ=
Content-Type: application/xml; charset=UTF-8 X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1

<?xml version="1.0" encoding="UTF-8"?>
<mer:MemberEnrolmentRequest>
  <mer:Header>
      <mer:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </mer:Employer>
  </mer:Header>
  <mer:Detail>
    <mer:Member>
      <mem:UniqueRecordIdentifier>1</mem:UniqueRecordIdentifier>
      <mem:Title>Mr</mem:Title>
      <mem:Forename>John</mem:Forename>
      <mem:Surname>Smith</mem:Surname>
      <mem:DateOfBirth>2001-01-01</mem:DateOfBirth>
    </mer:Member>
  </mer:Detail>
</mer:MemberEnrolmentRequest>
```

The following http response will be provided in case of invalid credentials sent in the request. There will not be a XML body in the response.

```
HTTP/1.1 401 Unauthorized
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: ERROR
```

If the account has been locked in NEST system, the following response will be provided:

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8 Cache-
Control: no-cache, no-store
```

```
Pragma: no-cache
Expires: 0
X-NEST-STATUS: ACCT_LOCKED

<HTML>
<HEAD>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<TITLE></TITLE>
</HEAD>
<BODY>
<H2> Sorry we are unable to process this request. This is because either your NEST
online account is locked or you haven't yet activated your NEST online account. To
unlock your account use the 'Unlock my account' link on the Login page on NEST's
website. You'll need the unlock account code that we've sent to your email address.
That email will also tell you why your account has been locked. If you're still having
difficulty, you can call our contact centre. Details are on our website. Alternatively
your account can be activated by clicking on the activation link that we sent to your
email address when your NEST online account was set up</H2>
</BODY>
<HTML>
```

After that, within two hours the user will get an email notification with the unlock account code.

2.6 Authorization

The permission of the delegate to access/perform (authorization) any action will not happen as part of the initial request, that are made as part of 'Make a Service Request'. The authorization failure will be communicated to the provider as part of the business processed final response.

The permission of the delegate to access/perform (authorization) any action will happen synchronously as part of 'Retrieve Response' web service.

The following http response will be provided in case of authorization failure:

```
HTTP/1.1 403 Forbidden
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8">
<ErrorResponse>
        <ErrorCode>IFC01718</ErrorCode>
        <ErrorMessage>User does not have required permission to perform this operation
        </ErrorMessage>
</ErrorResponse>
```

Note: For further details on errors refer section 3.1.1.1.3 Error response and section 4.3 for latest XSD

2.7 Error handling

For all the input data type errors and business validation errors, the information will be passed back to the payroll client in a pre-defined XML format, along with appropriate HTTP status code (Please refer to appendix 4.1 for error codes).

PSPs are expected to resubmit the request, if the PSPs does not receive an acknowledgement (e.g. due to client system abruptly shutting down, network connection lost, client software java process erroring out) after submitting the request. Refer to Section 2.3 on how this is achieved.

2.8 URL Validation

If the host name is not correct "Server not found" will be returned by PSP internet service provider DNS server.

If the base URL (psp-webservices/employer) is incorrect, a 302 response will be returned by NEST system, along with a Location URI. PSP software should use the "Location" URI to get the error. (browsers and standard HTTP clients will perform automatic redirection to the 302 location) .In this case, it will be a 404. "psp-webservices/employer" will be the defined junction in the reverse proxy.

If the requested URI is incorrect (host name is correct, base URL is correct, rest of the URL is incorrect), then a 404 will be returned by NEST system. This will not contain 'X-NEST-STATUS' header in the response.

2.9 Custom headers

Client Software (PSP) is expected to add these custom headers to their request.

X-PROVIDER-SOFTWARE: [Name of the payroll provider client], excluding "[" and "]" characters.

X-PROVIDER-SOFTWARE-VERSION: [Version of the payroll provider client], excluding "[" and "]" characters.

The name of the Client software name should not exceed 100 characters and the version of the software cannot exceed 50 characters.

2.10 HTTP status codes

All the client side errors are indicated by 4xx status code. In this case client software is not expected to submit the same request again without making changes to the client side data.

All the server side errors are indicated by 5xx status code. In this case there is no problem with the data supplied by client software and the same data can be posted again.

Following are the standard HTTP status codes that would be provided by NEST.

Table 1: HTTP status code list

Status code	Description
200	OK
201	Created
202	Accepted
302	Found
400	Bad request
401	Unauthorized
403	Forbidden
404	Not Found
405	Method not allowed
406	Not acceptable
413	Request entity too large
415	Unsupported Media Type
422	Unprocessable entity
429	Too many requests
431	Request header fields too large
500	Internal server error
503	Service unavailable

Some of the common scenarios where each status code will be provided are outlined below

200

This status code would be sent back while checking the status of the request made. If the processing is not complete, an indication would be sent back stating that the request processing is pending for completion.

When the final response is requested by the payroll client and after it is served, this status code would be sent back.

201

If the processing has been completed for the given request, 201 status code will be returned.

202

When the initial request is made, 202 would be sent back to indicate to the payroll client that response would not be available immediately, however, the request has been successfully accepted.

302

This would be sent back if the base URL is incorrect.

400

If the XML does not confirm to XSD or if there any security validation failures, then 400 status code will be returned.

401

This would be sent back when invalid credentials were supplied.

403

This would be sent back if the requested service is valid, but the user does not have permissions to access the service.

This would be sent back if the employer submits a request with invalid Employer Reference Number.

404

This would be sent back when the requested resource is not present/invalid.

405

This would be sent back if the PSP client tries to perform an unsupported operation.

406

This would be sent back if the data to be returned is not acceptable to the payroll client.

413

This would be sent back if the request is too large. For example if the XML can be only 2 MB of size maximum, and if the input XML exceeds 2 MB, then this status code would be sent back.

415

This would be sent back if the request comes with an unsupported Media type.

422

This would be sent back if the provided input is unprocessable e.g. malformed xml

429

If NEST is processing an abnormally high number of requests and is unable to process any further at that time, this status code will be sent back

431

If the headers in the request are too long, then this status code would be sent back.

500

If NEST system is unable to process the request owing to some issue, this would sent back. The exception to this is that when a request is submitted with special characters in HTTP headers, a 500 error is thrown instead of a 400. This is due to a technical limitation in the processing systems.

503

If NEST system is unavailable due to maintenance or for any other reason, then this would be sent back.

3 Web services API specification

Error and info codes/messages provided in the sample XMLs are only indicative and are not the actual values that the user will receive in live environment. Samples are provided to support the concept and not to be taken in literal sense.

3.1 Enrol Workers web service

3.1.1 Post Member Enrolment data

Table 2: Post Enrol Workers data web service

Attribute	Value
URI	/psp-webservices/employer/v1/enrol-workers
Supported methods	POST
Description	This service is used to enrol members into NEST scheme.
Input Media type (MIME)	Application/xml, XML conforming to enrol-workers request schema (as detailed in Section 3.1.1.2)
Status code for successful response	202
Response	As detailed in Section 2.4.1
Output Media type	NA if successful, application/xml if 4xx error returned

3.1.1.1 Request/Response samples

3.1.1.1.1 Request

```
POST https://ws.nestpensions.org.uk/psp-webservices/employer/v1/enrol-workers HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ=
Content-Type: application/xml; charset=UTF-8
Content-Length: 10000
X-PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1


<?xml version="1.0" encoding="UTF-8"?>
<ewr:EnrolWorkersRequest xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
      xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
      xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
      xmlns:ewr="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersRequest"
      xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
      xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersRequest
EnrolWorkersRequest.xsd ">
  <ewr:Header>
    <ewr:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </ewr:Employer>
  </ewr:Header>
  <ewr:Detail>
    <ewr:Member>
```

```xml
<mem:UniqueRecordIdentifier>UID1234</mem:UniqueRecordIdentifier>
<mem:Title>Mr</mem:Title>
<mem:Forename>First Forename</mem:Forename>
<mem:Middlename>First Middlename</mem:Middlename>
<mem:Surname>First Surname  </mem:Surname>
<mem:DateOfBirth>1970-01-01</mem:DateOfBirth>
<mem:NINumber>AB689790A</mem:NINumber>
<mem:IsNINumberUnavailable>N</mem:IsNINumberUnavailable>
<mem:AlternativeUniqueId>100001</mem:AlternativeUniqueId>
<mem:Address>
  <add:AddressLine1>First Addressline1</add:AddressLine1>
  <add:AddressLine2>First Addressline2</add:AddressLine2>
  <add:TownOrCity>First Town</add:TownOrCity>
  <add:County>First County</add:County>
  <add:PostCode>SE1 9HA</add:PostCode>
  <add:CountryName>UK</add:CountryName>
</mem:Address>
<mem:WorkEmailAddress>firstmember@company.com</mem:WorkEmailAddress>
<mem:PersonalEmailAddress>firstmember@personal.com</mem:PersonalEmailAddress>
<mem:Gender>M</mem:Gender>
<mem:InformationAboutWorkerEnrolmentReceived>Y</mem:InformationAboutWorkerEnrolmentReceived>
<mem:EnrolmentType>AE</mem:EnrolmentType>
<mem:Group>
  <grp:GroupName>MyGroup</grp:GroupName>
</mem:Group>
<mem:PaymentSource>
  <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
</mem:PaymentSource>
<mem:StartDate>2015-01-01</mem:StartDate>
<mem:IsMemberAnOverseasNationalAwaitinganNINumber>N</mem:IsMemberAnOverseasNationalAwaitinganNINumber>
    </ewr:Member>
    <ewr:Member>
<mem:UniqueRecordIdentifier>UID5678</mem:UniqueRecordIdentifier>
<mem:Title>Mr</mem:Title>
<mem:Forename>Second Forename</mem:Forename>
<mem:Middlename>Second Middlename</mem:Middlename>
<mem:Surname>Second Surname  </mem:Surname>
<mem:DateOfBirth>1965-01-01</mem:DateOfBirth>
<mem:NINumber>AB123456A</mem:NINumber>
<mem:IsNINumberUnavailable>N</mem:IsNINumberUnavailable>
<mem:AlternativeUniqueId>100002</mem:AlternativeUniqueId>
<mem:Address>
  <add:AddressLine1>Second Addressline1</add:AddressLine1>
  <add:AddressLine2>Second Addressline2</add:AddressLine2>
  <add:TownOrCity>Second Town</add:TownOrCity>
  <add:County>Second County</add:County>
  <add:PostCode>GR4 9KY</add:PostCode>
  <add:CountryName>UK</add:CountryName>
</mem:Address>
<mem:WorkEmailAddress>secondmember@company.com</mem:WorkEmailAddress>
<mem:PersonalEmailAddress>secondmember@personal.com</mem:PersonalEmailAddress>
<mem:Gender>M</mem:Gender>
<mem:InformationAboutWorkerEnrolmentReceived>Y</mem:InformationAboutWorkerEnrolmentReceived>
<mem:EnrolmentType>AE</mem:EnrolmentType>
<mem:Group>
  <grp:GroupName>MyGroup</grp:GroupName>
</mem:Group>
<mem:PaymentSource>
  <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
</mem:PaymentSource>
```

```
        <mem:StartDate>2015-01-01</mem:StartDate>
    <mem:IsMemberAnOverseasNationalAwaitinganNINumber>N</mem:IsMemberAnOverseasNationalAwa
    itinganNINumber>
        </ewr:Member>
      </ewr:Detail>
</ewr:EnrolWorkersRequest>
```

3.1.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/enrol-workers/status/12345 X-
ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20 X-NEST-
STATUS: SUCCESS
```

3.1.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED

<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record UniqueRecordIdentifier="UID1" AttributeName="mem:Title">
            <ns1:Error>
                <ns1:ErrorCode>80061</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided 'Drs' is not one of the
acceptable values '[Mr, Mrs, Miss, Ms, Dr]'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
        <ns1:Record UniqueRecordIdentifier="UID2" AttributeName="mem:Gender">
            <ns1:Error>
                <ns1:ErrorCode>80102</ns1:ErrorCode>
                <ns1:ErrorMessage>The element is mandatory. Please provide a value for
this field</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.1.1.2 Schema diagram for Enrol Workers web service Request

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\EnrolWorkers\Schema Diagram\EnrolWorkersRequest.jpg
```

3.1.2 Retrieve Enrol Workers request processing status

Table 3: Retrieve Enrol Workers processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/enrol-workers/status/{UID}
Description	This service is used to retrieve status of Enrol Workers web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.1.2.1 Request/Response samples

3.1.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/enrol-workers/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.1.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp- webservices/employer/v1/EMP123456789/enrol-worker/response/12345
```

3.1.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.1.3 Retrieve Enrol Workers response

Table 4: Retrieve Enrol Workers response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/enrol-workers/response/{UID}
Description	This URI is used to retrieve the response for Enrol Workers web service.

Supported methods	GET
Response	Enrol Workers processing response as detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	Application/xml, XML conforming to enrol workers response schema

3.1.3.1 Request/Response samples

3.1.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/enrol-
worker/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic a23dfxxx= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.1.3.1.2 Sample Response (successful for all records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ewp:EnrolWorkersResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:ewp="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse
EnrolWorkersResponse.xsd ">
     <ewp:Header>
   <res:AcknowledgementID>1234</res:AcknowledgementID>
   <res:Employer>
     <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
   </res:Employer>
  </ewp:Header>
  <ewp:Success>
   <ewp:SuccessRecordCount>2</ewp:SuccessRecordCount>
  </ewp:Success>
</ewp:EnrolWorkersResponse>
```

3.1.3.1.3 Sample response (successful for some records and failed for some records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: PARTIAL

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ewp:EnrolWorkersResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:ewp="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse
EnrolWorkersResponse.xsd ">
      <ewp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
     <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </res:Employer>
  </ewp:Header>
  <ewp:Messages>
    <msg:Record UniqueRecordIdentifier="UID1234">
      <msg:Error>
        <msg:ErrorCode>999999</msg:ErrorCode>
        <msg:ErrorMessage>The start date you've entered is invalid. We can't enrol
members before your staging date. Please edit the start date and try
again.</msg:ErrorMessage>
      </msg:Error>
    </msg:Record>
  </ewp:Messages>
  <ewp:Success>
    <ewp:SuccessRecordCount>1</ewp:SuccessRecordCount>
  </ewp:Success>
</ewp:EnrolWorkersResponse>
```

3.1.3.1.4 Sample response (failed for all records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED

<ewp:EnrolWorkersResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:ewp="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
```

```
        xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
        xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
        xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
        xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
        xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
        xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/EnrolWorkersResponse
        EnrolWorkersResponse.xsd ">
    <ewp:Header>
        <res:AcknowledgementID>1234</res:AcknowledgementID>
        <res:Employer>
          <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
        </res:Employer>
    </ewp:Header>
    <ewp:Messages>
        <msg:Record AttributeName="" UniqueRecordIdentifier="UID1234">
          <msg:Error>
            <msg:ErrorCode>999999</msg:ErrorCode>
            <msg:ErrorMessage>The start date you've entered is invalid. We can't enrol
members before your staging date. Please edit the start date and try
again.</msg:ErrorMessage>
          </msg:Error>
        </msg:Record>
        <msg:Record UniqueRecordIdentifier="UID5678">
          <msg:Error>
            <msg:ErrorCode>999999</msg:ErrorCode>
            <msg:ErrorMessage>The start date you've entered is invalid. We can't enrol
members before your staging date. Please edit the start date and try again
</msg:ErrorMessage>
          </msg:Error>
        </msg:Record>
    </ewp:Messages>
</ewp:EnrolWorkersResponse>
```

3.1.3.2 Schema diagram for Enrol Workers web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\EnrolWorkers\Schema Diagram\EnrolWorkersResponse.jpg
```

3.2 Update Contributions web service

3.2.1 Post Update Contributions data

Table 5: Post Update Contributions data web service

Attribute	Value
URI	/psp-webservices/employer/v1/update-contributions
Supported methods	POST
Description	This service is used to update contribution schedules for NEST scheme.
Response	As detailed in Section 2.4.1
Status code for successful response	202
Input Media type (MIME)	Application/xml, XML conforming to update contributions-request schema (as detailed in Section 3.2.1.2)

Output Media type	NA if successful, application/xml if 4xx error returned

3.2.1.1 Request/Response samples

3.2.1.1.1 Request

```
POST https://ws.nestpensions.org.uk/psp-webservices/employer/v1/update-contributions
HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ=
Content-Type: application/xml; charset=UTF-8
Content-Length: 10000
X-PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1


<?xml version="1.0" encoding="UTF-8"?>
<ucr:UpdateContributionsRequest
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:ucr="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsRequest"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsRequest
UpdateContributionsRequest.xsd ">
  <ucr:Header>
    <ucr:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </ucr:Employer>
    <ucr:PaymentSource>
      <pms:PaymentSourceName>mysource</pms:PaymentSourceName>
    </ucr:PaymentSource>
    <ucr:Frequency>
      <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
    </ucr:Frequency>
    <ucr:ScheduleAndBulkUpdateDetails>
      <sch:EarningsPeriodEndDate>2015-01-31</sch:EarningsPeriodEndDate>
      <sch:DueDate>2015-02-22</sch:DueDate>
      <sch:EarningsPeriodStartDate>2015-01-01</sch:EarningsPeriodStartDate>
      <sch:BulkUpdateToNoContributionDueFlag>Y</sch:BulkUpdateToNoContributionDueFlag>
    </ucr:ScheduleAndBulkUpdateDetails>
  </ucr:Header>
  <ucr:Detail>
          <ucr:Member>
                  <mem:UniqueRecordIdentifier>UID1234</mem:UniqueRecordIdentifier>
                  <mem:Surname>First Surname</mem:Surname>
                  <mem:NINumber>AA123456A</mem:NINumber>
                  <mem:AlternativeUniqueId>100001</mem:AlternativeUniqueId>
          </ucr:Member>
          <ucr:Schedule>
                  <sch:PensionableEarnings>1000.00</sch:PensionableEarnings>
                  <sch:EmployerContribution>10.00</sch:EmployerContribution>
                  <sch:MemberContribution>8.00</sch:MemberContribution>
          </ucr:Schedule>
      </ucr:Detail>
  <ucr:Detail>
    <ucr:Member>
```

```xml
        <mem:UniqueRecordIdentifier>UID2345</mem:UniqueRecordIdentifier>
                   <mem:Surname>Second Surname</mem:Surname>
                   <mem:NINumber>AB567890A</mem:NINumber>
        <mem:AlternativeUniqueId>100002</mem:AlternativeUniqueId>
      </ucr:Member>
      <ucr:Schedule>
        <sch:PensionableEarnings>1000.00</sch:PensionableEarnings>
        <sch:EmployerContribution>10.00</sch:EmployerContribution>
        <sch:MemberContribution>8.00</sch:MemberContribution>
      </ucr:Schedule>
      <ucr:ContributionReasonsRelatedFields>
        <sch:Reason>6</sch:Reason>
        <sch:ContributionReasonEffectiveDate>2015-01-
10</sch:ContributionReasonEffectiveDate>
 <sch:NewPaymentSource>
          <pms:PaymentSourceName>PaymentSource1</pms:PaymentSourceName>
        </sch:NewPaymentSource>
      </ucr:ContributionReasonsRelatedFields>
    </ucr:Detail>
</ucr:UpdateContributionsRequest>
```

3.2.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location:  https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/update-contributions/status/12345 X-
ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20
X-NEST-STATUS: SUCCESS
```

3.2.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
       <ns1:Record UniqueRecordIdentifier="UID1234" AttributeName="mem:NINumber">
           <ns1:Error>
               <ns1:ErrorCode>80220</ns1:ErrorCode>
               <ns1:ErrorMessage>The value provided 'AA123456AB' does not conform to
the format outlined in the XSD</ns1:ErrorMessage>
           </ns1:Error>
       </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.2.1.2 Schema diagram for Update Contribution web service Request

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\UpdateContributions\Schema Diagram\UpdateContributionsRequest.jpg
```

3.2.2 Retrieve Update Contributions request processing status

Table 6: Retrieve Update Contributions processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/update-contributions/status/{UID}
Description	This service is used to retrieve status of Update Contributions web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.2.2.1 Request/Response samples

3.2.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/update-
contributions/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.2.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/update-contributions/response/12345
```

3.2.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.2.3 Retrieve Update Contributions response

Table 7: Retrieve Update Contributions response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO/update-contributions /response/{UID}
Description	This URI is used to fetch the response Update Contributions web service.
Supported methods	GET
Response	As detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	Application/xml, XML conforming to update contributions response schema

3.2.3.1 Request/Response samples

3.2.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/update-
contributions/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic a23dfxxx= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.2.3.1.2 Sample Response (successful for all records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<ucp:UpdateContributionsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:ucp="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```xml
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse
UpdateContributionsResponse.xsd ">
  <ucp:Header>
    <ucp:AcknowledgementID>1234</ucp:AcknowledgementID>
    <ucp:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </ucp:Employer>
    <ucp:PaymentSource>
      <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
    </ucp:PaymentSource>
    <ucp:Frequency>
      <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
    </ucp:Frequency>
    <ucp:Schedule>
      <sch:EarningsPeriodEndDate>2015-01-31</sch:EarningsPeriodEndDate>
      <sch:DueDate>2015-02-22</sch:DueDate>
      <sch:EarningsPeriodStartDate>2015-01-01</sch:EarningsPeriodStartDate>
      <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
    </ucp:Schedule>
  </ucp:Header>
  <ucp:Success>
    <ucp:Member>
      <mem:SequenceNumber>1</mem:SequenceNumber>
      <mem:UniqueRecordIdentifier>UID1234</mem:UniqueRecordIdentifier>
      <mem:Surname>First Surname</mem:Surname>
      <mem:NINumber>AA123456A</mem:NINumber>
      <mem:AlternativeUniqueId>100001</mem:AlternativeUniqueId>
    </ucp:Member>
    <ucp:Schedule>
      <sch:PensionableEarnings>1000.00</sch:PensionableEarnings>
      <sch:EmployerContribution>10.00</sch:EmployerContribution>
      <sch:MemberContribution>8.00</sch:MemberContribution>
    </ucp:Schedule>
  </ucp:Success>
  <ucp:Success>
   <ucp:Member>
      <mem:SequenceNumber>2</mem:SequenceNumber>
      <mem:UniqueRecordIdentifier>UID2345</mem:UniqueRecordIdentifier>
      <mem:Surname>Second Surname</mem:Surname>
      <mem:NINumber> AB567890A</mem:NINumber>
      <mem:AlternativeUniqueId>100002</mem:AlternativeUniqueId>
    </ucp:Member>
    <ucp:Schedule>
      <sch:PensionableEarnings>1000.00</sch:PensionableEarnings>
      <sch:EmployerContribution>10.00</sch:EmployerContribution>
      <sch:MemberContribution>8.00</sch:MemberContribution>
    </ucp:Schedule>
    <ucp:ContributionReasonsRelatedFields>
      <sch:Reason>6</sch:Reason>
      <sch:ContributionReasonEffectiveDate>2001-01-
10</sch:ContributionReasonEffectiveDate>
      <sch:NewPaymentSource>
        <pms:PaymentSourceName>PaymentSource1</pms:PaymentSourceName>
      </sch:NewPaymentSource>
    </ucp:ContributionReasonsRelatedFields>
  </ucp:Success>
  <ucp:AmountAndCounts>
<ucp:AmountForPayableNewlyValidatedMembers>36.00</ucp:AmountForPayableNewlyValidatedMe
mbers>
    <ucp:AmountForCorrectedMembers>0.00</ucp:AmountForCorrectedMembers>
    <ucp:TotalAmountPayable>36.00</ucp:TotalAmountPayable>
    <ucp:CountOfPendingMembers>0</ucp:CountOfPendingMembers>
  </ucp:AmountAndCounts>
```

```
                </ucp:UpdateContributionsResponse>
```

3.2.3.1.3 Sample response (successful for some records and failed for some records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: PARTIAL

<?xml version="1.0" encoding="UTF-8"?>
<ucp:UpdateContributionsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:ucp="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse
UpdateContributionsResponse.xsd ">
  <ucp:Header>
    <ucp:AcknowledgementID>1234</ucp:AcknowledgementID>
    <ucp:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </ucp:Employer>
    <ucp:PaymentSource>
      <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
    </ucp:PaymentSource>
    <ucp:Frequency>
      <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
    </ucp:Frequency>
    <ucp:Schedule>
      <sch:EarningsPeriodEndDate>2015-01-31</sch:EarningsPeriodEndDate>
      <sch:DueDate>2015-02-22</sch:DueDate>
      <sch:EarningsPeriodStartDate>2015-01-01</sch:EarningsPeriodStartDate>
      <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
    </ucp:Schedule>
  </ucp:Header>
  <ucp:Messages>
    <msg:Record UniqueRecordIdentifier="UID1234">
      <msg:Error>
        <msg:ErrorCode>99991</msg:ErrorCode>
        <msg:ErrorMessage>This member doesn't belong on this schedule. Please check
that they've been enrolled and are still an active member. Also check if they're in a
different group or payment source to the workers on this schedule.
</msg:ErrorMessage>
      </msg:Error>
    </msg:Record>
  </ucp:Messages>
  <ucp:Success>
    <ucp:Member>
      <mem:SequenceNumber>1</mem:SequenceNumber>
      <mem:UniqueRecordIdentifier>UID5678</mem:UniqueRecordIdentifier>
      <mem:Surname>Second Surname</mem:Surname>
```

```
        <mem:NINumber>AB567890A</mem:NINumber>
        <mem:AlternativeUniqueId>100002</mem:AlternativeUniqueId>
      </ucp:Member>
      <ucp:Schedule>
        <sch:PensionableEarnings>1000.00</sch:PensionableEarnings>
        <sch:EmployerContribution>10.00</sch:EmployerContribution>
        <sch:MemberContribution>8.00</sch:MemberContribution>
      </ucp:Schedule>
      <ucp:ContributionReasonsRelatedFields>
        <sch:Reason>6</sch:Reason>
        <sch:ContributionReasonEffectiveDate>2001-01-
10</sch:ContributionReasonEffectiveDate>
        <sch:NewPaymentSource>
          <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
        </sch:NewPaymentSource>
      </ucp:ContributionReasonsRelatedFields>
    </ucp:Success>
    <ucp:AmountAndCounts>
<ucp:AmountForPayableNewlyValidatedMembers>18.00</ucp:AmountForPayableNewlyValidatedMe
mbers>
      <ucp:AmountForCorrectedMembers>0.00</ucp:AmountForCorrectedMembers>
      <ucp:TotalAmountPayable>18.00</ucp:TotalAmountPayable>
      <ucp:CountOfPendingMembers>0</ucp:CountOfPendingMembers>
    </ucp:AmountAndCounts>
</ucp:UpdateContributionsResponse>
```

3.2.3.1.4 Sample response (failed for all records)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED

<?xml version="1.0" encoding="UTF-8"?>
<ucp:UpdateContributionsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:ucp="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/UpdateContributionsResponse
UpdateContributionsResponse.xsd ">
  <ucp:Header>
    <ucp:AcknowledgementID>1234</ucp:AcknowledgementID>
    <ucp:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </ucp:Employer>
    <ucp:PaymentSource>
      <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
    </ucp:PaymentSource>
    <ucp:Frequency>
      <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
```

```
        </ucp:Frequency>
        <ucp:Schedule>
          <sch:EarningsPeriodEndDate>2015-01-31</sch:EarningsPeriodEndDate>
          <sch:DueDate>2015-02-22</sch:DueDate>
          <sch:EarningsPeriodStartDate>2015-01-01</sch:EarningsPeriodStartDate>
          <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
        </ucp:Schedule>
      </ucp:Header>
      <ucp:Messages>
        <msg:Record UniqueRecordIdentifier="UID1234">
        <msg:Error>
            <msg:ErrorCode>99991</msg:ErrorCode>
            <msg:ErrorMessage>This member doesn't belong on this schedule. Please check
    that they've been enrolled and are still an active member. Also check if they're in a
    different group or payment source to the workers on this schedule.
      </msg:ErrorMessage>
          </msg:Error>
        </msg:Record>
        <msg:Record AttributeName="" UniqueRecordIdentifier="UID5678">
          <msg:Error>
            <msg:ErrorCode>99991</msg:ErrorCode>
            <msg:ErrorMessage>This member doesn't belong on this schedule. Please check
    that they've been enrolled and are still an active member. Also check if they're in a
    different group or payment source to the workers on this schedule.</msg:ErrorMessage>
          </msg:Error>
        </msg:Record>
      </ucp:Messages>
    <ucp:AmountAndCounts><ucp:AmountForPayableNewlyValidatedMembers>0.00</ucp:AmountForPay
    ableNewlyValidatedMembers>
        <ucp:AmountForCorrectedMembers>0.00</ucp:AmountForCorrectedMembers>
        <ucp:TotalAmountPayable>0.00</ucp:TotalAmountPayable>
        <ucp:CountOfPendingMembers>0</ucp:CountOfPendingMembers>
      </ucp:AmountAndCounts>
    </ucp:UpdateContributionsResponse>
```

3.2.3.2 Schema diagram for Update Contribution web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\UpdateContributions\Schema Diagram\UpdateContributionsResponse.jpg
```

3.3 Approve for Payment web service

3.3.1 Post Approve for Payment data

Table 8: Post Approve for Payment data web service

Attribute	Value
URI	/psp-webservices/employer/v1/approve-payment
Supported methods	POST
Description	This service is used to approve payment for NEST scheme.
Response	As detailed in Section 2.4.1
Status code for successful response	202
Input Media type (MIME)	Application/xml; XML conforming to approve payment request schema
Output Media type	NA if successful, application/xml if 4xx error returned

3.3.1.1 Request/Response samples

3.3.1.1.1 Request

```
POST https://ws.nestpensions.org.uk/psp-webservices/employer/v1/approve-payment
HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ=
Content-Type: application/xml; charset=UTF-8
Content-Length: 10000
X-PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1


<?xml version="1.0" encoding="UTF-8"?>
<apr:ApproveForPaymentRequest xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:apr="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentRequest"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentRequest
ApproveForPaymentRequest.xsd ">
<apr:Employer>
<emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber></apr:E
mployer>
<apr:Schedule>
    <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
    <sch:TotalAmountPayable>36.00</sch:TotalAmountPayable>
    <sch:BulkUpdateToNoContributionDueFlag>Y</sch:BulkUpdateToNoContributionDueFlag>
 </apr:Schedule>
</apr:ApproveForPaymentRequest>
```

3.3.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/approve-payment/status/12345 X-
ACKID: 12345
X-EXP-TAT:  PLEASE REFER TO THE NEST WEB SERVICES OPERATION DESIGN GUIDE FOR THE INDICATIVE
RESPONSE TIME FOR THIS REQUEST.
X-NEST-STATUS: SUCCESS
```

3.3.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
```

```
Expires: 0
X-NEST-STATUS: FAILED

<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="sch:BulkUpdateToNoContributionDueFlag">
            <ns1:Error>
                <ns1:ErrorCode>80070</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided 'M' is not one of the acceptable
values '[Y, N]'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.3.1.2 Schema diagram for Make Payment web service

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\ApproveForPayment\Schema Diagram\ApproveForPaymentRequest.jpg
```

3.3.2 Retrieve Approve Payment request processing status

Table 9: Retrieve Approve for Payment processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/approve-payment/status/{UID}
Description	This service is used to retrieve status of Approve for Payment web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.3.2.1 Request/Response samples

3.3.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/approve-
payment/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.3.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/approve-payment/response/12345
```

3.3.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT:  PLEASE REFER TO THE NEST WEB SERVICES OPERATION DESIGN GUIDE FOR THE INDICATIVE
RESPONSE TIME FOR THIS REQUEST.
```

3.3.3 Retrieve Approve Payment response

Table 10: Retrieve Approve for Payment response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/approve-payment/response/{UID}
Description	This URI is used to fetch the response Approve for Payment web service.
Supported methods	GET
Response	As detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	Application/xml, XML conforming to approve-payment response schema

3.3.3.1 Request/Response samples

3.3.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/approve-
payment/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic a23dfxxx= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.3.3.1.2 Success Response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
```

```
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<app:ApproveForPaymentResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:app="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentResponse"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentResponse
ApproveForPaymentResponse.xsd ">
  <app:Header>
    <app:AcknowledgementID>1234</app:AcknowledgementID>
    <app:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </app:Employer>
    <app:Payment>
      <pms:PaymentSourceName>MySource</pms:PaymentSourceName>
    </app:Payment>
    <app:Group>
      <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
    </app:Group>
    <app:Schedule>
      <sch:EarningsPeriodEndDate>2015-01-31</sch:EarningsPeriodEndDate>
      <sch:DueDate>2015-02-22</sch:DueDate>
      <sch:EarningsPeriodStartDate>2015-01-01</sch:EarningsPeriodStartDate>
      <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
      <sch:TotalAmountPayable>36.00</sch:TotalAmountPayable>
    </app:Schedule>
  </app:Header>
  <app:Success>
    <app:AmountToBePaid>36.00</app:AmountToBePaid>
    <app:PaymentReference>PaymentRef1</app:PaymentReference>
    <app:InvalidMemberCount>0</app:InvalidMemberCount>
    <app:IneligibleMemberCount>0</app:IneligibleMemberCount>
    <app:NoContributionsDueCount>0</app:NoContributionsDueCount>
  </app:Success>
</app:ApproveForPaymentResponse>
```

3.3.3.1.3 Error response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<app:ApproveForPaymentResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:app="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentResponse"
```

```
            xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
            xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
            xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
            xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
            xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
            xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
            xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
            xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
            xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentResponse
    ApproveForPaymentResponse.xsd ">
        <app:Header>
           <app:AcknowledgementID>1234</app:AcknowledgementID>
           <app:Employer>
              <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
           </app:Employer>
           <app:Schedule>
              <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
              <sch:TotalAmountPayable>36.00</sch:TotalAmountPayable>
           </app:Schedule>
        </app:Header>
        <app:Messages>
           <msg:Record >
              <msg:Error>
              <msg:ErrorCode>10009</msg:ErrorCode>
              <msg:ErrorMessage>Either the schedule reference or the employer reference is
    incorrect. Please check and resubmit the details.</msg:ErrorMessage>
              </msg:Error>
           </msg:Record>
        </app:Messages>

    </app:ApproveForPaymentResponse>
```

3.3.3.2 Schema diagram for Approve Payment web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\ApproveForPayment\Schema Diagram\ApproveForPaymentResponse.jpg
```

3.4 Set up a New Employer web service

3.4.1 Post Set Up a New Employer data

Table 11: Post Set Up a New Employer data web service

Attribute	Value
URI	/psp-webservices/employer/v1/setup-new-employer
Supported methods	POST
Description	This service is used to set up employer for NEST scheme.
Response	As detailed in Section 2.4.1
Status code for successful response	202
Input Media type (MIME)	Application/xml; XML conforming to employer-participation request schema
Output Media type	NA if successful, application/xml if 4xx error returned

3.4.1.1 Request/Response samples

3.4.1.1.1 Request

```
POST https://ws.nestpensions.org.uk/psp-webservices/employer/v1/setup-new-employer
HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ=
Content-Type: application/xml; charset=UTF-8
Content-Length: 10000
X-PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1


<?xml version="1.0" encoding="UTF-8"?>
<epr:SetUpNewEmployerRequest xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:epr="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerRequest"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pmc="http://www.ws.nestpensions.org.uk/ns/PrimaryContact"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerRequest
SetUpNewEmployerRequest.xsd ">  <epr:EmployerBasicBusinessInfo>
   <emp:OrganizationName>OrganizationName</emp:OrganizationName>
   <emp:StagingDate>2015-01-01</emp:StagingDate>
   <emp:NumberOfWorkers>A</emp:NumberOfWorkers>
 </epr:EmployerBasicBusinessInfo>
 <epr:EmployerPAYEInfo>
   <emp:PAYEReference>123/AB456</emp:PAYEReference>
   <emp:PAYEReference>124/AB789</emp:PAYEReference>
 </epr:EmployerPAYEInfo>
 <epr:PrimaryContactInfo>
   <pmc:Title>Mr</pmc:Title>
   <pmc:Forename>PCForeName</pmc:Forename>
   <pmc:Surname>PCSurname</pmc:Surname>
   <pmc:Address>
     <add:AddressLine1>PCAddressLine-1</add:AddressLine1>
     <add:AddressLine2>PCAddressLine-1</add:AddressLine2>
     <add:TownOrCity>PCTown</add:TownOrCity>
     <add:County>PCCounty</add:County>
     <add:PostCode>GR4 9KY </add:PostCode>
     <add:CountryName>UK</add:CountryName>
   </pmc:Address>
   <pmc:EmailAddress>pc1@company.com</pmc:EmailAddress>
   <pmc:PhoneNumber>44 1733 111111</pmc:PhoneNumber>
 </epr:PrimaryContactInfo>
 <epr:GroupInfo>
   <grp:GroupName>MyGroup</grp:GroupName>
   <grp:ContributionDetails>
     <cnr:ContributionLevel>BA</cnr:ContributionLevel>
     <cnr:EarningBasis>QE</cnr:EarningBasis>
     <cnr:MaxContributionRateApplies>N</cnr:MaxContributionRateApplies>
   </grp:ContributionDetails>
   <grp:Frequency>Monthly</grp:Frequency>
   <grp:EPED>2015-01-31</grp:EPED>
   <grp:DueDateBasis>R</grp:DueDateBasis>
   <grp:RelativeDaysAfterEPED>10</grp:RelativeDaysAfterEPED>
 </epr:GroupInfo>
```

```
</epr:SetUpNewEmployerRequest>
```

3.4.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Content-Type: plaintext; charset=UTF-8 Cache-
Control: no-cache
Location: https://ws.nestpensions.org.uk/psp-webservices/employer/v1/setup-new-
employer/status/12345
X-ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20 X-NEST-
STATUS: SUCCESS
```

3.4.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED

<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="epr:EmployerPAYEInfo">
            <ns1:Error>
                <ns1:ErrorCode>80302</ns1:ErrorCode>
                <ns1:ErrorMessage>The element 'emp:PAYEReference' is not expected at
this point. Please remove the element</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.4.1.2 Schema diagram for Set up a New Employer web service

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\SetUpNewEmployer\Schema Diagram\SetUpNewEmployerRequest.jpg
```

3.4.2 Retrieve Set Up a New Employer request processing status

Table 12: Retrieve Set Up a New Employer processing status

Attribute	Value
URI	/psp-webservices/employer/v1/setup-new-employer/status/{UID}
Description	This service is used to retrieve status of Set up a New Employer web service.
Supported methods	GET

Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.4.2.1 Request/Response samples

3.4.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/setup-new-
employer/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.4.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-webservices/employer/v1/setup-new-
employer/response/12345
```

3.4.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.4.3 Retrieve Set Up a New Employer response

Table 13: Retrieve Set Up a New Employer response

Attribute	Value
URI	/psp-webservices/employer/v1/setup-new-employer/response/{UID}
Description	This URI is used to fetch the response Set up a New Employer set-up web service.
Supported methods	GET
Response	As detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	Application/xml, XML conforming to setup-new-employer response schema

3.4.3.1 Request/Response samples

3.4.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/setup-new-
employer/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic a23dfxxx= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.4.3.1.2 Success Response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<epp:SetUpNewEmployerResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:epp="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerResponse"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerResponse
SetUpNewEmployerResponse.xsd ">
  <epp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
      <emp:OrganizationName>OrganizationName</emp:OrganizationName>
    </res:Employer>
  </epp:Header>
  <epp:Success>
    <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
  </epp:Success>
</epp:SetUpNewEmployerResponse>
```

3.4.3.1.3 Error response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<epp:SetUpNewEmployerResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
```

```
        xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
        xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
        xmlns:epp="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerResponse"
        xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
        xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
        xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
        xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
        xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
        xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
        xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/SetUpNewEmployerResponse
        SetUpNewEmployerResponse.xsd ">
            <epp:Header>
        <res:AcknowledgementID>1234</res:AcknowledgementID>
        <res:Employer>
          <emp:OrganizationName>OrganizationName</emp:OrganizationName>
        </res:Employer>
     </epp:Header>
     <epp:Messages>
        <msg:Record>
        <msg:Error>
          <msg:ErrorCode>1007</msg:ErrorCode>
          <msg:ErrorMessage>The first earning period end date cannot be in the
past</msg:ErrorMessage>
        </msg:Error>
        </msg:Record>
     </epp:Messages>
</epp:SetUpNewEmployerResponse>
```

3.4.3.2 Schema diagram for Set Up a New Employer setup web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\SetUpNewEmployer\Schema Diagram\SetUpNewEmployerResponse.jpg
```

3.5 Retrieve Opt-outs web service

3.5.1 Request to retrieve opt-outs

Table 14: Request to retrieve opt-outs

Attribute	Value
URI	/psp-webservices/employer/v1/opt-out?emp_refno=EMPnnnnnnnnn&fromDate=YYYY-MM-DD&toDate=YYYY-MM-DD
Query string parameters	emp_refno; employer reference number, EMP followed by 9 numeric digits fromDate and toDate; dates in YYYY-MM-DD format
Supported methods	GET
Description	This service is used retrieve information about opted out members from the scheme, within a date range.
Response	As detailed in section 2.4.1
Status code for successful response	202

Input Media type (MIME)	NA
Output Media type	NA if successful, application/xml if 4xx error returned

3.5.1.1 Request/Response samples

3.5.1.1.1 Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/opt-out?emp_refno=
EMP123456789&fromDate=2014-12-15&toDate=2014-01-15 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.5.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/opt-
out/status/12345
X-ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20 X-NEST-
STATUS: SUCCESS
```

3.5.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED

<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="emp_refno">
            <ns1:Error>
                <ns1:ErrorCode>80213</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided 'emp1234' does not conform to the
format outlined in the XSD</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.5.2 Retrieve opt-outs request processing status

Table 15: Retrieve opt-outs request processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/opt-out/status/{UID}
Description	This service is used to retrieve status of opted out member information web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.5.2.1 Request/Response samples

3.5.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/opt-
out/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.5.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/opt-
out/response/12345
```

3.5.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.5.3 Retrieve opt-outs response

Table 16: Retrieve opt-outs response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/opt-out/response/{UID}
Description	This URI is used to fetch the response for opted out member information.

Supported methods	GET
Response	As detailed in section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	XML conforming to opt-out-info response schema

3.5.3.1 Request/Response samples

3.5.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/opt-
out/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.5.3.1.2 Sample Response (Success)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<rop:RetrieveOptOutsResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rop="http://www.ws.nestpensions.org.uk/ns/RetrieveOptOutsResponse"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveOptOutsResponse
RetrieveOptOutsResponse.xsd ">    <rop:Header>
        <res:AcknowledgementID>ACK1234</res:AcknowledgementID>
        <res:Employer>
    <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
        </res:Employer>
        <res:FromDate>2015-01-01</res:FromDate>
        <res:ToDate>2015-01-10</res:ToDate>
    </rop:Header>
    <rop:MemberDetails>
        <mem:RecordSequenceNumber>1</mem:RecordSequenceNumber>
        <mem:Forename>mem1Forename</mem:Forename>
        <mem:Surname>mem1Surname</mem:Surname>
        <mem:NINumber>AA122385A</mem:NINumber>
        <mem:AlternativeUniqueId>100001</mem:AlternativeUniqueId>
        <mem:DateOfBirth>1970-01-01</mem:DateOfBirth>
        <mem:EnrolmentType>AE</mem:EnrolmentType>
```

```
                <mem:OptOutNotificationDate>2015-01-02</mem:OptOutNotificationDate>
                <mem:OptOutFulFilmentDate>2015-01-02</mem:OptOutFulFilmentDate>
                <mem:PaymentSource>
                        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
                </mem:PaymentSource>
                <mem:Group>
                        <grp:GroupName>GroupName</grp:GroupName>
                </mem:Group>
        </rop:MemberDetails>
        <rop:MemberDetails>
                <mem:RecordSequenceNumber>2</mem:RecordSequenceNumber>
                <mem:Forename>mem2Forename</mem:Forename>
                <mem:Surname>mem2Surname</mem:Surname>
                <mem:NINumber>AB122385A</mem:NINumber>
                <mem:AlternativeUniqueId>100002</mem:AlternativeUniqueId>
                <mem:DateOfBirth>1980-01-01</mem:DateOfBirth>
                <mem:EnrolmentType>AE</mem:EnrolmentType>
                <mem:OptOutNotificationDate>2015-01-05</mem:OptOutNotificationDate>
                <mem:OptOutFulFilmentDate>2015-01-05</mem:OptOutFulFilmentDate>
                <mem:PaymentSource>
                        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
                </mem:PaymentSource>
                <mem:Group>
                        <grp:GroupName>GroupName</grp:GroupName>
                </mem:Group>
        </rop:MemberDetails>
        <rop:MemberDetails>
                <mem:RecordSequenceNumber>3</mem:RecordSequenceNumber>
                <mem:Forename>mem3Forename</mem:Forename>
                <mem:Surname>mem3Surname</mem:Surname>
                <mem:NINumber>AC122385A</mem:NINumber>
                <mem:AlternativeUniqueId>100003</mem:AlternativeUniqueId>
                <mem:DateOfBirth>1975-01-01</mem:DateOfBirth>
                <mem:EnrolmentType>AE</mem:EnrolmentType>
                <mem:OptOutNotificationDate>2015-01-07</mem:OptOutNotificationDate>
                <mem:OptOutFulFilmentDate>2015-01-07</mem:OptOutFulFilmentDate>
                <mem:PaymentSource>
                        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
                </mem:PaymentSource>
                <mem:Group>
                        <grp:GroupName>GroupName</grp:GroupName>
                </mem:Group>
        </rop:MemberDetails>
        <rop:TotalOptOutDetails>
                <rop:TotalNumberOfMemberRecords>3</rop:TotalNumberOfMemberRecords>
        </rop:TotalOptOutDetails>
</rop:RetrieveOptOutsResponse>
```

3.5.3.1.3 Sample response (Failed)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<rop:RetrieveOptOutsResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
```

```
        xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
        xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
        xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
        xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
        xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
        xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
        xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
        xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
        xmlns:rop="http://www.ws.nestpensions.org.uk/ns/RetrieveOptOutsResponse"
        xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveOptOutsResponse
RetrieveOptOutsResponse.xsd ">
    <rop:Header>
        <res:AcknowledgementID>1234</res:AcknowledgementID>
<res:Employer><emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReference
Number>
        </res:Employer>
        <res:FromDate>2014-01-01</res:FromDate>
        <res:ToDate>2015-01-31</res:ToDate>
    </rop:Header>
    <rop:Messages>
      <msg:Record>
      <msg:Error>
        <msg:ErrorCode>1009</msg:ErrorCode>
        <msg:ErrorMessage>The From Date of this enquiry cannot be more than 5 weeks
prior to the current business date</msg:ErrorMessage>
      </msg:Error>
      </msg:Record>
    </rop:Messages>

</rop:RetrieveOptOutsResponse>
```

3.5.3.2 Schema diagram for Opt Out web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\RetrieveOptOuts\Schema Diagram\RetrieveOptOutsResponse.jpg
```

3.6 Retrieve Schedules web service

3.6.1 Request to retrieve schedules

Table 17: Request to retrieve schedules

Attribute	Value
URI	/psp-webservices/employer/v1/retrieve-schedules?emp_refno=EMPnnnnnnnnn&fromDate=YYYY-MM-DD&toDate=YYYY-MM-DD
Query string parameters	emp_refno; employer reference number, EMP followed by 9 numeric digits fromDate and toDate; dates in YYYY-MM-DD format
Supported methods	GET
Description	This service is used retrieve information about schedules from the scheme, within a date range.
Response	As detailed in section 2.4.1
Status code for successful response	202

Input Media type (MIME)	NA
Output Media type	NA if successful, application/xml if 4xx error returned

3.6.1.1 Request/Response samples

3.6.1.1.1 Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/retrieve-
schedules?emp_refno= EMP123456789&fromDate=2014-12-15&toDate=2014-01-15 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.6.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-schedules/status/12345 X-
ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20
X-NEST-STATUS: SUCCESS
```

3.6.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="fromDate">
            <ns1:Error>
                <ns1:ErrorCode>80017</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
        <ns1:Record AttributeName="toDate">
            <ns1:Error>
                <ns1:ErrorCode>80018</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
```

```
        </ns0:Messages>
    </ns0:ErrorResponse>
```

3.6.2 Retrieve schedule request processing status

Table 18: Retrieve schedule request processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/retrieve-schedules/status/{UID}
Description	This service is used to check status of schedule summary information web service.
Supported methods	GET
Response	As detailed in section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.6.2.1 Request/Response samples

3.6.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-
schedules/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.6.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-schedules/response/12345
```

3.6.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 Ok
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.6.3 Retrieve schedule response

Table 19: Retrieve schedule response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/retrieve-schedule/response/{UID}
Description	This URI is used to fetch the response for schedule summary information.
Supported methods	GET
Response	As detailed in section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	XML conforming to schedule-summary-info response schema

3.6.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-schedules/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.6.3.1.2 Sample Response (Success)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<rsp:RetrieveSchedulesResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rsp="http://www.ws.nestpensions.org.uk/ns/RetrieveSchedulesResponse"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveSchedulesResponse
RetrieveSchedulesResponse.xsd ">
  <rsp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
```

```xml
      </res:Employer>
      <res:FromDate>2014-01-01</res:FromDate>
      <res:ToDate>2015-01-31</res:ToDate>
    </rsp:Header>
    <rsp:ScheduleDetails>
      <rsp:RecordSequenceNumber>1</rsp:RecordSequenceNumber>
      <rsp:PaymentSource>
        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
      </rsp:PaymentSource>
      <rsp:Frequency>
        <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
      </rsp:Frequency>
      <rsp:Schedule>
        <sch:EarningsPeriodEndDate>2014-01-31</sch:EarningsPeriodEndDate>
        <sch:DueDate>2014-02-10</sch:DueDate>
        <sch:EarningsPeriodStartDate>2014-01-01</sch:EarningsPeriodStartDate>
        <sch:ScheduleStatus>O</sch:ScheduleStatus>
        <sch:ScheduleRefNumber>sch123456789</sch:ScheduleRefNumber>
      </rsp:Schedule>
      <rsp:ExpectedAmountOnSchedule>0.00</rsp:ExpectedAmountOnSchedule>
<rsp:CountOfMembersInNotYetValidatedStatus>0</rsp:CountOfMembersInNotYetValidatedStatu
s>
      <rsp:CountOfMembersInInvalidStatus>0</rsp:CountOfMembersInInvalidStatus>
    </rsp:ScheduleDetails>
    <rsp:ScheduleDetails>
    <rsp:RecordSequenceNumber>2</rsp:RecordSequenceNumber>
    <rsp:PaymentSource>
        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
      </rsp:PaymentSource>
      <rsp:Frequency>
        <grp:PaymentFrequency>Monthly</grp:PaymentFrequency>
      </rsp:Frequency>
      <rsp:Schedule>
        <sch:EarningsPeriodEndDate>2014-03-31</sch:EarningsPeriodEndDate>
        <sch:DueDate>2014-04-10</sch:DueDate>
        <sch:EarningsPeriodStartDate>2014-03-01</sch:EarningsPeriodStartDate>
        <sch:ScheduleStatus>O</sch:ScheduleStatus>
        <sch:ScheduleRefNumber>sch123456780</sch:ScheduleRefNumber>
      </rsp:Schedule>
      <rsp:ExpectedAmountOnSchedule>0.00</rsp:ExpectedAmountOnSchedule>
<rsp:CountOfMembersInNotYetValidatedStatus>0</rsp:CountOfMembersInNotYetValidatedStatu
s>
      <rsp:CountOfMembersInInvalidStatus>0</rsp:CountOfMembersInInvalidStatus>
    </rsp:ScheduleDetails>
</rsp:RetrieveSchedulesResponse>
```

3.6.3.1.3 Sample response (Failed)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<rsp:RetrieveSchedulesResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
```

```
      xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
      xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
      xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
      xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
      xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
      xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
      xmlns:rsp="http://www.ws.nestpensions.org.uk/ns/RetrieveSchedulesResponse"
      xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveSchedulesResponse
      RetrieveSchedulesResponse.xsd ">
    <rsp:Header>
      <res:AcknowledgementID>1234</res:AcknowledgementID>
      <res:Employer>
        <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
      </res:Employer>
      <res:FromDate>2010-01-01</res:FromDate>
      <res:ToDate>2015-01-01</res:ToDate>
    </rsp:Header>
    <rsp:Messages>
      <msg:Record>
      <msg:Error>
        <msg:ErrorCode>1008</msg:ErrorCode>
        <msg:ErrorMessage>The date range requested cannot exceed a 2 year
period.</msg:ErrorMessage>
      </msg:Error>
      </msg:Record>
    </rsp:Messages>
  </rsp:RetrieveSchedulesResponse>
```

3.6.3.2 Schema diagram for schedule summary information web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\RetrieveSchedules\Schema Diagram\RetrieveSchedulesResponse.jpg
```

3.7 Retrieve current setup details web service

3.7.1 Request to retrieve current setup details

Table 20: Request to retrieve current setup details

Attribute	Value
URI	/psp-webservices/employer/v1/retrieve-current-setup-details?emp_refno=EMPnnnnnnnnn
Query string parameters	emp_refno; employer reference number, EMP followed by 9 numeric digits
Supported methods	GET
Description	This service is used retrieve information about groups and payment sources for an employer. This request will not have any query string parameters.
Response	As detailed in section 2.4.1
Status code for successful response	202
Input Media type (MIME)	NA

Output Media type	NA if successful, application/xml if 4xx error returned

3.7.1.1 Request/Response samples

3.7.1.1.1 Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/retrieve-current-setup-
details?emp_refno=EMP123456789 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.7.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-current-setup-details/status/12345 X-
ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20
X-NEST-STATUS: SUCCESS
```

3.7.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="fromDate">
            <ns1:Error>
                <ns1:ErrorCode>80017</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
        <ns1:Record AttributeName="toDate">
            <ns1:Error>
                <ns1:ErrorCode>80018</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
```

```
</ns0:ErrorResponse>
```

3.7.2 Retrieve current setup details request processing status

Table 21: Retrieve current setup details request processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/ retrieve-current-setup-details/status/{UID}
Description	This service is used to retrieve status of group and payment sources information web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.7.2.1 Request/Response samples

3.7.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-
current-setup-details/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.7.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-current-setup-details/response/12345
```

3.7.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.7.3 Retrieve current setup details response

Table 22: Retrieve current setup details response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/retrieve-current-setup-details/response/{UID}
Description	This URI is used to fetch the response for group and payment sources information.
Supported methods	GET
Response	As detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	XML conforming to retrieve current setup details response schema

3.7.3.1 Request/Response samples

3.7.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-
current-setup-details/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.7.3.1.2 Sample Response (Success)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS

<?xml version="1.0" encoding="UTF-8"?>
<rcp:RetrieveCurrentSetUpDetailsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pmc="http://www.ws.nestpensions.org.uk/ns/PrimaryContact"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:rcp="http://www.ws.nestpensions.org.uk/ns/RetrieveCurrentSetUpDetailsResponse"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveCurrentSetUpDetailsRe
sponse RetrieveCurrentSetUpDetailsResponse.xsd ">
<rcp:Header>
    <rcp:AcknowledgementID>1234</rcp:AcknowledgementID>
    <rcp:Employer>
```

```
            <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
            <emp:OrganizationName>OrganizationName</emp:OrganizationName>
            <emp:EmployerStatus>A</emp:EmployerStatus>
        </rcp:Employer>
        <rcp:PrimaryContact>
            <pmc:PrimaryContactEmailAddress>PC@company.com</pmc:PrimaryContactEmailAddress>
        </rcp:PrimaryContact>
    </rcp:Header>
    <rcp:Group>
        <grp:GroupUniqueReference>GroupUniqueReference</grp:GroupUniqueReference>
        <grp:GroupName>GroupName</grp:GroupName>
        <grp:ContributionDetails>
            <cnr:ContributionLevel>BA</cnr:ContributionLevel>
            <cnr:EarningBasis>QE</cnr:EarningBasis>
            <cnr:ContributionRateForFirstPhase>
                <cnr:EmployerContribution>1.00</cnr:EmployerContribution>
                <cnr:EmployeeContribution>1.00</cnr:EmployeeContribution>
            </cnr:ContributionRateForFirstPhase>
            <cnr:ContributionRateForSecondPhase>
                <cnr:EmployerContribution>2.00</cnr:EmployerContribution>
                <cnr:EmployeeContribution>3.00</cnr:EmployeeContribution>
            </cnr:ContributionRateForSecondPhase>
            <cnr:ContributionRateForSteadyStatePhase>
                <cnr:EmployerContribution>3.00</cnr:EmployerContribution>
                <cnr:EmployeeContribution>5.00</cnr:EmployeeContribution>
            </cnr:ContributionRateForSteadyStatePhase>
            <cnr:MaxContributionRateApplies>Y</cnr:MaxContributionRateApplies>
            <cnr:MaximumContributionRate>
                <cnr:EmployerContribution>100.00</cnr:EmployerContribution>
                <cnr:EmployeeContribution>100.00</cnr:EmployeeContribution>
            </cnr:MaximumContributionRate>
        </grp:ContributionDetails>
        <grp:Frequency>Monthly</grp:Frequency>
        <grp:EPED>2015-01-31</grp:EPED>
        <grp:DueDateBasis>R</grp:DueDateBasis>
        <grp:RelativeDaysAfterEPED>10</grp:RelativeDaysAfterEPED>
        <grp:FutureDatedGroupChangeExist>Y</grp:FutureDatedGroupChangeExist>
        <grp:FutureDatedGroupChange>2015-03-01</grp:FutureDatedGroupChange>
    </rcp:Group>
    <rcp:PaymentSource>
<pms:PaymentSourceUniqueReference>PaymentSourceUniqueReference</pms:PaymentSourceUniqu
eReference>
        <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
        <pms:ContributionPaymentType>DD</pms:ContributionPaymentType>
        <pms:DDMandateStatus>AC</pms:DDMandateStatus>
    </rcp:PaymentSource>
</rcp:RetrieveCurrentSetUpDetailsResponse>
```

3.7.3.1.3 Sample response (Failed)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<rcp:RetrieveCurrentSetUpDetailsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
```

```
        xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
        xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
        xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
        xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
        xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
        xmlns:pmc="http://www.ws.nestpensions.org.uk/ns/PrimaryContact"
        xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
        xmlns:rcp="http://www.ws.nestpensions.org.uk/ns/RetrieveCurrentSetUpDetailsResponse"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveCurrentSetUpDetailsRe
        sponse RetrieveCurrentSetUpDetailsResponse.xsd ">
     <rcp:Header>
       <rcp:AcknowledgementID>1234</rcp:AcknowledgementID>
       <rcp:Employer>
         <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
       </rcp:Employer>
     </rcp:Header>
     <rcp:Messages>
       <msg:Record>
       <msg:Error>
         <msg:ErrorCode>1004</msg:ErrorCode>
         <msg:ErrorMessage>The request cannot be accepted as the employer is not
    currently active in the system.</msg:ErrorMessage>
       </msg:Error>
       </msg:Record>
     </rcp:Messages>
    </rcp:RetrieveCurrentSetUpDetailsResponse>
```

3.7.3.2 Schema diagram for Retrieve current setup web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\RetrieveCurrentSetUpDetails\Schema
Diagram\RetrieveCurrentSetUpDetailsResponse.jpg
```

3.8 Retrieve Member-notified Stopped Contributions web service

3.8.1 Request to retrieve member notified stopped contributions

Table 23: Request to retrieve member notified stopped contributions

Attribute	Value
URI	/psp-webservices/employer/v1/member-notified-stopped-contribution?emp_refno=EMPnnnnnnnnn&fromDate=YYYY-MM-DD&toDate=YYYY-MM-DD
Query string parameters	emp_refno; employer reference number, EMP followed by 9 numeric digits fromDate and toDate; dates in YYYY-MM-DD format
Supported methods	GET
Description	This service is used retrieve information about member notified stopped contribution, within a date range.
Response	As detailed in section 2.4.1
Status code for successful response	202
Input Media type (MIME)	NA
Output Media type	NA if successful, application/xml if 4xx error returned

3.8.1.1 Request/Response samples

3.8.1.1.1 Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/member-notified-
stopped-contribution?emp_refno=EMP123456789&fromDate=2014-12-15&toDate=2014-01-15
HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.8.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/
member-notified-stopped-contribution/status/12345
X-ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20 X-NEST-
STATUS: SUCCESS
```

3.8.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="fromDate">
            <ns1:Error>
                <ns1:ErrorCode>80017</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
        <ns1:Record AttributeName="toDate">
            <ns1:Error>
                <ns1:ErrorCode>80018</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.8.2 Retrieve member notified stopped contributions request processing status

Table 24: Retrieve member notified stopped contributions request processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/member-notified-stopped-contribution/status/{UID}
Description	This service is used to retrieve status of member notified stopped contribution information web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.8.2.1 Request/Response samples

3.8.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/member-
notified-stopped-contribution/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.8.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/member-notified-stopped-
contribution/response/12345
```

3.8.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.8.3 Retrieve member notified stopped contribution response

Table 25: Retrieve member notified stopped contribution response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/member-notified-stopped-contribution/response/{UID}

Description	This URI is used to fetch the response for member notified stopped contribution information.
Supported methods	GET
Response	As detailed in section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	XML conforming to retrieve member notified stopped contributions response schema

3.8.3.1 Request/Response samples

3.8.3.1.1 Sample Request

```
GET  https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/member-
notified-stopped-contribution/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.8.3.1.2 Sample Response (Success)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS


<?xml version="1.0" encoding="UTF-8"?>
<rmp:RetrieveMemberNotifiedStoppedContributionsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rmp="http://www.ws.nestpensions.org.uk/ns/RetrieveMemberNotifiedStoppedContribut
ionsResponse" xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveMemberNotifiedStopped
ContributionsResponse RetrieveMemberNotifiedStoppedContributionsResponse.xsd ">
  <rmp:Header>
          <res:AcknowledgementID>1234</res:AcknowledgementID>
          <res:Employer>

        <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
          </res:Employer>
          <res:FromDate>2015-01-01</res:FromDate>
          <res:ToDate>2015-01-31</res:ToDate>
      </rmp:Header>
      <rmp:MemberDetails>
```

```
            <rmp:Member>
                    <mem:RecordSequenceNumber>1</mem:RecordSequenceNumber>
                    <mem:Forename>mem1Forename</mem:Forename>
                    <mem:Surname>mem1Surname</mem:Surname>
                    <mem:NINumber>AA123456A</mem:NINumber>
                    <mem:AlternativeUniqueId>100001</mem:AlternativeUniqueId>
                    <mem:DateOfBirth>1970-01-01</mem:DateOfBirth>
            </rmp:Member>
            <rmp:DateRequestProcessed>2015-01-02</rmp:DateRequestProcessed>
            <rmp:CeaseContributionEffectiveDate>2015-02-
01</rmp:CeaseContributionEffectiveDate>
        </rmp:MemberDetails>
        <rmp:TotalDetails>
            <rmp:TotalNumberOfMemberRecords>1</rmp:TotalNumberOfMemberRecords>
        </rmp:TotalDetails>
  </rmp:RetrieveMemberNotifiedStoppedContributionsResponse>
```

3.8.3.1.3 Sample response (Failed)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<rmp:RetrieveMemberNotifiedStoppedContributionsResponse
xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rmp="http://www.ws.nestpensions.org.uk/ns/RetrieveMemberNotifiedStoppedContribut
ionsResponse" xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveMemberNotifiedStopped
ContributionsResponse RetrieveMemberNotifiedStoppedContributionsResponse.xsd ">
  <rmp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </res:Employer>
    <res:FromDate>2014-01-01</res:FromDate>
    <res:ToDate>2015-01-01</res:ToDate>
  </rmp:Header>
  <rmp:Messages>
    <msg:Record>
    <msg:Error>
      <msg:ErrorCode>1009</msg:ErrorCode>
      <msg:ErrorMessage>The From Date of this enquiry cannot be more than 5 weeks
prior to the current business date.</msg:ErrorMessage>
    </msg:Error>
    </msg:Record>
  </rmp:Messages>
</rmp:RetrieveMemberNotifiedStoppedContributionsResponse>
```

3.8.3.2 Schema diagram for Member notified stopped contribution web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\MemberNotifiedStoppedContributions\Schema
Diagram\RetrieveMemberNotifiedStoppedContributionsResponse.jpg
```

3.9 Retrieve Refunds web service

3.9.1 Request to retrieve refunds

Table 26: Request to retrieve refunds

Attribute	Value
URI	/psp-webservices/employer/v1/retrieve-refunds? emp_refno=EMPnnnnnnnnn&fromDate=YYYY-MM-DD&toDate=YYYY-MM-DD
Query string parameters	emp_refno; employer reference number, EMP followed by 9 numeric digits fromDate and toDate; dates in YYYY-MM-DD format
Supported methods	GET
Description	This service is used retrieve information about refunds to employer, within a date range.
Response	As detailed in section 2.4.1
Status code for successful response	202
Input Media type (MIME)	NA
Output Media type	NA if successful, application/xml if 4xx error returned

3.9.1.1 Request/Response samples

3.9.1.1.1 Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/retrieve-
refunds?emp_refno=EMP123456789&fromDate=2014-12-15&toDate=2014-01-15 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ=
X-PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.9.1.1.2 Success response

```
HTTP/1.1 202 Accepted
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-refunds/status/12345 X-
ACKID: 12345
X-EXP-TAT: 15/01/2015 10:20
X-NEST-STATUS: SUCCESS
```

3.9.1.1.3 Error response

```
HTTP/1.1 400 Bad Request
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<ns0:ErrorResponse
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse
ErrorResponse.xsd"
    xmlns:ns1="http://www.ws.nestpensions.org.uk/ns/Message"
    xmlns:ns0="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <ns0:Messages>
        <ns1:Record AttributeName="fromDate">
            <ns1:Error>
                <ns1:ErrorCode>80017</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
        <ns1:Record AttributeName="toDate">
            <ns1:Error>
                <ns1:ErrorCode>80018</ns1:ErrorCode>
                <ns1:ErrorMessage>The value provided '2015-02-29' is not a valid value
for 'date'</ns1:ErrorMessage>
            </ns1:Error>
        </ns1:Record>
    </ns0:Messages>
</ns0:ErrorResponse>
```

3.9.2 Retrieve refunds request processing status

Table 27: Retrieve refunds request processing status

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/retrieve-refunds/status/{UID}
Description	This service is used to retrieve status of refunds to employer information web service.
Supported methods	GET
Response	As detailed in Section 2.4.2
Status code for successful response	200, 201
Input Media type (MIME)	NA
Output Media type	NA

3.9.2.1 Request/Response samples

3.9.2.1.1 Sample request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-
refunds/status/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.9.2.1.2 Sample response (If the backend processing has been completed)

```
HTTP/1.1 201 Created
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
Location: https://ws.nestpensions.org.uk/psp-
webservices/employer/v1/EMP123456789/retrieve-refunds/response/12345
```

3.9.2.1.3 Sample response (If the backend processing has NOT been completed)

```
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-EXP-TAT: 15/01/2015 10:20
```

3.9.3 Retrieve refunds response

Table 28: Retrieve refunds response

Attribute	Value
URI	/psp-webservices/employer/v1/{EMPREFNO}/retrieve-refunds/response/{UID}
Description	This URI is used to fetch the response for refunds to employer information.
Supported methods	GET
Response	As detailed in Section 2.4.3
Status code for successful response	200
Input Media type (MIME)	NA
Output Media type	XML conforming to retrieve refunds response schema

3.9.3.1 Request/Response samples

3.9.3.1.1 Sample Request

```
GET https://ws.nestpensions.org.uk/psp-webservices/employer/v1/EMP123456789/retrieve-
refunds/response/12345 HTTP/1.1
Host: ws.nestpensions.org.uk
```

```
Authorization: Basic aHR0cHsRtXweZ= X-
PROVIDER-SOFTWARE: Client1
X-PROVIDER-SOFTWARE-VERSION: 10.0.1
```

3.9.3.1.2 Sample Response (Success)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: SUCCESS

<?xml version="1.0" encoding="UTF-8"?>
<rfp:RetrieveRefundsResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rfp="http://www.ws.nestpensions.org.uk/ns/RetrieveRefundsResponse"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveRefundsResponse
RetrieveRefundsResponse.xsd ">
  <rfp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </res:Employer>
    <res:FromDate>2015-01-01</res:FromDate>
    <res:ToDate>2015-01-10</res:ToDate>
  </rfp:Header>
  <rfp:TotalRefundDetails>
    <rfp:DateOfRefund>2015-01-06</rfp:DateOfRefund>
    <rfp:TotalRefundAmount>36.00</rfp:TotalRefundAmount>
    <rfp:PaymentReference>PAY123456789</rfp:PaymentReference>
    <rfp:BreakUpDetailsOfThePayment>
      <rfp:ProcessType>OO</rfp:ProcessType>
      <rfp:DateTheProcessCompleted>2015-01-06</rfp:DateTheProcessCompleted>
<rfp:AmountOfRefundForTheProcess>36.00</rfp:AmountOfRefundForTheProcess>
      <rfp:OptoutAndEnrolmentCancellationRefundDetails>
        <rfp:Member>
          <mem:Firstname>mem1Firstname</mem:Firstname>
          <mem:Lastname>mem1Lastname</mem:Lastname>
          <mem:NINumber>AA123456C</mem:NINumber>
          <mem:AlternativeUniqueId>10001</mem:AlternativeUniqueId>
          <mem:DateOfBirth>1970-01-01</mem:DateOfBirth>
          <mem:EnrolmentType>AE</mem:EnrolmentType>
        </rfp:Member>
        <rfp:PaymentSource>
<pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
        </rfp:PaymentSource>
        <rfp:RefundReason>OO</rfp:RefundReason>
        <rfp:OptoutRefundAmount>18.00</rfp:OptoutRefundAmount>
        </rfp:OptoutAndEnrolmentCancellationRefundDetails>
        <rfp:OptoutAndEnrolmentCancellationRefundDetails>
        <rfp:Member>
```

```
            <mem:Firstname>mem2Firstname</mem:Firstname>
            <mem:Lastname>mem2Lastname</mem:Lastname>
            <mem:NINumber>AB123456C</mem:NINumber>
            <mem:AlternativeUniqueId>10002</mem:AlternativeUniqueId>
            <mem:DateOfBirth>1975-01-01</mem:DateOfBirth>
            <mem:EnrolmentType>AE</mem:EnrolmentType>
          </rfp:Member>
          <rfp:PaymentSource>
            <pms:PaymentSourceName>PaymentSourceName</pms:PaymentSourceName>
          </rfp:PaymentSource>
          <rfp:RefundReason>OO</rfp:RefundReason>
          <rfp:OptoutRefundAmount>18.00</rfp:OptoutRefundAmount>
        </rfp:OptoutAndEnrolmentCancellationRefundDetails>
      </rfp:BreakUpDetailsOfThePayment>
    </rfp:TotalRefundDetails>
  </rfp:RetrieveRefundsResponse>
```

3.9.3.1.3 Sample response (Failed)

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8 Cache-
Control: no-cache, no-store
Pragma: no-cache
Expires: 0
X-NEST-STATUS: FAILED


<?xml version="1.0" encoding="UTF-8"?>
<rfp:RetrieveRefundsResponse xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"
xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"
xmlns:msg="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:res="http://www.ws.nestpensions.org.uk/ns/Response"
xmlns:rfp="http://www.ws.nestpensions.org.uk/ns/RetrieveRefundsResponse"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/RetrieveRefundsResponse
RetrieveRefundsResponse.xsd ">
  <rfp:Header>
    <res:AcknowledgementID>1234</res:AcknowledgementID>
    <res:Employer>
      <emp:NESTEmployerReferenceNumber>EMP123456789</emp:NESTEmployerReferenceNumber>
    </res:Employer>
    <res:FromDate>2014-01-01</res:FromDate>
    <res:ToDate>2015-01-31</res:ToDate>
  </rfp:Header>
  <rfp:Messages>
    <msg:Record>
    <msg:Error>
      <msg:ErrorCode>1009</msg:ErrorCode>
      <msg:ErrorMessage>The From Date of this enquiry cannot be more than 5 weeks
prior to the current business date.</msg:ErrorMessage>
    </msg:Error>
    </msg:Record>
  </rfp:Messages>
</rfp:RetrieveRefundsResponse>
```

3.9.3.2 Schema diagram for Retrieve refunds web service Response

```
Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\RetrieveRefunds\Schema Diagram\RetrieveRefundsResponse.jpg
```

Refer to attachment in Section 4.3
..\Payroll_XSD_v2.0.12\RetrieveRefunds\Schema Diagram\RetrieveRefundsResponse.jpg

4 Appendix

4.1 Error Codes details

Errors related to web services are detailed in this file **Error messages for web services**

Error Code : 80000

This error is thrown in the rarest of scenarios, where the input has xml errors which have not been configured in the gateway. The error message associated with the 8000 error codes, is the standard error message thrown by the underlying xml parser.

Ex:

In the below example, input xml missing the Attribute called Id for the element Employer.

Sample Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<apr:ApproveForPaymentRequest        xmlns:add="http://www.ws.nestpensions.org.uk/ns/Address"
xmlns:apr="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentRequest"
xmlns:cnr="http://www.ws.nestpensions.org.uk/ns/ContributionRates"
xmlns:com="http://www.ws.nestpensions.org.uk/ns/CommonTypes"
xmlns:emp="http://www.ws.nestpensions.org.uk/ns/Employer"        xmlns:grp="http://www.ws.nestpensions.org.uk/ns/Group"
xmlns:mem="http://www.ws.nestpensions.org.uk/ns/Member"        xmlns:per="http://www.ws.nestpensions.org.uk/ns/Person"
xmlns:pms="http://www.ws.nestpensions.org.uk/ns/PaymentSource"
xmlns:sch="http://www.ws.nestpensions.org.uk/ns/Schedule"        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ApproveForPaymentRequest        ApproveForPaymentRequest.xsd
">
<apr:Employer id>
<emp:NESTEmployerReferenceNumber>EMP000003008</emp:NESTEmployerReferenceNumber>
</apr:Employer>
<apr:Schedule>
<sch:ScheduleRefNumber>sch:ScheduleRefNumber</sch:ScheduleRefNumber>
<sch:TotalAmountPayable>0.0</sch:TotalAmountPayable>
<sch:BulkUpdateToNoContributionDueFlag>Y</sch:BulkUpdateToNoContributionDueFlag>
</apr:Schedule>
</apr:ApproveForPaymentRequest>
```

Sample Response:

```
<ns3:ErrorResponse xsi:schemaLocation="http://www.ws.nestpensions.org.uk/ns/ErrorResponse ErrorResponse.xsd"
xmlns:ns2="http://www.ws.nestpensions.org.uk/ns/Message"
xmlns:ns3="http://www.ws.nestpensions.org.uk/ns/ErrorResponse"        xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
<ns3:Messages>
<ns2:Record AttributeName="apr:ApproveForPaymentRequest">
<ns2:Error>
<ns2:ErrorCode>80000</ns2:ErrorCode>
<ns2:ErrorMessage>Attribute name 'id' associated with an element type 'apr:Employer' must be followed by the ' = '
character.</ns2:ErrorMessage>
</ns2:Error>
</ns2:Record>
</ns3:Messages>
</ns3:ErrorResponse>
```

Errors fall into three categories:

- Gateway errors: these relate to acceptance, authentication and security checks and also include XSD validation errors;
- Business validation errors1: these relate to failures to confirm to the data item specifications defined in the NEST Web Services Operational Design Guide; and
- Business process warnings1: these can occur as a result of business processing and may need to be accommodated in payroll solutions.

The error log contains the following details for web service error messages:
- HTTP Status Code: included where applicable
- Error Code: not applicable in certain HTTP error scenarios
- Error Message
- Recommendations to remove error
- Possible error scenarios
- Category
- Applicable Web Service

XSD errors, which are 'Gateway errors', result from inconsistencies with the defined XSD's, the following information is provided in the log:
- Error Code
- Error Message
- Attribute Name
- Applicable Web Service

4.2 HTTPS awareness

The following research paper from the University of Texas **The Most Dangerous Code in the World: Validating SSL Certificates in Non-Browser Software** provides background information on vulnerabilities which need to be considered when validating in non-browser software.

4.3 XSD's

XSD files are detailed in the **CSV templates and XSD files.**

4.4 XSD versions

Type of XSD	Name	Version
Core	Address.xsd	2.0.5
	CommonTypes.xsd	2.0.4
	ContributionRates.xsd	2.0.4
	Employer.xsd	2.0.2
	Group.xsd	2.0.3
	Member.xsd	2.0.2
	Message.xsd	2.0.2
	PaymentSource.xsd	2.0.1
	Person.xsd	3.0.1
	PrimaryContact.xsd	2.0.0
	Response.xsd	2.0.0
	Schedule.xsd	2.0.1
Process XSDs	ApproveForPaymentRequest	2.0.0
	ApproveForPaymentResponse	2.0.1
	EnrolWorkersRequest	2.0.0
	EnrolWorkersResponse	2.0.1
	ErrorResponse	2.0.1
	RetrieveMemberNotifiedStoppedContributionsResponse	2.0.2
	RetrieveCurrentSetUpDetailsResponse	2.0.1
	RetrieveOptOutsResponse	2.0.1
	RetrieveRefundsResponse	2.0.1
	RetrieveSchedulesResponse	2.0.1
	SetUpNewEmployerRequest	2.0.0
	SetUpNewEmployerResponse	2.0.1
	UpdateContributionsRequest	2.0.0
	UpdateContributionsResponse	2.0.2

5 About this version

Version and date		What's Changed
1.0	11 June 2015	First Public Version
2.0	05 August 2015	**2.1 General Considerations**

2.1   General Considerations

- Clarification made to response headers.
- Additional point added explaining headers issued.

2.4.3   Retrieve Response web service

- Clarification made in second paragraph.

2.4.3.1 For Enrol Workers and Update Contributions Process web services

- Additional text added to third bullet point to explain expected outcome.

2.5   Authentication

- Clarification made to description of server authentication and sample request text.

2.8   URL Validation

- Clarification of error codes returned and content of response header structure.

2.10 HTTP status codes

- Status code 302 (Found) added to table & common scenarios.
- Status code 405 sample request removed.

3.1   Enrol Workers web service

- Clarification to section reference for Input Media type (MIME) in table 2.
- Clarifications to XML text (3.1 to 3.9).

3.2   Update Contributions web service

- Clarification to section reference for Input Media type (MIME) in table 5.

3.6   Retrieve Schedules web service

- Clarification to section reference for Response in table 18 & 19.

3.7   Retrieve current setup details web service
- Clarification to Value text for URI in table 20.

4.1   Error Codes details

- Clarification added explaining error code 80000.

3.0	March 2017	**Sample Requests for all Web Services** - Exclude HTTP/1.1 from requests URL by removing underline
		2.5 Authentication. - Account Lock Notification email use case details added. **4.1 Error Codes details** - Updated version of error messages spreadsheet to reflect changes and new error messages.
4.1	Feb 2018	**4.1 Error Codes details** - Updated version of error messages spreadsheet to reflect changes and new error messages. **4.3 XSD's** - Updated version of the payroll XSDs **4.4 XSD versions** - Updated the versions of the XSDs which form part of the payroll XSD

| 5.0 | August 2018 | **4.1 Error Codes details** |
| | | Updated version of error messages spreadsheet to reflect the changes and new error messages. |

| 6.0 | August 2019 | **4.1 Error Codes details** |
| | | Updated version of error messages spreadsheet to reflect the changes and new error messages. |

| 6.1 | October 2019 | **4.1 Error Codes details**
No changes to error messages spreadsheet, however the hyperlink has been corrected for an invalid link. |

| 6.2 | February 2020 | **4.3 XSD's**
No changes to XSD file, however the hyperlink has been corrected for an invalid link. |

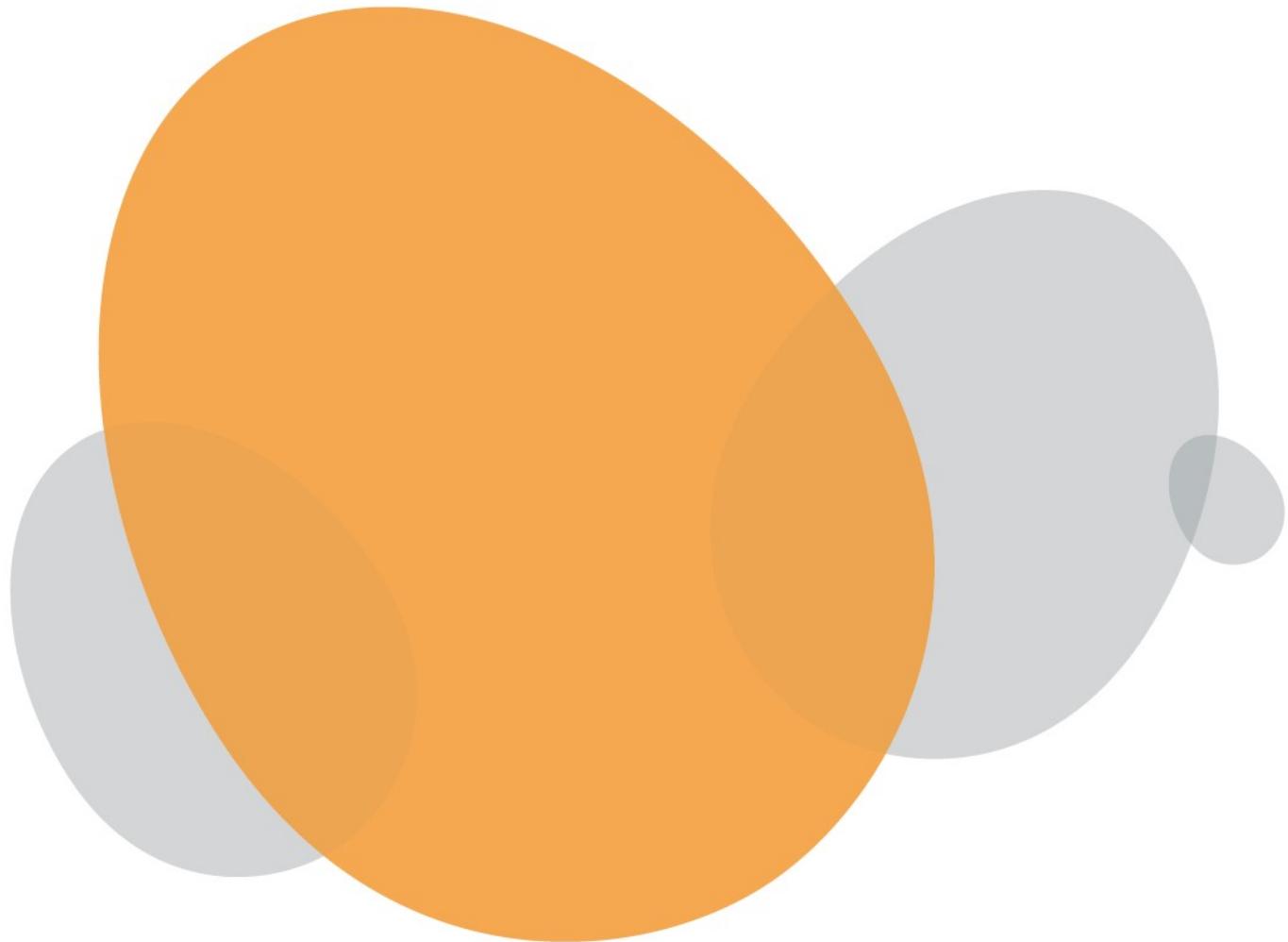| 7.0 | March 2021 | **2.5 Authentication**
Email notification example removed.

2.6 Authorization
The error response mentioned as part of the authorization failure corrected and correct error code updated. |

NEST
Nene Hall
Lynch Wood Business Park
PE2 6FY

nestpensions.org.uk/contactus