

# The Wireless Communication Transfer Protocol (WCTP)

## *Use Case Companion*

**Revision:** 1.1

**Release Date:** December 29, 2000

**Status:** Released

**Document ID:** wctp-v1r1-uc.doc



Personal Communications Industry Association

<http://www.pcia.com>

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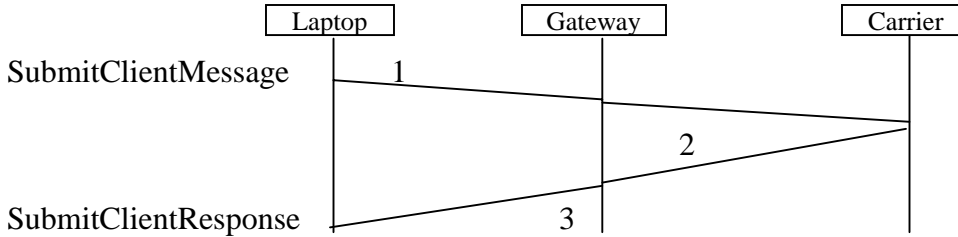
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**Use Case #1: Transient client sending a message to a valid customer**

Assume the recipient is on the same network/carrier as the WCTP Gateway.

**1.1. Submit a message:**

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-Recipient
        recipientID="userId@MyCarrier.com"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        Test page from my laptop to my pager
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>
  
```

1.2. MyCarrier accepts the request, queues the message for delivery and returns the tracking number.

**1.3. Request accepted:**

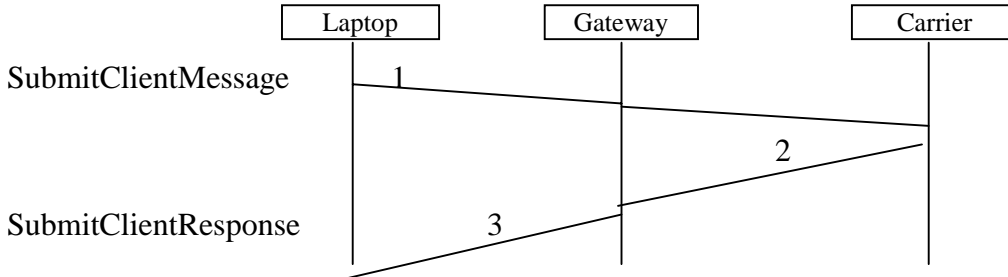
```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-ClientSuccess
      successCode="200"
      successText="Message accepted"
      trackingNumber="5579"
    >
      MyCarrier is happy to send your message as page!
  </wctp-SubmitClientResponse>
</wctp-Operation>
  
```

```
</wctp-ClientSuccess>  
  </wctp-SubmitClientResponse>  
</wctp-Operation>
```

**Use Case #2:** Transient client sending a message to an invalid customer

Assume the recipient is on the same network/carrier as the WCTP Gateway.



## 2.1. Submit a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-Recipient
        recipientID="myUserId@MyCarrier.com"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        Test page from my laptop to my pager
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>
  
```

## 2.2. MyCarrier rejects the request because myUserId is not a valid subscriber.

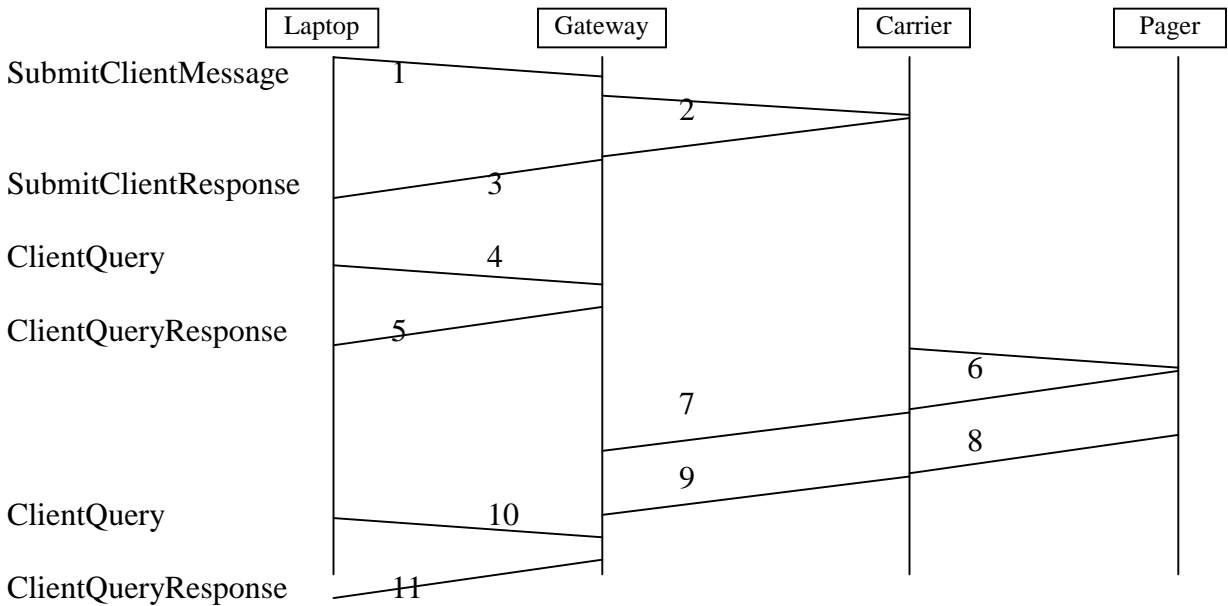
## 2.3. Request rejected:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-Failure
      errorCode="403"
      errorText="Invalid SenderID"
    >
      The subscriber "myUserId" does not exist at MyCarrier
    </wctp-Failure>
  </wctp-SubmitClientResponse>
</wctp-Operation>
  
```

**Use Case #3:** Transient client checking the status of a message using a valid tracking number.

Assume the recipient is on the same network/carrier as the WCTP Gateway.



3.1. Submit a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-ClientMessageControl
        notifyWhenQueued="true"
        notifyWhenDelivered="true"
        notifyWhenRead="true"
      />
      <wctp-Recipient
        recipientID="userId@MyCarrier.com"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        Test page from my laptop to my pager
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>
    
```

- 3.2. MyCarrier accepts the request, queues the message for delivery then returns the tracking number and the time the message was queued for delivery.
- 3.3. Request accepted:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-ClientSuccess
      successCode="200"
      successText="Message accepted"
      trackingNumber="5579"
    >
      MyCarrier is happy to send your message as page!
    </wctp-ClientSuccess>
  </wctp-SubmitClientResponse>
</wctp-Operation>
```

- 3.4. Check the status:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.myisp.com/my1_1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-ClientQuery
    senderID="mylaptop@myisp.com"
    recipientID="userId@MyCarrier.com"
    trackingNumber="5579"
  />
</wctp-Operation>
```

- 3.5. Receive the queued status (which is the only notification that has occurred):

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-ClientQueryResponse>
    <wctp-ClientMessage>
      <wctp-ClientStatusInfo>
        <wctp-ClientResponseHeader
          responseTimestamp="1999-03-31T19:45:02"
          respondingToTimestamp="1999-03-31T19:45:00"
        >
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
          <wctp-Recipient
            recipientId="mylaptop@myisp.com"
          />
        </wctp-ClientResponseHeader>
        <wctp-Notification
          type="QUEUED"
        />
      </wctp-ClientStatusInfo>
    </wctp-ClientMessage>
```



```

</wctp-ClientQueryResponse>
</wctp-Operation>

```

- 3.6. MyCarrier delivers the page to a pager (confirmed by the pager).
- 3.7. MyCarrier returns a delivery notification associated with the tracking number 5579, this sender & recipient.
- 3.8. Subscriber reads the message on the pager and the pager notifies MyCarrier.
- 3.9. MyCarrier returns a read notification associated with the tracking number 5579, this sender & recipient.
- 3.10. Check the status again:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.myisp.com/my1_1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-ClientQuery
    senderID="mylaptop@myisp.com"
    recipientID="userId@MyCarrier.com"
    trackingNumber="5579"
  />
</wctp-Operation>

```

- 3.11. Receive the queued, delivered & read statuses:

```

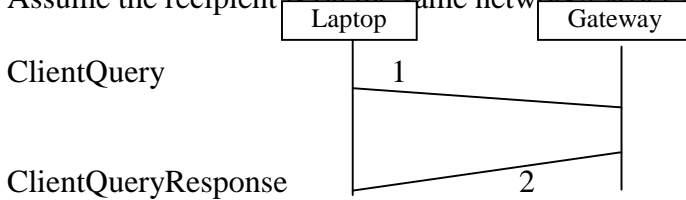
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-ClientQueryResponse>
    <wctp-ClientMessage>
      <wctp-ClientStatusInfo>
        <wctp-ClientResponseHeader
          responseTimestamp="1999-03-31T19:45:02"
          respondingToTimestamp="1999-03-31T19:45:00"
        >
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
          <wctp-Recipient
            recipientId="mylaptop@myisp.com"
          />
        </wctp-ClientResponseHeader>
        <wctp-Notification
          type="QUEUED"
        />
      </wctp-ClientStatusInfo>
    </wctp-ClientMessage>
    <wctp-ClientMessage>
      <wctp-ClientStatusInfo>
        <wctp-ClientResponseHeader
          responseTimestamp="1999-03-31T19:45:32"
          respondingToTimestamp="1999-03-31T19:45:00"
        >
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
          <wctp-Recipient
            recipientId="mylaptop@myisp.com"
          />
        </wctp-ClientResponseHeader>
        <wctp-Notification

```

```
        type="DELIVERED"
      />
    </wctp-ClientStatusInfo>
  </wctp-ClientMessage>
  <wctp-ClientMessage>
    <wctp-ClientStatusInfo>
      <wctp-ClientResponseHeader
        responseTimestamp="1999-03-31T19:46:09"
        respondingToTimestamp="1999-03-31T19:45:00"
      >
        <wctp-Originator
          senderId="userId@MyCarrier.com"
        />
        <wctp-Recipient
          recipientId="mylaptop@myisp.com"
        />
      </wctp-ClientResponseHeader>
      <wctp-Notification
        type="READ"
      />
    </wctp-ClientStatusInfo>
  </wctp-ClientMessage>
</wctp-ClientQueryResponse>
</wctp-Operation>
```

### Use Case #4: Transient client checking the status of a message using an invalid tracking number

Assume the recipient is on the same network/carrier as the WCTP Gateway.



#### 4.1. Check the status:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-ClientQuery
    senderID="mylaptop@myisp.com"
    recipientID="userId@MyCarrier.com"
    trackingNumber="5580"
  />
</wctp-Operation>
  
```

#### 4.2. Receive a response:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-ClientQueryResponse>
    <wctp-Failure>
      errorCode="504"
      errorText="Unknown message reference"
    >
      The trackingNumber "5580", senderID "mylaptop@myisp.com" and
      recipientID "userId@MyCarrier.com" do not resolve to a message
      which can be queried
    </wctp-Failure>
  </wctp-ClientQueryResponse>
</wctp-Operation>
  
```

**Use Case #5:** A device initiated message for an invalid host

Sample operation follows:

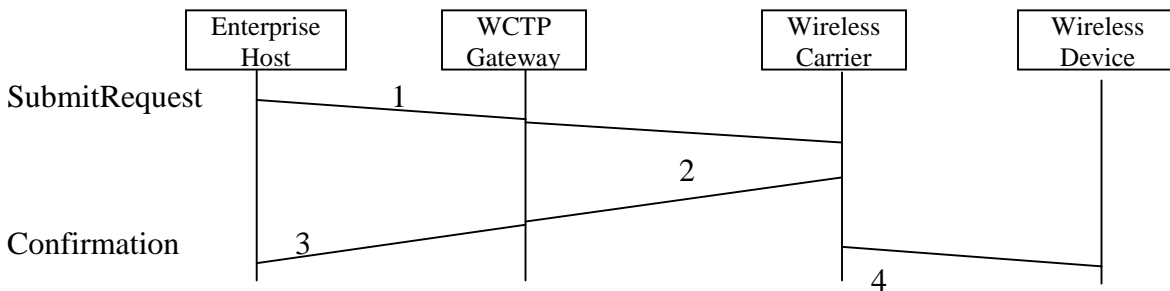
- 5.1. A transaction is started as an unsolicited message from a device is received at WCG for the carrier "Skypage":  
 Sender: 1234567  
 Recipient: Pageto:jo\_chen@eterprise.com  
 Payload: "meeting at 2 pm Wed"  
*Note:* eterprise.com is misspelled.
- 5.2. WCG determines this message should be delivered via WCTP based on the "Pageto:" portion of the Recipient and a wctp-SubmitRequest is generated. It then sends wctp-SubmitRequest to the Internet Gateway;
- 5.3. Internet Gateway consults its AliasRoutingTable and fails to find an entry for "eterprise.com", then determines that the wctp-SubmitRequest should be delivered via Standard Routing;
- 5.4. Internet Gateway consults its PollRegistrationTable and fails to find an entry for "eterprise.com", then determines that the message should be sent out immediately;
- 5.5. Internet Gateway constructs an XML message and attempts to deliver it using the HTTP Full-Request:

POST <http://wctp.eterprise.com/wctp> HTTP/1.0  
 with an Entity-Body as follows:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader
      submitTimestamp="1999-04-13T18:15:00"
    >
      <wctp-Originator
        senderID="1234567@skypage.com"
      />
      <wctp-MessageControl
        messageID="1C936BA3"
      />
      <wctp-Recipient
        recipientID="jo_chen@eterprise.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        "meeting at 2 pm Wed."
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
```

```
    </wctp-Payload>  
  </wctp-SubmitRequest>  
</wctp-Operation>
```

- 5.6. Internet Gateway receives the following HTTP response:  
HTTP/1.0 404 Not Found
  
- 5.7. Internet Gateway may notify the wireless device of the error condition by sending a message to WCG:  
Recipient: 1234567  
Payload: "Host not found: eterprise.com"
  
- 5.8. WCG forwards the above message to the wireless device. The transaction is completed.

**Use Case #6:** An enterprise host originated message to a valid device

## 6.1. Enterprise Host submits a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
<wctp-SubmitRequest>
  <wctp-SubmitHeader
    submitTimestamp="1999-04-19T18:18:00">
    <wctp-Originator
      senderID="controlcenter@myenterprise.com"
    />
    <wctp-MessageControl
      messageID="46264399"
    />
    <wctp-Recipient
      recipientID="1234567"
    />
  </wctp-SubmitHeader>
  <wctp-Payload>
    <wctp-Alphanumeric>
      This message is to a valid recipientID on this messaging network.
    </wctp-Alphanumeric>
  </wctp-Payload>
</wctp-SubmitRequest>
</wctp-Operation>
  
```

## 6.2. Carrier accepts the request. The carrier determines that the pin is valid. The carrier queues the message for delivery.

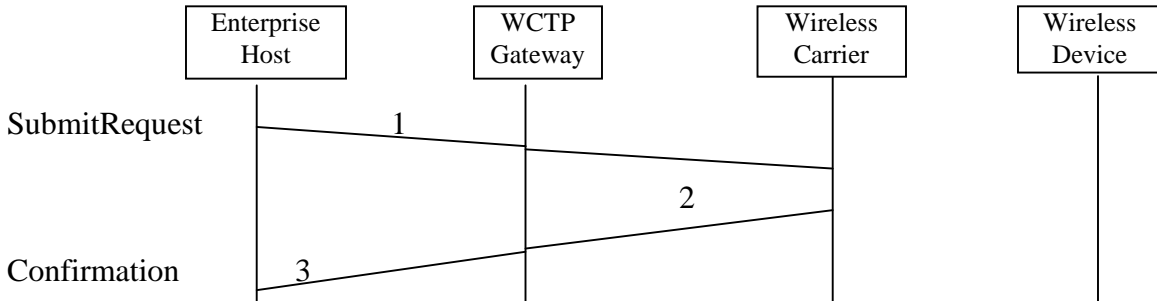
## 6.3. The gateway replies to indicate the submission request was accepted:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
<wctp-Confirmation>
  <wctp-Success
    successCode="200"
  >
    Message to 1234567 accepted.
  </wctp-Success>
</wctp-Confirmation>
  
```

```
</wctp-Operation>
```

6.4. Carrier delivers the message to the device.

**Use Case #7: An enterprise host originated message to an invalid device****7.1. Enterprise Host submits a message:**

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
<wctp-SubmitRequest>
  <wctp-SubmitHeader
    submitTimestamp="1999-04-19T18:18:00">
    <wctp-Originator
      senderID="controlcenter@myenterprise.com"
    />
    <wctp-MessageControl
      messageID="46264399"
    />
    <wctp-Recipient
      recipientID="1234567"
    />
  </wctp-SubmitHeader>
  <wctp-Payload>
    <wctp-Alphanumeric>
      This message is to an invalid recipientID on this messaging network
    </wctp-Alphanumeric>
  </wctp-Payload>
</wctp-SubmitRequest>
</wctp-Operation>
  
```

**7.2. Carrier receives the request; but as part of the validation the carrier determines that the recipientID does not exist on this network and sends an error message back to the gateway.****7.3. Gateway replies to indicate a submission error:**

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
<wctp-Confirmation>
  <wctp-Failure
    errorCode="403"
    errorText="Invalid recipientID"
  >
    RecipientID 1234567 is invalid.
  </wctp-Failure>
</wctp-Confirmation>
  
```



```
</wctp-Failure>  
</wctp-Confirmation>  
</wctp-Operation>
```

**Use Case #8:** A device initiated message to a default application on an enterprise host

Sample sequence of operation:

- 8.1. Transaction is started as an unsolicited message from a device is received at WCG for the carrier "skypage":
  - Sender: 1234567
  - Recipient: Pageto:inventory@oriental\_imports.com
  - Payload: "SELECT quantity FROM inventory WHERE sku=3328"
- 8.2. WCG determines this message should be delivered via WCTP based on the "PageTo:" portion of the Recipient and a wctp-SubmitRequest is generated. It then sends wctp-SubmitRequest to the Internet Gateway.
- 8.3. Internet Gateway consults its AliasRoutingTable and fails to find an entry for "oriental\_imports.com" then determines that the wctp-SubmitRequest should be delivered via Standard Routing.
- 8.4. Internet Gateway consults its PollRegistrationTable and fails to find an entry for "oriental\_imports.com" then determines that the message should be sent out immediately.
- 8.5. Internet Gateway constructs an XML message and delivers it using the HTTP Full-Request:
  - POST http://wctp.oriental\_imports.com/wctp HTTP/1.0
  - with an Entity-Body as follows:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader>
      submitTimestamp="1999-04-13T18:15:00"
    >
      <wctp-Originator>
        senderID="1234567@skypage.com"
      />
      <wctp-MessageControl>
        messageID="1C936BA3"
      />
      <wctp-Recipient>
        recipientID="inventory@oriental_imports.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        "SELECT quantity FROM inventory WHERE sku=3328"
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
```

- 8.6. Enterprise Host WCTP server receives an XML message and sends back a wctp-Confirmation using the HTTP Full-Response:  
 HTTP/1.0 200 OK  
 with an Entity-Body as follows:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="X2J8C125">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200 "
      successText="Message accepted"
    >
      "messageID 1C936BA3 received"
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
```

- 8.7. Enterprise Host WCTP server extracts the wctp-SubmitRequest from the message. Based on the recipientID and the server's DispatchLookupTable, the server determines that the message should be handled by /usr/local/bin/inventory\_app. It then dispatches the message to inventory\_app, which has been started earlier.

- 8.8. Inventory\_app processes the message and sends a reply to the Enterprise Host WCTP server:

```
Sender:          inventory
Recipient:       1234567@skypage.com
Payload:         "quantity=17"
```

- 8.9. Based on the recipientID, the Enterprise Host WCTP server sends the HTTP Full-Request to

POST http://wctp.skypage.com/wctp HTTP/1.0  
 with the following formatted XML wctp-MessageReply as the Entity-Body:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-MessageReply>
    <wctp-ResponseHeader
      responseToMessageID="1C936BA3"
      responseTimestamp="1999-04-13T18:15:30"
    >
      <wctp-Originator
        senderID="inventory@oriental_imports.com"
      />
      <wctp-MessageControl
        messageID="331"
      />
      <wctp-Recipient
        recipientID="1234567@skypage.com"
      />
    </wctp-ResponseHeader>
  <wctp-Payload>
```

```
<wctp-Alphanumeric>
  "quantity=17"
</wctp-Alphanumeric>
</wctp-Payload>
</wctp-MessageReply>
</wctp-Operation>
```

8.10. Internet Gateway receives an XML message, extracts the wctp-MessageReply, and sends it to the carrier skypepage's WCG according to the recipientID:

Sender: inventory@oriental\_imports.com  
Recipient: 1234567  
Payload: "quantity=17"

8.11. Skypepage's WCG sends the above message to a device. The transaction is completed.

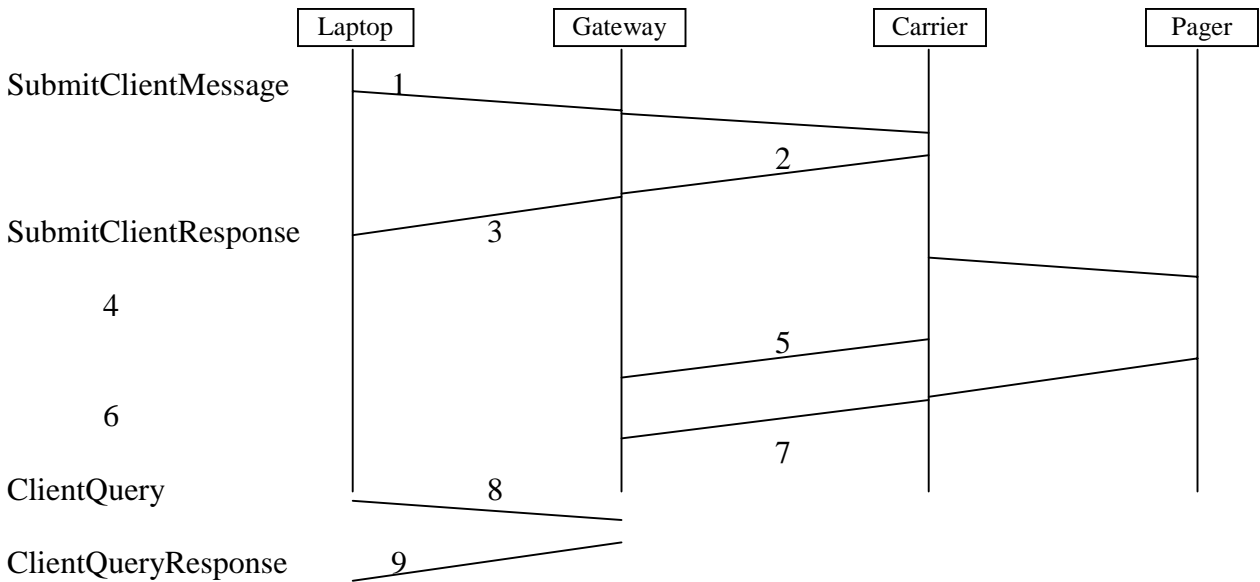
**Use Case #9:** An MCR message from a transient client or enterprise host

There are actually 3 different use cases here:

- A Transient client originated MCR and a subsequent MCR response
- A non-polling enterprise host originated MCR and a subsequent MCR response
- A polling enterprise host originated MCR and a subsequent MCR response

a. A Transient client originated MCR and a subsequent MCR response.

Assume the recipient on the same network/carrier as the WCTP Gateway.



b. Submit a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-ClientMessageControl
        allowResponse="true"
        notifyWhenDelivered="true"
      />
      <wctp-Recipient
        recipientID="userId@MyCarrier.com"
      />
    </wctp-SubmitClientHeader>
  </wctp-SubmitClientMessage>
</wctp-Operation>
    
```

```

</wctp-SubmitClientHeader>
<wctp-Payload>
  <wctp-MCR>
    <wctp-MessageText>
      Test MCR page from my laptop to my pager
    </wctp-MessageText>
    <wctp-Choice>
      text of MCR choice 1
    </wctp-Choice>
    <wctp-Choice>
      text of MCR choice 2
    </wctp-Choice>
    <wctp-Choice>
      text of MCR choice 3
    </wctp-Choice>
  </wctp-MCR>
</wctp-Payload>
</wctp-SubmitClientMessage>
</wctp-Operation>

```

- c. MyCarrier accepts the request, queues the message for delivery and returns a tracking number.
- d. Request accepted:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-ClientSuccess
      successCode="200"
      successText="Message accepted"
      trackingNumber="5579"
    >
      Thank you for using MyCarrier
    </wctp-ClientSuccess>
  </wctp-SubmitClientResponse>
</wctp-Operation>

```

- e. MyCarrier delivers the page to a pager
- f. MyCarrier returns the “delivered” notification associated with the tracking number 5579, this sender & recipient to the gateway.
- g. Subscriber sends an MCR response #2 from the pager.
- h. MyCarrier returns an MCR response associated with the tracking number 5579, this sender & recipient to the gateway.

## i. Check for response(s):

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-ClientQuery
    senderID="mylaptop@myisp.com"
    recipientID="userId@MyCarrier.com"
    trackingNumber="5579"
  />
</wctp-Operation>
```

## j. Receive queued responses as well as any returned statuses:

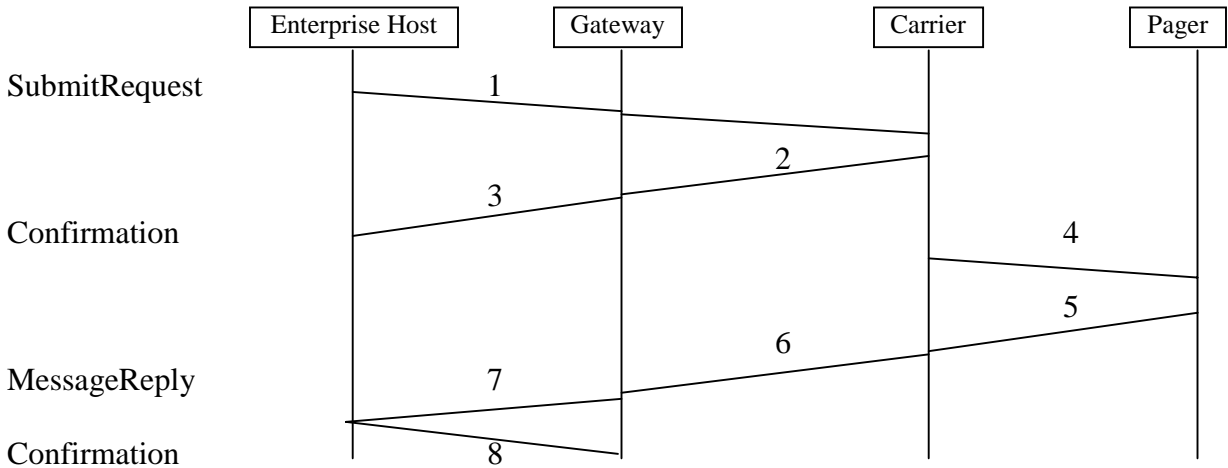
```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-ClientQueryResponse>
    <wctp-ClientMessage>
      <wctp-ClientStatusInfo>
        <wctp-ClientResponseHeader
          responseTimestamp="1999-03-31T19:46:10"
          respondingToTimestamp="1999-03-31T19:45:00"
        >
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
          <wctp-Recipient
            recipientId="mylaptop@myisp.com"
          />
        </wctp-ClientResponseHeader>
        <wctp-Notification
          type="DELIVERED"
        />
      </wctp-ClientStatusInfo>
    </wctp-ClientMessage>
    <wctp-ClientMessage>
      <wctp-ClientMessageReply>
        <wctp-ClientResponseHeader
          responseTimestamp="1999-03-31T21:16:09"
          respondingToTimestamp="1999-03-31T19:45:00"
        >
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
          <wctp-Recipient
            recipientId="mylaptop@myisp.com"
          />
        </wctp-ClientResponseHeader>
        <wctp-Payload>
          <wctp-Alphanumeric>
            text of MCR choice 2
          </wctp-Alphanumeric>
        </wctp-Payload>
      </wctp-ClientMessageReply>
    </wctp-ClientMessage>
  </wctp-ClientQueryResponse>
</wctp-Operation>

```



9.2. A non-polling enterprise host originated MCR and a subsequent MCR response



a. Enterprise Host submits an MCR message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader
      submitTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="controlcenter@myenterprise.com"
      />
      <wctp-MessageControl
        messageID="46264399"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient
        recipientID="john.tech@skypage.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-MCR>
        <wctp-MessageText>
          pH threshold exceeded. Location: Louisville, KY.
          TankNumber: 1234. DeviceId: Abcwireless.1234567
          Select a Corrective Action
        </wctp-MessageText>
        <wctp-Choice>
          Raise temperature 1 degree.
        </wctp-Choice>
        <wctp-Choice>
          Lower temperature 1 degree.
        </wctp-Choice>
        <wctp-Choice>
          Raise pressure 1 atm.
        </wctp-Choice>
        <wctp-Choice>
          Lower pressure 1 atm.
        </wctp-Choice>
      </wctp-MCR>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
    
```

```

        </wctp-Choice>
    </wctp-MCR>
</wctp-Payload>
</wctp-SubmitRequest>
</wctp-Operation>

```

- b. SkyPage accepts the request and queues the message for delivery.
- c. Gateway replies to indicate the submission request was accepted:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>

```

- d. SkyPage delivers the page to a pager.
- e. Subscriber sends an MCR response #1 from the pager.
- f. SkyPage sends an MCR response associated with the messageId 46264399.
- g. Gateway delivers the MCR response:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-MessageReply>
    <wctp-ResponseHeader
      responseToMessageID="46264399"
      responseTimestamp="1999-03-31T18:25:00"
      respondingToTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="john.tech@skypage.com"
        miscInfo="John The Technician"
      />
      <wctp-MessageControl
        messageID="33"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient
        recipientID="controlcenter@myenterprise.com"
      />
    </wctp-ResponseHeader>
  <wctp-Payload>
    <wctp-Alphanumeric>

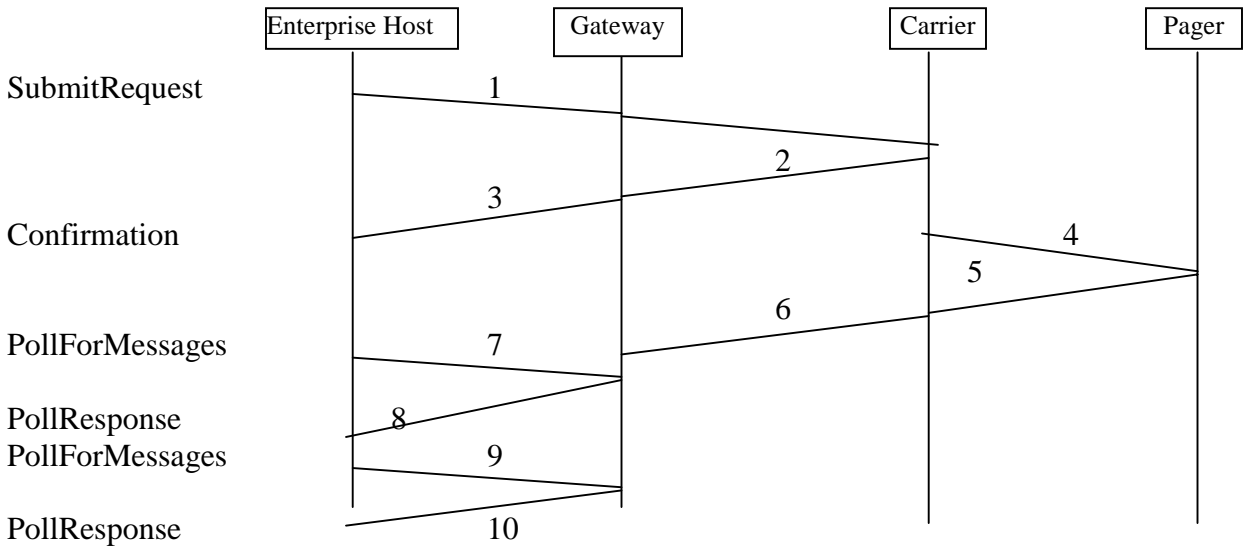
```

```
        Raise temperature 1 degree.  
    </wctp-Alphanumeric>  
  </wctp-Payload>  
</wctp-MessageReply>  
</wctp-Operation>
```

h. Enterprise Host confirms the receipt of an MCR response:

```
<?xml version="1.0"?>  
<!DOCTYPE wctp-Operation  
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">  
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="JJJ29888">  
  <wctp-Confirmation>  
    <wctp-Success  
      successCode="200"  
      successText="Message accepted"  
    >  
      Thankyou for using MyEnterprise  
    </wctp-Success>  
  </wctp-Confirmation>  
</wctp-Operation>
```

9.3. A polling enterprise host originated MCR and a subsequent MCR response



a. Enterprise Host submits an MCR message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader>
      submitTimestamp="1999-03-31T18:18:00">
      <wctp-Originator>
        senderID="controlcenter@myenterprise.com"
      />
      <wctp-MessageControl>
        messageID="46264399"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient>
        recipientID="john.tech@skypage.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-MCR>
        <wctp-MessageText>
          pH threshold exceeded. Location: Louisville, KY.
          TankNumber: 1234. DeviceId: Abcwireless.1234567
          Select a Corrective Action
        </wctp-MessageText>
        <wctp-Choice>
          Raise temperature 1 degree.
        </wctp-Choice>
        <wctp-Choice>
          Lower temperature 1 degree.
        </wctp-Choice>
        <wctp-Choice>
          Raise pressure 1 atm.
        </wctp-Choice>
      </wctp-MCR>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
    
```

```

        <wctp-Choice>
            Lower pressure 1 atm.
        </wctp-Choice>
    </wctp-MCR>
</wctp-Payload>
</wctp-SubmitRequest>
</wctp-Operation>

```

- b. SkyPage accepts the request and queues the message for delivery.
- c. Gateway replies to indicate the submission request was accepted:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
    <wctp-Confirmation>
        <wctp-Success
            successCode="200"
            successText="Message accepted"
        >
            Thankyou for using SkyPage
        </wctp-Success>
    </wctp-Confirmation>
</wctp-Operation>

```

- d. SkyPage delivers the page to a pager.
- e. Subscriber sends an MCR response #1 from the pager.
- f. SkyPage queues the MCR response associated with the messageId 46264399 for MyEnterprise.com
- g. Enterprise Host polls for any queued responses and notifications:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
    <wctp-PollForMessages
        pollerID="myenterprise.com"
        securityCode="qwerty"
        maxMessagesInBatch="10"
    />
</wctp-Operation>

```

- h. Gateway replies to the poll with a queued MCR response:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
    <wctp-PollResponse>
        <wctp-Message
            sequenceNo="57"

```

```

    >
      <wctp-MessageReply>
        <wctp-ResponseHeader
          responseToMessageID="46264399"
          responseTimestamp="1999-03-31T18:25:00"
          respondingToTimestamp="1999-03-31T18:18:00"
        >
          <wctp-Originator
            senderID="john.tech@skypage.com"
            miscInfo="John The Technician"
          />
          <wctp-MessageControl
            messageID="33"
            transactionID="19990331.PN.1234567.001"
          />
          <wctp-Recipient
            recipientID="controlcenter@myenterprise.com"
          />
        </wctp-ResponseHeader>
        <wctp-Payload>
          <wctp-Alphanumeric>
            Raise temperature 1 degree.
          </wctp-Alphanumeric>
        </wctp-Payload>
      </wctp-MessageReply>
    </wctp-Message>
  </wctp-PollResponse>
</wctp-Operation>

```

- i. Enterprise Host confirms the receipt of an MCR response in the next poll:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="myenterprise.com"
    securityCode="qwerty"
    maxMessagesInBatch="10"
  >
    <wctp-MessageReceived
      sequenceNo="57"
    >
      <wctp-Success
        successCode="200"
        successText="Message accepted"
      >
        Thank you for using MyEnterprise
      </wctp-Success>
    </wctp-MessageReceived>
  </wctp-PollForMessages>
</wctp-Operation>

```

- j. Gateway replies to the poll:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse>

```

```
<wctp-NoMessages />  
</wctp-PollResponse>  
</wctp-Operation>
```

**Use Case #10: A binary message from a transient client or enterprise host**

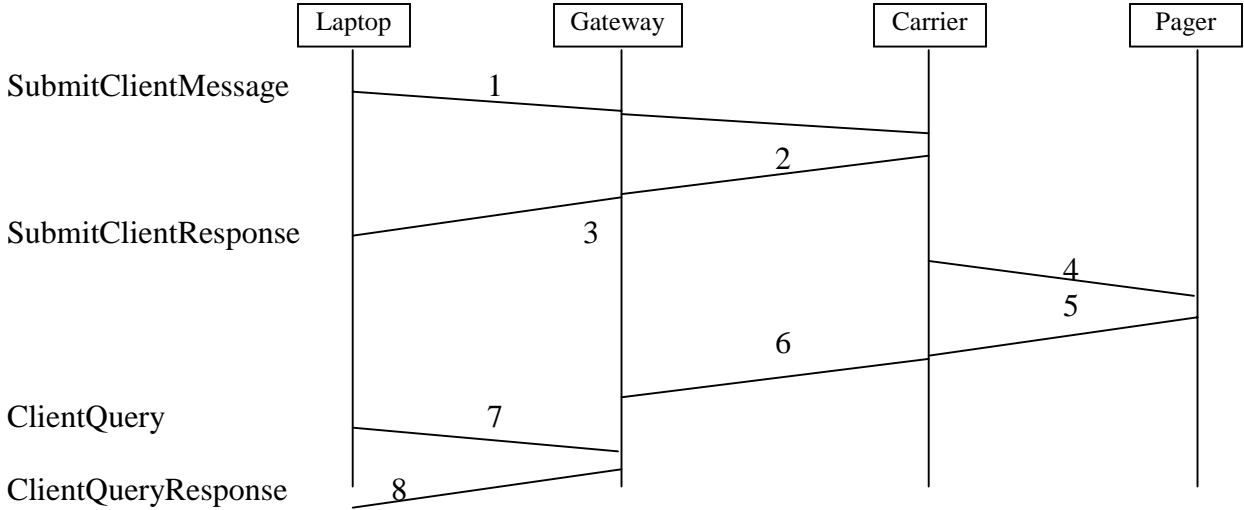
There are 4 distinct cases:

- A binary message originated by a Transient client and a subsequent response to it
- A binary message originated by a non-polling enterprise host and a subsequent response to it
- A binary message originated by a polling enterprise host and a subsequent response to it
- A binary message originated by an application running on a wireless device sent to an enterprise host and a subsequent response to it



10.1 A binary message originated by a Transient client and a subsequent response to it

Assume the recipient is on the same network/carrier as the WCTP Gateway.



- a. Submit a message (use canonical XML encoding):

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-ClientMessageControl
        allowResponse="true"
      />
      <wctp-Recipient
        recipientID="userId@MyCarrier.com"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-TransparentData
        type="OPAQUE"
      >
        &#x041F;&#x0440;&#x0438;&#x0432;&#x0435;&#x0442;&#x0021;
      </wctp-TransparentData>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>
    
```

- b. MyCarrier accepts the request, queues the message for delivery and returns the tracking number.



## c. Request accepted:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-ClientSuccess
      successCode="200"
      successText="Message accepted"
      trackingNumber="5579"
    >
      Thank you for using MyCarrier
    </wctp-ClientSuccess>
  </wctp-SubmitClientResponse>
</wctp-Operation>
```

## d. MyCarrier delivers the page to a pager.

## e. Subscriber sends a binary response from the pager.

## f. MyCarrier queues the response associated with the tracking number 5579, this sender &amp; recipient.

## g. Check for response(s):

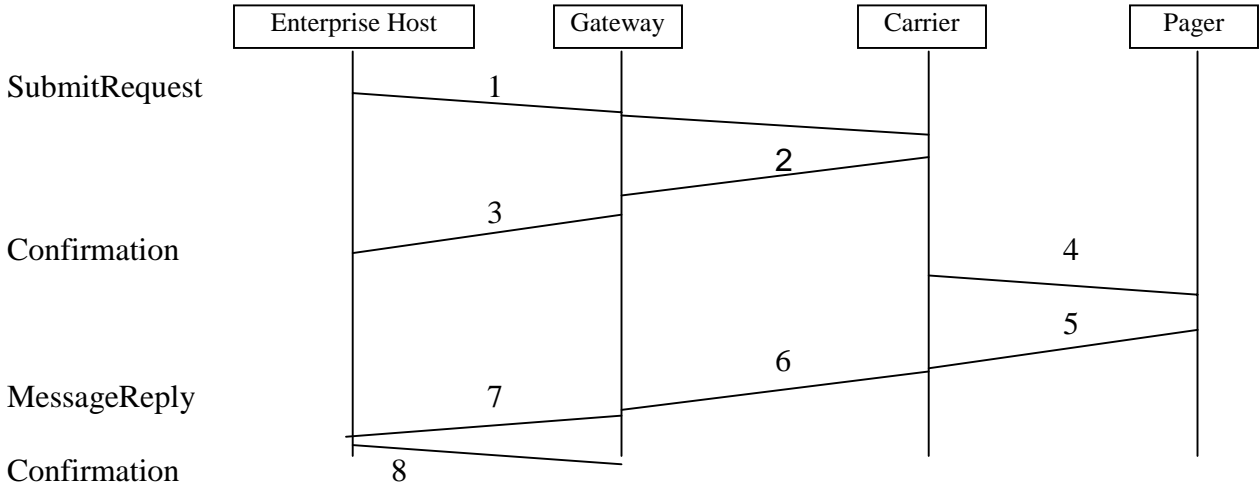
```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-ClientQuery
    senderID="mylaptop@myisp.com"
    recipientID="userId@MyCarrier.com"
    trackingNumber="5579"
  />
</wctp-Operation>
```

## h. Receive a queued response:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-ClientQueryResponse>
    <wctp-ClientMessage>
      <wctp-MessageReply>
        <wctp-ResponseHeader>
          <wctp-Originator
            senderId="userId@MyCarrier.com"
          />
        <wctp-MessageControl
          messageId="92"
        />
        <wctp-Recipient
          recipientId="mylaptop@myisp.com"
        />
      </wctp-MessageReply>
    </wctp-ClientMessage>
  </wctp-ClientQueryResponse>
</wctp-Operation>
```

```
        </wctp-ResponseHeader>
        <wctp-Payload>
            <wctp-TransparentData>
                &#x041D;&#x0443;&#x0020;&#x043F;&#x0440;&#x0438;&#x0432;&#x0435;&#x0442;
            </wctp-TransparentData>
        </wctp-Payload>
    </wctp-MessageReply>
</wctp-ClientMessage>
</wctp-ClientQueryResponse>
</wctp-Operation>
```

10.2. A binary message originated by a non-polling enterprise host and a subsequent response to it



a. Enterprise Host submits a binary message (encoded as base64):

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader
      submitTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="controlcenter@myenterprise.com"
      />
      <wctp-MessageControl
        messageID="46264399"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient
        recipientID="smartDevice@skypage.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-TransparentData
        type="OPAQUE"
        encoding="base64"
      >
        FSUE1EOATHFQAhEKbXNnOmJvbm5pZTKQTQACaNI=
      </wctp-TransparentData>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
    
```

b. SkyPage accepts the request and queues the message for delivery.

c. Gateway replies to indicate a submission request was accepted:

```

<?xml version="1.0"?>
    
```

```

<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>

```

- d. SkyPage delivers the page to a pager.
- e. Subscriber sends a binary response from the pager.
- f. SkyPage sends the response associated with the messageId 46264399.
- g. Gateway delivers the response (also encoded in base64):

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-MessageReply>
    <wctp-ResponseHeader
      responseToMessageID="46264399"
      responseTimestamp="1999-03-31T18:25:00"
      respondingToTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="smartDevice@skypage.com"
      />
      <wctp-MessageControl
        messageID="33"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient
        recipientID="controlcenter@myenterprise.com"
      />
    </wctp-ResponseHeader>
    <wctp-Payload>
      <wctp-TransparentData
        encoding="base64"
      >
        HJG76knmjkJHKJH78GjkhUY87Qtyu==
      </wctp-TransparentData>
    </wctp-Payload>
  </wctp-MessageReply>
</wctp-Operation>

```

- h. Enterprise Host confirms the receipt of an MCR response:

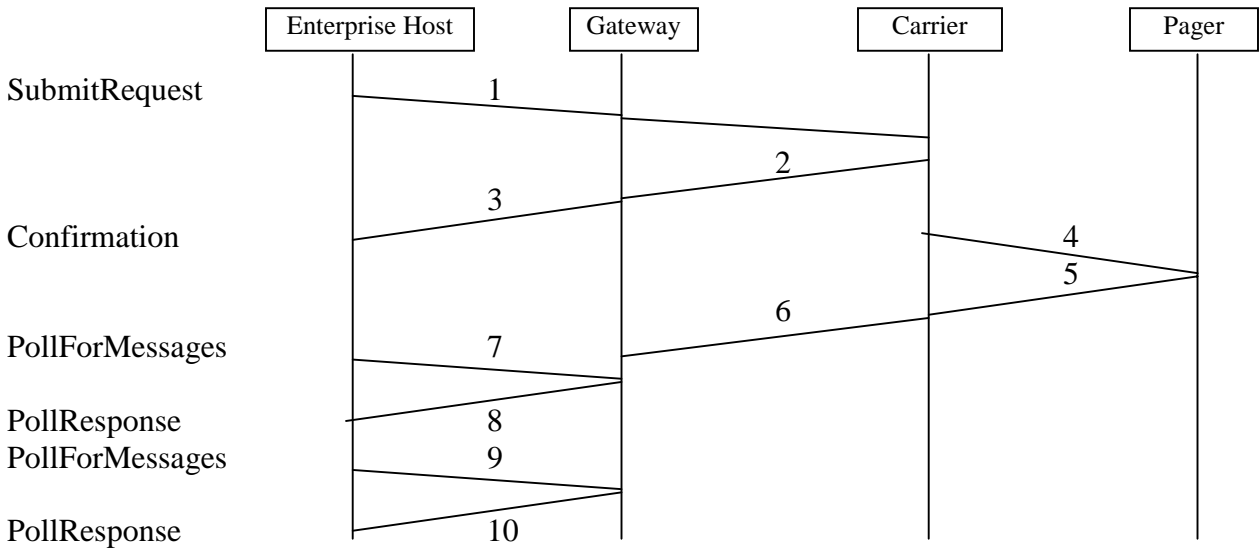
```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="SY778Q1">

```

```
<wctp-Confirmation>
  <wctp-Success
    successCode="200"
    successText="Message accepted"
  >
    Thank you for using MyEnterprise
  </wctp-Success>
</wctp-Confirmation>
</wctp-Operation>
```

10.3. A binary message originated by a polling enterprise host and a subsequent response to it



a. Enterprise Host submits a binary message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader
      submitTimestamp="1999-03-31T18:18:00">
      <wctp-Originator
        senderID="controlcenter@myenterprise.com"
      />
    <wctp-MessageControl
      messageID="46264399"
      transactionID="19990331.PN.1234567.001"
    />
    <wctp-Recipient
      recipientID="john.tech@skypage.com"
    />
  </wctp-SubmitHeader>
  <wctp-Payload>
    <wctp-TransparentData
      type="OPAQUE"
      encoding="base64"
    >
      HJG76knmjkJHKJH78GjkjhUY87Qtyu
    </wctp-TransparentData>
  </wctp-Payload>
</wctp-SubmitRequest>
</wctp-Operation>
    
```

b. SkyPage accepts the request and queues the message for delivery.



c. Gateway replies to indicate a submission request was accepted:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
```

d. SkyPage delivers the page to a pager.

e. Subscriber sends a binary response from the pager.

f. SkyPage queues the response associated with the messageId 46264399 for MyEnterprise.com

g. Enterprise Host polls for any queued responses and notifications:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="MyEnterprise"
    securityCode="qwerty"
    maxMessagesInBatch="10"
  />
</wctp-Operation>
```

h. Gateway replies to the poll with a queued response:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse>
    <wctp-Message
      sequenceNo="1"
    >
      <wctp-MessageReply>
        <wctp-ResponseHeader
          responseToMessageID="46264399"
          responseTimestamp="1999-03-31T18:25:00"
          respondingToTimestamp="1999-03-31T18:18:00"
        >
          <wctp-Originator
            senderID="john.tech@skypage.com"
            miscInfo="John The Technician"
          />
        </wctp-MessageControl
```

```

        messageID="33"
        transactionID="19990331.PN.1234567.001"
    />
    <wctp-Recipient
        recipientID="controlcenter@myenterprise.com"
    />
</wctp-ResponseHeader>
<wctp-Payload>
    <wctp-TransparentData
        encoding="base64"
    >
        HJG76knmjkJHKJH78GjkjhUY87Qtyu
    </wctp-TransparentData>
</wctp-Payload>
</wctp-MessageReply>
</wctp-Message>
</wctp-PollResponse>
</wctp-Operation>

```

- i. Enterprise Host confirms the receipt of the response in the next poll:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
    <wctp-PollForMessages
        pollerID="MyEnterprise"
        securityCode="qwerty"
        maxMessagesInBatch="10"
    >
        <wctp-MessageReceived
            sequenceNo="1"
        >
            <wctp-Success
                successCode="200"
                successText="Message accepted"
            >
                Thank you for using MyEnterprise
            </wctp-Success>
        </wctp-MessageReceived>
    </wctp-PollForMessages>
</wctp-Operation>

```

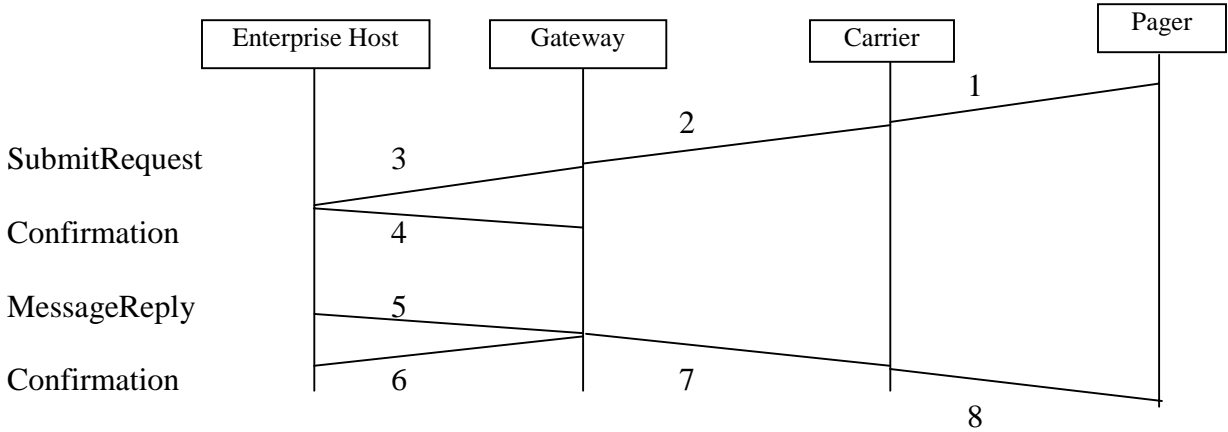
- j. Gateway replies to the poll:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
    <wctp-PollResponse>
        <wctp-NoMessages/>
    </wctp-PollResponse>
</wctp-Operation>

```

10.3. A binary message from a wireless application to an enterprise host and a subsequent response



- a. Wireless device submits a binary FLEXSuite message.
- b. SkyPage queues the message with messageId 46 for MyEnterprise.com.
- c. Gateway delivers the message (encoded in base64):

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader>
      submitTimestamp="1999-03-31T18:18:00">
      <wctp-Originator>
        senderID="telemetryDevice@skypage.com"
      />
      <wctp-MessageControl>
        messageId="46"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient>
        recipientID="controlcenter@myEnterprise.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-TransparentData>
        type="FLEXSuite"
        encoding="base64"
      >
        PD9YTUwgdmVyc2lvcj0iMS4wIiBlb
      </wctp-TransparentData>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>
    
```

d. Enterprise Host confirms the receipt of a binary response:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="987654321">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using MyEnterprise
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
```

e. Enterprise Host replies with a binary FLEXSuite message (also encoded in base64):

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-MessageReply>
    <wctp-ResponseHeader
      responseToMessageID="46264399"
      responseTimestamp="1999-03-31T18:25:00"
      respondingToTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="controlcenter@myenterprise.com"
      />
      <wctp-MessageControl
        messageID="33"
        transactionID="19990331.PN.1234567.001"
      />
      <wctp-Recipient
        recipientID="telemetryDevice@skypage.com"
      />
    </wctp-ResponseHeader>
    <wctp-Payload>
      <wctp-TransparentData
        type="FLEXSuite"
        encoding="base64"
      >
        HFHG8768jUYTUyTuyuu6jh47YH
      </wctp-TransparentData>
    </wctp-Payload>
  </wctp-MessageReply>
</wctp-Operation>
```

f. Gateway confirms the receipt of the reply:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
```

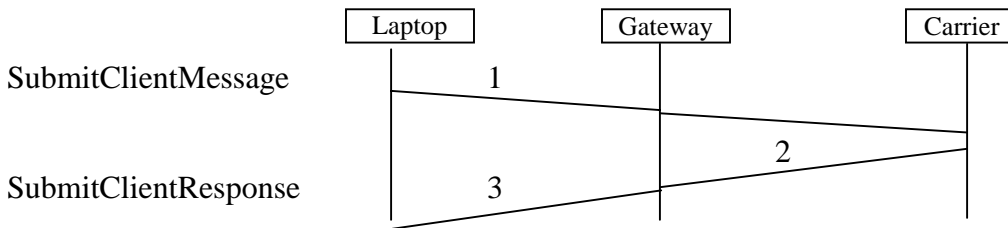
g. SkyPage queues the reply for delivery.

h. Message is delivered to the wireless device.

## Use Case #11: A Transient client or server initiated message with authorization code enabled

11.1. The following is the case of using the correct authorization code to send the message.

Assume the recipient is on the same network/carrier as the WCTP Gateway.



a. Submit a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-Recipient
        recipientID="1234567"
        authorizationCode="myAuthorizationCode"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        Test page from my laptop to my pager
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>
  
```

b. MyCarrier accepts the request, validates the authorization code, queues the message for delivery, and returns the tracking number.

c. Request accepted:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r0">
  <wctp-SubmitClientResponse>
    <wctp-ClientSuccess
      successCode="200"
    >
  </wctp-SubmitClientResponse>
</wctp-Operation>
  
```

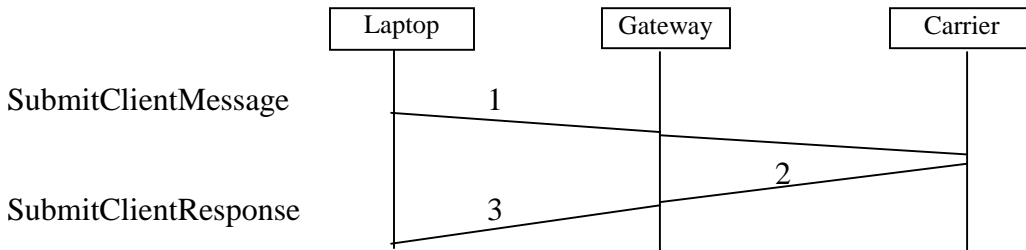
```

    successText="Message accepted"
    trackingNumber="5579"
  >
    MyCarrier is happy to send your message as page!
  </wctp-ClientSuccess>
</wctp-SubmitClientResponse>
</wctp-Operation>

```

11.2. The following is the case of using the incorrect authorization code to send the message.

Assume the recipient is on the same network/carrier as the WCTP Gateway.



- a. Submit a message:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitClientMessage>
    <wctp-SubmitClientHeader
      submitTimestamp="1999-03-31T19:45:00"
    >
      <wctp-ClientOriginator
        senderID="mylaptop@myisp.com"
      />
      <wctp-Recipient
        recipientID="userId@MyCarrier.com"
        authorizationCode="myIncorrectAuthorizationCode"
      />
    </wctp-SubmitClientHeader>
    <wctp-Payload>
      <wctp-Alphanumeric>
        Test page from my laptop to my pager
      </wctp-Alphanumeric>
    </wctp-Payload>
  </wctp-SubmitClientMessage>
</wctp-Operation>

```

- b. MyCarrier accepts the request, checks the authorization code, determines that the authorization code is incorrect, and returns the associated error code.
- c. Return the error code.

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-SubmitClientResponse>
    <wctp-Failure
      errorCode="404"
      errorText="Invalid authorization code"
    >
      Supplied authorization code for userId is invalid.
    </wctp-Failure>
  </wctp-SubmitClientResponse>
</wctp-Operation>

```



**Use Case #12: An enterprise host asking for all of its messages**

Sample sequence of operation follows. Note that values of some parameters are shown for illustration purpose only and in no way imply suggested values for implementation (e.g. maxReturnPerPoll).

- a. Enterprise Host johnson\_international.com is not able to run an HTTP server. Wireless carrier therefore sets up an entry for johnson\_international.com in PollRegistrationTable.
- b. Transaction is started as a message from the device is received at WCG for the carrier "Skypage" with the recipient as "Pageto:joe@johnson\_international.com".
- c. WCG determines this message should be delivered via WCTP based on the "PageTo:" portion of the Recipient and a wctp-Operation (one of wctp-SubmitRequest, wctp-StatusInfo, wctp-MessageReply) is generated for this message. It then sends the message to the Internet Gateway.
- d. Internet Gateway consults its PollRegistrationTable and finds an entry for "johnson\_international.com". It therefore holds the message at the Gateway.
- e. Steps 2 through 4 is repeated 3 times, resulting in the construction and holding of the 3 messages
- f. Enterprise Host "johnson\_international.com" polls skypage for its messages by sending an HTTP Full-Request as follows:  
POST http://wctp.skypage.com/wctp HTTP/1.0  
with an Entity-Body:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="johnson_international.com"
    maxMessagesInBatch="2"
  />
</wctp-Operation>
```

maxMessagesInBatch attribute indicates that no more than two messages at a time can be returned to the Enterprise Host of johnson\_international.com.

- g. Internet Gateway retrieves the held messages based on the pollerID and sends an HTTP Full-Response for wctp-PollResponse as follows:  
 HTTP/1.0 200 OK  
 with an Entity-Body:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse>
    <wctp-Message
      sequenceNo="1"
    >
      <wctp-MessageReply>
        <wctp-ResponseHeader
          responseToMessageID="26"
          responseTimestamp="1999-04-13T18:15:30"
        >
          <wctp-Originator
            senderID="1234567@skypage.com"
          />
          <wctp-MessageControl
            messageID="11936B93"
          />
          <wctp-Recipient
            recipientID="joe@johnson_international.com"
          />
        </wctp-ResponseHeader>
        <wctp-Payload>
          <wctp-Alphanumeric>
            "wed. 11:30 lunch sounds fine."
          </wctp-Alphanumeric>
        </wctp-Payload>
      </wctp-MessageReply>
    </wctp-Message>
    <wctp-Message
      sequenceNo="2"
    >
      <wctp-SubmitRequest>
        <wctp-SubmitHeader
          submitTimestamp="1999-04-13T18:16:00"
        >
          <wctp-Originator
            senderID="2234567@skypage.com"
          />
          <wctp-MessageControl
            messageID="11936B94"
          />
          <wctp-Recipient
            recipientID="sales@johnson_international.com"
          />
        </wctp-SubmitHeader>
        <wctp-Payload>
          <wctp-Alphanumeric>
            ship 1999 fall brochure to KC field office
          </wctp-Alphanumeric>
        </wctp-Payload>
      </wctp-SubmitRequest>
    </wctp-Message>
  </wctp-PollResponse>
</wctp-Operation>

```

- h. An HTTP Full-Request from Enterprise Host "johnson\_international.com" is sent to Internet Gateway, requesting more messages and acknowledging the received ones, as follows:

POST http://wctp.skypage.com/wctp HTTP/1.0  
with an Entity-Body:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="johnson_international.com"
  >
    <wctp-MessageReceived
      sequenceNo="1"
    >
      <wctp-Success
        successCode="200"
        successText="Message accepted"
      >
        Thank you for using Johnson International
      </wctp-Success>
    </wctp-MessageReceived>
    <wctp-MessageReceived
      sequenceNo="2"
    >
      <wctp-Success
        successCode="200"
        successText="Message accepted"
      >
        Thank you for using Johnson International
      </wctp-Success>
    </wctp-MessageReceived>
  </wctp-PollForMessages>
</wctp-Operation>
```

- i. An HTTP Full-Response for wctp-PollResponse is generated at the Internet Gateway to send the remaining message, as follows:

HTTP/1.0 200 OK  
with an Entity-Body:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse>
    <wctp-Message
      sequenceNo="3"
    >
      <wctp-StatusInfo>
        <wctp-ResponseHeader
          reponseToMessageID="27"
          responseTimestamp="1999-04-13T18:16:07"
        >
          <wctp-Originator
            senderID="3234567@skypage.com"
          />
        </wctp-ResponseHeader>
      </wctp-StatusInfo>
    </wctp-Message>
  </wctp-PollResponse>
</wctp-Operation>
```

```

        <wctp-MessageControl
            messageID="11936B95"
        />
        <wctp-Recipient
            recipientID="dispatch@johnson_international.com"
        />
    </wctp-ResponseHeader>
    <wctp-Failure
        errorCode="103"
        errorText="device out of range"
    >
        Device 9876543 is out of range.
    </wctp-Failure>
</wctp-StatusInfo>
</wctp-Message>
</wctp-PollResponse>
</wctp-Operation>

```

- j. An HTTP Full-Request from Enterprise Host “johnson\_international.com” is sent to the Internet Gateway, requesting more messages and acknowledging the received one, as follows:

POST http://wctp.skypage.com/wctp HTTP/1.0  
with an Entity-Body:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
    <wctp-PollForMessages
        pollerID="johnson_international.com"
    >
        <wctp-MessageReceived
            sequenceNo="3"
        >
            <wctp-Success
                successCode="200"
                successText="Message accepted"
            >
                Thank you for using Johnson International
            </wctp-Success>
        </wctp-MessageReceived>
    </wctp-PollForMessages>
</wctp-Operation>

```

- j. Since there are no more messages for johnson\_international.com, an HTTP Full-Response for wctp-PollResponse is generated at the Internet Gateway to send the remaining message, as follows:

HTTP/1.0 200 OK  
with an Entity-Body:

```

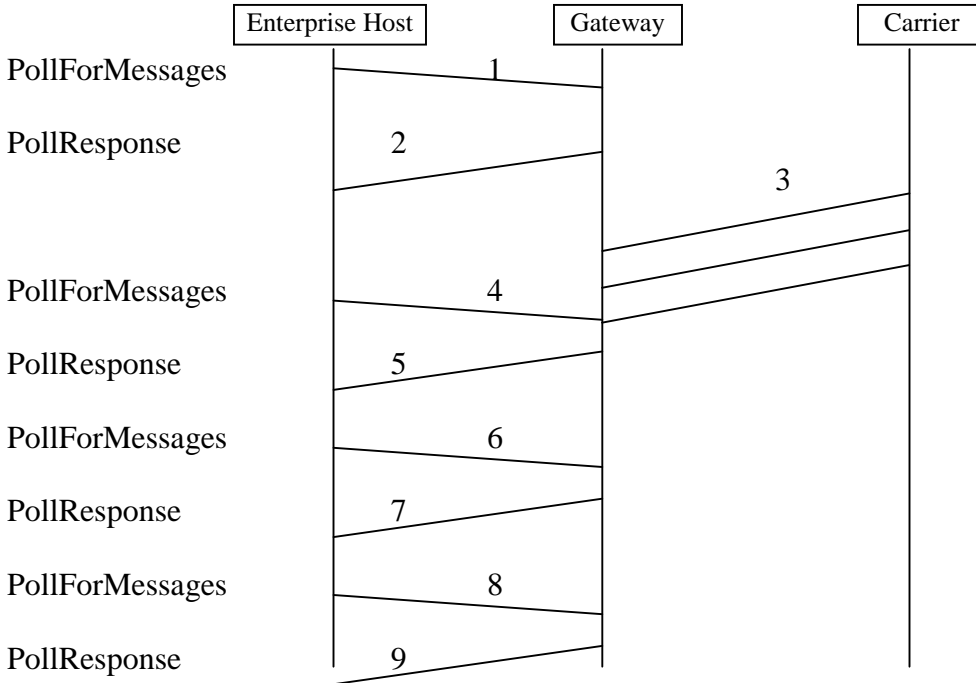
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
    <wctp-PollResponse
        minNextPollInterval="5"
    >

```

```
<wctp-NoMessages/>  
</wctp-PollResponse>  
</wctp-Operation>
```

Since there are no more messages held, Internet Gateway chooses to force johnson\_international.com to poll at least five minutes later. The transaction is completed at this point.

**Use Case #13: Polling by an enterprise host for all messages directed at that host**



a. Enterprise Host polls for any queued messages:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="MyEnterprise"
    securityCode="qwerty"
    maxMessagesInBatch="2"
  />
</wctp-Operation>
    
```

b. Gateway replies to the poll indicating there are no messages queued:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse
    minNextPollInterval="60"
  >
    <wctp-NoMessages>
    </wctp-NoMessages>
  </wctp-PollResponse>
</wctp-Operation>
    
```

- c. Carrier forwards a notification, an MCR, and a pager-originated message bound for MyEnterprise to the Gateway to be queued.
- d. Enterprise Host polls again:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-PollForMessages
    pollerID="MyEnterprise"
    securityCode="qwerty"
    maxMessagesInBatch="2"
  />
</wctp-Operation>
```

- e. Gateway replies to the poll:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse>
    <wctp-Message
      sequenceNo="57"
    >
      <wctp-StatusInfo>
        <wctp-ResponseHeader
          responseToMessageID="46036782"
          responseTimestamp="1999-03-31T18:24:00"
          respondingToTimestamp="1999-03-12T12:37:00"
        >
          <wctp-Originator
            senderID="wcg-3.abcwireless.com"
            miscInfo="WCG for SkyPage"
          />
          <wctp-MessageControl
            messageID="27"
            transactionID="19990312.PN.7561243.001"
          />
          <wctp-Recipient
            recipientID="helpdesk@myenterprise.com"
          />
        </wctp-ResponseHeader>
        <wctp-Notification
          type="DELIVERED"
        />
      </wctp-StatusInfo>
    </wctp-Message>
    <wctp-Message
      sequenceNo="58"
    >
      <wctp-MessageReply>
        <wctp-ResponseHeader
          responseToMessageID="46264399"
          responseTimestamp="1999-03-31T18:25:00"
          respondingToTimestamp="1999-03-31T18:18:00"
        >
```

```

        <wctp-Originator
            senderID="john.tech@skypage.com"
            miscInfo="John The Technician"
        />
        <wctp-MessageControl
            messageID="33"
            transactionID="19990331.PN.1234567.001"
        />
        <wctp-Recipient
            recipientID="controlcenter@myenterprise.com"
        />
    </wctp-ResponseHeader>
    <wctp-Payload>
        <wctp-Alphanumeric>
            Raise temperature 1 degree.
        </wctp-Alphanumeric>
    </wctp-Payload>
</wctp-MessageReply>
</wctp-Message>
</wctp-PollResponse>
</wctp-Operation>

```

f. Enterprise Host polls again acknowledging the received messages:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
    <wctp-PollForMessages
        pollerID="MyEnterprise"
        securityCode="qwerty"
        maxMessagesInBatch="10"
    >
        <wctp-MessageReceived
            sequenceNo="57"
        >
            <wctp-Success
                successCode="200"
                successText="Message accepted"
            >
                Thank you for using MyEnterprise
            </wctp-Success>
        </wctp-MessageReceived>
        <wctp-MessageReceived
            sequenceNo="58"
        >
            <wctp-Failure
                errorCode="502"
                errorText="No further responses possible"
            >
                The message associated with id 33 exceeded the retention
                threshold and has been deleted.
            </wctp-Failure>
        </wctp-MessageReceived>
    </wctp-PollForMessages>
</wctp-Operation>

```

g. Gateway replies to the poll with last queued message:



```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse
    minNextPollInterval="1"
  >
    <wctp-Message
      sequenceNo="59"
    >
      <wctp-SubmitRequest>
        <wctp-SubmitHeader
          submitTimestamp="1999-03-31T18:30:00"
        >
          <wctp-Originator
            senderID="bill.repair@skypage.com"
            miscInfo="Bill The Repairman"
          />
          <wctp-MessageControl
            messageID="47"
            transactionID="19990331.PN.9876547.001"
          />
          <wctp-Recipient
            recipientID="helpdesk@myenterprise.com"
          />
        </wctp-SubmitHeader>
        <wctp-Payload>
          <wctp-Alphanumeric>
            Please send specs for part # A/24d
          </wctp-Alphanumeric>
        </wctp-Payload>
      </wctp-SubmitRequest>
    </wctp-Message>
  </wctp-PollResponse>
</wctp-Operation>

```

**h. Enterprise Host polls again acknowledging the received message:**

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollForMessages
    pollerID="MyEnterprise"
    securityCode="qwerty"
    maxMessagesInBatch="2"
  >
    <wctp-MessageReceived
      sequenceNo="59"
    >
      <wctp-Success
        successCode="200"
        successText="Message accepted"
      >
        Thank you for using MyEnterprise
      </wctp-Success>
    </wctp-MessageReceived>
  </wctp-PollForMessages>
</wctp-Operation>

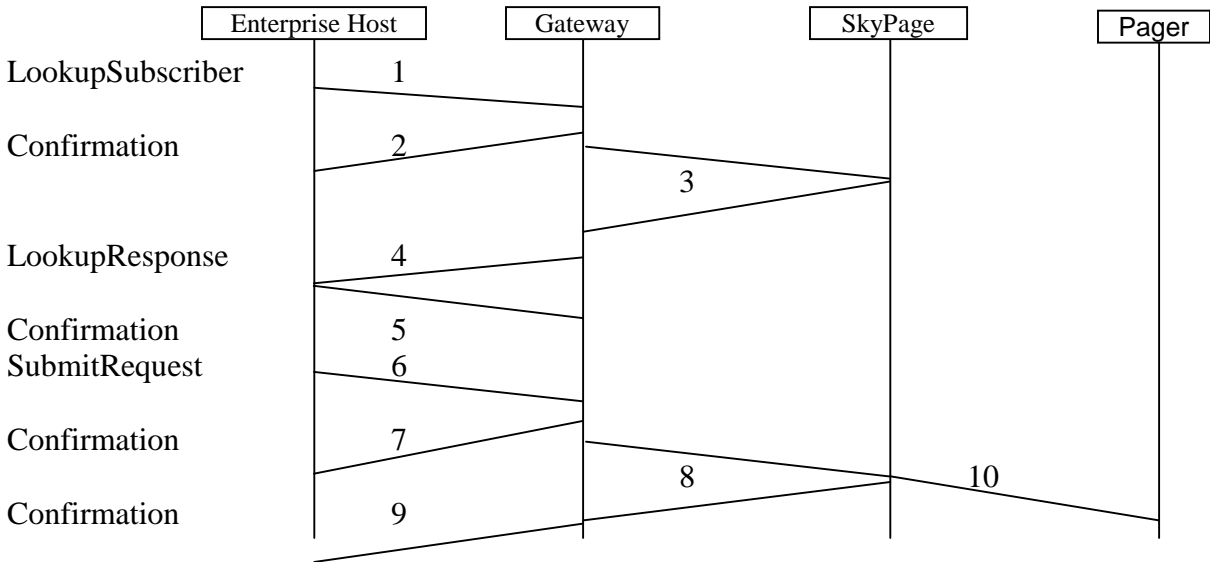
```

i. Gateway replies to the poll indicating there are no messages queued:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
  SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-PollResponse
    minNextPollInterval="60"
  >
    <wctp-NoMessages/>
  </wctp-PollResponse>
</wctp-Operation>
```

**Use Case #14: Lookup & Submit from an Enterprise Host**

Consider the case of a non-polling enterprise host:



a. Enterprise Host requests a subscriber lookup:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-LookupSubscriber>
    <wctp-Originator
      senderID="autoHelp@myenterprise.com"
    />
    <wctp-LookupMessageControl
      messageID="46264399"
      transactionID="19990331.PN.1234567.001"
    />
    <wctp-Recipient
      recipientID="newUser@skypage.com"
    />
  </wctp-LookupSubscriber>
</wctp-Operation>
    
```

b. Gateway returns a confirmation of the receipt of the lookup request:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
    
```

```
</wctp-Confirmation>
</wctp-Operation>
```

- b. Gateway determines the capabilities of the subscriber's messaging device. This may be done by querying various SkyPage equipment.
- c. Gateway returns the requested capabilities for the subscriber:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-LookupResponse
    responseToMessageID="46264399"
    transactionID="19990331.PN.1234567.001"
  >
    <wctp-Originator
      senderID="newUser@skypage.com"
    />
    <wctp-Recipient
      recipientID="autoHelp@myenterprise.com"
    />
    <wctp-LookupData
      maxMessageLength="300"
      mcrSupported="true"
      canRespond="true"
    />
  </wctp-LookupResponse>
</wctp-Operation>
```

- d. Enterprise Host confirms the receipt:

```
<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="L9+Jujp">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using MyEnterprise
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>
```

- e. Now the Enterprise Host knows it can compose a message with MCR(s) up to 300 characters. Suppose the Enterprise Host wants to send context sensitive help for example. If canRespond above was not true, then the responding and address book related choices below would have been left out (if unable to compose a response then the device has no need for an address book). If mcrSupported had been false, then no MCRs would have been included and some brief help text might have been substituted along with a phone number or web page where more help could be found. The Enterprise Host then submits the customized message for the subscriber:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1">
  <wctp-SubmitRequest>
    <wctp-SubmitHeader
      submitTimestamp="1999-03-31T18:18:00"
    >
      <wctp-Originator
        senderID="autoHelp@myenterprise.com"
      />
      <wctp-MessageControl
        messageID="46264399"
        transactionID="19990331.PN.1234567.001"
        allowResponse="true"
        preformatted="true"
      />
      <wctp-Recipient
        recipientID="newUser@skypage.com"
      />
    </wctp-SubmitHeader>
    <wctp-Payload>
      <wctp-MCR>
        <wctp-MessageText>
          Su: Auto Help Info

          H H I |
          HHH I |
          H H I .

        </wctp-MessageText>
        <wctp-Choice>
          Help replying
        </wctp-Choice>
        <wctp-Choice>
          Help composing
        </wctp-Choice>
        <wctp-Choice>
          Help address book
        </wctp-Choice>
        <wctp-Choice>
          More help topics
        </wctp-Choice>
      </wctp-MCR>
    </wctp-Payload>
  </wctp-SubmitRequest>
</wctp-Operation>

```

- f. Gateway could optionally return a confirmation of the receipt of the submit request if it is unable to get confirmation from SkyPage in a timely manner. Such a confirmation would look like:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
    >

```

```

    successText="Message accepted"
  >
    Thank you for using SkyPage
  </wctp-Success>
</wctp-Confirmation>
</wctp-Operation>

```

- g. SkyPage accepts the request and queues the message for delivery.
- h. If the submit was refused by Skypage then the Gateway would return a Failure. Otherwise, if the Gateway had not already done so (step 6 above), it would return a Success as shown below:

```

<?xml version="1.0"?>
<!DOCTYPE wctp-Operation
    SYSTEM "http://dtd.wctp.org/wctp-dtd-v1r1.dtd">
<wctp-Operation wctpVersion="wctp-dtd-v1r1" wctpToken="11AA">
  <wctp-Confirmation>
    <wctp-Success
      successCode="200"
      successText="Message accepted"
    >
      Thank you for using SkyPage
    </wctp-Success>
  </wctp-Confirmation>
</wctp-Operation>

```

- i. SkyPage delivers the message to the subscriber's messaging device respecting the preformatted attribute by not modifying or adding to the content of the page in any way (timestamps included). At some future time, the subscriber may respond via MCR.

### Use Case #15: Version Query from an Enterprise Host or Transient client

The following use case examples represent examples of the correct WCTP code to submit to a WCTP gateway and some of the responses that may be returned. The HTTP wrapper code is not presented here, nor is the XML wrapper. Also, the XML reserved characters (<, >, etc.) have not yet been escaped (as necessary to avoid parse errors).

```
<!DOCTYPE wctp-Operation SYSTEM "http://www.wctp.org/dtds/wctp-dtd-
v1r1.dtd">
<wctp-Operation
  wctpVersion="wctp-dtd-v1r1"
>
  <wctp-VersionQuery
    inquirer="ncfhospital.com"
    dateTime="2001-05-04T18:19:59"
  />
</wctp-Operation>
```

#### a. Response – Failure, Not Supported

```
<!DOCTYPE wctp-Operation SYSTEM
  "http://www.carrier1.com/dtds/curWctp.dtd">
<wctp-Operation
  wctpVersion="wctp-dtd-v2r0"
  wctpToken="w_123J9"
>
  <wctp-VersionResponse
    inquirer="ncfhospital.com"
    dateTimeOfReq="2001-05-04T18:19:59"
    responder="wctp.carrier1.com/wctp/"
    dateTimeOfRsp="2001-05-04T18:20:09"
  >
    <wctp-ContactInfo
      phone="9175551212x1234"
      www="www.carrier1.com"
      info="For additional info, see the web site."
    />
    <wctp-Failure
      errorCode="303 "
      errorText="Version Error"
    >
      Version 1.1 is no longer supported. Use 2.0 or higher.
    </wctp-Failure>
  </wctp-VersionResponse>
</wctp-Operation>
```

## b. Response – Supported

```

<!DOCTYPE wctp-Operation SYSTEM
"http://www.carrier1.com/dtds/curWctp.dtd">
<wctp-Operation
  wctpVersion="wctp-dtd-v1r1"
  wctpToken="w_123J9"
>
  <wctp-VersionResponse
    inquirer="ncfhospital.com"
    dateTimeOfReq="2001-05-04T18:19:59"
    responder="wctp.carrier1.com/wctp/"
    dateTimeOfRsp="2001-05-04T18:20:09"
    invalidAfter="2001-12-31T18:00:00"
  >
    <wctp-ContactInfo
      email="support@carrier1.com"
      www="www.carrier1.com"
      info="See web site for exception information. Send an email if
        you are unable to satisfactorily make any other requests."
    />
    <wctp-DTDSupport
      dtdName="WCTP-DTD-V1R1"
      supportType="Supported"
      exceptions="Yes"
      supportUntil="2001-12-31T18:00:00"
    />
  </wctp-VersionResponse>
</wctp-Operation>

```

## c. Response – Deprecated

Beginning with release 2.0 of the WCTP, there will be additional elements present throughout the wctp-VersionQuery and wctp-VersionResponse. In order for version 1.1 clients to be compatible with 2.0 and newer servers in the future, inquirers must be able to accept extra elements throughout the wctp-VersionResponse and still handle the recognized portions of the protocol. An example of this is found in the response below, which contains fictitious wctp-FutureElement objects.

```

<!DOCTYPE wctp-Operation SYSTEM
"http://www.carrier1.com/dtds/curWctp.dtd">
<wctp-Operation
  wctpVersion="wctp-dtd-v1r1"
  wctpToken="w_123J9"
>
  <wctp-VersionResponse
    inquirer="ncfhospital.com"
    dateTimeOfReq="2001-05-04T18:19:59"
    responder="wctp.carrier1.com/wctp/"
    dateTimeOfRsp="2001-05-04T18:20:09"
  >
    <wctp-FutureElement1
      uri="https://wctp.carrier1.com:443"
      transportParameters="1.0, 1.1"
      security="SSL"
    />
  </wctp-VersionResponse>
</wctp-Operation>

```



```
maxSessionsPerIP="4"
maxOperationsPerSession="1"
maxMailsPerSession="1"
maxSessionsPerHour="120"
maxOperationsPerEnvelope="24"
/>
<wctp-ContactInfo
  email="support@carrier1.com"
  phone="9175551212x1234"
  www="www.carrier1.com"
  info="See the web site for exception information. Talk to John if
        you are unable to complete any other requests."
/>
<wctp-DTDSupport
  dtdName="WCTP-DTD-v1r1"
  verToken="11Aum123"
  supportType="Deprecated"
  exceptions="Yes"
  supportUntil="2001-05-31T23:59:59"
  replacement="WCTP-DTD-v2r0"
>
  <wctp-FutureElement2
    name="SubmitRequest"
    maxLength="10000"
  />
</wctp-DTDSupport>
<wctp-DTDSupport
  dtdName="WCTP-DTD-v2r0"
  verToken="11AjcQ8"
  supportType="Supported"
  exceptions="Yes"
/>
</wctp-VersionResponse>
</wctp-Operation>
```