



TM

Unified Incident Command Decision SupportTM (UICDS)TM

Quick Start Guide to the UICDS Alert Service And Alert Work Product

Release 1 for UICDS Version 1.2

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1.0 About This Quick Start Guide

The purpose of this Quick Start Guide is to enable providers of Common Alerting Protocol software to efficiently map their data to the UICDS Alert Service in order to create, update, close, and archive sensor data shared through UICDS.

The Quick Start Guide is intended to be a stand-alone document; however, it goes hand-in-hand with the *UICDS Getting Started Guide* and other *UICDS Quick Start Guides* which provide details on other UICDS services and work products. All guides can be found on the UICDS Collaboration Portal at www.UICDS.us, Login – Technology Provider. So after exploring this guide, please refer to the Getting Started Guide for more technical information about UICDS.

In the sections that follow, the Quick Start Guide will provide:

- An overview of the Alert Service including references to the Emergency Data Exchange Language Common Alerting Protocol that is the basis of the UICDS Alert Work Product
- A flowchart of an external application's interface with the UICDS Core
- A list of common names of data elements contained in many incident management applications and their corresponding UICDS data element names that can guide the mapping of an application to the work product
- The Alert Work Product Template that is the XML document that is used to post application data to UICDS
- Example of the XML document for posting (including the SOAP envelope)
- Example of how to associate the Alert Work Product with an incident
- Example of the response received after successfully posting the XML document
- A quick, proof-of-concept method for posting the XML document
- The UICDS Alert Work Product (containing Metadata, Digest, and Payload) created and stored within UICDS that results from the successful submission of the XML document by the application and which becomes the atomic unit of information sharing through UICDS.
- Three methods for retrieving or inspecting the UICDS Alert Work Product to validate it, including programmatically, using the UICDS Core using the UICDS Console, and an external look at the results of the work product using Google Earth™
- A description of the UCore Digest process including mapping of the Payload to the Digest
- Best Practices for that Pesky “Other” Data
- Link to the Alert Service WSDL

2.0 Alert Service Overview

The Alert Service allows client applications to create an Alert Work Product, update information contained in the Alert Work Product, close the work product, and archive the work product.

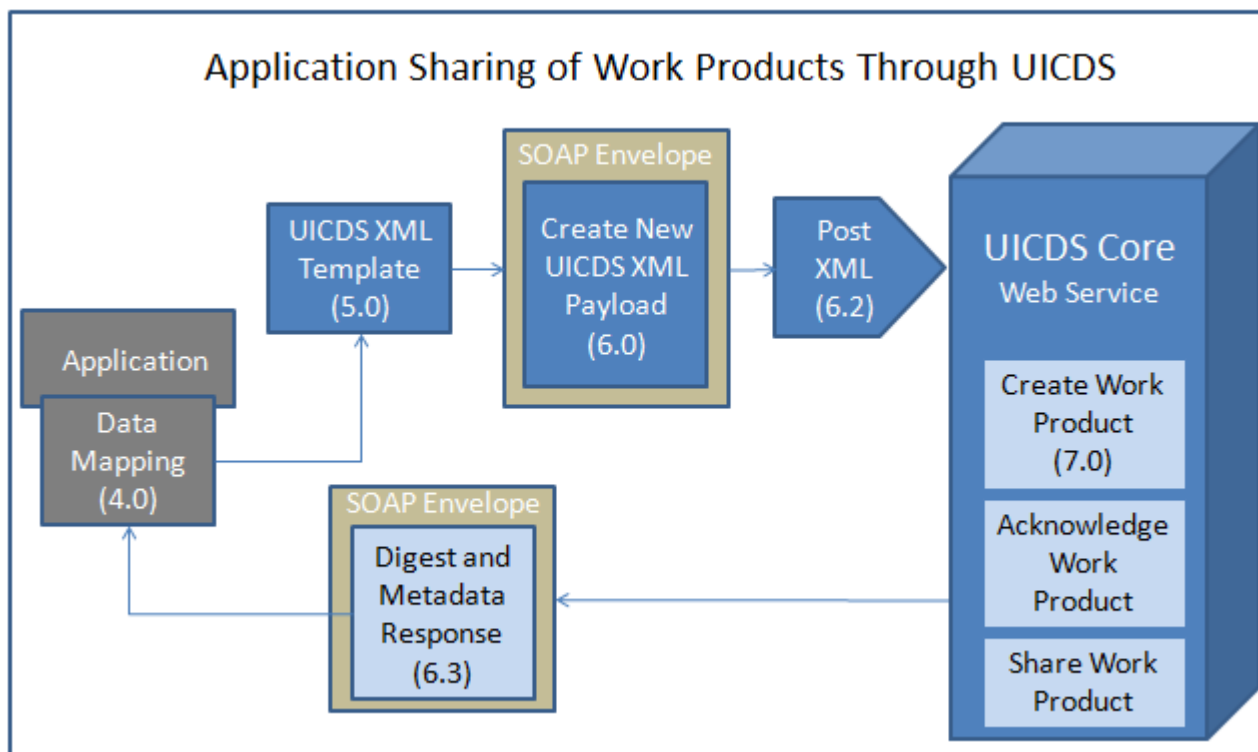
Operationally, the Incident Work Product in UICDS is the beginning of the “UICDS Tree of Incident Knowledge.” Thus, the Alert Work Product can be “associated” with an Incident Work Product. An Alert Work Product also can be independent because, in many cases, an alert precedes an Incident or never becomes an incident. As a result, the Alert Work Product can be independent, can be associated, or can create an Incident. This will be described in sections below.

The Alert Service allows UICDS compatible client applications to create, retrieve, and cancel UICDS Alerts Work Products that conform to the Common Alerting Protocol (CAP) version 1.1 specification. The required and optional data elements for the Work Product associated with the Alert Service are described below.

Work Product	Alert Work Product Data
Standard	EDXL Common Alerting Protocol (CAP 1.1)
Reference	http://www.oasis-open.org/committees/download.php/15135/emergency-CAPv1.1-Corrected_DOM.pdf
Required Data	Identifier Sender Sent Date/Time Status Message Type Scope Category Event Urgency Severity Certainty
Optional Data	Source Restriction Addresses Code Note References Incidents Language Response Type Event Code Effective Onset Expires Sender Name Headline

	Description Instruction Web Contact Parameter Resource Area
--	---

3.0 Application Interactions with the UICDS Alert Work Product



External applications interact with the UICDS Core by creating UICDS Work Products, an XML document, and communicating with the core through SOAP calls.

External applications interact with and share data through UICDS by creating and updating UICDS Work Products. This exchange consists of several steps. First, an application maps its data to the UICDS XML data element structure (Section 4). The application then inserts this data into the UICDS XML Template data elements (Section 5) to form the Payload, an XML document that will become part of the Work Product. The application then wraps the payload in a SOAP envelope (Section 6) for transmission using Internet Protocols over local networks, private Internet, or public Internet. The application POSTs the SOAP message to the UICDS Core (Section 6.2) and UICDS creates a Work Product (7.0). UICDS acknowledges receipt of the Work Product through a transmission back to the application that includes the Digest and Metadata for the work product (Section 6.3). Details of these steps follow.

4.0 Mapping to the UICDS Alert Work Product

The following table shows the common name of the data element as often used in Alert applications in the first column. The second column is the EDXL Common Alerting Protocol version 1.1 data element name contained in the UICDS Alert Work Product schema (shown below). The third column is blank in order to map your application to the UICDS Alert Work Product. Required UICDS data elements are shown in beige and optional in blue.

UICDS Common Data Element Name	UICDS Data Element	Map Your Data
Identifier	<cap:identifier>	
Sender	<cap:sender>	
Sent Date/Time	<cap:sent>	
Status	<cap:status>	
Message Type	<cap:msgType>	
Scope	<cap:scope>	
Category	<cap:category>	
Event	<cap:event>	
Urgency	<cap:urgency>	
Severity	<cap:severity>	
Certainty	<cap:certainty>	
Source	<cap:source>	
Restriction	<cap:restriction>	
Addresses	<cap:addresses>	
Code	<cap:code>	
Note	<cap:note>	
References	<cap:references>	
Incidents	<cap:incidents>	
Language	<cap:language>	
Response Type	<cap:responseType>	
Event Code	<cap:/eventCode> <valueName> <value>	
Effective	<cap:effective>	
Onset	<cap:onset>	
Expires	<cap:expires>	
Sender Name	<cap:senderName>	
Headline	<cap:headline>	
Description	<cap:description>	
Instruction	<cap:instruction>	
Web	<cap:web>	
Contact	<cap:contact>	
Parameter	<cap:parameter>	
Resource	<cap:resource>	
Area Description	<cap:areaDesc>	
Area	<cap:geoCode> <cap:polygon> <cap:circle>	

5.0 Payload Template for Required Data

The Payload Template will be the end product of your mapping of your data to the UICDS Work Product schema. All of this will be done programmatically by the external application.

```
<as:CreateAlertRequest xmlns:as="http://uicds.org/AlertService"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1"
    xsi:schemaLocation="http://uicds.org/AlertService AlertService.xsd">
  <!-- NOTE: provide the incident ID to associate with here -->
  <!-- NOTE: if the CAP alert is not associated with an incident, omit the incidentid element -->
  <as:incidentId xmlns:as="http://uicds.org/AlertService">IG-3e59949d-057b-41ef-924c-
2e7a4ca3cb85</as:incidentId>
  <cap:alert>
    <cap:identifier>UICDS-Test-Identifier1</cap:identifier>
    <cap:sender>IncidentManagement@agency.gov</cap:sender>
    <cap:sent>2009-09-15T12:00:00</cap:sent>
    <cap:status>Actual</cap:status>
    <cap:msgType>Alert</cap:msgType>
    <cap:scope>Public</cap:scope>
    <cap:info>
      <cap:language>en-US</cap:language>
      <cap:category>CBRNE</cap:category>
      <cap:event>A hazardous chemical event has occurred</cap:event>
      <cap:urgency>Immediate</cap:urgency>
      <cap:severity>Extreme</cap:severity>
      <cap:certainty>Observed</cap:certainty>
      <cap:effective>2009-09-15T12:00:00</cap:effective>
      <cap:onset>2009-09-15T12:00:00</cap:onset>
      <cap:senderName>Bob McGillicuddy</cap:senderName>
      <cap:headline>A hazardous chemical event has occurred</cap:headline>
      <cap:description>Overturned tanker on the highway.</cap:description>
      <cap:area>
        <cap:areaDesc>The highway, mile marker 128</cap:areaDesc>
        <cap:polygon>38.8,-77.3 38.8,-77.1 39.0,-77.1 39.0,-77.3 38.8,-77.3</cap:polygon>
      </cap:area>
    </cap:info>
  </cap:alert>
</as:CreateAlertRequest>
```

6.0 Create a New Alert Work Product

Creating a new Alert in UICDS entails mapping your data to the Payload Template (Section 5.0, above), wrapping the Payload (containing the application data) in a SOAP envelope (Section 6.1), and submitting the XML document to the Alert Service (Section 6.2) by posting the document (Section 6.3).

6.1 *Wrapping the Payload in a SOAP Envelope*

The Payload Template becomes the UICDS Alert Payload when external application data is inserted into it. The payload is then wrapped in a SOAP envelope for submission to the UICDS Core. Below are the SOAP envelope instructions to connect to the Alert Service.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<.....>
Insert Alert Payload XML Document
.....>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

6.2 *Associating a Work Product with an Incident Work Product*

Most work products are most often used when associated with an incident. This is how the “UICDS Tree of Incident Knowledge” is developed – many applications submit their relevant data and UICDS manages that content by associating data with an incident.

The IG number is the unique value contained in an Incident Work Product that allows other work product to be associated with the incident.

The IG number, or AssociatedGroup/Identifier, is formatted like this: IG-e0051cbc-aea5-4a9f-977a-915a3a7db7a7.

The IG number is returned from UICDS in the following ways:

When an incident is submitted, the response contains the AssociatedGroup/Identifier as the IG number in a statement like this:

```
<base:AssociatedGroups xmlns:base="http://www.saic.com/precis/2009/06/base">
  <base:Identifier>IG-3ad1df44-6b85-48af-a1ac-bef5b56f7cdd</base:Identifier>
```

To associate the Work Product with an incident, the IG number is placed in the Template (Section 5, above) in the incidentId, as shown below:

```
<ns1:incidentId>IG-e0051cbc-aea5-4a9f-977a-915a3a7db7a7</ns1:incidentId>
```

6.3 *Location of the Alert Service*

The Alert Service can be found at the following URL:

```
https://localhost/uicds/core/ws/services/AlertService
```


Where “localhost” is your UICDS Core.

For example, developers have access to hosted UICDS Cores for testing. With access credentials, you may post your test UICDS templates to:

<https://uicds-test2.saic.com/uicds/core/ws/services/AlertService>

6.4 Quick Test Posting of the UICDS XML Message

The example request below (Section 6.3) can be used to test out your connectivity with your local or hosted test UICDS Core (see Section 6.1 for URL) as well as to see the results of posting a work product.

There is a manual method of posting UICDS Work Products that you might want to use to see a proof of concept and test core connectivity.

This is not a recommended method of posting to UICDS that would substitute for writing code to transform your data into a UICDS Work Product.

To use this manual proof of concept method of posting, use a freely available commercial tool like Mozilla FireFox™ Poster™ available at <https://addons.mozilla.org/en-us/firefox/addon/poster/> to simply post the example request (obviously, feel free to modify the content) and receive a response.

Section 8.0, below, describes two methods of viewing data that you post to the UICDS Core using this manual, test method.

6.5 Example Request: Alert

Below is an example XML Alert Payload document, wrapped in SOAP, for posting to the Alert Service on a UICDS Core.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" />
  <soapenv:Body xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
    <as:CreateAlertRequest xmlns:as="http://uicds.org/AlertService"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1"
      xsi:schemaLocation="http://uicds.org/AlertService AlertService.xsd">
      <!-- NOTE: provide the incident ID to associate with here -->
      <!-- NOTE: if the CAP alert is not associated with an incident, omit the incidentid element -->
      <as:incidentId xmlns:as="http://uicds.org/AlertService">IG-3e59949d-057b-41ef-924c-
2e7a4ca3cb85</as:incidentId>
      <cap:alert>
        <cap:identifier>UICDS-Test-Identifier1</cap:identifier>
        <cap:sender>IncidentManagement@agency.gov</cap:sender>
        <cap:sent>2009-09-15T12:00:00</cap:sent>
        <cap:status>Actual</cap:status>
        <cap:msgType>Alert</cap:msgType>
```

```

<cap:scope>Public</cap:scope>
<cap:info>
  <cap:language>en-US</cap:language>
  <cap:category>CBRNE</cap:category>
  <cap:event>A hazardous chemical event has occurred</cap:event>
  <cap:urgency>Immediate</cap:urgency>
  <cap:severity>Extreme</cap:severity>
  <cap:certainty>Observed</cap:certainty>
  <cap:effective>2009-09-15T12:00:00</cap:effective>
  <cap:onset>2009-09-15T12:00:00</cap:onset>
  <cap:senderName>Bob McGillicuddy</cap:senderName>
  <cap:headline>A hazardous chemical event has occurred</cap:headline>
  <cap:description>Overturned tanker on the highway.</cap:description>
  <cap:area>
    <cap:areaDesc>The highway, mile marker 128</cap:areaDesc>
    <cap:polygon>38.8,-77.3 38.8,-77.1 39.0,-77.1 39.0,-77.3 38.8,-77.3</cap:polygon>
  </cap:area>
</cap:info>
</cap:alert>
</as:CreateAlertRequest>
</soapenv:Body>
</soapenv:Envelope>

```

6.6 Expected Response: Alert

When a XML template is successfully posted to a UICDS Core, the core returns an XML document that provides validation that the work product was created. The document contains the UICDS Alert Work Product (a) Metadata shown in red and (b) Digest shown in green that will allow you to later update, close, and archive the work product.

```

<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header />
  <SOAP-ENV:Body>
    <aler:CreateAlertResponse
      xmlns:aler="http://uicds.org/AlertService">
      <wor:WorkProductPublicationResponse
        xmlns:wor="http://uicds.org/WorkProductService">
        <str:WorkProductProcessingStatus
          xmlns:str="http://www.saic.com/precis/2009/06/structures">
          <base:Status
            xmlns:base="http://www.saic.com/precis/2009/06/base">Accepted</base:Status>
          </str:WorkProductProcessingStatus>
          <str:WorkProduct
            xmlns:str="http://www.saic.com/precis/2009/06/structures">
            <ulex:PackageMetadata
              xmlns:ulex="ulex:message:structure:1.0">
              <ulex:DataItemID>Alert-5b251981-83e6-4026-b28d-d9f523b364cf</ulex:DataItemID>
              <ulex:DataItemReferenceID>Alert-5b251981-83e6-4026-b28d-
d9f523b364cf</ulex:DataItemReferenceID>
              <ns:DataItemStatus
                xmlns:ns="http://ucore.gov/ucore/2.0"
                ns:code="Active"

```

```

    ns:codespace="http://uicds.org/1.0/codespace/workproduct/status"
    ns:label="UICDS Work Product Status" />
<ulex:DataOwnerMetadata>
  <ns:DataOwnerIdentifier
    xmlns:ns="http://ucore.gov/ucore/2.0">
    <ns1:Organization
      xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
      <ns1:name>uicds.org</ns1:name>
    </ns1:Organization>
  </ns:DataOwnerIdentifier>
  <ns:DataOwnerContact
    xmlns:ns="http://ucore.gov/ucore/2.0">
    <ns1:Organization
      xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
      <ns1:name>http://uicds.us</ns1:name>
    </ns1:Organization>
  </ns:DataOwnerContact>
  <ulex:DataOwnerMetadataDomainAttribute>
    <ulex:DomainName>UICDS EM Domain</ulex:DomainName>
  </ulex:DataOwnerMetadataDomainAttribute>
</ulex:DataOwnerMetadata>
<ns:DisseminationCriteria
  xmlns:ns="http://ucore.gov/ucore/2.0" />
<str:WorkProductIdentification>
  <base:Identifier
    xmlns:base="http://www.saic.com/precis/2009/06/base">Alert-5b251981-83e6-4026-b28d-
d9f523b364cf</base:Identifier>
  <base:Version
    xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Version>
  <base:Type
    xmlns:base="http://www.saic.com/precis/2009/06/base">Alert</base:Type>
  <base:Checksum
    xmlns:base="http://www.saic.com/precis/2009/06/base">Wed Oct 03 09:38:14 MDT
2012:1:1:889837687</base:Checksum>
  <base:State
    xmlns:base="http://www.saic.com/precis/2009/06/base">Active</base:State>
</str:WorkProductIdentification>
<str:WorkProductProperties>
  <base:Created
    xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:Created>
  <base:CreatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:CreatedBy>
  <base:LastUpdated
    xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:LastUpdated>
  <base:LastUpdatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:LastUpdatedBy>
  <base:Kilobytes
    xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Kilobytes>
  <base:MimeType
    xmlns:base="http://www.saic.com/precis/2009/06/base">application/uicds+xml</base:MimeType>
  <base:AssociatedGroups
    xmlns:base="http://www.saic.com/precis/2009/06/base">
  </base:AssociatedGroups>
  <base:Identifier>IG-3e59949d-057b-41ef-924c-2e7a4ca3cb85</base:Identifier>

```

```

    </base:AssociatedGroups>
  </str:WorkProductProperties>
</ulex:PackageMetadata>
<ns:Digest
  xmlns:ns="http://ucore.gov/ucore/2.0">
  <ns:Event
    id="Event-28dad0a6-b540-42bd-b8ef-4d0f4961c7aa">
    <ns:Descriptor>Overturned tanker on the highway.</ns:Descriptor>
    <ns:Identifier
      ns:code="identifier"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1"
      ns:label="ID">Alert - A hazardous chemical event has occurred</ns:Identifier>
    <ns:What
      ns:code="AlertEvent"
      ns:codespace="http://ucore.gov/ucore/2.0/codespace/" />
    <ns:What
      ns:code="CBRNE"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1" />
    </ns:Event>
  <ns:Location
    id="Location-9ffb189d-631f-4de8-9b86-7eda15ce47bf">
    <ns:GeoLocation>
      <ns:Polygon>
        <ns1:Polygon
          xmlns:ns1="http://www.opengis.net/gml/3.2"
          ns1:id="Polygon-0bf99a2d-01ad-4d93-b31d-819ac7a57426"
          srsName="EPSG:4326">
            <ns1:exterior>
              <ns1:LinearRing>
                <ns1:pos
                  srsName="EPSG:4326">38.8 -77.3</ns1:pos>
                <ns1:pos
                  srsName="EPSG:4326">38.8 -77.1</ns1:pos>
                <ns1:pos
                  srsName="EPSG:4326">39.0 -77.1</ns1:pos>
                <ns1:pos
                  srsName="EPSG:4326">39.0 -77.3</ns1:pos>
                <ns1:pos
                  srsName="EPSG:4326">38.8 -77.3</ns1:pos>
              </ns1:LinearRing>
            </ns1:exterior>
          </ns1:Polygon>
        </ns:Polygon>
      </ns:GeoLocation>
    </ns:Location>
  <ns:OccursAt
    id="OccursAt-86fc41f4-6cf8-4986-8c18-5ed04fed8e5f">
    <ns:Time>
      <ns:TimeInstant>
        <Value
          xmlns="http://ucore.gov/ucore/2.0">2009-09-15T12:00:00-06:00</Value>
        </ns:TimeInstant>
      </ns:Time>
    <ns:EventRef
      ref="Event-28dad0a6-b540-42bd-b8ef-4d0f4961c7aa" />
    <ns:LocationRef
      ref="Location-9ffb189d-631f-4de8-9b86-7eda15ce47bf" />
    </ns:OccursAt>
  </ns:OccursAt>

```

```

</ns:Digest>
</str:WorkProduct>
</wor:WorkProductPublicationResponse>
</aler:CreateAlertResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

7.0 The Resulting Work Product Example

A UICDS Work Product consists of (a) Metadata shown in red, (b) Digest shown in green, and (c) Payload shown in blue. The Metadata is returned when the Alert Work Product is created and was shown in the example above. The Digest also is created and returned when the Alert Work Product is created and was shown in the example above. The Payload is the data mapped from the external application to the template. The work product is the atomic unit of sharing in UICDS and contains all three parts.

An example of an Alert Work Product shown below:

```

<str:WorkProduct
  xmlns:str="http://www.saic.com/precis/2009/06/structures">
  <ulex:PackageMetadata
    xmlns:ulex="ulex:message:structure:1.0">
    <ulex:DataItemID>Alert-12160513-c75e-4f3b-87a4-1101a265e9a7</ulex:DataItemID>
    <ulex:DataItemReferenceID>Alert-12160513-c75e-4f3b-87a4-
1101a265e9a7</ulex:DataItemReferenceID>
    <ns:DataItemStatus
      xmlns:ns="http://ucore.gov/ucore/2.0"
      ns:code="Active"
      ns:codespace="http://uicds.org/1.0/codespace/workproduct/status"
      ns:label="UICDS Work Product Status" />
    <ulex:DataOwnerMetadata>
      <ns:DataOwnerIdentifier
        xmlns:ns="http://ucore.gov/ucore/2.0">
        <ns1:Organization
          xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
          <ns1:name>ucids.org</ns1:name>
        </ns1:Organization>
      </ns:DataOwnerIdentifier>
      <ns:DataOwnerContact
        xmlns:ns="http://ucore.gov/ucore/2.0">
        <ns1:Organization
          xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
          <ns1:name>http://uicds.us</ns1:name>
        </ns1:Organization>
      </ns:DataOwnerContact>
      <ulex:DataOwnerMetadataDomainAttribute>
        <ulex:DomainName>UICDS EM Domain</ulex:DomainName>
      </ulex:DataOwnerMetadataDomainAttribute>
    </ulex:DataOwnerMetadata>
    <ns:DisseminationCriteria
      xmlns:ns="http://ucore.gov/ucore/2.0" />
  </str:WorkProductIdentification>

```

```

    <base:Identifier
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert-5b251981-83e6-4026-
b28d-d9f523b364cf</base:Identifier>
    <base:Version
      xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Version>
    <base:Type
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert</base:Type>
    <base:Checksum
      xmlns:base="http://www.saic.com/precis/2009/06/base">Wed Oct 03 09:38:14 MDT
2012:1:1:889837687</base:Checksum>
    <base:State
      xmlns:base="http://www.saic.com/precis/2009/06/base">Active</base:State>
  </str:WorkProductIdentification>
  <str:WorkProductProperties>
    <base:Created
      xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:Created>
    <base:CreatedBy
      xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:CreatedBy>
    <base:LastUpdated
      xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:LastUpdated>
    <base:LastUpdatedBy
      xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:LastUpdatedBy>
    <base:Kilobytes
      xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Kilobytes>
    <base:MimeType
      xmlns:base="http://www.saic.com/precis/2009/06/base">application/uicds+xml</base:MimeType>
    <base:AssociatedGroups
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <base:Identifier>IG-3e59949d-057b-41ef-924c-2e7a4ca3cb85</base:Identifier>
    </base:AssociatedGroups>
  </str:WorkProductProperties>
</ulex:PackageMetadata>
<ns:Digest
  xmlns:ns="http://ucore.gov/ucore/2.0"
  xmlns:ns2="http://www.opengis.net/gml/3.2"
  xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/"
  xmlns:base="http://www.saic.com/precis/2009/06/base"
  xmlns:ulex="ulex:message:structure:1.0">
  <ns:Event
    id="Event-41bd31c0-352e-4c91-8d16-7ba4db4b4980">
    <ns:Descriptor>Overtaken tanker on the highway.</ns:Descriptor>
    <ns:Identifier
      ns:code="identifier"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1"
      ns:label="ID">Alert - A hazardous chemical event has occurred</ns:Identifier>
    <ns:What
      ns:code="AlertEvent"
      ns:codespace="http://ucore.gov/ucore/2.0/codespace/" />
    <ns:What
      ns:code="CBRNE"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1" />
    </ns:Event>
  </ns:Location

```

```

id="Location-6530da62-55d2-4627-8760-3addecfe9f00">
<ns:GeoLocation>
  <ns:Polygon>
    <ns2:Polygon
      ns2:id="Polygon-b0585192-39ce-4561-b4a6-d3c2d03884af"
      srsName="EPSG:4326">
    <ns2:exterior>
      <ns2:LinearRing>
        <ns2:pos
          srsName="EPSG:4326">38.8 -77.3</ns2:pos>
        <ns2:pos
          srsName="EPSG:4326">38.8 -77.1</ns2:pos>
        <ns2:pos
          srsName="EPSG:4326">39.0 -77.1</ns2:pos>
        <ns2:pos
          srsName="EPSG:4326">39.0 -77.3</ns2:pos>
        <ns2:pos
          srsName="EPSG:4326">38.8 -77.3</ns2:pos>
      </ns2:LinearRing>
    </ns2:exterior>
  </ns2:Polygon>
</ns:Polygon>
</ns:GeoLocation>
</ns:Location>
<ns:OccursAt
  id="OccursAt-02a25fc6-df5d-4b0d-b132-81c2916e654e">
  <ns:Time>
    <ns:TimeInstant>
      <Value
        xmlns="http://ucore.gov/ucore/2.0">2009-09-15T12:00:00-06:00</Value>
      </ns:TimeInstant>
    </ns:Time>
  <ns:EventRef
    ref="Event-41bd31c0-352e-4c91-8d16-7ba4db4b4980" />
  <ns:LocationRef
    ref="Location-6530da62-55d2-4627-8760-3addecfe9f00" />
  </ns:OccursAt>
</ns:Digest>
<ulex:StructuredPayload
  xmlns:ulex="ulex:message:structure:1.0">
  <ulex:StructuredPayloadMetadata>
    <ulex:CommunityURI>Alert</ulex:CommunityURI>
    <ulex:CommunityVersion />
  </ulex:StructuredPayloadMetadata>
  <cap:alert
    xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1"
    xmlns:ns2="http://www.opengis.net/gml/3.2"
    xmlns="http://www.saic.com/precis/2009/06/structures"
    xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/"
    xmlns:ns="http://ucore.gov/ucore/2.0"
    xmlns:base="http://www.saic.com/precis/2009/06/base"
    xmlns:as="http://uicds.org/AlertService"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <cap:identifier>UICDS-Test-Identifier1</cap:identifier>
    <cap:sender>IncidentManagement@agency.gov</cap:sender>
    <cap:sent>2009-09-15T12:00:00</cap:sent>
    <cap:status>Actual</cap:status>
    <cap:msgType>Alert</cap:msgType>
  </cap:alert>
</ulex:StructuredPayload>

```



```

<cap:scope>Public</cap:scope>
<cap:info>
  <cap:language>en-US</cap:language>
  <cap:category>CBRNE</cap:category>
  <cap:event>A hazardous chemical event has occurred</cap:event>
  <cap:urgency>Immediate</cap:urgency>
  <cap:severity>Extreme</cap:severity>
  <cap:certainty>Observed</cap:certainty>
  <cap:effective>2009-09-15T12:00:00</cap:effective>
  <cap:onset>2009-09-15T12:00:00</cap:onset>
  <cap:senderName>Bob McGillicuddy</cap:senderName>
  <cap:headline>A hazardous chemical event has occurred</cap:headline>
  <cap:description>Overturned tanker on the highway.</cap:description>
  <cap:area>
    <cap:areaDesc>The highway, mile marker 128</cap:areaDesc>
    <cap:polygon>38.8,-77.3 38.8,-77.1 39.0,-77.1 39.0,-77.3 38.8,-77.3</cap:polygon>
  </cap:area>
</cap:info>
</cap:alert>
</ulex:StructuredPayload>
</str:WorkProduct>

```

8.0 WorkProductIdentification is Essential for Update, Close, and Archive

Any changes to a work product (Update, Close, Archive) must start from the most current version of the Work Product. The identification for the work product is found in **WorkProductIdentification**.

The current version is defined by the following fields found in the WorkProductIdentification element:

- Identifier which provides a unique reference to the work product. In the example below, the Identifier is highlighted in yellow and includes “Alert” as the type of work product and the unique number that follows.
- Version which indicates the current working revision number of the work product.
- Type which indicates the “kind” of work product this is. Each service deals with a unique type. Arbitrary types can be managed directly via the Work Product Service. Checksum provides a unique check for versioned documents to enable multiple cores to update documents and stay in sync.

WorkProductIdentification is available from:

- Response to the CreateIncident
- Received in a Notification
- GetProductCurrentVersion Request

```

...
<preciss:WorkProductIdentification>
  <precisb:Identifier>Alert-5b251981-83e6-4026-b28d-d9f523b364cf</precisb:Identifier>
  <precisb:Version>1</precisb:Version>

```



```

<precisb:Type>Alert</precisb:Type>
<precisb:Checksum>Wed Oct 03 09:38:14 MDT 2012:1:1:889837687</precisb:Checksum>
<precisb:State>Active</precisb:State>
</precis:WorkProductIdentification>
...

```

8.1 Get Alert by CAP Alert ID

A CAP Alert can be obtained via the Alert Service by submitting a GetAlertByAlertIdRequest as shown below.

```

<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" />
  <soapenv:Body xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
    <as:GetAlertByAlertIdRequest xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1"
      xmlns:as="http://uicds.org/AlertService">
      <!-- NOTE: This is the CAP Identifier, NOT the UICDS WP ID -->
      <as:AlertID>UICDS-Test-Identifier1</as:AlertID>
    </as:GetAlertByAlertIdRequest>
  </soapenv:Body>
</soapenv:Envelope>

```

8.2 Response to Get Alert by CAP Alert ID

The following is the XML response to the Get Alert by CAP Alert ID. The WorkProductIdentification obtained when you get a specific CAP Alert work product is used to close a CAP Alert.

```

<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header />
  <SOAP-ENV:Body>
    <aler:GetAlertByAlertIdResponse
      xmlns:aler="http://uicds.org/AlertService">
      <str:WorkProduct
        xmlns:str="http://www.saic.com/precis/2009/06/structures">
        <ulex:PackageMetadata
          xmlns:ulex="ulex:message:structure:1.0">
          <ulex:DataItemID>Alert-12160513-c75e-4f3b-87a4-1101a265e9a7</ulex:DataItemID>
          <ulex:DataItemReferenceID>Alert-12160513-c75e-4f3b-87a4-
1101a265e9a7</ulex:DataItemReferenceID>
          <ns:DataItemStatus
            xmlns:ns="http://ucore.gov/ucore/2.0"
            ns:code="Active"
            ns:codespace="http://uicds.org/1.0/codespace/workproduct/status"
            ns:label="UICDS Work Product Status" />
          <ulex:DataOwnerMetadata>
            <ns:DataOwnerIdentifier
              xmlns:ns="http://ucore.gov/ucore/2.0">
              <ns1:Organization
                xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">

```

```

        <ns1:name>ucids.org</ns1:name>
      </ns1:Organization>
    </ns:DataOwnerIdentifier>
    <ns:DataOwnerContact
      xmlns:ns="http://ucore.gov/ucore/2.0">
      <ns1:Organization
        xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
        <ns1:name>http://ucids.us</ns1:name>
      </ns1:Organization>
    </ns:DataOwnerContact>
    <ulex:DataOwnerMetadataDomainAttribute>
      <ulex:DomainName>UICDS EM Domain</ulex:DomainName>
    </ulex:DataOwnerMetadataDomainAttribute>
  </ulex:DataOwnerMetadata>
  <ns:DisseminationCriteria
    xmlns:ns="http://ucore.gov/ucore/2.0" />
  <str:WorkProductIdentification>
    <base:Identifier
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert-5b251981-83e6-4026-
b28d-d9f523b364cf</base:Identifier>
    <base:Version
      xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Version>
    <base:Type
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert</base:Type>
    <base:Checksum
      xmlns:base="http://www.saic.com/precis/2009/06/base">Wed Oct 03 09:38:14 MDT
2012:1:1:889837687</base:Checksum>
    <base:State
      xmlns:base="http://www.saic.com/precis/2009/06/base">Active</base:State>
    </str:WorkProductIdentification>
    <str:WorkProductProperties>
      <base:Created
        xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:Created>
      <base:CreatedBy
        xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:CreatedBy>
      <base:LastUpdated
        xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:LastUpdated>
      <base:LastUpdatedBy
        xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:LastUpdatedBy>
      <base:Kilobytes
        xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Kilobytes>
      <base:MimeType
        xmlns:base="http://www.saic.com/precis/2009/06/base">application/ucids+xml</base:MimeType>
      <base:AssociatedGroups
        xmlns:base="http://www.saic.com/precis/2009/06/base">
        <base:Identifier>IG-3e59949d-057b-41ef-924c-2e7a4ca3cb85</base:Identifier>
      </base:AssociatedGroups>
    </str:WorkProductProperties>
  </ulex:PackageMetadata>
  <ns:Digest
    xmlns:ns="http://ucore.gov/ucore/2.0"
    xmlns:ns2="http://www.opengis.net/gml/3.2"
    xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/"

```

```

xmlns:base="http://www.saic.com/precis/2009/06/base"
xmlns:ulex="ulex:message:structure:1.0">
<ns:Event
  id="Event-41bd31c0-352e-4c91-8d16-7ba4db4b4980">
  <ns:Descriptor>Overturned tanker on the highway.</ns:Descriptor>
  <ns:Identifier
    ns:code="identifier"
    ns:codespace="urn:oasis:names:tc:emergency:cap:1.1"
    ns:label="ID">Alert - A hazardous chemical event has occurred</ns:Identifier>
  <ns:What
    ns:code="AlertEvent"
    ns:codespace="http://ucore.gov/ucore/2.0/codespace/" />
  <ns:What
    ns:code="CBRNE"
    ns:codespace="urn:oasis:names:tc:emergency:cap:1.1" />
</ns:Event>
<ns:Location
  id="Location-6530da62-55d2-4627-8760-3addecfe9f00">
  <ns:GeoLocation>
    <ns:Polygon>
      <ns2:Polygon
        ns2:id="Polygon-b0585192-39ce-4561-b4a6-d3c2d03884af"
        srsName="EPSG:4326">
        <ns2:exterior>
          <ns2:LinearRing>
            <ns2:pos
              srsName="EPSG:4326">38.8 -77.3</ns2:pos>
            <ns2:pos
              srsName="EPSG:4326">38.8 -77.1</ns2:pos>
            <ns2:pos
              srsName="EPSG:4326">39.0 -77.1</ns2:pos>
            <ns2:pos
              srsName="EPSG:4326">39.0 -77.3</ns2:pos>
            <ns2:pos
              srsName="EPSG:4326">38.8 -77.3</ns2:pos>
          </ns2:LinearRing>
        </ns2:exterior>
      </ns2:Polygon>
    </ns:Polygon>
  </ns:GeoLocation>
</ns:Location>
<ns:OccursAt
  id="OccursAt-02a25fc6-df5d-4b0d-b132-81c2916e654e">
  <ns:Time>
    <ns:TimeInstant>
      <Value
        xmlns="http://ucore.gov/ucore/2.0">2009-09-15T12:00:00-06:00</Value>
      </ns:TimeInstant>
    </ns:Time>
  <ns:EventRef
    ref="Event-41bd31c0-352e-4c91-8d16-7ba4db4b4980" />
  <ns:LocationRef
    ref="Location-6530da62-55d2-4627-8760-3addecfe9f00" />
</ns:OccursAt>
</ns:Digest>
<ulex:StructuredPayload
  xmlns:ulex="ulex:message:structure:1.0">
  <ulex:StructuredPayloadMetadata>

```

```

<ulex:CommunityURI>Alert</ulex:CommunityURI>
<ulex:CommunityVersion />
</ulex:StructuredPayloadMetadata>
<cap:alert
  xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1"
  xmlns:ns2="http://www.opengis.net/gml/3.2"
  xmlns="http://www.saic.com/precis/2009/06/structures"
  xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/"
  xmlns:ns="http://ucore.gov/ucore/2.0"
  xmlns:base="http://www.saic.com/precis/2009/06/base"
  xmlns:as="http://uicds.org/AlertService"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <cap:identifier>UICDS-Test-Identifier1</cap:identifier>
  <cap:sender>IncidentManagement@agency.gov</cap:sender>
  <cap:sent>2009-09-15T12:00:00</cap:sent>
  <cap:status>Actual</cap:status>
  <cap:msgType>Alert</cap:msgType>
  <cap:scope>Public</cap:scope>
  <cap:info>
    <cap:language>en-US</cap:language>
    <cap:category>CBRNE</cap:category>
    <cap:event>A hazardous chemical event has occurred</cap:event>
    <cap:urgency>Immediate</cap:urgency>
    <cap:severity>Extreme</cap:severity>
    <cap:certainty>Observed</cap:certainty>
    <cap:effective>2009-09-15T12:00:00</cap:effective>
    <cap:onset>2009-09-15T12:00:00</cap:onset>
    <cap:senderName>Bob McGillicuddy</cap:senderName>
    <cap:headline>A hazardous chemical event has occurred</cap:headline>
    <cap:description>Overturned tanker on the highway.</cap:description>
    <cap:area>
      <cap:areaDesc>The highway, mile marker 128</cap:areaDesc>
      <cap:polygon>38.8,-77.3 38.8,-77.1 39.0,-77.1 39.0,-77.3 38.8,-77.3</cap:polygon>
    </cap:area>
  </cap:info>
</cap:alert>
</ulex:StructuredPayload>
</str:WorkProduct>
</aler:GetAlertByAlertIdResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

9.0 Update an Alert Work Product

In accordance with the CAP 1.1 specification, CAP Alerts are not updated. If information in a CAP Alert is outdated, i.e. needs to be updated, that CAP Alert is canceled (CAP 1.1 specification parlance) and a new CAP Alert is created with the updated information. UICDS follows this workflow.

10.0 Close and Archive an Alert Work Product

10.1 Understanding Close and Archive

Closing an a work product removes it from the notification list and removes it from any GetProductCurrentVersionRequest. But it does NOT remove the work product (or any previous versions of the work product) from UICDS.

Archiving a work product permanently deletes it from UICDS.

The purpose of closing before archiving is to give the UICDS owner a chance to do whatever he or she wants to do with the set of work products. This is the point to save work products for the record, if desired. The principle behind UICDS is that UICDS is not a system of record – it is the transport path for data. Your system of record is the application you are using. Thus, there is no inherent way to create a long-term historical record of UICDS transactions except to copy the data from UICDS between the close process and the archive process.

In practice, because UICDS is not a system of record, most applications Close and Archive Work Products in one step. But that is entirely up to you.

10.2 Cancel CAP Alert (Close and Archive Operations)

Close and Archive use the WorkProductService for ALL Work Products. The same message is submitted to the WorkProductService for any work product in UICDS with the specific instruction being provided to UICDS by the WorkProductIdentification which specifies which work product to close or archive.

UICDS has adapted this workflow to enable UICDS to adhere to the the CAP 1.1 specification as follows. When an end user wishes to cancel (CAP 1.1 specification parlance) a CAP Alert in UICDS, a CancelAlertRequest is issued to the Alert Service. This effectively closes and archives the Cap Alert.

10.2.1 Cancel CAP Alert Message

Below is an example of a Cancel CAP Alert message.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
    <as:CancelAlertRequest
      xmlns:as="http://uicds.org/AlertService"
      xmlns:precisb="http://www.saic.com/precis/2009/06/base"
      xmlns:preciss="http://www.saic.com/precis/2009/06/structures">
      <preciss:WorkProductIdentification>
        <precisb:Identifier>Alert-5b251981-83e6-4026-b28d-d9f523b364cf</precisb:Identifier>
        <precisb:Version>1</precisb:Version>
        <precisb:Type>Alert</precisb:Type>
        <precisb:Checksum>Wed Oct 03 09:38:14 MDT 2012:1:1:889837687</precisb:Checksum>
        <precisb:State>Active</precisb:State>
      </preciss:WorkProductIdentification>
```

```
</as:CancelAlertRequest>
</soapenv:Body>
```

Note that Identifier and Checksum identify what Work Product you are closing. You must substitute the Identifier and Checksum numbers from the work product you want to close. See Section 8.0 for further details.

10.2.2 Expected Response to a Cancel CAP Alert Message

You will get a response by Cancelling that contains confirmation that it was cancelled (closed and archived).

```
<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header />
  <SOAP-ENV:Body>
    <aler:CancelAlertResponse
      xmlns:aler="http://uicds.org/AlertService">
      <wor:WorkProductPublicationResponse
        xmlns:wor="http://uicds.org/WorkProductService">
        <str:WorkProductProcessingStatus
          xmlns:str="http://www.saic.com/precis/2009/06/structures">
          <base:Status
            xmlns:base="http://www.saic.com/precis/2009/06/base">Accepted</base:Status>
          </str:WorkProductProcessingStatus>
          <str:WorkProduct
            xmlns:str="http://www.saic.com/precis/2009/06/structures">
            <ulex:PackageMetadata
              xmlns:ulex="ulex:message:structure:1.0">
              <ulex:DataItemID>Alert-5b251981-83e6-4026-b28d-d9f523b364cf</ulex:DataItemID>
              <ulex:DataItemReferenceID>Alert-5b251981-83e6-4026-b28d-
d9f523b364cf</ulex:DataItemReferenceID>
              <ns:DataItemStatus
                xmlns:ns="http://ucore.gov/ucore/2.0"
                ns:code="Inactive"
                ns:codespace="http://uicds.org/1.0/codespace/workproduct/status"
                ns:label="UICDS Work Product Status" />
              <ulex:DataOwnerMetadata>
                <ns:DataOwnerIdentifier
                  xmlns:ns="http://ucore.gov/ucore/2.0">
                  <ns1:Organization
                    xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
                    <ns1:name>uicds.org</ns1:name>
                  </ns1:Organization>
                </ns:DataOwnerIdentifier>
                <ns:DataOwnerContact
                  xmlns:ns="http://ucore.gov/ucore/2.0">
                  <ns1:Organization
                    xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0/">
                    <ns1:name>http://uicds.us</ns1:name>
                  </ns1:Organization>
                </ns:DataOwnerContact>
              <ulex:DataOwnerMetadataDomainAttribute>
                <ulex:DomainName>UICDS EM Domain</ulex:DomainName>
```

```

    </ulex:DataOwnerMetadataDomainAttribute>
  </ulex:DataOwnerMetadata>
  <ns:DisseminationCriteria
    xmlns:ns="http://ucore.gov/ucore/2.0" />
  <str:WorkProductIdentification>
    <base:Identifier
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert-5b251981-83e6-4026-b28d-
d9f523b364cf</base:Identifier>
    <base:Version
      xmlns:base="http://www.saic.com/precis/2009/06/base">2</base:Version>
    <base:Type
      xmlns:base="http://www.saic.com/precis/2009/06/base">Alert</base:Type>
    <base:Checksum
      xmlns:base="http://www.saic.com/precis/2009/06/base">Wed Oct 03 09:51:16 MDT
2012:2:1:3623644064</base:Checksum>
    <base:State
      xmlns:base="http://www.saic.com/precis/2009/06/base">Inactive</base:State>
  </str:WorkProductIdentification>
  <str:WorkProductProperties>
    <base:Created
      xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:38:14.337-
06:00</base:Created>
    <base:CreatedBy
      xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:CreatedBy>
    <base:LastUpdated
      xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T09:51:16.447-
06:00</base:LastUpdated>
    <base:LastUpdatedBy
      xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwgns1</base:LastUpdatedBy>
    <base:Kilobytes
      xmlns:base="http://www.saic.com/precis/2009/06/base">1</base:Kilobytes>
    <base:MimeType
      xmlns:base="http://www.saic.com/precis/2009/06/base">application/uicds+xml</base:MimeType>
    <base:AssociatedGroups
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <base:Identifier>IG-3e59949d-057b-41ef-924c-2e7a4ca3cb85</base:Identifier>
    </base:AssociatedGroups>
  </str:WorkProductProperties>
</ulex:PackageMetadata>
<ns:Digest
  xmlns:ns="http://ucore.gov/ucore/2.0"
  xmlns:ns2="http://www.opengis.net/gml/3.2"
  xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0"
  xmlns:base="http://www.saic.com/precis/2009/06/base"
  xmlns:ulex="ulex:message:structure:1.0">
  <ns:Event
    id="Event-28dad0a6-b540-42bd-b8ef-4d0f4961c7aa">
    <ns:Descriptor>Overturned tanker on the highway.</ns:Descriptor>
    <ns:Identifier
      ns:code="identifier"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1"
      ns:label="ID">Alert - A hazardous chemical event has occurred</ns:Identifier>
    <ns:What
      ns:code="AlertEvent"
      ns:codespace="http://ucore.gov/ucore/2.0/codespace/" />

```

```

    <ns:What
      ns:code="CBRNE"
      ns:codespace="urn:oasis:names:tc:emergency:cap:1.1" />
  </ns:Event>
  <ns:Location
    id="Location-9ffb189d-631f-4de8-9b86-7eda15ce47bf">
    <ns:GeoLocation>
      <ns:Polygon>
        <ns2:Polygon
          ns2:id="Polygon-0bf99a2d-01ad-4d93-b31d-819ac7a57426"
          srsName="EPSG:4326">
          <ns2:exterior>
            <ns2:LinearRing>
              <ns2:pos
                srsName="EPSG:4326">38.8 -77.3</ns2:pos>
              <ns2:pos
                srsName="EPSG:4326">38.8 -77.1</ns2:pos>
              <ns2:pos
                srsName="EPSG:4326">39.0 -77.1</ns2:pos>
              <ns2:pos
                srsName="EPSG:4326">39.0 -77.3</ns2:pos>
              <ns2:pos
                srsName="EPSG:4326">38.8 -77.3</ns2:pos>
            </ns2:LinearRing>
          </ns2:exterior>
        </ns2:Polygon>
      </ns:Polygon>
    </ns:GeoLocation>
  </ns:Location>
  <ns:OccursAt
    id="OccursAt-86fc41f4-6cf8-4986-8c18-5ed04fed8e5f">
    <ns:Time>
      <ns:TimeInstant>
        <Value
          xmlns="http://ucore.gov/ucore/2.0">2009-09-15T12:00:00-06:00</Value>
        </ns:TimeInstant>
      </ns:Time>
    <ns:EventRef
      ref="Event-28dad0a6-b540-42bd-b8ef-4d0f4961c7aa" />
    <ns:LocationRef
      ref="Location-9ffb189d-631f-4de8-9b86-7eda15ce47bf" />
  </ns:OccursAt>
</ns:Digest>
</str:WorkProduct>
</wor:WorkProductPublicationResponse>
</aler:CancelAlertResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

11.0 IAP Service Methods Summary

Developers have the option of using any of the following methods to elicit performance from UICDS services.

Alert Service Method Summary	
cancelAlert	Allows the client to cancel an existing alert work product.
createAlert	Allows the client to create an alert work product and optionally associate it to an incident.
createAlertRawCap	Allows the client to create an alert work product from a raw CAP XML element.
getAlert	Allows the client to get an alert work product using the UICDS Work Product Identification.
getAlertByAlertId	Allows the client to get an alert work product using the CAP identifier value.
getListOfAlerts	Allows the client to get a list of all alert work products or a limited list by using the QueryString.
Reference: https://uicds-test3.saic.com/secure/apidocs/com/saic/uicds/core/em/endpoint/AlertServiceEndpoint.html	

12.0 Viewing UICDS Work Products for Confirmation

There are three methods for inspecting the UICDS Alert Work Product to validate it. The programmatic way to obtain the Alert Work Product is by submitting the CAP Alert ID to the Alert Service (See Sections 8.1 and 8.2). An internal look at the work product on the UICDS Core uses the UICDS Console. An external look at the results of the work product can be obtained using Google Earth™

12.1 Using the UICDS Console

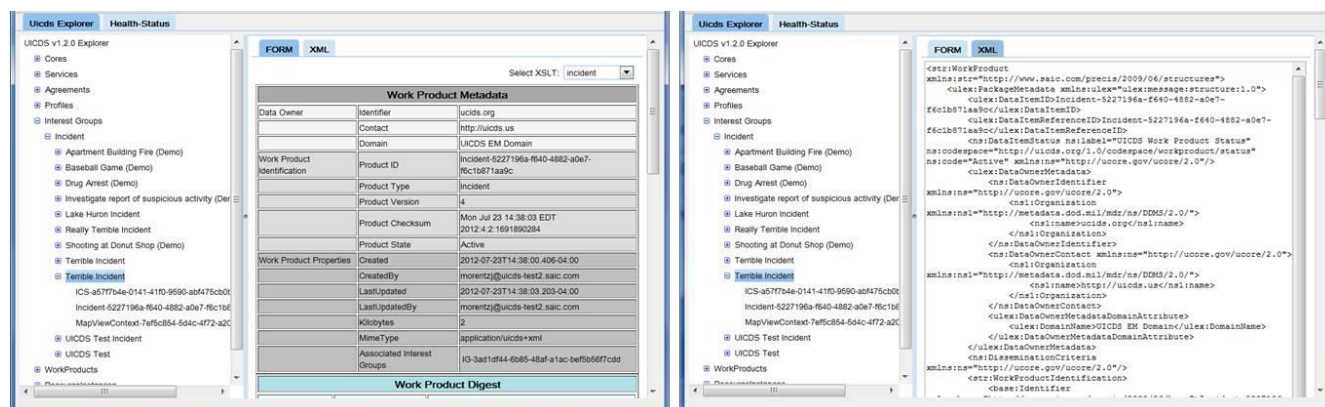
Use the UICDS Console (or AdminConsole if you have permissions) to view the resulting work product after posting.

Access your UICDS Console at <https://localhost.saic.com/uicds/Console.html> where “localhost” is your UICDS Core.

For example, developers have access to hosted UICDS Cores for testing. With access credentials, you may use the Console to view your test UICDS Work Products to:

<https://uicds-test2.saic.com/uicds/Console.html>

The UICDS Console will provide two views of the UICDS Work Product as shown below. One is in a structured form (XSLT) and the second as an XML document. Note that the XSLT is user-defined if you wish to create your own view of the work product.



These views of the UICDS Console show, on the left, the XSLT view of work product Metadata, Digest, and Payload and on the right the XML view of the UICDS Work Product.

12.2 Using Google Earth™

In the Appendix (Section 13.4) is a guide to looking at these same work products in Google Earth™ as one no-cost tool to check your Alert Work Products.

13.0 Mapping of the Payload to the UCore Digest

UICDS automatically digests selected NIEM data elements contained in the payload into the UCore standard data elements. The following table shows those NIEM elements in the payload and the UCore Digest data element name. Required UICDS data elements are shown in beige and optional in blue.

The Digest data is contained in the KML and GeoRSS feeds as well as in the notification of the successful posting of a UICDS XML template and the successful creation of a Alert Work Product.

UICDS Common Data Element Name	Payload UICDS Data Element	Digest Data Element (from UCore)
Identifier	<cap:identifier>	
Sender	<cap:sender>	
Sent Date/Time	<cap:sent>	<ns:TimeInstant>
Status	<cap:status>	
Message Type	<cap:msgType>	
Scope	<cap:scope>	
Category	<cap:category>	<ns:What>
Event	<cap:event>	<ns:Identifier>
Urgency	<cap:urgency>	
Severity	<cap:severity>	
Certainty	<cap:certainty>	

Source	<cap:source>	
Restriction	<cap:restriction>	
Addresses	<cap:addresses>	
Code	<cap:code>	
Note	<cap:note>	
References	<cap:references>	
Incidents	<cap:incidents>	
Language	<cap:language>	
Response Type	<cap:responseType>	
Event Code	<cap:/eventCode> <valueName> <value>	
Effective	<cap:effective>	
Onset	<cap:onset>	
Expires	<cap:expires>	
Sender Name	<cap:senderName>	
Headline	<cap:headline>	<ns:Identifier>
Description	<cap:description>	<ns:Descriptor>
Instruction	<cap:instruction>	
Web	<cap:web>	
Contact	<cap:contact>	
Parameter	<cap:parameter>	
Resource	<cap:resource>	
Area Description	<cap:areaDesc>	
Area	<cap:geoCode> <cap:polygon> <cap:circle>	<ns:GeoLocation>

14.0 Best Practices for that Pesky “Other” Data

UICDS follows standards. The Alert Work Product is derived from NIEM. Thus, occasionally an application developer may find it necessary to transmit data that does not fit conveniently in the NIEM, or other standard, structure.

To accomplish this, UICDS has created a “best practice” for employing a data element to contain “other” data. Because this data is usually also important to the application end-user, the UICDS best practice is designed to make the data easily (a) understandable by other applications that receive the UICDS Work Product and (b) viewable in a nicely structured format. Thus, the best practice for incorporating data into the description is to use HTML formatting to define key:value pairs. As shown below, because the key:value pairs are clearly delimited, applications can understand them. In addition, UICDS digests the Description data element into a KML feed. When Google Earth or other KML-compliant applications consume that KML feed, they are smart enough to understand the HTML inserted into the KML feed and provide formatting in a end-user-friendly visualization.

To insert additional data into any data element, the following HTML formatting should be used as a best practice.

```
<Descriptor><![CDATA[<br />
    <b>Name:</b> Value <br />
```

```
<b>Name:</b> Value <br />
<b>Name:</b> Value <br />]]></Descriptor>
```

This HTML structure ensures (through CDATA) that the inserted HTML is not parsed by an XML parser. The allows the Name element to display in bold face on Google Earth™ or other KML-enabled applications and
 inserts a return after each value forming a nicely formatted column.

15.0 Links to the Alert Service WSDL

The UICDS Alert Service WSDL can be found locally after the UICDS Core has been downloaded or is available from the UICDS test cores.

From the downloaded local UICDS Core:

<http://localhost/uicds/core/ws/services/AlertService.wsdl>

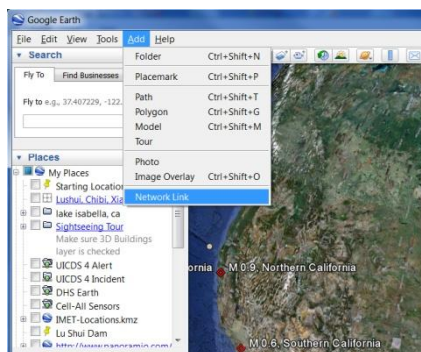
From a hosted UICDS Core

<https://uicds-test2.saic.com/uicds/core/ws/services/AlertService.wsdl>

16.0 Appendix

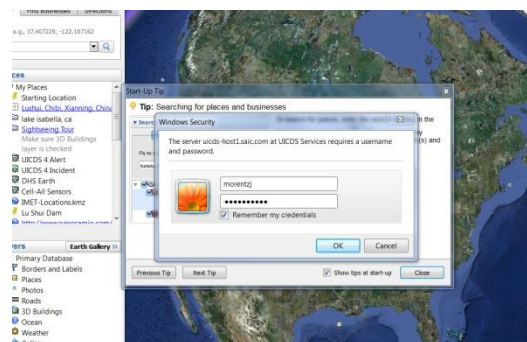
16.1 View Alert Work Products in Google Earth™

1. Download Google Earth from <http://www.google.com/earth/download/ge/agree.html>
2. Use the Add menu item to add a Network Link. Select a name that will appear in the Places section of Google Earth.



3. There are options to adding the network link
 - a. Note: The local Pilot UICDS Core URL should be substituted for the “uicds-host4.saic.com” link shown in the URLs below.

- b. This is an example of a network link just for Incidents: <https://uicds-host4.saic.com/uicds/pub/search?format=kml&productType=Incident>
 - c. You can add several UICDS Work Products to a single link making all of them display at once. This URL will get you UICDS Incidents and Alerts and Resources and Sensor Observations and Link Work Products of type text and html. <https://uicds-host3.saic.com/uicds/pub/search?productState=Active&productType=Incident&productType=Alert&productType=ResponseToRequestInformation&productType=Alert&productType=text/html&format=kml>
4. Click the Refresh tab and select Periodically in the dropdown box. Select a time (minutes rather than seconds makes sense.)
 5. Click OK.
 6. You will be prompted to enter your access credentials to the UICDS Core named in the network link. (For the hosted UICDS test cores, these are the credentials you received when the Software User Agreement was signed and you have used them to download the UICDS Development Kit.)
 7. The network link name you entered will appear in the Places directory on the left. Check the box to display content on the UICDS Core.
 8. The link will refresh at the period you set. To force refresh, right click on the name and select refresh.
 9. Navigate the tree below the link name by clicking on the + sign.
 10. You can force the map to the location of any item shown in Places by double clicking on it.



Example Incidents in Google Earth

Below the results of posting the two example incidents, the Terrible Incident located toward the top of the map as a point and the Really Terrible Incident polygon showing the formatting of the text from the UICDS Work Product into a KML format.

Quick Start Guide to the UICDS Alert Service And Alert Work Product

