

XchangeCore Quick Start Guide to the Incident Command Service

XCORE-ICS-R03C01

The XchangeCore Community
www.XchangeCore.com



Table of Contents

- 1.0 About This Quick Start Guide3
- 2.0 Incident Command Service Overview.....4
- 3.0 Application Interactions with the XchangeCore ICS Work Product6
- 4.0 Mapping to the XchangeCore ICS Work Product7
- 5.0 Payload Template for Required Data to Update ICS Work Product.....7
- 6.0 Update ICS Work Product8
 - 6.1 Obtain the ICS number for the Default ICS Work Product8
 - 6.1.1 Submit GetCommandStructureByIncidentRequest9
 - 6.1.2 Expected Response from GetCommandStructureByIncidentRequest9
 - 6.2 Wrapping the Payload in a SOAP Envelope.....11
 - 6.3 Location of the Incident Command Service11
 - 6.4 Quick Test Posting of the XchangeCore XML Message12
 - 6.5 Update ICS Request.....12
 - 6.6 Update ICS Expected Response13
- 7.0 The Resulting Work Product Example15
- 8.0 WorkProductIdentification is Essential for Update, Close, and Archive.....17
 - 8.1 GetWorkProductCurrent Version17
 - 8.2 Response to GetWorkProductCurrentVersion.....18
- 9.0 Close and Archive an ICS Work Product20
 - 9.1 Close and Archive Operations20
 - 9.1.1 Close Message.....20
 - 9.1.2 Expected Response to a Close Message21
 - 9.1.3 Archive Work Product Message.....23
 - 9.1.4 Response to Archive Work Product23
- 10.0 Incident Command Service Methods Summary24
- 11.0 Viewing XchangeCore Work Products for Confirmation24
 - 11.1 Programmatic Retrieval of ICS Work Product24
 - 11.2 Using the XchangeCore Console.....24
- 12.0 Best Practices for that Pesky “Other” Data.....25
- 13.0 Links to the Incident Command Service WSDL26



1.0 About This Quick Start Guide

The purpose of this Quick Start Guide is to enable providers of Incident Command System and other Command Structure software to efficiently map their data to the XchangeCore Incident Command Service in order to create, update, close, and archive ICS personnel and unit assignment data shared through XchangeCore. The XchangeCore Incident Command Service allows clients to create and modify command structures (including both ICS and MACS) for incidents and associate resources to organizational roles within these structures.

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

Finally, the Quick Start Guide is accompanied by references to example code that can be downloaded from GitHub under open source license.

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

- An overview of the Incident Command Service including references to the National Information Exchange Model (NIEM) from which the XchangeCore ICS Work Product is derived
- A flowchart of an external application's interface with the XchangeCore
- A list of common names of data elements contained in many incident management applications and their corresponding XchangeCore data element names that can guide the mapping of an application to the work product
- The ICS Work Product Template that is the XML document that is used to post application data to XchangeCore
- Example of the XML document for posting (including the SOAP envelope)
- Example of how to associate the ICS 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 XchangeCore ICS Work Product (containing Metadata, Digest, and Payload) is created and stored within XchangeCore and results from the successful submission of the XML document by the application and which becomes the atomic unit of information sharing through XchangeCore.
- Two methods for retrieving or inspecting the XchangeCore ICS Work Product to validate it, including programmatically and using the XchangeCore using the XchangeCore Console.
- Best Practices for that Pesky "Other" Data
- Link to the Incident Command Service WSDL



2.0 Incident Command Service Overview

The Incident Command Service automatically creates an ICS Work Product when an incident is created. Operationally, the Incident Work Product in XchangeCore is the beginning of the “XchangeCore Tree of Incident Knowledge.” Thus, the ICS Work Product is always “associated” with an Incident Work Product.

The XchangeCore Incident Command Service allows clients to create and modify command structures (including both ICS and MACS) for incidents and associate resources to organizational roles within these structures. Organizational structures for an incident are represented by building up hierarchies of instances of `OrganizationalElements`. Positions in the organizational structure are represented by an `OrganizationPositionType`.

Positions identify roles and persons identified in the ICS structure. This is commonly a text string identifying the role or person. An optional reference to an XchangeCore Resource Profile (role) and an XchangeCore Resource Instance (resource/person) may be provided (using a URI related to the URIs created using the ResourceInstance service) for applications that wish to utilize the identifier of the resource profile or resource instance (which are managed by the Resource Profile Service and by the Resource Instance Service).

The generic nature of the `OrganizationalElement` structure was chosen to provide the maximum flexibility for representing any type of organizational structure. The work product types managed by the ICS Service are "ICS" (Incident Command Structures) or "MACS" (Multi-Agency Coordination Systems). An ICS work product type will be assigned if the role profile of the person in charge of the top level `OrganizationElement` starts with "Incident Commander" otherwise the work product type will be MACS.

The ICS Work Product is derived from the NIEM standard. NIEM is the National Information Exchange Model and the XchangeCore ICS Work Product is derived from the NIEM `ComplexObjectType`. Additional data elements are not, in XchangeCore Version 1.3.3, necessarily NIEM data elements because at the time of release there was no construct for ICS in the NIEM standard. The XchangeCore ICS Work Product, thus, should be considered a candidate for a NIEM ICS description.

The ICS Service allows XchangeCore compatible client applications to modify Incident Command System (ICS) structures and Multi-Agency Coordination System (MACS) structures for incidents and associate people with organizational roles. The required and optional data elements for the Work Product associated with the Incident Command Service are described below.

| Work Product | Incident Command System Work Product Data |
|---------------|--|
| Standard | NIEM 2.0 (derived from NIEM <code>ComplexObjectType</code> ; v1.1 does not use NIEM data elements) |
| Reference | http://www.niem.gov/niem/NIEM-2.0-schema-index.html |
| Required Data | Organization Name (e.g., Emergency Management Agency or Public Works Department) Organization Type (e.g., ICS structure for this incident or ESF-1 or |

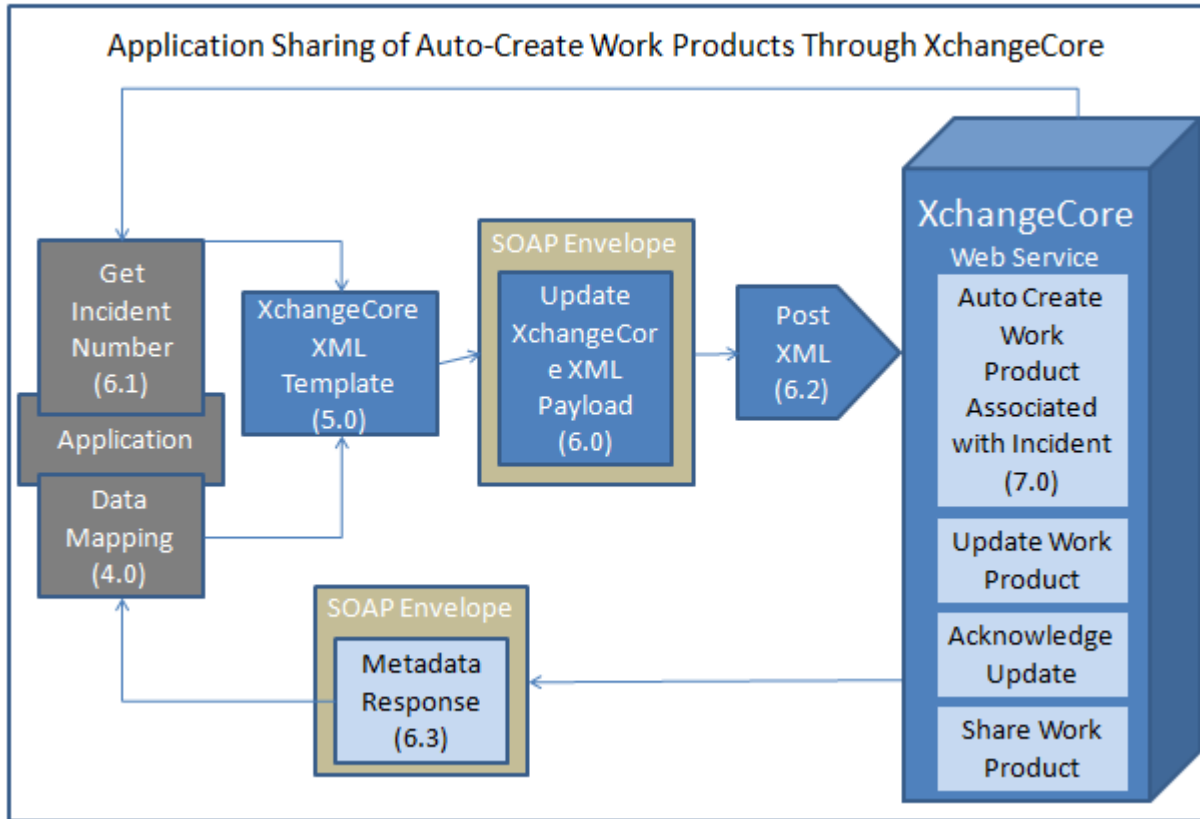


| | |
|---------------|---|
| | Backhoe) Role/Position (e.g., Branch Chief or Transportation Officer or Sandbags) Person in Charge (name) Incident |
| Optional Data | Staff (name) |

Certain specified data values are represented in the required data. They are identified below:

| Data Elements | Required Data Values |
|-------------------|---|
| Organization Name | Office Section Branch Division Group Unit Strike Team |
| Organization Type | Incident Command Operations Planning Logistics Finance |
| Role/Position | Role Profile Reference Person Profile Reference |

3.0 Application Interactions with the XchangeCore ICS Work Product



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

External applications interact with and share data through XchangeCore by creating and updating XchangeCore Work Products. The Map Work Product differs from most other work products because it is automatically created at the time of the creation of an incident. Thus, the application only updates Map Work Products. This exchange consists of several steps. First, an application maps its data to the XchangeCore XML data element structure (Section 4). Second, an application obtains the AssociatedGroup/Identifier which it uses to uniquely identify the Map Work Product it wishes to update (Section 6.1). The application data is then inserted into the XchangeCore XML Template data elements (Section 5) to form the Payload, an XML document that will become part of the Work Product. The Payload is then wrapped in a SOAP envelope (Section 6) for transmission using Internet Protocols over local networks, private Internet, or public Internet. The SOAP transmission POSTs the XML to the XchangeCore (Section 6.3) and a Work Product is created (7.0). The Work Product is acknowledged through a transmission back to the sender with Metadata for the work product (Section 6.6).

Details of these steps follow.



4.0 Mapping to the XchangeCore ICS Work Product

The following table shows the common name of the data element as often used in ICS management applications in the first column. The second column is the data element name contained in the XchangeCore ICS Work Product schema (shown below). The third column is blank in order to map your application to the XchangeCore ICS Work Product. Required XchangeCore data elements are shown in beige and optional in blue.

| XchangeCore Common Data Element Name | XchangeCore Data Element | Map Your Data |
|--------------------------------------|---------------------------------|---------------|
| Organization Name | <element name="OrganizationName | |
| Organization Type | <element name="OrganizationType | |
| Role/Position | <element name="OrganizationType | |
| Person in Charge | <element name="PersonInCharge | |
| Incident | <incidentId> | |
| Staff | <element name="Staff | |

5.0 Payload Template for Required Data to Update ICS Work Product

The Payload Template will be the end product of your mapping of your data to the XchangeCore Work Product schema. This template is used programmatically by the external application to create the complete payload for submission to the XchangeCore.

```

<?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>
    <inc:UpdateCommandStructureRequest
      xmlns:inc="http://uicds.org/IncidentCommandStructureService"
      xmlns:str="http://www.saic.com/precis/2009/06/structures"
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <str:WorkProductIdentification>
        <base:Identifier>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</base:Identifier>
        <base:Version>1</base:Version>
        <base:Type>ICS</base:Type>
        <base:Checksum>Wed Oct 03 14:55:01 MDT 2012:1:0:2364346927</base:Checksum>
        <base:State>Active</base:State>
      </str:WorkProductIdentification>
      <org:OrganizationElement
        xmlns:org="http://uicds.org/OrganizationElement"
        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">
        <org:OrganizationName>Organization Leading Response</org:OrganizationName>

```




```
<org:OrganizationType>ICS</org:OrganizationType>
<org:PersonInCharge>
  <org:RoleProfileRef>Incident Commander</org:RoleProfileRef>
  <org:PersonProfileRef>Chip Mahoney</org:PersonProfileRef>
</org:PersonInCharge>
<org:Staff>
  <org:RoleProfileRef>Public Information Officer</org:RoleProfileRef>
  <org:PersonProfileRef>Daphne Hurrell</org:PersonProfileRef>
</org:Staff>
<org:OrganizationElement>
  <org:OrganizationName>Operations Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
    <org:RoleProfileRef>Operations Section Chief</org:RoleProfileRef>
    <org:PersonProfileRef>Roger Wuerfel</org:PersonProfileRef>
  </org:PersonInCharge>
</org:OrganizationElement>
<org:OrganizationElement>
  <org:OrganizationName>Planning Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
    <org:RoleProfileRef>Planning Section Chief</org:RoleProfileRef>
    <org:PersonProfileRef>James Morentz</org:PersonProfileRef>
  </org:PersonInCharge>
</org:OrganizationElement>
</org:OrganizationElement>
</inc:UpdateCommandStructureRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

6.0 Update ICS Work Product

The Default ICS Work Product is created automatically when the incident is created. Thus, you always update that work product as new details about the organizational structure, roles, and resources are entered into external applications. Updating an ICS Work Product in XchangeCore entails

- Obtaining the ICS number for the ICS Work Product you will update (Section 6.1)
- Mapping your data to the Payload Template (Section 5.0, above)
- Wrapping the Payload in a SOAP envelope (Section 6.2)
- Submitting the XML document to the Incident Command Service (Section 6.3) by posting the document (Section 6.4)

6.1 Obtain the ICS number for the Default ICS Work Product

The ICS Work Product is created automatically when an incident is created and is associated with that incident. To submit relevant data about the command structure, ICS applications update the Default ICS Work Product to expand the “XchangeCore Tree of Incident Knowledge.” This is how XchangeCore manages incident content by associating ICS data with an incident.



6.1.1 Submit GetCommandStructureByIncidentRequest

To obtain the Default ICS Structure, the following shows how to submit the Incident IG number, the unique value contained in an Incident Work Product Metadata, that allows other work products to be associated with the incident. The IG number, or AssociatedGroup/Identifier, is formatted like this: IG-e0051cbc-aea5-4a9f-977a-915a3a7db7a7.

```
<?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>
    <ics:GetCommandStructureByIncidentRequest
      xmlns:ics="http://uicds.org/IncidentCommandStructureService">IG-5178b812-298b-4330-9a66-
      2056636f5baf</ics:GetCommandStructureByIncidentRequest>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```

6.1.2 Expected Response from GetCommandStructureByIncidentRequest

The ICS unique work product number is returned from XchangeCore in a statement like this:

```
<ulex:DataItemID>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</ulex:DataItemID>
```

Below the message containing this number is shown with Metadata in red and Payload in black. The ICS Work Product is not digested automatically.

```
<?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>
    <inc:GetCommandStructureByIncidentResponse
      xmlns:inc="http://uicds.org/IncidentCommandStructureService">
      <str:WorkProduct
        xmlns:str="http://www.saic.com/precis/2009/06/structures">
        <ulex:PackageMetadata
          xmlns:ulex="ulex:message:structure:1.0">
          <ulex:DataItemID>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</ulex:DataItemID>
          <ulex:DataItemReferenceID>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</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="XchangeCore 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>XchangeCore 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">ICS-48d61e1b-3f28-46ac-b044-
5245c67c2739</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">ICS</base:Type>
  <base:Checksum
    xmlns:base="http://www.saic.com/precis/2009/06/base">Wed Oct 03 14:55:01 MDT
2012:1:0:2364346927</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">2012-10-03T14:55:01.497-06:00</base:Created>
  <base:CreatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwwgns1</base:CreatedBy>
  <base:LastUpdated
    xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-03T14:55:01.497-
06:00</base:LastUpdated>
  <base:LastUpdatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwwgns1</base:LastUpdatedBy>
  <base:Kilobytes
    xmlns:base="http://www.saic.com/precis/2009/06/base">0</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-5178b812-298b-4330-9a66-2056636f5baf</base:Identifier>
  </base:AssociatedGroups>
</str:WorkProductProperties>
</ulex:PackageMetadata>
<ulex:StructuredPayload
  xmlns:ulex="ulex:message:structure:1.0">
  <ulex:StructuredPayloadMetadata>
  <ulex:CommunityURI>ICS</ulex:CommunityURI>
  <ulex:CommunityVersion />
  </ulex:StructuredPayloadMetadata>
  <org:OrganizationElement
    xmlns:org="http://uicds.org/OrganizationElement"
    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">
<org:OrganizationName>Incident Commander</org:OrganizationName>
<org:OrganizationType>Incident Commander</org:OrganizationType>
<org:PersonInCharge>
  <org:RoleProfileRef>Incident Commander</org:RoleProfileRef>
  <org:PersonProfileRef>Person Not Assigned Yet</org:PersonProfileRef>
</org:PersonInCharge>
</org:OrganizationElement>
</ulex:StructuredPayload>
</str:WorkProduct>
</inc:GetCommandStructureByIncidentResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

This generated ICS number and version number will be to update the ICS Work Product as described in the following sections.

6.2 Wrapping the Payload in a SOAP Envelope

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

```
<?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>
<.....>
ICS List Payload XML Document
.....>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

6.3 Location of the Incident Command Service

The Incident Command Service can be found at the following URL:

```
https://<FQDN>/uicds/core/ws/services/_IncidentCommandStructure Service
```

Where “<FQDN>” is your Fully Qualified Domain Name of the XchangeCore and you are connected to a network. If the XchangeCore was installed on your computer, replace <https://<FQDN>> with <http://localhost>.

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

<https://test3.xchangecore.leidos.com/uicds/core/ws/services/IncidentCommandStructure Service>



6.4 Quick Test Posting of the XchangeCore XML Message

The example request below (Section 6.3) can be used to test out your connectivity with your local or hosted test XchangeCore (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 XchangeCore 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 XchangeCore that would substitute for writing code to transform your data into a XchangeCore 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 methods of viewing data that you post to the XchangeCore using this manual, test method.

6.5 Update ICS Request

Below is an example XML ICS Payload document, wrapped in SOAP, for posting to the Incident Command Service on a XchangeCore.

```
<?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>
    <inc:UpdateCommandStructureRequest
      xmlns:inc="http://uicds.org/IncidentCommandStructureService"
      xmlns:str="http://www.saic.com/precis/2009/06/structures"
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <str:WorkProductIdentification>
        <base:Identifier>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</base:Identifier>
        <base:Version>1</base:Version>
        <base:Type>ICS</base:Type>
        <base:Checksum>Wed Oct 03 14:55:01 MDT 2012:1:0:2364346927</base:Checksum>
        <base:State>Active</base:State>
      </str:WorkProductIdentification>
      <org:OrganizationElement
        xmlns:org="http://uicds.org/OrganizationElement"
        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">
        <org:OrganizationName>Organization Leading Response</org:OrganizationName>
        <org:OrganizationType>ICS</org:OrganizationType>
        <org:PersonInCharge>
          <org:RoleProfileRef>Incident Commander</org:RoleProfileRef>
          <org:PersonProfileRef>Chip Mahoney</org:PersonProfileRef>
        </org:PersonInCharge>
      </org:OrganizationElement>
    </inc:UpdateCommandStructureRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```



```
<org:Staff>
  <org:RoleProfileRef>Public Information Officer</org:RoleProfileRef>
  <org:PersonProfileRef>Daphne Hurrell</org:PersonProfileRef>
</org:Staff>
<org:OrganizationElement>
  <org:OrganizationName>Operations Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
    <org:RoleProfileRef>Operations Section Chief</org:RoleProfileRef>
    <org:PersonProfileRef>Roger Wuerfel</org:PersonProfileRef>
  </org:PersonInCharge>
</org:OrganizationElement>
<org:OrganizationElement>
  <org:OrganizationName>Planning Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
    <org:RoleProfileRef>Planning Section Chief</org:RoleProfileRef>
    <org:PersonProfileRef>James Morentz</org:PersonProfileRef>
  </org:PersonInCharge>
</org:OrganizationElement>
</org:OrganizationElement>
</inc:UpdateCommandStructureRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

6.6 Update ICS Expected Response

When a XML template is successfully posted to a XchangeCore, the core returns an XML document that provides validation that the work product was created. The document contains the XchangeCore ICS Work Product Metadata shown in red 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>
    <inc:UpdateCommandStructureResponse
      xmlns:inc="http://uicds.org/IncidentCommandStructureService">
      <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>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</ulex:DataItemID>
            <ulex:DataItemReferenceID>ICS-48d61e1b-3f28-46ac-b044-
5245c67c2739</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="XchangeCore 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>XchangeCore 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">ICS-48d61e1b-3f28-46ac-b044-
5245c67c2739</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">ICS</base:Type>
  <base:Checksum
    xmlns:base="http://www.saic.com/precis/2009/06/base">Thu Oct 04 12:16:00 MDT
2012:2:1:759912116</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">2012-10-03T14:55:01.497-
06:00</base:Created>
  <base:CreatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwwgns1</base:CreatedBy>
  <base:LastUpdated
    xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-04T12:16:00.783-
06:00</base:LastUpdated>
  <base:LastUpdatedBy
    xmlns:base="http://www.saic.com/precis/2009/06/base">admin@9zwwgns1</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-5178b812-298b-4330-9a66-2056636f5baf</base:Identifier>
</base:AssociatedGroups>
</str:WorkProductProperties>
</ulex:PackageMetadata>
</str:WorkProduct>
</wor:WorkProductPublicationResponse>
</inc:UpdateCommandStructureResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

7.0 The Resulting Work Product Example

An XchangeCore Work Product consists of (a) Metadata shown in red, and (b) Payload shown in black. The Metadata is returned when the ICS Work Product is created and was shown in the example above. The ICS Work Product is not automatically digested. The Payload is the data mapped from the external application to the template. The work product is the atomic unit of sharing in XchangeCore and contains both parts.

An example of an ICS Work Product is 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>ICS-84bdf4d7-135f-4e4d-b02d-d46fa2c3a2f9</ulex:DataItemID>
    <ulex:DataItemReferenceID>ICS-84bdf4d7-135f-4e4d-b02d-d46fa2c3a2f9</ulex:DataItemReferenceID>
    <ns:DataItemStatus ns:label="XchangeCore Work Product Status"
ns:codespace="http://uicds.org/1.0/codespace/workproduct/status" ns:code="Active"
xmlns:ns="http://ucore.gov/ucore/2.0"/>
    <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>XchangeCore 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">ICS-84bdf4d7-135f-4e4d-
b02d-d46fa2c3a2f9</base:Identifier>
      <base:Version xmlns:base="http://www.saic.com/precis/2009/06/base">3</base:Version>
      <base:Type xmlns:base="http://www.saic.com/precis/2009/06/base">ICS</base:Type>
      <base:Checksum xmlns:base="http://www.saic.com/precis/2009/06/base">Sun Oct 07 11:19:02 EDT
2012:3:1:3017622007</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">2012-10-06T13:27:07.812-
```




```
04:00</base:Created>
  <base:CreatedBy xmlns:base="http://www.saic.com/precis/2009/06/base">morentzj@uicds-
test2.saic.com</base:CreatedBy>
  <base:LastUpdated xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-
07T11:19:02.390-04:00</base:LastUpdated>
  <base:LastUpdatedBy xmlns:base="http://www.saic.com/precis/2009/06/base">morentzj@uicds-
test2.saic.com</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-60be918b-2405-4d78-ae4e-13691cd0d79e</base:Identifier>
  </base:AssociatedGroups>
</str:WorkProductProperties>
</ulex:PackageMetadata>
<ulex:StructuredPayload xmlns:ulex="ulex:message:structure:1.0">
  <ulex:StructuredPayloadMetadata>
  <ulex:CommunityURI>ICS</ulex:CommunityURI>
  <ulex:CommunityVersion/>
  </ulex:StructuredPayloadMetadata>
  <org:OrganizationElement xmlns:org="http://uicds.org/OrganizationElement"
xmlns:inc="http://uicds.org/IncidentCommandStructureService"
xmlns="http://www.saic.com/precis/2009/06/structures" xmlns:ns="http://ucore.gov/ucore/2.0"
xmlns:ns1="http://metadata.dod.mil/mdr/ns/DDMS/2.0"
xmlns:base="http://www.saic.com/precis/2009/06/base">
  <org:OrganizationName>Organization Leading Response</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
  <org:RoleProfileRef>Incident Commander</org:RoleProfileRef>
  <org:PersonProfileRef>Chip Mahoney</org:PersonProfileRef>
  </org:PersonInCharge>
  <org:Staff>
  <org:RoleProfileRef>Public Information Officer</org:RoleProfileRef>
  <org:PersonProfileRef>Daphne Hurrell</org:PersonProfileRef>
  </org:Staff>
  <org:OrganizationElement>
  <org:OrganizationName>Operations Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
  <org:RoleProfileRef>Operations Section Chief</org:RoleProfileRef>
  <org:PersonProfileRef>Roger Wuerfel</org:PersonProfileRef>
  </org:PersonInCharge>
  </org:OrganizationElement>
  <org:OrganizationElement>
  <org:OrganizationName>Planning Section</org:OrganizationName>
  <org:OrganizationType>ICS</org:OrganizationType>
  <org:PersonInCharge>
  <org:RoleProfileRef>Planning Section Chief</org:RoleProfileRef>
  <org:PersonProfileRef>James Morentz</org:PersonProfileRef>
  </org:PersonInCharge>
  </org:OrganizationElement>
  </org:OrganizationElement>
  </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 “Incident” 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

```
...
  <str:WorkProductIdentification>
    <base:Identifier xmlns:base="http://www.saic.com/precis/2009/06/base">ICS-84bdf4d7-135f-4e4d-b02d-
d46fa2c3a2f9</base:Identifier>
    <base:Version xmlns:base="http://www.saic.com/precis/2009/06/base">3</base:Version>
    <base:Type xmlns:base="http://www.saic.com/precis/2009/06/base">ICS</base:Type>
    <base:Checksum xmlns:base="http://www.saic.com/precis/2009/06/base">Sun Oct 07 11:19:02 EDT
2012:3:1:3017622007</base:Checksum>
    <base:State xmlns:base="http://www.saic.com/precis/2009/06/base">Active</base:State>
  </str:WorkProductIdentification>
...
```

8.1 GetWorkProductCurrent Version

The current version of a work product can be obtained via the Work Product Service by submitting a GetProductCurrentVersionRequest as shown below.

```
<?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>
    <wp:GetProductCurrentVersionRequest
      xmlns:wp="http://uicds.org/WorkProductService"
      xmlns:preciss="http://www.saic.com/precis/2009/06/structures"
      xmlns:precisb="http://www.saic.com/precis/2009/06/base">
```



```
<precisb:Identifier>ICS-84bdf4d7-135f-4e4d-b02d-d46fa2c3a2f9</precisb:Identifier>
</wp:GetProductCurrentVersionRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

8.2 Response to GetWorkProductCurrentVersion

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <wor:GetProductCurrentVersionResponse xmlns:wor="http://ucids.org/WorkProductService">
      <str:WorkProduct xmlns:str="http://www.saic.com/precis/2009/06/structures">
        <ulex:PackageMetadata xmlns:ulex="ulex:message:structure:1.0">
          <ulex:DataItemID>ICS-84bdf4d7-135f-4e4d-b02d-
d46fa2c3a2f9</ulex:DataItemID>
          <ulex:DataItemReferenceID>ICS-84bdf4d7-135f-4e4d-b02d-
d46fa2c3a2f9</ulex:DataItemReferenceID>
          <ns:DataItemStatus xmlns:ns="http://ucore.gov/ucore/2.0"
ns:code="Active" ns:codespace="http://ucids.org/1.0/codespace/workproduct/status" ns:label="XchangeCore
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>XchangeCore 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">ICS-84bdf4d7-135f-4e4d-b02d-
d46fa2c3a2f9</base:Identifier>
            <base:Version
xmlns:base="http://www.saic.com/precis/2009/06/base">3</base:Version>
            <base:Type
xmlns:base="http://www.saic.com/precis/2009/06/base">ICS</base:Type>
            <base:Checksum
xmlns:base="http://www.saic.com/precis/2009/06/base">Sun Oct 07 11:19:02 EDT
2012:3:1:3017622007</base:Checksum>
            <base:State
xmlns:base="http://www.saic.com/precis/2009/06/base">Active</base:State>
          </str:WorkProductIdentification>
        </str:WorkProductProperties>
      </str:WorkProduct>
    </wor:GetProductCurrentVersionResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```



```

        <base:Created
xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-06T13:27:07.812-04:00</base:Created>
        <base:CreatedBy
xmlns:base="http://www.saic.com/precis/2009/06/base">morentzj@uicds-test2.saic.com</base:CreatedBy>
        <base:LastUpdated
xmlns:base="http://www.saic.com/precis/2009/06/base">2012-10-07T11:19:02.390-04:00</base:LastUpdated>
        <base:LastUpdatedBy
xmlns:base="http://www.saic.com/precis/2009/06/base">morentzj@uicds-test2.saic.com</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-60be918b-2405-4d78-ae4e-
13691cd0d79e</base:Identifier>
        </base:AssociatedGroups>
</str:WorkProductProperties>
</ulex:PackageMetadata>
<ulex:StructuredPayload xmlns:ulex="ulex:message:structure:1.0">
  <ulex:StructuredPayloadMetadata>
    <ulex:CommunityURI>ICS</ulex:CommunityURI>
    <ulex:CommunityVersion/>
  </ulex:StructuredPayloadMetadata>
  <org:OrganizationElement
xmlns:org="http://uicds.org/OrganizationElement" 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:inc="http://uicds.org/IncidentCommandStructureService"
xmlns:base="http://www.saic.com/precis/2009/06/base">
    <org:OrganizationName>Organization Leading
Response</org:OrganizationName>
    <org:OrganizationType>ICS</org:OrganizationType>
    <org:PersonInCharge>
      <org:RoleProfileRef>Incident
Commander</org:RoleProfileRef>
      <org:PersonProfileRef>Chip
Mahoney</org:PersonProfileRef>
    </org:PersonInCharge>
    <org:Staff>
      <org:RoleProfileRef>Public Information
Officer</org:RoleProfileRef>
      <org:PersonProfileRef>Daphne
Hurrell</org:PersonProfileRef>
    </org:Staff>
    <org:OrganizationElement>
      <org:OrganizationName>Operations
Section</org:OrganizationName>
      <org:OrganizationType>ICS</org:OrganizationType>
      <org:PersonInCharge>
        <org:RoleProfileRef>Operations Section
Chief</org:RoleProfileRef>
        <org:PersonProfileRef>Roger
Wuerfel</org:PersonProfileRef>
      </org:PersonInCharge>
    </org:OrganizationElement>
  </org:OrganizationElement>

```



```

Section</org:OrganizationName>
Chief</org:RoleProfileRef>
Morentz</org:PersonProfileRef>
</org:PersonInCharge>
</org:OrganizationElement>
</org:OrganizationElement>
</ulex:StructuredPayload>
</str:WorkProduct>
</wor:GetProductCurrentVersionResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
<org:OrganizationName>Planning
<org:OrganizationType>ICS</org:OrganizationType>
<org:PersonInCharge>
<org:RoleProfileRef>Planning Section
<org:PersonProfileRef>James

```

This WorkProductIdentification is used in the following three operations, Update, Close, and Archive.

9.0 Close and Archive an ICS Work Product

Closing 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 XchangeCore.

Archiving a work product permanently deletes it from XchangeCore.

The purpose of closing before archiving is to give the XchangeCore 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 XchangeCore is that XchangeCore 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 XchangeCore transactions except to copy the data from XchangeCore between the close process and the archive process.

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

9.1 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 XchangeCore with the specific instruction being provided to XchangeCore by the WorkProductIdentification which specifies which work product to close or archive.

9.1.1 Close Message

Below is an example of a Close message for an ICS 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>
    <wp:CloseProductRequest xmlns:wp="http://uicds.org/WorkProductService"
      xmlns:str="http://www.saic.com/precis/2009/06/structures"
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <!-- NOTE: If the product has been updated since then, an error will be returned -->
      <!-- which contains the most recent identification information. -->
      <str:WorkProductIdentification>
        <base:Identifier>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</base:Identifier>
        <base:Version>2</base:Version>
        <base:Type>ICS</base:Type>
        <base:Checksum>Thu Oct 04 12:16:00 MDT 2012:2:1:759912116</base:Checksum>
        <base:State>Active</base:State>
      </str:WorkProductIdentification>
    </wp:CloseProductRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Note that Identifier, Version, 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.

9.1.2 Expected Response to a Close Message

You will get a response by Closing that contains your confirmation that it was closed AND the Identifier, Version, Type, and Checksum for the NEW Work Product that says it is closed. Remember, Closed means it remains on XchangeCore. To remove it from XchangeCore, Archive, as described below.

```
<?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>
    <wor:CloseProductResponse
      xmlns:wor="http://uicds.org/WorkProductService">
      <wor:WorkProductPublicationResponse>
        <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>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</ulex:DataItemID>
              <ulex:DataItemReferenceID>ICS-48d61e1b-3f28-46ac-b044-
5245c67c2739</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="XchangeCore 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>XchangeCore 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">ICS-48d61e1b-3f28-46ac-b044-
5245c67c2739</base:Identifier>
  <base:Version
    xmlns:base="http://www.saic.com/precis/2009/06/base">3</base:Version>
  <base:Type
    xmlns:base="http://www.saic.com/precis/2009/06/base">ICS</base:Type>
  <base:Checksum
    xmlns:base="http://www.saic.com/precis/2009/06/base">Thu Oct 04 12:19:23 MDT
2012:3:1:1998242771</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">2012-10-03T14:55:01.497-
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">2012-10-04T12:19:23.557-
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-5178b812-298b-4330-9a66-2056636f5baf</base:Identifier>
  </base:AssociatedGroups>
```



```
</str:WorkProductProperties>
</ulex:PackageMetadata>
</str:WorkProduct>
</wor:WorkProductPublicationResponse>
</wor:CloseProductResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

9.1.3 Archive Work Product Message

To Archive you must use the NEW Closed Work Product Identifier, Version, Type and Checksum, substitute it in the Archive message (as shown in Section 8.0), and then submit the Archive message. At that point, the work product will be removed from XchangeCore.

```
<?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>
    <wp:ArchiveProductRequest xmlns:wp="http://uicds.org/WorkProductService"
      xmlns:str="http://www.saic.com/precis/2009/06/structures"
      xmlns:base="http://www.saic.com/precis/2009/06/base">
      <!-- NOTE: Closing a workproduct updates it's version number, so to archive it -->
      <!-- you will need to pass the identification block returned by the close operation -->
      <str:WorkProductIdentification>
        <base:Identifier>ICS-48d61e1b-3f28-46ac-b044-5245c67c2739</base:Identifier>
        <base:Version>3</base:Version>
        <base:Type>ICS</base:Type>
        <base:Checksum>Thu Oct 04 12:19:23 MDT 2012:3:1:1998242771</base:Checksum>
        <base:State>Inactive</base:State>
      </str:WorkProductIdentification>
    </wp:ArchiveProductRequest>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

9.1.4 Response to Archive Work Product

This response indicates that the work product has been removed from XchangeCore.

```
<?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>
    <wor:ArchiveProductResponse
      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>
      </wor:ArchiveProductResponse>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```




10.0 Incident Command Service Methods Summary

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

| Incident Command Structure Service Method Summary |
|--|
| <p><u>createCommandStructure</u> Create an Incident Command Structure work product and optionally associate with an incident by supplying the incident identifier (Interest Group identifier).</p> |
| <p><u>getCommandStructure</u> Gets the Incident Command Structure work product that corresponds to the supplied WorkProductIdentification in the request.</p> |
| <p><u>getCommandStructureByIncident</u> Get the Incident Command Structure work product for a particular incident by supplying the incident identifier (Interest Group identifier).</p> |
| <p><u>updateCommandStructure</u> Update the Incident Command Structure work product and optionally associate it with incident by supplying the incident identifier (Interest Group identifier).</p> |
| <p>Reference: https://uicds-test3.saic.com/secure/apidocs/com/saic/uicds/core/em/endpoint/IncidentCommandServiceEndpoint.html</p> |

11.0 Viewing XchangeCore Work Products for Confirmation

There are two methods for inspecting the XchangeCore ICS Work Product to validate it. The programmatic way to obtain the ICS Work Product is by submitting the ICS unique number of the associated incident to the Incident Command Service. An internal look at the work product on the XchangeCore uses the XchangeCore Console.

11.1 Programmatic Retrieval of ICS Work Product

To retrieve a ICS Work Product, you submit the GetWorkProductRequest message as described in Section 6.1, above.

11.2 Using the XchangeCore Console

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

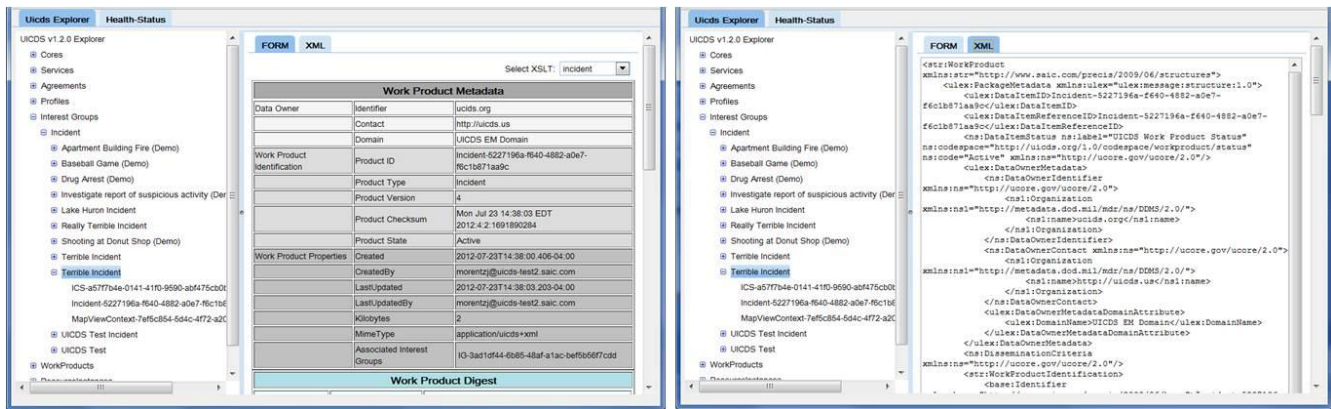


Access your XchangeCore Console at <https://localhost/uicds/Console.html> where “localhost” is your XchangeCore.

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

<https://test3.xchangecore.leidos.com/uicds/Console.html>

The XchangeCore Console will provide two views of the XchangeCore 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 XchangeCore Console show, on the left, the XSLT view of work product Metadata, Digest, and Payload and on the right the XML view of the XchangeCore Work Product.

12.0 Best Practices for that Pesky “Other” Data

XchangeCore follows standards. The ICS Work Product is derived from NIEM. 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, XchangeCore 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 XchangeCore best practice is designed to make the data easily (a) understandable by other applications that receive the XchangeCore 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, XchangeCore 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.

13.0 Links to the Incident Command Service WSDL

The XchangeCore Incident Command Service WSDL can be found locally after the XchangeCore has been downloaded or is available from the XchangeCore test cores.

From the downloaded local XchangeCore :

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

From a hosted XchangeCore

<https://test3.xchangecore.leidos.com/uicds/core/ws/services/ICSService.wsdl>