Using local DTD and XSD files after ONIX 2.1 sunset

The ‘sunset date’ for ONIX 2.1 was at the end of 2014. From January 2015, EDItEUR’s level of support for ONIX 2.1 – which been in use since mid-2003 – will be reduced.

Sunset is intended to encourage greater focus on the need to update systems and services to use ONIX 3.0. In order to allow organisations to make a smooth transition, to allow time for planning, budgeting, software development and implementation, the ONIX International Steering Committee – a body that includes representatives from BIC in the UK, BISG in the USA, MVB in Germany and many other trade organisations from around the world – announced the sunset date in January 2012. Given this three year notice period for transition, in many countries, ONIX 3.0 is now in widespread use.

Of course, migration from 2.1 to 3.0 has proceeded at different speeds among different organisations and different countries. There will inevitably be many organisations which will continue to use 2.1 into 2015. But those organisations that are still using 2.1 are strongly advised to update their systems to 3.0 as soon as possible.

Sunset does not mean that ONIX 2.1 will ‘stop working’. But at sunset, some support for 2.1 provided by EDItEUR will be withdrawn. In particular:

- documentation relating to ONIX 2.1 will be archived;
- various XML tools will be removed from the website;
- codelists that are unique to ONIX 2.1 (for example lists 7 and 78, which are not used in ONIX 3.0) will be maintained for a further year, but will have to be downloaded separately.

If you are using 2.1, the removal of the XML tools – the DTD and XSD files hosted on EDItEUR’s website – may cause problems in your IT systems.

Why? Every ONIX 2.1 file should start with this:
```xml
<?xml version="1.0"?>
<!DOCTYPE ONIXMessage SYSTEM "http://www.editeur.org/onix/2.1/reference/onix-international.dtd">
```

(‘reference’ could in some cases be ‘short’, depending which flavour of ONIX tags are used, and some implementations specify a particular release using something like ‘/2.1/02/reference’). That file called onix-international.dtd defines the structure of an ONIX file, and some IT systems rely on the presence of those files on the EDItEUR website for creating or validating the structure of ONIX files. That DTD file will be removed at sunset, potentially causing failures in production systems.

Some organisations also make use of similar XSD schema files, which prior to sunset were also hosted on the EDItEUR website.

If your ONIX applications rely on access to ONIX 2.1 DTD and XSD files on the EDItEUR website, then you must enable a workaround to avoid failures after sunset. Avoiding such failures is straightforward, but requires the use of a local copy of the various DTD and XSD files.
Organisations using commercial applications to create or manage their ONIX data should check with their software provider, as many will have implemented a local copy of the DTD and XSD files within their application already.

For those organisations with in-house applications that carry out validation of ONIX 2.1 files, or which require access to the DTD or XSD for parsing, in constructor functions or for any other reason, there are many ways to implement this workaround, but the simplest is a two-step process:

1. set up a local copy of the files on an internal web server
2. modify the configuration of the machine that requires access to the DTD files so that it refers to the local copies instead

**No changes should be made to any part of the ONIX message files themselves.**

With these two steps, validations or constructor functions that require the DTD or XSD files should function as before, but without any dependency on the files that will be removed from the EDItEUR website.

The following instructions are intended for knowledgeable IT staff. There are numerous different ways of completing each of the steps, and details vary between different operating systems, so only outline instructions are given. You will need to have administrator-level access to the computer to make these changes. Although EDItEUR has tested the procedure on several versions of Windows and Mac OS, we cannot offer more detailed instructions or step-by-step technical help.

**Step 1: Setting up a local copy of the DTD and XSD files**

If your organisation already has a web server available on its internal network (an intranet server), then that is likely to be the most appropriate location for your own copy of the files. If your organisation is very small, then you might not have an internal web server, but a server can easily be set up on the same machine that requires access to the local DTD and XSD files. Do not use your public web server.

First, download a copy of the required files from the EDItEUR website, at http://www.editeur.org/files/ONIX%202.1/ONIX_2.1_local_DTD_and_XSD_files.zip

Unzip the downloaded Zip file, and add the folder it contains called onix to the root level of the webserver. Do not alter the structure of sub-folders within onix.

If you set up the local copies on a server that is normally accessed using an address like http://intranet/ then you should check that there is an ONIX readme file available at http://intranet/onix/readme.html – if you can access this information file, then your installation of the local files is correct. Of course, your own address for the server (the intranet part) is likely to be different, but the /onix/readme.html part should not be changed. If you set up the DTD and XSD files on the same machine that requires access to the files, then the readme file should be available at http://localhost/onix/readme.html
For some web servers, you may need to add the following associations between filename suffixes and mime types to enable the server to handle the files:

<table>
<thead>
<tr>
<th>Extension</th>
<th>MIME Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>.dtd</td>
<td>application/xml+dtd</td>
</tr>
<tr>
<td>.elt</td>
<td>application/xml+dtd</td>
</tr>
<tr>
<td>.xsd</td>
<td>application/xml</td>
</tr>
<tr>
<td>.ent</td>
<td>application/xml+dtd</td>
</tr>
</tbody>
</table>

The server may need restarting for the new configuration to take effect.

**Step 2: Modifying the configuration of the machine requiring access to the DTD and XSD files**

On the machine that requires access to the DTD or XSD files, locate the ‘hosts’ file. This is a file that links machine names (like [www.editeur.org](http://www.editeur.org)) to their network addresses (IP addresses like 192.168.1.127). The location of the hosts file on Windows is usually in `c:\windows\system32\drivers\etc\` and on OS X and Linux it is usually in `/etc`. The hosts file should have a number of entries looking something like this:

```
127.0.0.1   localhost
::1         localhost
```

Do not change any of the existing entries, but add a line like this:

```
192.168.1.127   www.editeur.org
```

Your network address will be different – it should be the IP address of your local web server set up in step 1. If the web server is on the machine you are modifying, then the network address should be `127.0.0.1`.

What this will do is associate the `www.editeur.org` server name with your local web server instead of with EDItEUR’s real web server. And when searching for the DTD or XSD files, the machine with the modified hosts file will use the local files.

ONLY change the hosts file on the machine that needs access to the local DTD and XSD files, as that particular machine will no longer be able to access the real EDItEUR website.

**Frequently asked questions**

**Does the DOCTYPE in my files need to be changed or removed? It points to a file that won’t be there post-sunset.**

No – it should definitely not be changed, even though it will point to a file that’s going to be removed. The whole point of the hosts file fix is to avoid having to change the DOCTYPE.

**Will every ONIX user need to alter their hosts file?**

No. Many – perhaps most – organisations don’t routinely apply XML validations, or validate without relying on the files on the EDItEUR website at all. For many who do, it might be fixed in the source code of a third-party application. But if you’re developing your own in-house application, or doing ad hoc validations 'by hand' then you will most likely be affected.
In a client-server application, do I change the hosts file on the client or on the server? Or both?
Typically, on the server only. The client may upload and download data to the server application, but it is the server that executes the validation or whatever application code that needs access to the DTD or XSD files. This has the advantage that the client machine can still access the EDItEUR website as normal.

Do I need to do anything to ensure that the ONIX 2.1 tag converter script still works?
If you use EDItEUR's tag converter XSLT, it will fail without access to the DTD files. A local copy of the DTD files is necessary for the tag converter too.

Is this the only way to fix the issue?
No, not at all. The most elegant fix is probably one using XML Catalogs, and a sample catalog file is available from EDItEUR on request. But the hosts file method above is simple, reliable and easy to implement.

Owing to the change in the hosts file, the computer that does validations can no longer reach the real EDItEUR website. Can I do anything about that?
Not easily.

If I need to support ONIX 3.0 on that same machine, do I need to download all the DTD and XSD files for that too?
Yes and no. If you have ONIX 3.0 validations working, you are already using local copies of the files. ONIX 3.0 has always worked this way, and there has never been an online validation option. If you are just starting with ONIX 3.0, then yes, you will need a local copy of the ONIX 3.0 DTD and XSD files (the XSD is recommended for validation, and the DTD is only required for tag conversion). Sunset of 2.1 has not changed the technical requirements for 3.0 in any way.

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November 2014