

International Version Scheme



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What We Had



LET CALL IT IN “2”

2 Scheme



- Version Overview
 - Breaking changes at the major/first level.
 - Compatible at the minor/second level.
 - Potentially breaking fixes at the third/revision level.
- Umbrella Namespace
 - <http://www.sifinfo.org/infrastructure/2.x>
- Version in XML
 - Version="2.0r1"

2 Pros



- Virtues
 - Compatibility between minor versions.
 - ✦ Tested and certified.
 - ✦ Robust!
 - Extra's already ignored do *not* derail interoperability.

2 Cons



- Problems

- Must inspect the XML (HTTP body) before:
 - ✦ Loading the corresponding XML Schema to validate.
 - ✦ Know what newer fields may be present.
 - May not be able to function without them.
 - ✦ “Version sniffing” is know to:
 - Be prone to breaking.
 - Have security implications.

- Example

- `<SIF_Message
xmlns="http://www.sifinfo.org/infrastructure/2.x"
version="2.0r1">`

What we have



LET'S CALL IT "3"

3 Scheme



- Version Overview

- Breaking at the major/first level.
- Breaking at the minor/second level.
- Compatible at the revision/third level.

- Namespace & Version

- <http://www.sifassociation.org/datamodel/na/3.5>

3 Pros



- Virtues

- Some programming tools will automatically load the correct schema and validate.
 - ✦ Assuming they have access to the correct schema.
 - ✦ Under the hood, it is the nearly the same process.

3 Cons



- Problems

- There is no correct option when instituting breaking fixes shortly after a release.
 - ✦ 3.5 & 3.5.1 are supposed to be 100% compatible.
 - ✦ Just placing breaking fixes in an errata leaves us with two incompatible instances of 3.5.
 - ✦ Going to 3.6 both miscommunicates the level of work and intention of the release and leaves a broken release (3.5) laying around.
- Still have to look at the XML to get the version number.
- JSON has no concept of namespaces.
 - ✦ An XML namespace declaration isn't really an attribute.
- Backwards compatible versions must have a revision number.

What different locales are doing



WE'VE BLURRED THE LINE

By Locale



- Global (Infrastructure)
 - Ignored the new rules.
 - ✦ 3.0.1 was not compatible with 3.0, it fixed it!
- NA
 - Follow the rules one way.
 - ✦ Published minor release that should be backwards compatible.
 - ✦ Published errata, instead of a revision.
- AU
 - Follow the rules another way.
 - ✦ Publish backwards compatible versions as revisions.
 - ✦ Quickly ran into forwards compatibility issues.

What the AU have run into?



- The namespace doesn't change.
 - No autoloading of the correct XML Schema.
 - ✦ SIF Implementation Specification (Australia) 3.4.4
 - ✦ <http://www.sifassociation.org/datamodel/au/3.4>
 - No way to know, if the other side has any concept of the fields you need.

What is changing



THE W3C HAS HEARD OUR CRIES

The big changes



- Kick the version out of the payload/HTTP body!
 - Place the version in an HTTP header.
 - Other information about the payload too (PESC JSON).
- Allow for both side to negotiate compatible versions.
- This is bigger than us:
 - <https://w3c.github.io/dxwg/conneg-by-ap/>

Where I think this is going...



LET'S CALL IT "4" FOR NOW

4 Scheme



- Version Overview
 - Breaking changes at the major/first level.
 - Compatible at the minor/second level.
 - Potentially breaking fixes at the third/revision level.
- Umbrella Namespace
 - <http://www.sifassociation.org/datamodel/na/4.x>
- Version and Encoding in HTTP header

4 Pros (Expected)



- Increased clarity to the market.
 - Major, minor, and revision releases all have their proper place.
- Payload independent.
 - We can coordinate what to do with 4.3/WA/CSV, if we want to.
- Best validation experience yet.
 - Know the rules before you touch the payload.
- Clear backwards compatibility mechanism.
- Allows for forward compatibility for the first time!

4 Cons (Expected)



- Complex Header
 - Needs to be profiled/binded to SIF.
 - Poor initial tool support.

Discussion



Outcomes



- We will pursue the 4 scheme before
 - The second release of NA 4.x
 - The second release of the NZ data model
- Tougher transitions
 - Infrastructure, but they haven't followed the rules anyway
 - ✦ 3.0.1
 - ✦ 3.2.1
 - AU 3.4.x
 - ✦ Source of the new Infrastructure feature
 - ✦ Need to gauge buy-in