



SEDRIS XML Encoding

**ISO/IEC JTC 1/SC 24 Plenary & WG Meetings
(Online meeting)**

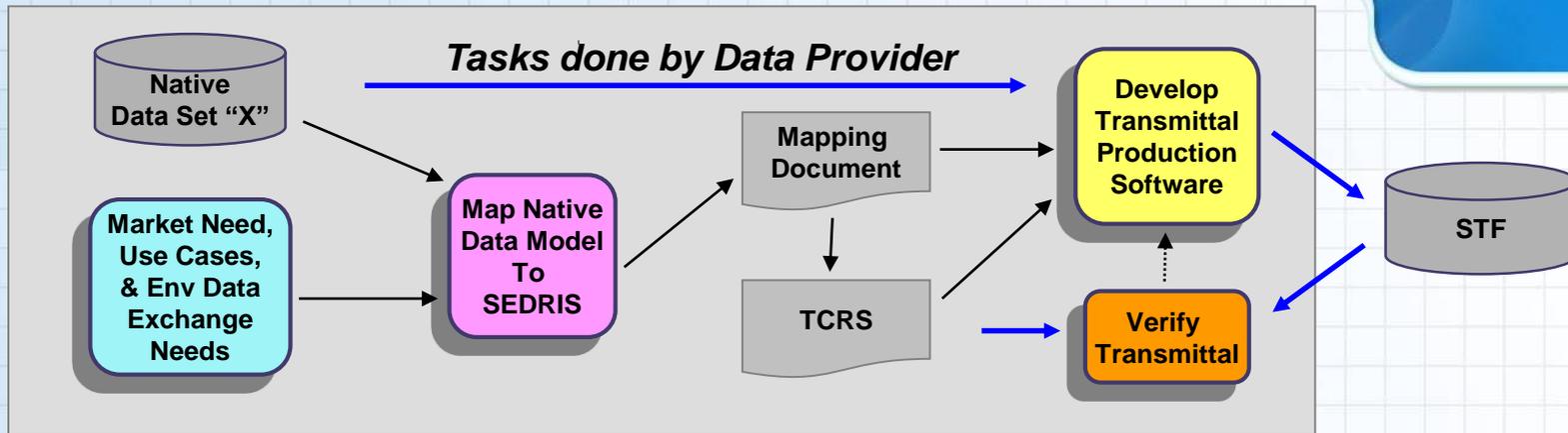
July 27 – August 17, 2020, UTC

Myeong Won Lee (U. of Suwon)

Table of Contents

- ❖ *STF development process*
- ❖ *SEDRIS XML Encoding*
- ❖ *SEDRIS language bindings*
- ❖ *Using the SEDRIS Components*
- ❖ *Technology Components of SEDRIS*
- ❖ *Application Data Models*

STF Development Steps



Step 1: Native Requirements & Data Analysis: Define use or application plus data exchange requirements

Step 2: Develop Mapping Document: Use DRM, EDCS and SRM

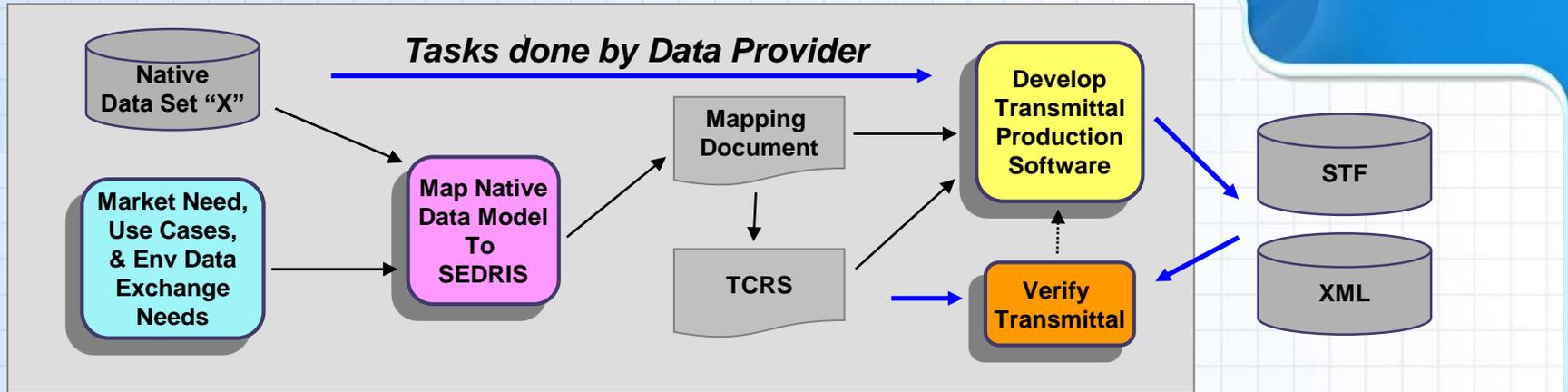
Step 3: Develop Validation Criteria -- TCRS

Step 4: Develop Production software: Add in API and STF

Step 5: Validate Transmittal: Add in tools and applications

- 🔗 **STF development steps are easier to follow than early development steps.**
 - ☑ **Engineer want to find integrated examples with fragmentary examples**
- 🔗 **Commercial approach usually use partial functions instead of SEDRIS full functions**
 - ☑ **Engineer want to specialize particular function for their technical area**

SEDRIS XML Encoding



Step 1: Native Requirements & Data Analysis: Define use or application plus data exchange requirements

Step 2: Develop Mapping Document: Use DRM, EDCS and SRM

Step 3: Develop Validation Criteria -- TCRS

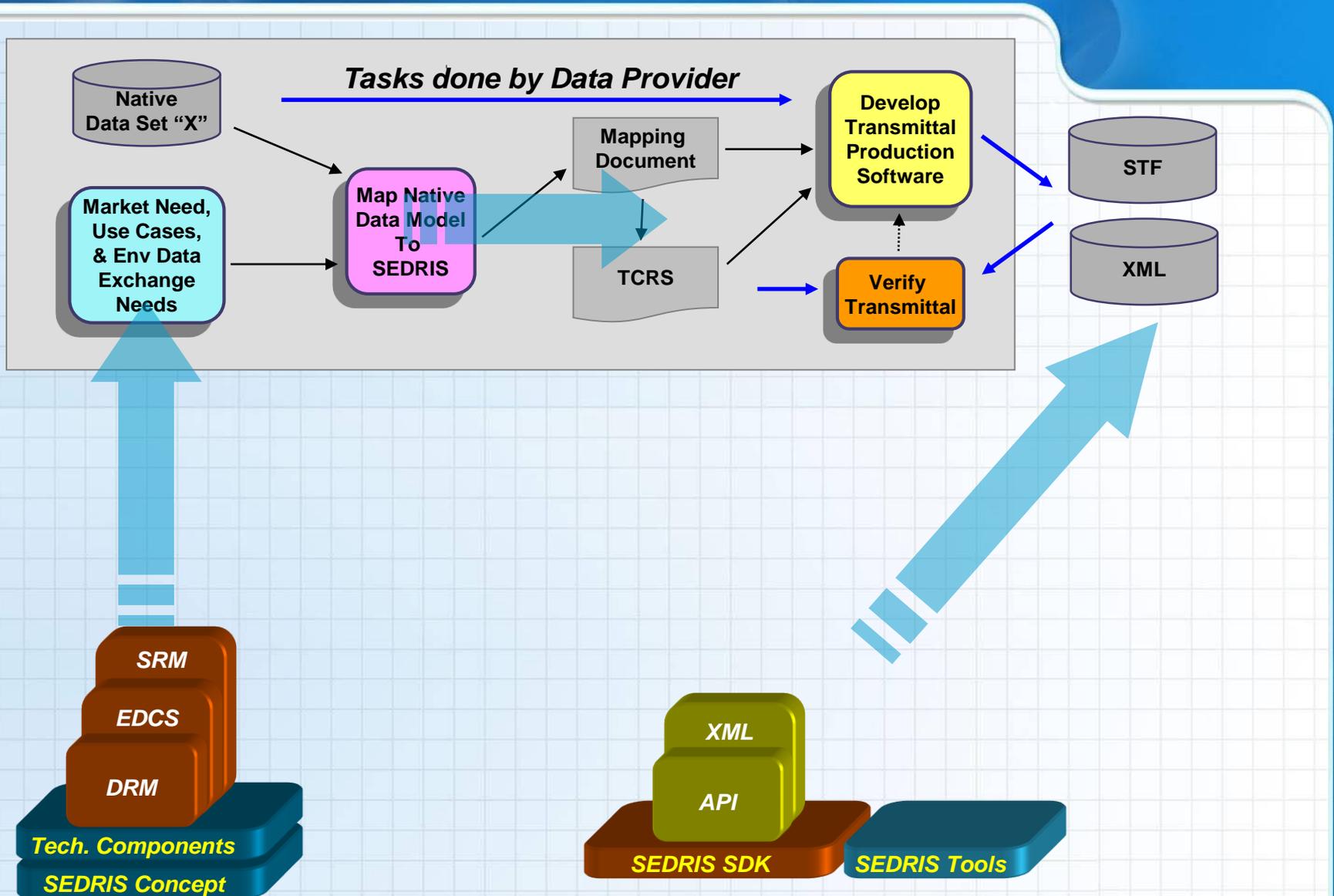
Step 4: Develop Production software: Add in API and STF

Step 5: Validate Transmittal: Add in tools and applications

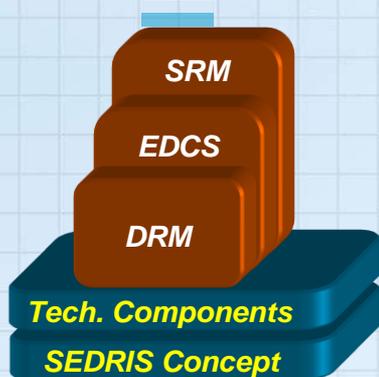
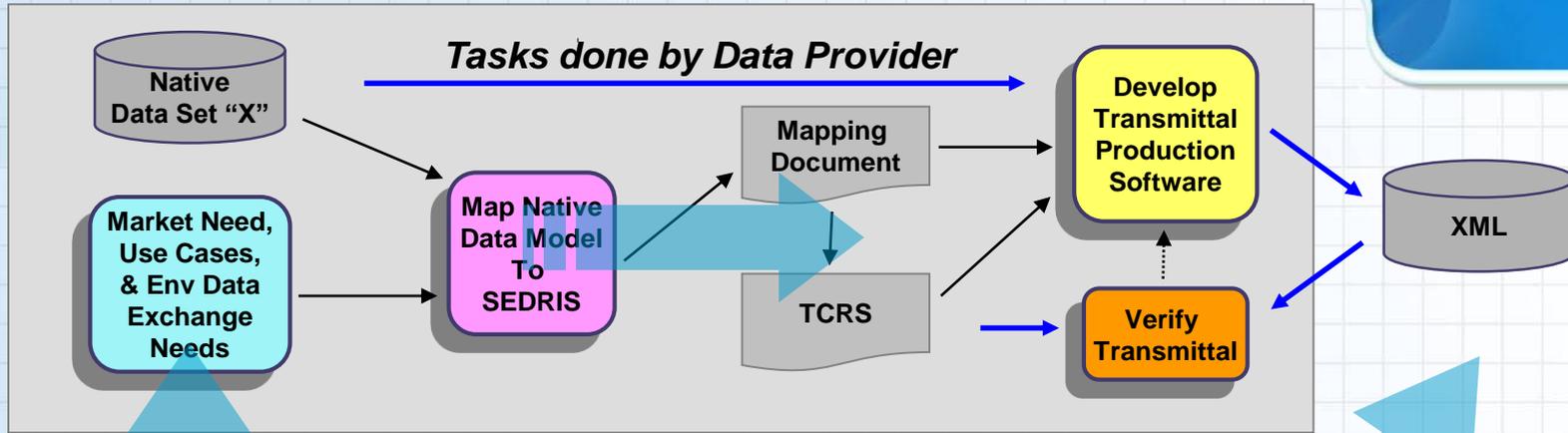
Step 6: SEDRIS XML data

- 🔗 **STF development steps are easier to follow than early development steps.**
 - ☑ Engineer want to find integrated examples with fragmentary examples
- 🔗 **Commercial approach usually use partial functions instead of SEDRIS full functions**
 - ☑ Engineer want to specialize particular function for their technical area

SEDRIS Components and STF



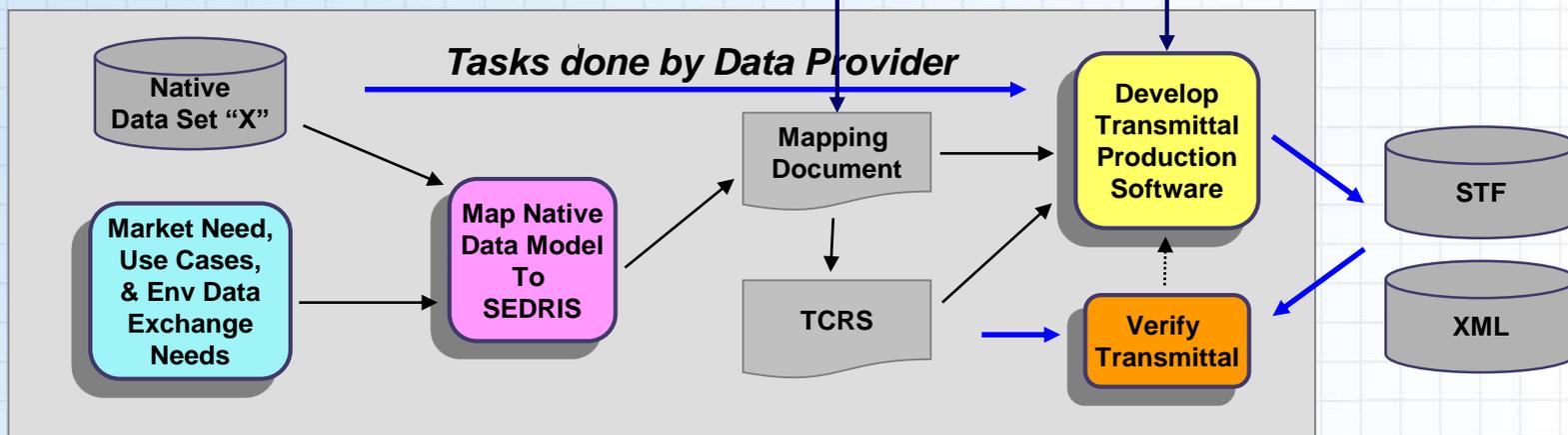
SEDRIS Language Binding



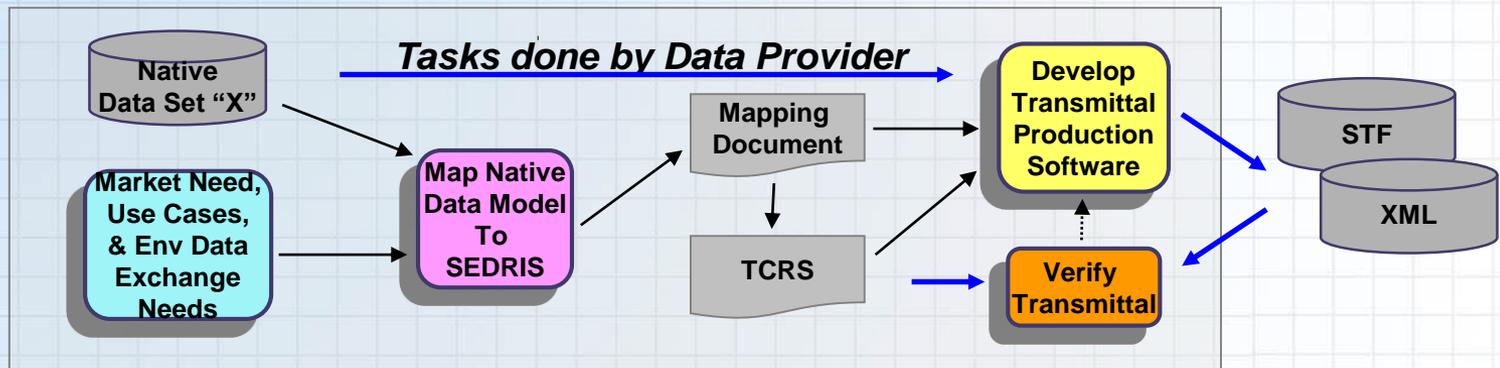
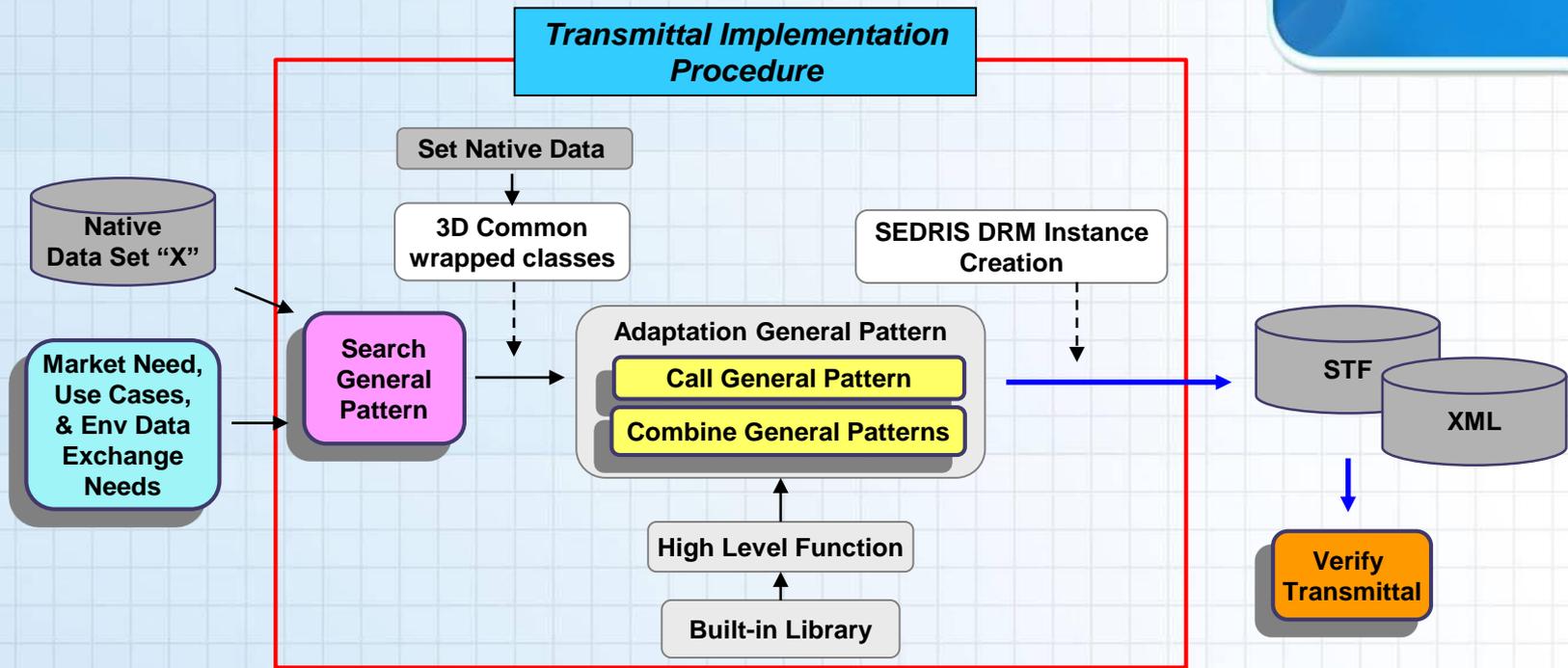
The Current Working Step

Current Working Process

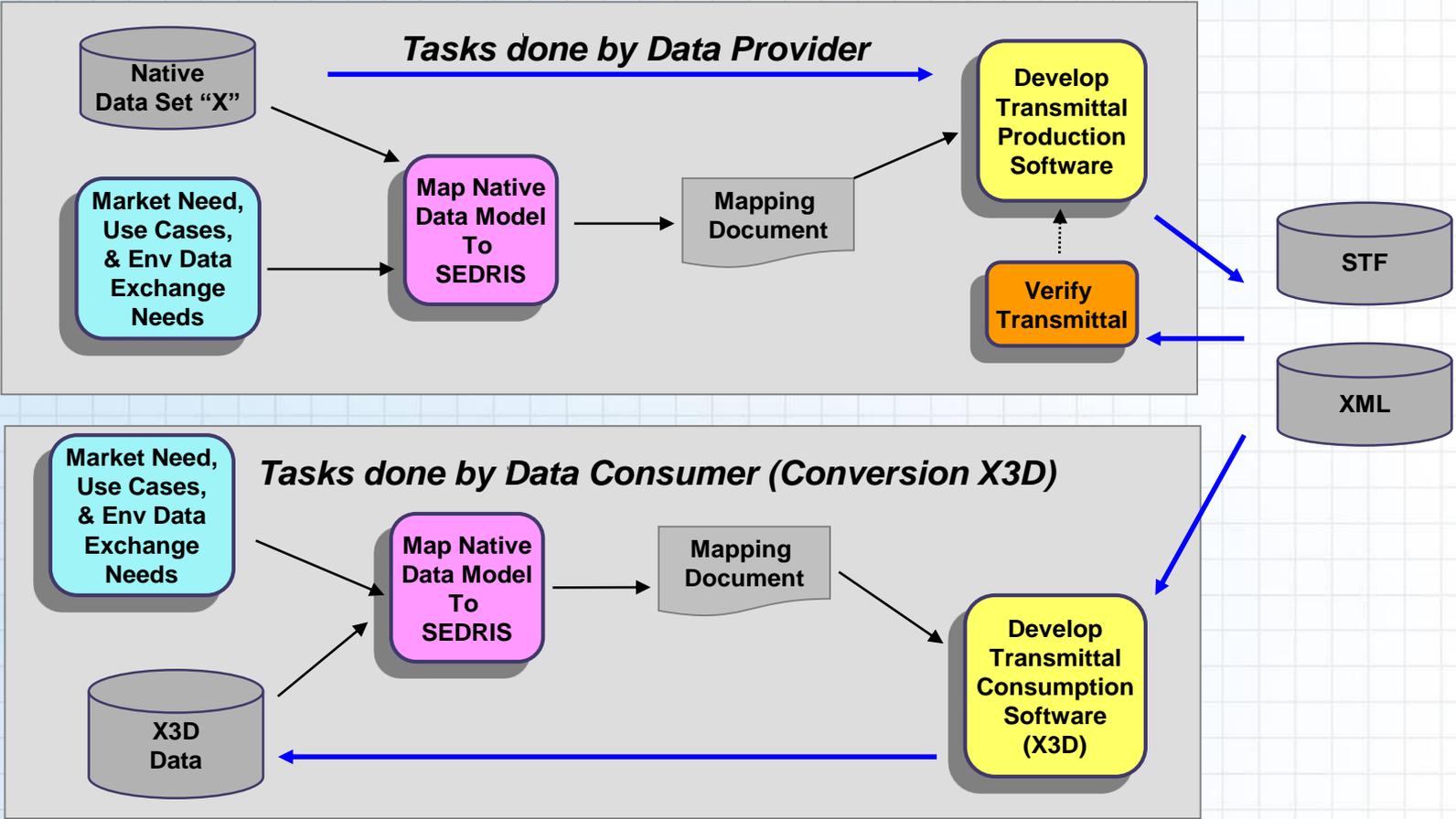
1. Market Need
2. Mapping Document
 - List native data elements
 - Categorize (primitive data, organizing elements, description, modifier)
 - Learn SEDRIS DRM Diagram
 - Learn SEDRIS components (DRM, SRM, EDCS)
3. Search DRM Classes in DRM Diagram or Manual
4. Extract and Relate DRM Classes
5. Learn SEDRIS API
6. Develop Transmittal Production Software
7. Create Transmittal
8. Verify Transmittal



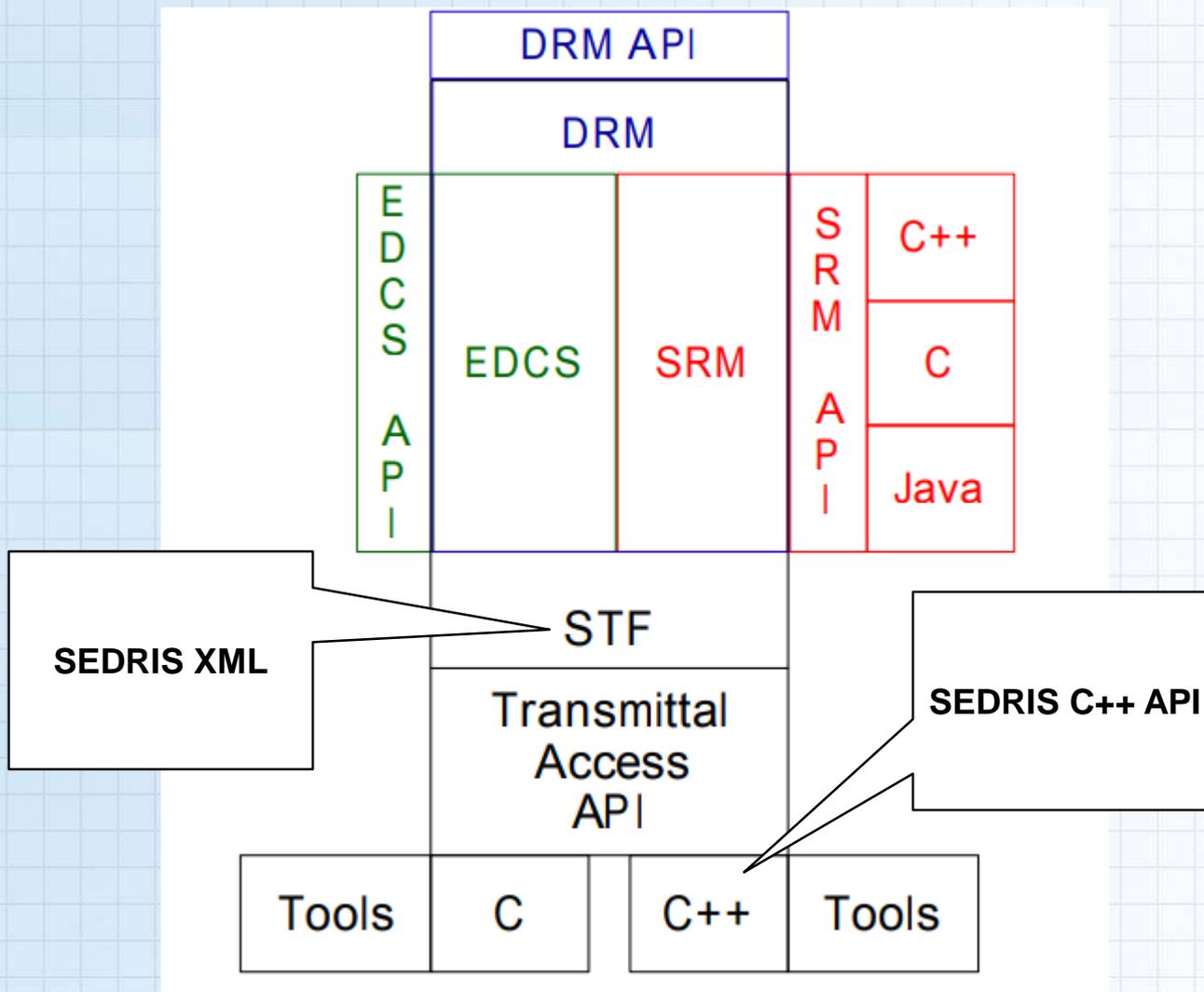
The Working Step with Mapping Method



The SEDRIS Production and Consumption Process (X3D)



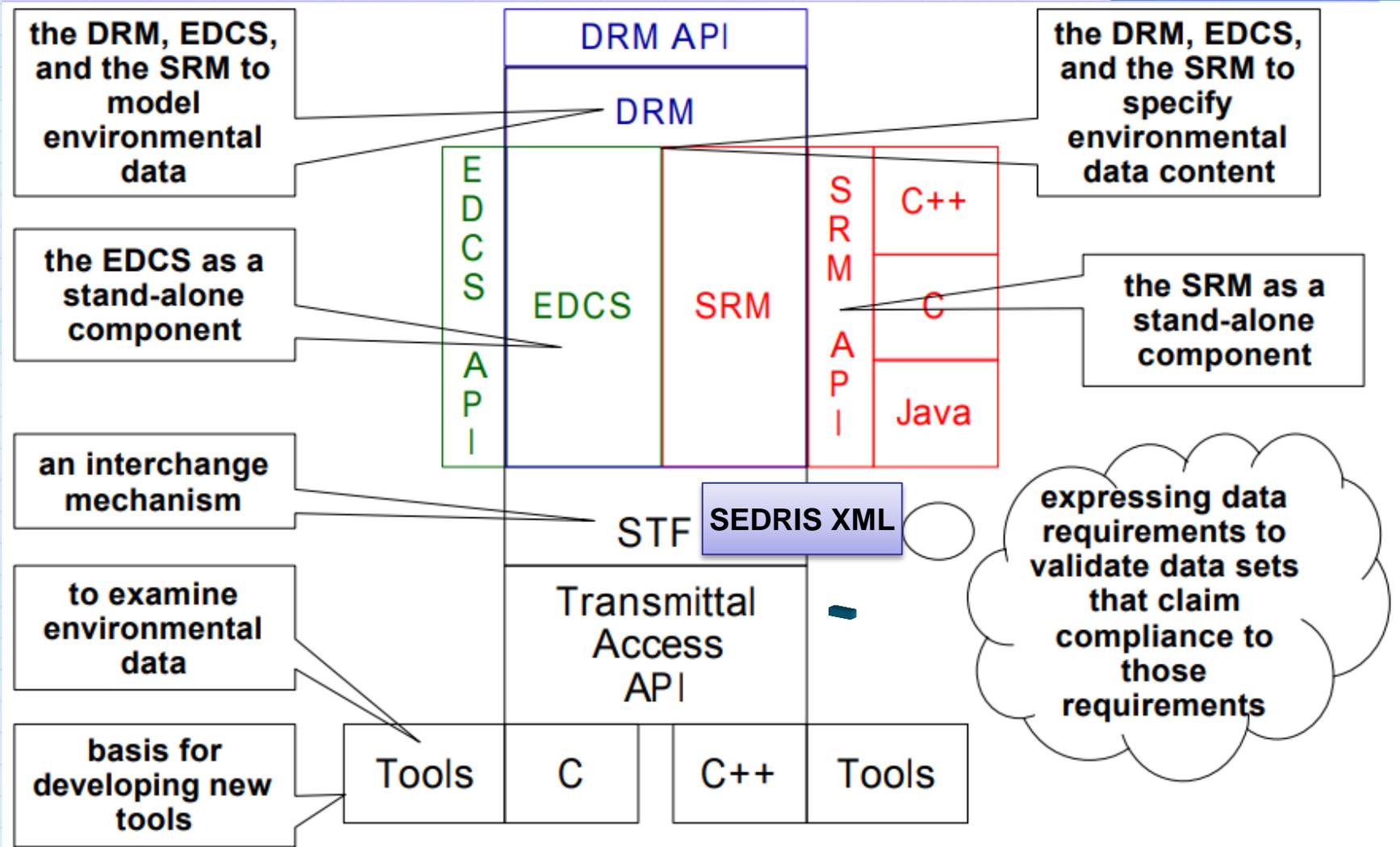
SEDRIS Components



Using the SEDRIS Componets

- **The SEDRIS API is an encapsulation of functionality which provides applications the ability to access DRM objects.**
- **The SEDRIS API is Transmittal Access API, DRM API, SRM API, EDCS API**
- **The Transmittal Access API implementation relies on the DRM, SRM, and EDCS APIs**
- **The Transmittal Access API deals with transmittals and objects within those transmittal**
- **Every object has a unique string within a transmittal, referred to as the “object id”**

Using the SEDRIS Componets



Conclusions

- **SEDRIS XML Encoding**
 - **SEDRIS UML and XML schema**
 - **XML definition and expansion using SEDRIS examples**
 - **test.stf**
 - **chair.stf**
- **SEDRIS viewer development for SEDRIS XML encoding**