

Dear X9 Members:

We are now into our third issue of the *X9 Extra* newsletter. We hope that you found the first issue with its articles on the new BAI codes and the Mobile Payments initiative to be informative, and that you've been looking forward to what's next.

We're once again presenting more articles on current X9 activities that you should find interesting. Our goal is to use this medium to keep you up to date on initiatives that may be beyond your current involvement in X9. This should help give you a broader picture of what's going on in the organization.

As the new Membership and Marketing Committee chair, I thought I should lead by example and provide a contribution, so my submission is also in this edition.

I know there's a lot of knowledge and talent out there, as I suspect some pent up interest in actually writing something for publication. If all you need is encouragement, then please consider contributing your knowledge to help the rest of us to learn something new. There's even a special invitation in this issue just for you. After all, if I can write an article, so can you.

As always, Ed Stana ed.stana@x9.org and I will be more than happy to review your submissions. Ed is your writing guide, and he has the starter kits to get you going. Please contact him.

Best Regards,

Brian

Brian Salway, Symcor Inc.
Chair, X9 Membership and
Marketing Committee

New XML-Based X9.100-182: What it is, How it Came About

By Brian Salway, Symcor Inc., Chairman, X9 Membership & Marketing Committee;
Co-chairman, X9AB5 Payments Subcommittee, Bulk Data Delivery

Work is finally complete, and the new X9.100-182 Bulk Image and Data Delivery standard is now available.

What is X9.100-182?

The new standard provides an XML document framework for the collection of data and images that originate from checks or other paper-sourced MICR payment items.

If your goal is to have a consistent and comprehensive mechanism to move check-related information from system to system, whether in-house or between you and a business partner, then X9.100-182 is worth your consideration.

Each XML package is tailored for delivery to a target business service, which can include check processing and storage applications, IRD authoring programs, or electronic deposit collecting systems.

The X9.100-182 standard comes as a package, including four base documents, a set of XML XSD schema files, and a special Technical Report. The standard is available through the X9 Standards store located within the X9 website.

It is important to note up front that the X9.100-182 standard was never intended to replace or to compete with the X9.100-187 standard for check image cash letter delivery, more commonly known as the

"X9.37" format. Instead, X9.100-182 is designed as a convenient and consistent way to package data for exchange between amenable application systems that can exist within or across organizations.

As this standard is more focused on application-to-application interchange, it made perfect sense to design an XML-based solution, because the newer generation of application enabling technologies and programming languages intuitively understood XML constructs.

A good example of how the standard may be deployed is within a vendor-provided software product that might exchange data to and from other customer systems via an optional X9.100-182 XML feature.



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Content of the Standard

X9.100-182 may appear complex, but is not unduly difficult to understand and use, if the adopter is familiar with the business and technical side of the collection, processing and delivery of images and data derived from paper checks and other MICR items.

The standard provides an overview document, and individual documents for the check, IRD and electronic deposit components. Unique to this standard is the inclusion of a complete set of XML XSD schema files for use by the standard adopter to properly construct an XML output document or to parse and validate an XML input document.

For those not too familiar with XML, an XML Schema Definition, or XSD file, describes the total design of an XML 'document' or 'instance' that serves a specific business purpose. The XSD contains all possible structural layers in the XML object, and all possible data fields including the allowable data type and content values. An XSD also defines the logical business structure of the XML object, including the presence of mandatory and optional layers, their order, and the logical relationship between a layer and its sub-layers.

The Technical Report was developed specifically for this standard. It provides useful information for a common business case scenario: mapping the information from an X9.100-187 image cash letter file to an X9.100-182 XML document.



The X9.100-182 Project Stage 1

The development cycle for this standard was rather long, requiring two stages, the first beginning in the early 2000's.

An X9AB Payments Subcommittee workgroup looked at making available a new standard that could be used to transfer check images and data between parties.

The group considered using and possibly adapting the emerging ISO 20022 standard. ISO 20022 provides a guide for developing a business flow for a new electronic payments message set, as well as guidelines for creating supporting XML XSD's to render the actual XML formatted messages. The resulting XSD files are then stored in a registry for general access.

Initially, the question was posed as to how the new domestic standard might

overlap or duplicate the ISO 20022 effort, and whether it might make sense to develop new payments message XSD's to add to the ISO 20022 Registry. But the team researched ISO 20022, and concluded that this was not the most effective approach for this use.

Two concerns were raised: The ISO Registry was not really intended for check image based electronic format messages, and the new proposed XML standard was targeted at specific US domestic use.

Deciding not to follow ISO 20022, the X9 workgroup, knowledgeable in US check services and XML, designed a comprehensive set of XSD schema files for the three business scenarios covered by the standard. Coding the schema files was completed, together with supporting documentation.

We Want You!

You like to put your thoughts into words, and you like to express your ideas to others. You take pride in your writing talent, and you know how to get your thoughts across to your reading audience. You can project your thoughts in a deep technical and elevated level. Actually, you think of yourself more as an author, not just a technical writer.

If this sounds like you, why not contribute your skills and knowledge to writing an article for the X9 EXTRA. You could be helping your fellow X9ers learn something they perhaps never knew or realized about our community and standards development.

If this peaks your interest, then please contact Brian Salway bsalway@symcor.com or Ed Stana ed.stana@x9.org of the ASC X9 Marketing and Membership Committee. You don't need to be a professional writer, you just require the knack for written communications and you need to know your subject matter. Above all, you're interested in doing something perhaps different and challenging for X9. Thanks for your help!

In 2007, with the explosive growth of check truncation and image exchange, work on the bulk data delivery standard was temporarily put aside. The X9AB Payments Subcommittee workgroups turned their collective attention to perfecting the enabling standards for image exchange. These included an updated version of the X9.100-140 IRD standard, a new X9.100-187 check image file standard to improve the old and incomplete X9.37-2003, and enhancing the traditional paper check standards for imaging compatibility and fraud prevention.

The X9.100-182 Project Stage 2

The second stage of the X9.100-182 development began in 2009. This is where Symcor Inc. came into the picture. Symcor joined X9 in 2008, and at that time, we were designing an application to transfer the data in “X9.37” image cash letter files from our gateway to a downstream service. New generation technologies were involved, so the natural inclination was to develop an XML based delivery. My responsibility as the business technology strategist and my new role with X9 came together with a proposal that Symcor be an early adopter of the emerging X9.100-182 XML, instead of designing our own proprietary XML format.

As this work progressed, two benefits came to the X9 project. First, we had the opportunity to actually use the original X9.100-182 XSD schema files. This resulted in some changes to make the data more amenable to contemporary use. Secondly, because the transfer of the data from the “X9.37” image files to the XML pattern was quite mind boggling, we developed a programmer technical reference manual. That manual was later generalized and transformed into the X9 TR 40-2011, a Technical Reference document that comes with the standard's package.

In the end, this was a win-win situa-

tion. Symcor had a ready-made solution, and the X9.100-182 standard comes with real-world user experience with an early adopter.

The last part of the X9.100-182 development was the question as to how to package the components in an easy-to-use way. This was a real logistical challenge, because delivery of coded files as part of a standard had never been done before.

Where Do We Go From Here?

In the end, we in the X9AB Payments Subcommittee believe we achieved what we set out to do. It's now up to acceptance and reaction from the public to mark our report card.

But, X9.100-182 is not intended to stand still. As the business environment changes, we expect the standard to evolve. X9.100-182 is designated as a Continuous Maintenance standard, which means there will be future scheduled upgrades based on business needs. In the meanwhile, the standard has already taken such potential change into consideration. Part One includes information on how application systems incorporating the standard in their design can pro-actively prepare for future XSD schema changes.

We're now eagerly looking for a community of adopters, and we're anxious for feedback on what we've delivered, and where to go next.

X9 Votes Three Chairs

X9 members recently elected three new chairmen to head committee groups. Messrs. Mark Bolgiano, Ed Scheidt, and Brian Salway have assumed new Board level duties in X9.

Mr. Bolgiano, representing XBRL, US Inc., is X9's new Chairman of the Finance committee and has accepted a 2-year term of service. X9's Finance Committee is a Board Reporting committee that reviews and manages the fiscal responsibilities of X9. Mr. Bolgiano has a strong record of financial management at other association settings during his 30-year work span.

Ed Scheidt is the new chairman of X9F-Data & Information Security committee. As chairman, Mr. Scheidt will

manage several subcommittees and working groups which oversee such issues as PIN security, secure mobile banking and encryption technologies. He is president and founder of Tecsec, a security development and consulting firm. He is serving an 18-month term, replacing Dick Sweeney of VISA who retired.

Brian Salway was voted in as new chair of X9's Board reporting committee, Membership & Marketing. As chair, Mr. Salway will manage the activities of the committee with particular attention to be placed on membership recruitment. He also serves as a vice chair to X9AB-Payments. Mr. Salway is a Principal Business Strategist with Symcor, Inc. He will serve a two-year term.



Bolgiano



Scheidt



Salway