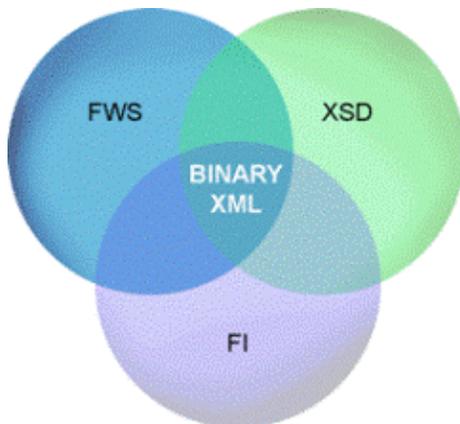


# Fast & Compact XML Solutions

SOLUTIONS FOR OPTIMIZED  
SIZE & SPEED



2 FAST & COMPACT XML SOLUTIONS  
ONE IS RIGHT FOR YOU

The **OSS Efficient XML Interchange Tools**, available for C, C++, and C#, are a complete implementation of the EXI standard, supporting the full range of EXI options and features. These Tools fully conform to the W3C Efficient XML Interchange (EXI) 1.0 Recommendation, and to the W3C XML 1.0 Recommendation as a "non-validating XML processor". Our EXI Tools have been tested using the W3C EXI Interoperability Test Framework as well as the W3C XML 1.0 Conformance Test Framework.

The **OSS Fast Infoset Tools**, available for C and C++, deliver fast, compact, standards-based XML, without an XML schema. These tools are fully interoperable with Sun's Glassfish Fast Infoset Java implementation.

**OSS Nokalva**  
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## Are performance and bandwidth problems affecting you XML deployment?

A popular platform with many advantages, XML presents several problems when deploying in bandwidth or resource-constrained environments. On average, XML requires 10 times more bandwidth than a binary representation. Common compression solutions such as gzip reduce size, but increase processing costs. Applications which are heavily dependent on XML based messaging/data, can be especially vulnerable to XML related problems when volumes increase, demands for high performance increase, or CPU and memory utilization constraints continue to tighten.

Now you can take advantage of two complementary, proven technologies – XML and binary encoding. The **OSS Fast & Compact XML Solutions** optimize your XML applications, reducing the size related costs associated with the transmission, parsing, and serialization of XML documents. Reduce costs without losing XML's many benefits such as inherent self-description and interoperability.

The OSS Fast & Compact XML Solutions for C, C++, and C#, based on the Efficient XML Interchange (EXI) and Fast Infoset (FI) international standards, are designed to be deployed without disrupting existing applications. Optimize your applications, while protecting your investment.

## Flexible solutions for your business needs

### Why Efficient XML Interchange (EXI)?

The purpose of EXI is to enable the efficient exchange of XML data between two applications. EXI is a streaming format focusing on achieving the best possible compression of XML documents and increasing the speed of serialization/deserialization. EXI supports various degrees of compactness using string tables, XML schema and built-in compression. EXI messages are (much) smaller than equivalent XML messages. Creating an EXI message is usually faster than creating an equivalent XML message. Reading (decoding) an EXI message is usually faster than reading an equivalent XML message.

**OSS Nokalva, Inc.**

Toll Free 888-OSS-ASN1 (US/Canada)

Int'l +1-732-302-9669

Email [info@oss.com](mailto:info@oss.com)

# Fast & Compact XML Solutions

## Why choose OSS Nokalva?

OSS is the supplier chosen by the most demanding organizations worldwide because we do not deliver just software – we deliver our expertise.

- OSS delivers **reliability**. We have developed a robust software testing methodology that is applied to every one of our products. All software is subject to extensive automated testing that is repeated daily, not only for new products but also for existing ones, so as to ensure that code changes never introduce errors.
- OSS delivers **experience**. We know how to write high-quality code that can be safely ported to any existing software/hardware platform, and we have completed hundreds of such portings ourselves. Our ASN.1 codec libraries are already available on over 500 platforms, and this number steadily increases.
- OSS delivers **performance**. We know how to write code that runs fast on any computing device, including embedded systems, making optimum use of the available computing resources.

## Use Cases

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## OSS Efficient XML Interchange (EXI) TOOLS (*prototype*)

The **OSS Efficient XML Interchange (EXI) Tools for C/C++ and C#** achieve unprecedented compactness for your XML data.

The Tools consist of a schema pre-processor command-line utility and a runtime library which supports the reading and writing of both EXI and XML streams. The runtime library supports several API functions including:

- Create an EXI stream reader or writer
- Create an XML stream reader or writer
- Convert an entire XML stream to EXI
- Convert an entire EXI stream to XML

APIs supporting advanced features are also included, as is a SAX2 API (for C++) similar to the SAX2 API of Xerces/C.

The EXI Tools are fully conforming to the W3C Efficient XML Interchange (EXI) Format 1.0 Recommendation (Second Edition). It supports all the mandatory and optional features specified in the Recommendation. The Tools are also a conforming implementation of the W3C XML 1.0 Recommendation (Fifth Edition) as a “non-validating processor”.

Our EXI Tools have been tested using the W3C EXI Interoperability Test Framework as well as the W3C XML 1.0 Conformance Test Framework.

## OSS FAST INFOSET TOOLS

The **OSS Fast Infoset (FI) Tools** for C/C++ are for those who wish to support non-schema-based XML messages in resource-constrained and/or bandwidth-constrained environments and need to minimize to the overhead associated with using XML. The OSS FI Tools offer significant performance improvements without requiring any XML schema. Using the FI Tools to process Fast Infoset, rather than traditional XML, results in messages averaging 3 times smaller and processing speeds averaging 5 times faster.

The OSS Fast Infoset (FI) Tools enable you to represent and transmit your XML more efficiently by utilizing the Fast Infoset encodings. Runtime API functions create and process Fast Infoset documents and perform lossless transformations between standard XML and optimized Fast Infoset representations of XML documents. Use our SAX-like decoder to parse Fast Infoset encodings as if your traditional SAX parser were reading the XML document corresponding to the Fast Infoset binary data. Choose XML or binary as needed, using a single tool.

With interoperable implementations already available on several platforms such as Microsoft .NET and .NET CF, Sun GlassFish, BEA WebLogic, IBM SDK for Java, TMax Soft JEUS 6, as well as Linux, Solaris, and Win32, Fast Infoset offers a standards-based, reliable alternative to XML that can be widely deployed today.