



# **The SIF Plan: Advance Education Through Interoperability**

---

**The developers of the Schools Interoperability Framework and The Open Group teamed to enhance the market credibility of SIF's data interoperability solution for schools by instituting a compliance program that raises the confidence levels of both vendors and educators.**

*A Case Study on: Schools Interoperability Framework*

November 2002, Updated April 2003

*The SIF Plan*

Copyright © 2002, The Open Group

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owners.

The SIF Plan: Advance Education Through Interoperability

Published by The Open Group, November 2002

Any comments relating to the material contained in this document may be submitted to:

The Open Group  
44 Montgomery St. #960  
San Francisco, CA 94104

or by Electronic Mail to:  
[ogpubs@opengroup.org](mailto:ogpubs@opengroup.org)



*Boundaryless Information Flow™  
achieved through global interoperability  
in a secure, reliable and timely manner*

## **Executive Summary**

---

The team behind the Schools Interoperability Framework (SIF) wanted to reinforce the value and presence of SIF in the marketplace with a compliance program. They came to The Open Group to complete the two-phase project required to develop and launch the program. The Open Group responded promptly, first by assisting in the definition of the relevant policies and procedures and technical requirements, and then by constructing and implementing the program.

SIF is an industry-supported technical blueprint for K-12 software that enables diverse applications to interact and share data efficiently, reliably and securely regardless of the platform hosting the applications. SIF will help the world of education move toward The Open Group's vision of **Boundaryless Information Flow**.

---

*“We recognized that third-party validation of vendor adherence to our specification would be a key differentiator in the marketplace.”*

---

## The Need for Compliance

“Compliance has been something of keen interest to our organization ever since its inception five years ago,” says Timothy J. Magner, Director of the Schools Interoperability Framework. “We recognized that third-party validation of vendor adherence to our specification would be a key differentiator in the marketplace.”

The Schools Interoperability Framework, the specification to which Magner refers, is an initiative driven by K-12 education technology providers and educators to revolutionize the management and accessibility of data within schools and school districts. SIF is not a product, but rather an industry-supported technical blueprint for K-12 software that enables diverse applications to interact and share data efficiently, reliably and securely regardless of the platform hosting the applications

Before coming to The Open Group for help with a compliance program, there were earlier attempts to establish one. As Magner points out, however, “There has to be tripartite structure: It has to be credible. It has to be affordable. It has to be accessible. At any given time, any one of those can be elusive.” His SIF team then came to The Open Group because of its track record in all three areas.

In late 2001, The Open Group/SIF team began the first phase by working to define the administrative elements necessary for a compliance program, as well as to specify the technical requirements. The Open Group undertook Phase One of the project that winter and produced two documents: A set of policies and procedures, and an exposition of technical requirements. The Compliance Policy document outlines the conceptual framework for the compliance program and business assumptions, as well as the procedural requirements that the SIF team expected to put in place. The Technical Requirements document identifies the steps and “gain for work” associated with the different thresholds of testing.

The technical requirements were especially complex, reflecting the different facets of the SIF standard from standard formats for shared data (e.g., student demographics information), to standard naming conventions for this shared data, and the rules for the delivery and receipt of the messages containing those data elements.

“Because of the nature of the specification and the way that applications interact, there are at least three actors in every transaction,” Magner

explains. “There is an Application Agent for each party in the transaction – sender and receiver – as well as the Zone Integration Server, the third-party message router responsible for moving the messages correctly between and among the Applications. As such, your test harness has to model a number of elements to properly validate the transactions defined in the compliance program. Testing involves both the messaging architecture and the data set. This makes the level of complexity substantial.”

Based on the Phase One deliverables from The Open Group, the SIF team had a comprehensive understanding of what compliance would involve and what would it take to make the program operational.

By Fall 2002, SIF and The Open Group began work in earnest on Phase Two, the construction and deployment of the actual program, based on the policies defined in Phase One. The program features a web-based certification system to guide users through the certification process. It utilizes a suite of self-tests supported by the SIF organization to which vendors have access. Results are forwarded to The Open Group as part of a vendor’s registration process.

### **Value of the Compliance Program in the Marketplace**

With SIF, a vendor need only write one set of code to be able to interoperate with other vendors. This allows vendors the freedom to use whatever technology platform, programming language, and so on, that they prefer in order to implement the SIF functionality in their application. “This, of course, points to the need for a compliance program to ensure that their interpretation of the specification, and implementation of the functionality is correct,” according to Magner.

From a school district perspective, the value of the specification is that it enables educators to move data between and among school system applications in a way that is not now possible. With a compliance program, they have the added level of confidence that the applications they are purchasing have met external performance criteria.

Vendors also benefit from the compliance program as it ensures that the applications from other data-sharing vendors have been shown to interpret the specification properly. This helps to eliminate the time it takes to implement and support a SIF installation. “The compliance program gives an external validation that each party can use in its decision making process,” Magner concludes.

## **SIF and Boundaryless Information Flow**

Another logical reason for the SIF team to rely on The Open Group as a partner is the compatibility of visions.

SIF addresses an acute need for improved information flow in K-12 education, which parallels The Open Group's vision of Boundaryless Information Flow—the secure, reliable and timely flow of information throughout and between enterprises.

In many schools today the available software applications are either closed systems or systems that allow customer access and minimal data exchange through proprietary interfaces or data formats. To a user, the lack of interoperability means:

- Applications and their data are isolated from one another
- Redundant data entry is common
- Disconnected applications increase support costs
- Data reporting is costly and inefficient
- Data is inaccessible to decision makers

These are the same types of concerns that corporate and government technology executives expressed to The Open Group in calling for Boundaryless Information Flow.

## **About SIF**

The Schools Interoperability Framework (SIF) is an initiative driven by K-12 education technology providers and users to revolutionize the management and accessibility of data within schools and school districts. SIF enables diverse applications to interact and share data efficiently, reliably and securely regardless of the platform hosting the applications. SIF has united over one-hundred and twenty education technology providers in an unprecedented effort to give teachers more time to do what they do best: teach.

For further information, visit <http://www.sifinfo.org>

## **About The Open Group**

The Open Group is a vendor-neutral and technology-neutral consortium, committed to a vision of **Boundaryless Information Flow** achieved through global interoperability in a secure, reliable and timely manner.

## *The SIF Plan*

The Open Group's mission is to drive the creation of **Boundaryless Information Flow** by:

- Working with customers to capture, understand and address current and emerging requirements, establish policies, and share best practices
- Working with suppliers, consortia and standards bodies to develop consensus and facilitate interoperability, to evolve and integrate specifications and open source technologies
- Offering a comprehensive set of services to enhance the operational efficiency of consortia
- Developing and operating the industry's premier certification service and encouraging procurement of certified products.

The interoperability that characterizes **Boundaryless Information Flow** results in gaining operational efficiencies and competitive advantages. Through access to integrated information, across the extended enterprise and beyond, employees, trading partners, and customers are enabled and empowered.