

## **EXCERPT FROM THE COSN 2017 K-12 IT LEADERSHIP SURVEY REPORT** *(report release date April 5, 2017):*

### **Interoperability**

As districts have increased their use of technology-based solutions, the need for interoperability has also increased. Interoperability—"the seamless sharing of data, content and services, among systems or applications"<sup>1</sup>—enables districts to mix and match solutions according to their unique needs, provide enhanced personalized learning to their students, and increase effectiveness in monitoring and reporting progress.

This year, questions about interoperability were added to the survey. Respondents were asked the degree to which their district has implemented four interoperability initiatives. With the mounting need for students and teachers to log onto multiple systems, it is not surprising that Single Sign-On (SSO) was the most-implemented of the initiatives asked about. The majority (60%) of respondents have partially or fully implemented SSO. When adding the 14% of respondents who are currently "in planning" stages for SSO implementation, the total rises to 74%. Data Interoperability was the next most popular initiative, with 72% indicating they were in planning or implementation stages. Data Dashboards with 69% and Content Interoperability with 66% were not far behind. This high degree of implementation, with a majority of respondents indicating they were at least in the planning stages, speaks to the importance districts place on interoperable systems. However, the "fully implemented" percentages highlight how far districts have to go in achieving the interoperability they desire. Of the four initiatives, SSO had the highest percentage (19%) in the fully implemented category. Data Dashboards, the second highest-ranked initiative in the fully implemented category, had roughly half that amount—10%.

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<sup>1</sup> Interoperability: Standards for Education © 2015 Consortium for School Networking

To what degree has your district implemented each of the following interoperability initiatives?

	Fully implemented	Partially implemented	In Planning	Not at all	Don't know
Single Sign-On (SSO) Row % *	19%	41%	14%	17%	8%
Content Interoperability Row %	5%	44%	17%	15%	19%
Data Interoperability Row %	8%	48%	16%	10%	18%
Data Dashboards Row %	10%	38%	21%	14%	17%

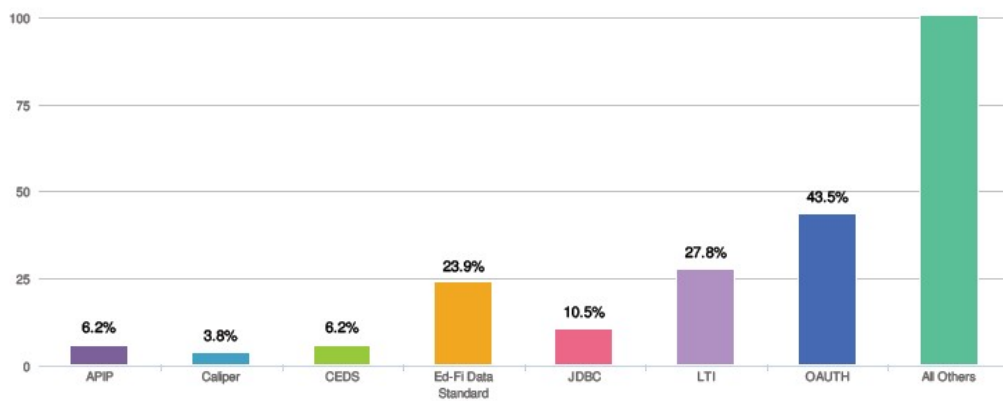
\* SSO totals less than 100% due to rounding of the nearest whole percent.

In an attempt to delve further into interoperability, respondents were asked about their familiarity with a variety of data and system standards. From a list of 13 standards, respondents were asked to identify the standards they would be “comfortable discussing with vendors.” The total of responses to this question were significantly fewer than the total number of survey respondents. While not every respondent answers every question, the steep decline in the number of total responses left some standards with too few responses to be statistically meaningful. The length of a question with 13 answer options might have caused the vast majority of respondents to skip the question, but there was no drop off in response rate to questions with a similar number of options in other parts of the survey. This includes one question that had 20 answer options as well as questions that followed the interoperability question on the survey form. So the lack of overall responses could indicate a general unfamiliarity with technical standards, rather than survey fatigue. It is also possible that respondents’ interpretation of “comfortable” set a high bar and they erred on the side of caution. In any event, what can be reported from that data is that those who did answer the question were, by far, the most comfortable with SAML. SAML is more than a decade old and is a well-established data format for authentication and authorization. It is also a common method for enabling SSO and hence aligns with the findings of the previous question that highlighted SSO as the most implemented interoperability initiative.

IT Leaders are not expected to be standards experts, but the more conversant they are with the topic the better they can support their district’s interoperability goals. If districts continue to move away from single-vendor solutions and require more interoperable systems, CoSN expects fluency with technical standards to grow.

## RAW SURVEY DATA (NOT RELEASED):

35. Which standards would you be comfortable discussing with vendors? (Check all the apply.)



Value	Percent	Count
APIP	6.2%	13
Caliper	3.8%	8
CEDS	6.2%	13
Ed-Fi Data Standard	23.9%	50
JDBC	10.5%	22
LTI	27.8%	58
OAUTH	43.5%	91
ODBC	47.4%	99
OneRoster	31.6%	66
QTI	7.2%	15
SAML	60.8%	127
Xpress Roster	5.3%	11
xAPI	14.4%	30
Total		209

25. What are your top 3 technology priorities/initiatives in 2016-17?

	Total Score*	Overall Rank
Mobile Learning (including 1:1 and other student/mobile device ratios)	532	1
Broadband & Network Capacity	273	2
Cyber Security	268	3
Privacy and Security of Student Data	241	4
Student/Learning Management Systems	235	5
Wireless Access	176	6
Data Driven Decision Making	173	7
Online Assessment Readiness	169	8
Bring Your Own Device (BYOD)	134	9
Digital Equity (access outside of school campus)	113	10
Participatory Learning	109	11
Improving Budget Process	95	12
IT Crisis Preparedness	92	13
Revising Acceptable Use Policy	71	14
Telephone/VOIP	57	15
Interoperability	52	16
Digital Analytics	45	17
Online Communities of Practice	31	18
Using Technology in the Business Enterprise such as Finance/HR system	22	19
Green Computing	2	20