NSIP
National
Schools
Interoperability
Program

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LEARNING SERVICES ARCHITECTURE

The right information, in the right place, at the right time

The Challenge

Schools know that to create the best outcomes for their learners they need to have as much good quality data about learners and the learning process as possible. The number of potential data sources is increasing daily as schools adopt new tools and services online creating a data management challenge. With so much information becoming available, the key is to bring all information about a learner together in the right place at the right time for the maximum benefit. Schools need the benefit of a service architecture but not the headache of being IT architects.

Supporting students in their journey through schooling also means sharing information between school and home, and with other schools, school authorities and service providers. The ability to share student information reliably and safely is paramount.

The Learning Services Architecture

The Learning Services Architecture (LSA) is a nationally coordinated response to this challenge. The Australian education community has responded to the opportunities and challenges presented by the explosion of technology in education with a national architectural approach based on established policies, common business processes and national interoperability standards. The standards have been agreed and are maintained by education authorities from all States and Territories as well as key education IT companies. The LSA exists to simplify the delivery of learning services and to ensure that education data can be used and re-used consistently in schools, school systems and nationally.

Education priorities and the school data challenge

STUDENTS	SCHOOLS	SYSTEM	NATIONAL	IMPROVED OUTCOMES
	Individualised learning			
	Teacher feedback			
	Parent communication			
	Online/Integrated learning provisions			
	Duty of care			
	Organisational improvement			
	Monitoring learner progress			
	Reduced administrative burden			
	Supporting student mobility			
		Resource allocation & investment		
		Policy development & evaluation		
		Reporting and analysis		

DATA CHALLENGES	AUTHORITY	MOBILITY	PRIVACY	CONSISTENCY

COMMON DRIVERS

SCHOOL	Learner focus Duty of care Choice / innovation Community
SYSTEM	Student mobility Efficiency Risk management Procurement Analytics Evidence
NATIONAL	Consistency Policy

SUPPORTING LEARNERS, ADVANCING EDUCATION

NATIONAL AGREEMENTS

Educational priorities

Decision Making

Data Sharing

National Agreements

Interoperability

Technical Standards

Identity Management

Shared API's

ARCHITECTURE PATTERNS LSA

Hub – A complete managed environment for data; provides access, security, analytics and all internal and external data interfaces.

Broker – A hybrid environment for data; provides access, security and data orchestration, but capabilities such as analytics and business processes are delivered by connected services.

Adapter – Purely local environment for data; provides access, security, orchestration and limited service integration, typically used in individual schools or small school systems where no central data services exist.

National Data Model (SIF AU)
Open source software stack
Integration testing service
Privacy Framework
Data dictionary
Identity Management Framework
Data exchange use cases

SHARED ASSETS

School Administration
Learning platforms
National online services
Australia Schools List
Commercial Services

ALIGNED INFASTRUCTURE

HUB

BROKER

ADAPTOR

SCALABLE IMPLEMENTATION

What is the LSA?
An agreed national approach for integrating information systems that exchange data about learners in schools, ensuring that they work together effectively and safely.

The Benefits of the LSA
Schools benefit from:
- a unified view of information about every learner
- reduced administrative burden
- flexibility and choice

School Systems benefit from:
- consistent, well-managed school data
- rich analytics and decision-support
- consistent approaches to managing information privacy and risks
- common approach to service integration
- Simplified procurement

Education Solution Providers benefit from:
- a nationally consistent integration interface
- market choice by schools
- nationally agreed school business information contracts – common ways in which core school processes exchange and use student data.

Making it Real – National Information Contracts
Australian school authorities are progressively implementing ICT infrastructure employing nationally agreed data interoperability standards. Jurisdictions have now committed to an Interoperability Roadmap leading up to 2019 showing when school authorities in the states and territories expect to

support data transfer for specific business processes in schools, through a unified interface based on the LSA and centralised integration hubs.

New national learning infrastructure such as the national online assessment platform to be used for NAPLAN Online and the Australian Schools List are being designed to integrate with stakeholder systems using interoperability standards from the LSA.

NSIP has developed National Data Exchange Information Contracts in conjunction with school authorities and solution providers to ensure alignment with the real world of school operations and to take full advantage of the national interoperability standards. Exchanges have been defined to support solutions that perform core school processes including:
- Enrolment
- Attendance
- Timetable
- Grading
- Finance
- NAPLAN registration
- NAPLAN results
- Wellbeing
- Assessment

This list of Use Cases is growing and in the near future will include Curriculum Planning and Professional Development. Choosing systems that are aligned to the LSA provides confidence that they will work together to provide quality data about students now and into the future. NSIP ensures that providers involved in

data exchanges have the technical tools and training to ensure their systems are interoperable.

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How to get involved?
Government schools:
- Contact NSIP to be put in touch with the Department and supplier contacts in your location. LSA-based systems are available or under implementation in all States and Territories.

Catholic or Independent schools:
- Contact NSIP to be put in touch with authority or suppliers contacts in your location. LSA-based solutions are being developed for non-government schools in: Tasmania, Queensland, Victoria and Western Australia.

If you are working in any school with a systems provider and would like to know how NSIP can help them to be part of the LSA, please contact NSIP. NSIP provides tools, training and advice to help all solution vendors participate in the LSA.

If you want to know more about the LSA, who is implementing it in your sector, or who your suppliers should talk to so they can be part of this national initiative, please contact us.

For more information visit:
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