THE API PROGRAM

BACKGROUND

With a vision to become a more solutions focused company, TASS has embarked on a distinct shift in the way that it interacts with external systems and vendors.

TASS Managing Director, Craig McAlister says:

> *"TASS introduced the API program to support its customers in their pursuit to deliver the best educational experience possible.*
>
> *Being transparent and opening up to both public and partnered APIs is a perfect platform that will give our customers greater control over the direction of their internal systems, taking their usage of TASS to the next level".*

Implementing this new mindset to partnerships and integration is not a change that happens overnight. However, in the 12 months since its launch, the positive feedback and support that the API program has received from both customers and third-party vendors has reinforced this new direction.

Chris Lang, Director of Sales and Marketing at Digistorm says:

> *"TASS's willingness to engage with Digistorm and other software vendors has been a very welcome move.*
>
> *The API Program has allowed us to provide greater levels of support to our mutual customers and be more creative in the way that we develop. The collaborative process with TASS has also led to smarter solutions, beyond what either organisation could have achieved alone".*

The TASS API program commenced in 2017 with the introduction of certified Integration Partners. In 2018 the program will now extend to include public APIs.

WHY MAKE THE MOVE TO APIs?

While TASS has a broad and comprehensive product offering, we also understand that every school is unique, has different requirements and sometimes needs to engage other educational technology providers.

This is why we have decided to work with leading technology companies in education to sync and automate our solutions, delivering seamless online experiences to our mutual customers.

The introduction of TASS APIs – both public and partnered – provides a way for schools to use their data the way that they want to use it.

Our objective is to continue improving and developing our core products, while providing opportunities for high levels of interoperability via APIs.

PUBLIC vs PARTNER APIs

PUBLIC
The documentation for these APIs is publicly accessible and can be used by anyone with programming expertise.

PARTNER
These APIs require certification and are only available through approved integration partners.

Each Partner that releases integration using a TASS API goes through a strict and structured process of certification. Certification ensures that:

- the TASS API is sending the information required by the third-party solution
- the third-party solution receiving information through the API is able to consume TASS data, including setups and various data scenarios.

Third-party solutions that use a public API and are not an approved Integration Partner, have not been certified by TASS.

TASS AND THE NATIONAL SCHOOLS INTEROPERABILITY PROGRAM

The National Schools Interoperability Program (NSIP) has been on our radar for some time and there are plans to implement it in the future.

TASS does however, feel that integrations under NSIP would not be able to achieve the same level of certification and resilience that the purpose-built Integration Partner APIs can provide.

Our decision to engage directly with other leading technology companies in education, was based on our understanding of the difficulties and challenges associated with integrating disparate systems, that were built in isolation of each other.

It is our view that the development of APIs for a specific purpose will provide the best experience and value for our customers.

TASS Managing Director, Craig McAlister says:

We believe that only through strong communication and collaboration can two vendors ensure that the functionality, logic and rules within both systems are fully supported.

It is in the absence of proper collaboration and a thorough certification process that risk and data integrity issues can become a real threat".

Why you should make the move to APIs?

Improved Data Security

Data security is vital in any school environment, particularly so when you consider the sensitive nature of the information stored and managed in a School Administration System.

The new mandatory Data Breach Notification laws (https://www.oaic.gov.au/privacy-law/privacy-act/notifiable-data-breaches-scheme), recently enacted by the Australian Government are yet another reason to take all possible steps to maintain the security of your data.

TASS APIs utilise AES (Advanced Encryption Standard) block cipher encryption, providing a secure connection between your school's central point of truth, TASS, and your additional systems. Only the encrypted result is ever sent between the client and server, ensuring the encryption key can remain safe from interception attacks.

TASS also provides an audit log of all API connections that can be exported to Excel for review and analysis.

This methodology is much more effective at keeping your data safe compared to integrations using 'direct database queries', which may leave your systems open to unwanted access/breaches.

Improved Risk Management

- Security: TASS APIs are turned on and off by the school in the TASS user interface and all connections are recorded in an accessible audit log. Data is also exchanged using secure encryption, ensuring that your most valuable data is protected.

    Compare this to direct database connections, where you need to provide login credentials and open a port that could leave your system open to SQL injection attacks through sources you are unable to actively monitor.

- Privacy: TASS is a big database and holds a lot of sensitive information on different areas of your school.

    When a third-party needs access to the information in TASS, direct database connections can expose a lot more information than what the third-party solution needs. Use of APIs ensures that the third-party only receives the information that they need, restricting access to the types and volume of data that they do not need access to.

- Performance: Over the years we have unfortunately seen triggers and stored procedures introduced by third-party systems that have been detrimental to the performance of TASS.

    TASS APIs have been built by TASS developers who are experienced in optimising the queries needed to extract subsets of data from the database. Using APIs will ensure that your TASS system is always running at its optimum performance.

- Changes: TASS APIs have strict version control measures in place and therefore a verifiable upgrade path.

    This helps mitigate risks associated with software and table structure changes between upgrades, ensuring that an upgrade of TASS won't result in another system connected by other means "exploding".

- Data Integrity: All TASS APIs, public or otherwise, are rigorously planned out, tested and published with verified documentation. TASS also has intimate knowledge of the data relationships and validations required to insert and/or modify records in the TASS database.

    Use of APIs will ensure that the correct information is being collected from the TASS database, taking all of the guesswork out of the development process.

- Cloud: TASS.web is a 100% web-based school administration and portal platform, so why limit yourself from using Cloud hosting technology? TASS APIs can be used in any environment, whereas direct database integrations cannot be used in Cloud based deployments.

HOW WILL THE PUBLIC API PROGRAM WORK?

TASS has chosen GitHub as its platform to publish its API documentation.

The documentation will provide developers with details and instructions on:

- connecting the TASS APIs to third-party systems
- the methods and end points that are available
- the errors that could potentially be returned.

You can access the documentation using the hyperlink below, or by searching for 'The Alpha School System' in GitHub.

https://github.com/TheAlphaSchoolSystemPTYLTD

SUPPORT STRUCTURE

GitHub provides a version-controlled platform where developers can work collaboratively with other developers in the GitHub community, to build integrated solutions alongside TASS.

The purpose of using GitHub is to create a community support network where likeminded peers, developers and customers can assist each other and share ideas and solutions.

External development using TASS public APIs is very much a self-service approach. While TASS does not provide HelpDesk assistance in this type of development, a moderator will engage and interact in the forum as much as possible.

Members of the community who would like to provide assistance and share their successes with others are highly encouraged to do so. It is our vision that these people become 'community experts' in the public API space.

PRICING

All TASS APIs are licensed.

Refer to the table below for details on published APIs and their availability based on Standard and Premium license packages.

For specific pricing details and other licensing information, please contact the TASS sales team.

ROADMAP

Who knows? This is new ground for not only TASS, but for TASS customers.

Following the initial release, we will be monitoring how customers are using the public APIs. Usage, along with feedback and customer input will determine the direction of the API program and the public APIs that are made available in the future.

We would encourage all schools that use the public APIs to share their experiences with us.

What APIs will be available at release?

The table below outlines the APIs that are currently available, what they can be used for, their availability to Integration Partners and for Public use:

Click here for a list of our current Integration Partners

API	Partner	Public	License Availability	Description
Accounts Payable Integration	Yes	No	Included	This API supports third-party OCR scanning and workflow automation software, for the creation of Invoices in TASS._web_ program Accounts Payable > Supplier Transactions > _Invoices_ without the need for _any_ manual data entry.
Boarding	Yes	No	Standard and Premium	This API extracts and passes basic student and parent contact information (using Communication Rules) for students who have been flagged as a boarder within TASS.web.
Data Upload Utility	Yes	No	Premium only	This API mirrors the functionality available in TASS.web program System Admin > Utilities > Data Upload Utility but instead of updating data via a CSV upload, data is updated via direct passing of information into the database via the API.
Employee HR	Yes	Yes	Standard and Premium	This API extracts the following employee related information: - HR General tab - Address tab - Next of Kin - Leave Balances
Mobile App	Yes	No	Premium only	This API supports third-party Mobile Apps and the following connections: - Parent login authentication - Parent split family access. - Permissions based on parent access to information in Parent Lounge - Student eDiaries and the following feeds: o Timetable o LMS/Assessment Activities o Sports Fixtures o Parent Teacher Interviews o Boarders Leave o Pastoral Care o Personal Calendar o Tours and Excursions - Tours and Excursions details with SSO deep linking to Parent Lounge to action the approval and payment of the tour or excursion. - School calendar and daily notices - Notifications including targeted Push Notifications generated from Teacher Kiosk

API	Partner	Public	License Availability	Description
Online Enrolments	Yes	No	Standard and Premium	This API enables enrolment applications submitted using third-party software to be entered into TASS.*web* without any manual data entry. Applications entered using this method will be available for processing using TASS.*web* program Enrolments > Enrolment Information > *Online Enrolment Applications.* *TIP: Online Enrolment Applications can also be uploaded if the school chooses not to connect via this API.*
Library Management	Yes	No	Standard and Premium	This API extracts the following information required by third-party library management software: - Student Photo (if enabled in TASS.web) - Basic Student information - Parent Contact information based on a student's communication rules.
Public Calendar and Notices	Yes	Yes	Included	This API allows the school to extract the details of Daily Notices and Calendar Events flagged for visibility in the Public Calendar.
LMS Integration	Yes	No	Premium only	This API extracts the following information required by third-party learning management system software: - Student Photo (if enabled in TASS.web) - Basic Student information - Basic Teacher Information - Basic Subject Information - Parent Contact information based on a student's communication rules.
Student Details	Yes	Yes	Standard and Premium	This API extracts the following student related information: - Student Photo (if enabled in TASS.web) - General tab - UD tab - Parent Contact information based on a student's communication rules.
Deep Linking	Yes	Yes	Standard and Premium	This API allows you to hyperlink directly to the following TASS pages: Teacher Kiosk: - Student Profile - Rollcall - Purchase Order Requisitions Parent Lounge: - Curricular Activities - Student Profile - Tours & Excursions.