

# Scope of Support

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# **Overview of Services Provided**

The Campus Support Team is here to assist with product-related questions and issues, focusing on the tools and features developed by Infinite Campus. Support is available for all versions of Infinite Campus, and customers should follow the minimum operating <u>platform requirements</u> for optimal performance.

Support includes troubleshooting and guidance on all Infinite Campus products, but **does not cover**:

- **Customizations**: Modifications, custom features, scripts, or integrations outside standard product functionality.
- **Policy Guidance**: Interpretation or recommendations related to district, state, or organizational policies.
- Third-Party Tools: External applications or plug-ins (e.g., browsers, printers, Adobe, Java).
- **Professional Services**: Training, consulting, data services, or specialized technical assistance. These may be referred to our Professional Services team or trusted business partners. Details on these services are provided below.

# Referral to Your State Department of Education

Campus Support will refer a district to the appropriate State Department when:

- A policy decision or interpretation is needed that falls outside of the authority of Infinite Campus.
- The inquiry pertains to data standards/data entry required by the State Department.
- The issue involves data managed within the state edition (e.g., state-published Ad Hoc reports or state course code data).
- A new state reporting requirement is requested without a clearly defined source of truth.
- A potential issue has been identified in a localized state report; however, it currently lacks sufficient documentation to confirm and validate it as a bug.
- The issue involves third-party vendors.

# **Professional Services**

In addition to the Campus Support Team, several specialized teams offer professional services to help districts maximize the value of Infinite Campus products:

#### **Campus Training**

Provides comprehensive training to empower your staff to use Infinite Campus tools effectively and confidently.



#### **Business Consulting**

Enhance your use of Campus, streamline processes, reduce redundant data entry, and save staff time. Business Consulting guides you in evaluating current practices and implementing improved or new workflows.

#### **Technical Services**

Assists with data modifications, imports/exports, and custom reports tailored to meet your district's specific needs.

Note: If you are missing a desired feature in the Infinite Campus software, waiting for our Development team to address it is one option, but may not be the fastest or most practical solution. Unfortunately, there is no guarantee that any specific feature suggestion will be incorporated. Please know that you can always request a referral to our Technical Services group to address the issue. This is a billable option, but this group focuses on helping users work with the product as it exists today. We would be happy to provide a quote for services.

There's no obligation to involve Technical Services or request a quote—it's simply an additional option available to help meet your needs more efficiently.

#### **Channel Partners**

Infinite Campus partners with trusted local organizations to deliver products, professional services, and support. Channel Partners operate as regional extensions of Infinite Campus, with dedicated teams for customer acquisition, implementation, and support.

If one of these professional services teams performs work for your district, they will also provide support for that work. For questions about these professional services, your district's Authorized Contact should reach out to your designated support team.

# **Data Restoration Services**

In the event of data loss, there are some options for data restoration:



#### **District**

The District can:

- Use the Data Change Tracker (available in the Campus Data Suite) to reconcile changes made.
- Use the Attendance Audit report for manually reconciling attendance data changes if Attendance Tracking is enabled.
- Refer to non-production environments (e.g., Sandbox, Staging) if they have not been refreshed since the data was lost to manually reconcile changes.

#### Campus Support

Campus Support may:

- Restore data from existing backups within the 30-day retention window.
- Recover data within a limited scope, typically a small, well-defined set of data such as a single record.

Note: If the data loss is due to district actions, restoration services may be **billable**. While we strive to support districts as efficiently as possible, frequent restoration requests may be subject to review and could result in service charges. We encourage districts to leverage available tools and internal resources to help minimize the need for repeated restoration assistance.

# Campus Technical Services or a Channel

**Partner** 

Campus Technical Services or a Channel Partner may:

• Work with your district for broad scope data restoration needs, such as data work involving multiple tables or cross-dependent datasets.

Services provided by Campus Technical Services or a Channel Partner are typically billable.

#### **Premium Product Option:**

Consider the *Campus Data Suite*, which includes the Data Change Tracker, if your district needs additional visibility into who made changes, when they were made (date/time stamp), and old/new values. This is especially valuable if there are cybersecurity concerns. Campus Support's ability to investigate data changes is limited in sites that do not have the Data Change Tracker. To submit an inquiry about Data Change Tracker, complete the online form or reach out to your Client Relationship Manager or Sales Rep.

# **Scope of Support Topics**

The following topics represent areas where Campus Support commonly provides guidance, clarification, or referrals. This list helps define the boundaries of what is included in standard support, what may require specialized services, and when external resources, such as state departments or third-party vendors, may be involved. These topics span technical configurations, reporting tools, integrations, and account management, and are intended to help districts better understand where to direct specific questions or requests.

# **User Accounts**



#### **Password resets**

Managing user account credentials is the responsibility of each district. For security reasons, Campus Support does not perform password resets or manage account credentials.

If a password reset is needed, users should use the **Password Reset** functionality or contact a district administrator or Authorized Contact.

If the request involves a district admin or Authorized Contact, they should either use the Password Reset tool themselves or reach out to another admin or Authorized Contact within the district for assistance.

Running the <u>Product Security Role Report</u> for the Student Information System role will clarify who at the district can perform password resets.

#### User account management when using SSO or LDAP

Note that some governing agencies, such as the North Carolina Department of Public Instruction, do not allow use of Local Campus Authentication. Ensure you comply with your governing agency's security practices.

#### Single Sign-On (SSO) accounts

Admins and Authorized Contacts should have a contingency plan in place in case their Identity Provider (IdP) experiences issues that prevent SSO access. We recommend creating a secondary user account under your personal record that uses an alternative authentication method—such as LDAP or Local Campus Authentication—and securing it with <a href="Image: Time-Based Multi-Factor">Image: Time-Based Multi-Factor</a> Authentication (TOTP).

When a user account is configured with the SAML (SSO) authentication type, the User Account screen will display "Password Reset Unavailable." This is because the password is managed by your Identity Provider, not within Infinite Campus.

#### LDAP accounts

Admins and Authorized Contacts should have a contingency plan in place for site access in the event your district's LDAP server has an issue that makes it impossible to sign in through LDAP. To ensure uninterrupted access, we recommend creating a secondary user account under your personal record that uses a different authentication method—such as SAML (SSO) or Local Campus Authentication. We recommend securing this account with <u>Time-Based Multi-Factor Authentication</u>.

When a user account is configured with the LDAP authentication type, the User Account screen will display "Password Reset Unavailable." This is because the password is managed by your district's Identity Provider, not within Infinite Campus.

# Access to Non-Production Sites (Sandbox, Staging, Training)



#### **Local Accounts in Non-Production Sites**

After a site refresh, user credentials in non-production environments (e.g., Sandbox, Staging, Training) will default to match those in Production at the time of the refresh. If it has been a while since the last refresh, consider asking your Authorized Support Contact to refresh the environment to ensure credentials are current.

If an admin or Authorized Contact is unable to access the Sandbox, the request should be directed to another admin or Authorized Contact within the district. Running the <u>Product Security Role</u>

Report for the Student Information System role can help identify who in the district has the ability to perform password resets.

#### **SSO Accounts in Non-Production Sites**

This section applies only when your district's Identity Provider uses a different IDP certificate in its production SSO app than in its non-production SSO app and/or requires an SP certificate.

This section does not apply to North Carolina users.

#### Post-Refresh Access in Non-Production Environments

After a site refresh, an admin must log into the non-production environment using a non-SSO account (such as an LDAP or Local Campus Authentication account) to <u>complete a required</u> step that reinstates access for other SSO users.

If no admin has previously created a non-SSO account for this purpose, the following steps should be taken:

- 1. Create a non-SSO account (LDAP or Local Campus Authentication) for yourself in the Production environment.
- 2. Ask your Authorized Technical Contact to refresh the non-production environment again.
- 3. Use the newly created non-SSO account to log into the non-production site and complete the necessary step.

We strongly recommend securing this backup account with a <u>Time-Based Multi-Factor</u> <u>Authentication</u> (TOTP) to maintain security.

# Ad Hoc Reporting

#### Ad Hoc Filters

(Query Wizard, Data Viewer)

The Ad Hoc Reporting tools are a way to select certain fields located throughout the product and place them in one central report. The result can be used as a report or as a filter that's used by other tools in the product to determine or limit what people or classes that tool affects.



#### **Options Available for Ad Hoc Filters**

District	<ul> <li>District can:         <ul> <li>Utilize Knowledge Base articles and video resources.</li> <li>Ad Hoc Reporting                 Student Filter Fields</li></ul></li></ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Ensure the Ad Hoc tools are behaving as designed. Confirm whether a specific field is available in Ad Hoc tools and where it is located.         Evaluate what you are trying to achieve is within the scope of what Ad Hoc tools provide, and identify when results would be better achieved through another means (e.g. custom SQL query or custom report).     </li> <li>Campus Support does not offer Ad Hoc creation, training, or consultation.</li> </ul>
Campus Technical Services	<ul> <li>Campus Technical Services can:</li> <li>Work with your district to design original extracts, reports, or imports when what you are working on goes beyond what is possible through Ad Hoc tools. If you would like a service quote, please have your district's Authorized Contact provide requirements through a case for Technical Services. Lead time is required.</li> <li>Services provided by the Campus Technical Services team are supported by Technical Services pursuant to the established maintenance plan.</li> </ul>
Campus Training	Campus Training can:  • Offer Ad Hoc training to your district. Districts with a Campus Passport subscription can attend free of charge, and an on-demand <a href="Ad-hoc Course">Ad-hoc Course</a> is also available to Campus Passport subscribers.

# **Pass-Through SQL Queries**

The <u>Pass-Through SQL Query</u> option within the Ad Hoc Filter Designer tool is a way to create a filter that returns a list of specific people or classes that meet more complex logic conditions using the SQL scripting language.

The Pass-Through SQL Query tool is a self-service filter-building tool for users with an understanding of SQL scripting and knowledge of the <u>Campus data schema</u>. Campus Support does not offer SQL consultations. (See <u>SQL Scripting</u> for options on SQL training and custom report creation.)



<u>Sample Pass-Through SQL Queries</u> created by Campus are maintained by Campus (Technical Services).

#### **Ad Hoc Filter Performance and Timeouts**

To maintain optimal system performance, Infinite Campus recommends designing reports and scripts with a narrow initial scope, expanding only as needed. While complex Ad Hoc filters may return successful results, they can place significant strain on the SQL instance, potentially affecting overall site performance.

To safeguard against performance issues, Ad Hoc filters are subject to timeout limits. Filters that initially complete just under the timeout threshold may begin to fail over time as district data grows or system load increases. This built-in timeout helps prevent filters from pulling excessive data and causing sitewide slowdowns.

**Options Available for Ad Hoc Filter Performance Issues and Timeouts** 



#### **District**

#### **Short-Term Remediations**

Districts can take the following steps to improve performance and reduce timeouts:

- Use "Force Order" in Query Wizard
   In Filter Designer, select the filter, click Edit, and check the Force
   Order box to optimize query execution.
- Limit Data Scope

Design filters to pull only the necessary records. Remove any unnecessary fields to reduce load.

- Break Filters into Smaller Segments
   Divide large filters into smaller ones—for example, by school or grade level—to reduce query complexity.
- Use the <u>Data Validation Report</u> Tool
   This tool runs Ad Hoc queries in the batch queue, allowing for background processing and improved performance on large datasets.

   For heavy reports intended for broader use, this is the preferred method.

#### **Long-Term Strategy**

While the Ad Hoc Query Wizard is a convenient entry-level tool, it's not ideal for large-scale data retrieval. Ad Hoc filters pull from database views, which are easier to use but less efficient than direct queries on database tables.

For better long-term performance:

- Rewrite Ad Hoc Filters as SQL Queries
   Custom SQL queries offer more control over data joins and are not subject to the same timeout restrictions.
- Leverage Advanced Skillsets
   If your district has a database administrator skilled in SQL and familiar with the Infinite Campus schema, they can build more efficient, scalable queries.

#### Campus Support

#### Campus Support can:

- When an ad hoc generates an error token, confirm whether it is due to the ad hoc taking more time than timing out vs. some other issue.
- When an ad hoc requires more than 10 minutes to generate and times out, test an equivalent query in a test site to rule out a code-level performance issue that is not data-dependent.



Campus Technical Services	<ul> <li>Campus Technical Services can:</li> <li>Work with your district to design an equivalent original SQL extract or report that is more efficient as a billable service. If you would like a service quote, please have your district's Authorized Contact provide requirements through a case for Technical Services. Lead time is required.</li> <li>Services provided by the Campus Technical Services team are supported by Technical Services pursuant to the established maintenance plan.</li> </ul>
Campus Training	<ul> <li>Campus Training can:</li> <li>Offer the <u>Infinite Campus Schema Bootcamp</u> training. This is available for any district staff with general SQL scripting skills who would benefit from more knowledge of the Infinite Campus database schema specifically. This training is free of charge for districts with a <u>Campus Passport</u> subscription.</li> </ul>

### Ad Hoc Filter Designer vs. Data Validation Report

There is some overlap between the capabilities of Ad Hoc Filter Designer and the Data Validation Report tool. Here's guidance on when to use which:

The <u>Ad Hoc Filter Designer</u> tool is great for quick, flexible data queries. It's ideal for interactive use or exploring data on the fly. However, because it runs in real time, large or complex queries can cause timeouts, making it less ideal for heavy or widely-used reports.

The <u>Data Validation Report</u> tool addresses this by running Ad Hoc queries in the <u>batch queue</u>, allowing for background processing and better performance on large datasets. Like Ad Hoc, validation reports can be **shared with user groups**, but they're better suited for recurring reports or those accessed by many users. When building a report intended for broader use, it's generally best to use the validation tool.

# **SQL Scripting**

(Data Extract Utility, Task Scheduler, Pass-Through Query Editor within Ad Hoc Reporting, SSRS Reporting, Events and Actions)

Structured Query Language (SQL) is a scripting language for accessing and manipulating data in a database, like the one that powers your Infinite Campus site. Some Campus tools can be enhanced or driven by SQL queries, but writing and managing SQL scripts requires an advanced skill set.

SQL scripts—including extracts and stored procedures—are supported by the individual who created them. For assistance, coordinate directly with the author. This may include scripts obtained from another vendor, district, forum post, or external source.

#### **Options Available for SQL Scripting**



District	Districts can take the following steps to ensure effective and optimized SQL scripting:  • Collaborate with the Original Author  Work with the individual who originally wrote the SQL query to troubleshoot and maintain the script.  • Leverage Skilled Staff  Ensure that staff members with SQL expertise are involved in writing and optimizing queries for performance and accuracy.  • Query Database Tables Directly  For intensive queries, prioritize querying database tables over database views. While views offer convenience, they often introduce additional logic and unnecessary reads, which can significantly degrade performance—especially when used by those unfamiliar with the Campus schema.
Campus Support	SQL consultation is <b>not</b> a service offered by Campus Support. Campus Support does not rewrite existing queries or advise on SQL written by others.
Campus Technical Services	<ul> <li>Campus Technical Services can:</li> <li>Work with your district to design original extracts, reports, or imports. If you would like a service quote, please have your district's Authorized Contact provide requirements through a case for Technical Services. Lead time is required.</li> </ul>
	Services provided by Technical Services are supported by Technical Services pursuant to the established maintenance plan when Technical Services has worked with your district to develop any of the following:  • SQL  • Stored Procedures  • Custom extracts  • Custom imports  • Custom reports
Campus Training	<ul> <li>Campus Training can:</li> <li>Offer <u>Infinite Campus Schema Bootcamp</u> training. This is available for district staff with general SQL scripting skills who would benefit from more Infinite Campus database schema knowledge. This training is free of charge for districts with a <u>Campus Passport</u> subscription.</li> </ul>

# **Query Optimization**

Poorly optimized SQL queries can lead to performance issues, including strain on system resources and tempDB errors. If a script not authored by Infinite Campus is causing such issues, please contact the original author to review and optimize the query.

#### **Options Available for Query Optimization**



District	A common cause of performance degradation is overreliance on database views. While views are convenient, they often introduce additional logic and unnecessary reads. For better performance, query database tables directly whenever possible.  For more guidance, refer to the <a href="SQL Performance Tips">SQL Performance Tips</a> section of the Campus schema documentation.
Campus Support	Infinite Campus Support does <b>not</b> rewrite or advise on SQL scripts written by others.
Campus Technical Services	If your district needs help designing efficient extracts or reports, the Technical Services team may be able to assist. To request a quote, have your district's Authorized Contact submit a case with detailed requirements. Please note that lead time is required, and services are provided under the district's maintenance plan.
Campus Training	For districts looking to build internal SQL expertise, the <u>Infinite Campus</u> <u>Schema Bootcamp</u> is a recommended training option.

# **Third-Party SQL Resources**

Infinite Campus does not offer consultations on SQL fundamentals or query optimization strategies. However, a wide range of free and paid resources are available to help users build their SQL skills. For your convenience, we've compiled a few examples.

Note: Infinite Campus does not endorse or promote any specific resource listed. Please review each resource carefully to ensure it meets your district's needs.

#### **Important Considerations**

SQL has several dialects. While the core concepts are similar across platforms, Infinite
Campus uses Microsoft SQL Server and T-SQL.
 Be cautious when reviewing content focused on other dialects such as MySQL or PostgreSQL,
as syntax and functionality may differ.

If you know of a helpful resource that should be added to this list, please share it using the **Comments** button at the bottom of this page.

General Resources	Additional Information
LearnSQL.com's Ultimate List of Resources	Books, courses, video tutorials, practice resources
<u>Learning Tree SQL Courses</u>	Instructor-led, fee-based
Microsoft's Querying Data with Microsoft Transact- SQL Training	Paid as instructor-led, free as self- directed



Stanford's edX Relational Databases and SQL Course	Online, self-paced, audit-for-free	
Pluralsight's Querying Data with T-SQL from SQL Server Trainings	Online, fee-based	
Mode.com's interactive SQL tutorial	Free	
SQLBolt's interactive SQL tutorial	Free	
Wise Owl's SQL video tutorials	Free	
Query Optimization Focused	Additional Information	
<u>Think Like a SQL Server Engine video</u> - From Brent Ozar, Microsoft Certified Master of SQL Server	Free	
<u>Fundamentals of Query Tuning training</u> - From Brent Ozar, Microsoft Certified Master of SQL Server	Fee-based	
<u>Use the Index, Luke</u> - Online version of <i>Performance Explained</i> by Markus Winand	Free	
T-SQL Querying - Textbook from Microsoft		
SQL-Focused Communities		
<u>r/LearnSQL</u>		
Stack Overflow's SQL questions section		
SQL Server Community Slack's #SQLhelp channel		
We Learn SQL Facebook Group		

# **Custom Reports**

Custom reports are supported by the individual or group who created them. If your district uses reports developed internally or by a third party, those reports should be maintained and supported by their original author or team.

#### **SQL Server Reporting Services (SSRS)**

Custom reports typically utilize SQL Server Reporting Services (SSRS) to display within Campus. SSRS is a Microsoft product requiring its own skillset.

Infinite Campus does not offer SSRS consultations or training, but Technical Services might offer relevant services.

#### **Options Available for Custom Reports**

Campus	Campus Support does <u>not</u> provide SSRS consulting or support for custom
Support	reports.



District	<ul> <li>Districts are responsible for maintaining their custom reports. They can:</li> <li>Coordinate with the original report author or staff skilled in SSRS.</li> <li>Support the report's user interface, logic, and SQL.</li> <li>Ensure proper configuration of the report.</li> <li>Maintain SSRS-specific functionality outside of Campus, such as email subscriptions to SSRS reports.</li> </ul>
Campus Managed Services	For districts using a Campus-hosted reporting server, Campus Managed Services can:  • Investigate reporting server outages.  • Validate data source and reporting server credentials.  • Confirm connection string validity (e.g., rsErrorOpeningConnection).
Campus Technical Services	<ul> <li>Campus Technical Services can:</li> <li>Collaborate with your district to design original reports, extracts, or imports.</li> <li>To request a quote, have your Authorized Contact submit a case with detailed requirements.</li> <li>Lead time is required, and services are provided under the district's maintenance plan.</li> <li>Technical Services supports custom reports created by Infinite Campus under the terms of the original maintenance agreement.</li> </ul>
Microsoft	SSRS is a Microsoft product. Microsoft provides the following resources for SSRS:  • General documentation • Troubleshooting documentation  Microsoft's recommendations for additional support are outlined in the Microsoft Q&A and Stack Overflow.

# Pass User Session: Encrypt URL-encoded Username, etc.

(Custom Tool Setup's URL Link and URL Editor)

This functionality is available within the Custom Tool Setup when configuring an external link (via URL Link or URL Editor). Selecting "Encrypt URL-encoded username, etc." from the Pass User Session dropdown ensures that specific user session details are appended to the URL as encrypted parameters when a user clicks the link.

#### **Key Details**

- **Purpose**: Historically used to pass parameters into SSRS reports via URL. This is now considered a legacy method.
- **Encryption**: Infinite Campus is responsible for encrypting the parameters.
- **Decryption**: Your district is responsible for coding the receiving page or report to decrypt the parameters correctly.
- Skill Requirements: Implementing this feature requires technical expertise, including SSRS



report design and custom scripting, typically using Visual Basic.

#### **Recommended Alternative**

Instead of using this legacy method, Infinite Campus recommends using the <u>SSRS Dynamic</u> Report Options tools:

- 1. Configure the report server using the <u>SSRS Server Configuration</u> tool.
- 2. Map reports into the outline using the <u>SSRS Report Configuration</u> tool.

This modern approach supports <u>automatically passing certain values</u> from Infinite Campus to SSRS reports and is more maintainable.

#### **Options Available for Encrypted URL Parameters**

District	<ul> <li>For initial implementation, your district can:</li> <li>Use the <u>SSRS Dynamic Report Options</u> tools when making SSRS reports available to Campus users.</li> <li>For existing custom webpages and reports, your district can:</li> <li>Refer to Microsoft's documentation on adding custom Visual Basic code to SSRS reports.</li> <li>Search online for guidance on decrypting URL query string parameters in Visual Basic.</li> <li>Coordinate with the original developer of any custom report or webpage to ensure proper decryption logic is in place.</li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Can verify that URL parameters are present and properly encrypted.</li> <li>Can provide a Java-based example implementation upon request.</li> <li>Does not provide scripting support or SSRS report design services</li> </ul>
Microsoft Resources	<ul> <li>See Microsoft's general documentation on adding custom Visual Basic code to a Report Builder (SSRS) report: <a href="https://learn.microsoft.com/en-us/sql/reporting-services/report-design/add-code-to-a-report-ssrs">https://learn.microsoft.com/en-us/sql/reporting-services/report-design/add-code-to-a-report-ssrs</a></li> <li>Community support via <a href="mailto:Microsoft Q&amp;A">Microsoft Q&amp;A</a> and <a href="mailto:Stack Overflow">Stack Overflow</a>.</li> </ul>

# **Third-Party Support Overview**



Infinite Campus Support focuses on tools and services developed by Infinite Campus. Support for third-party software, contractors, browser extensions, and hardware is limited or outside the scope of Campus Support. Support may be available for vendors with an established partnership with Infinite Campus (e.g., <u>Digital Learning Partners</u> and <u>Business Partners</u>).

#### **Third-Party Software & Vendors**



Third-party software is supported by that company. For example, questions about Adobe Acrobat (PDF and FDF files), Excel, etc., are best directed to those companies' respective support teams or your local district experts.

#### **Third-Party Contractors**

Due to FERPA regulations, Campus Support does not work directly with your third-party contractors. Your district's Authorized Contact should coordinate with the contractor to share relevant details through a support case. If a call is needed, a member of the district who is an Authorized Contact must be present on the call.

#### **Browser Extensions and Plug-ins**

Browser extensions are supported by the developer or company that created them. If an extension negatively impacts your Campus experience:

- Notify the developer directly.
- Refer to the extension's installation page or developer website for support contact information.

#### **Third-Party Hardware**

(Attendance Scanning within Campus Workflow Suite, Campus Payments, Food Service/POS/Point of Sale)

Some Campus tools integrate with third-party hardware (e.g., barcode scanners, receipt printers, RFID scanners, POS terminals):

- Supported: Hardware purchased through Infinite Campus is supported under the applicable purchase agreement and product warranty.
- Not Supported: Hardware purchased from other vendors should be supported by the manufacturer or vendor.

#### **Business Partners**

Infinite Campus has established working relationships with <u>Business Partners</u> to power different aspects of Campus tools. Campus Support coordinates with business partners to escalate issues as needed.

# **Digital Learning Partners**

Infinite Campus has established working relationships with <u>Digital Learning Partners</u> to integrate systems, typically through <u>1EdTech</u> specifications.

Our Digital Learning Partners' development teams have direct access to Campus Development through their Digital Learning Partner Support Portal. The Digital Learning Partner's team can utilize their Digital Learning Partner Support Portal to communicate with the Campus Development team if the Digital Learning Partner's team believes an issue exists on the Campus end and misconfiguration has been ruled out.



Digital Learning Partner integrations include OneRoster-powered integrations and LTI-powered integrations.

# **OneRoster-Powered Integrations**

#### (OneRoster API)

OneRoster integrations are a way to send roster data out of Infinite Campus and/or send assignments/scores and/or assessments into Infinite Campus, depending on the vendor.

The nature of a OneRoster sync is that much of the process occurs outside of Campus, within your Digital Learning Partner system. The Digital Learning Partner system is in charge of making the sync requests, and your Campus site responds to the requests.

#### **Options Available for OneRoster-Powered Integrations**

District	<ul> <li>Refer to the OneRoster Setup Guide to ensure the correct setup processes are followed.</li> <li>Consult the OneRoster Preparedness Checklist to troubleshoot rostering issues.</li> <li>Use the OneRoster 1.1 Data Models to understand what data is available through the OneRoster API.</li> <li>To troubleshoot a record (user, class, etc.) not present in your vendor's system that should be, use the built-in tools like the OneRoster API Documentation (especially Accessing Specific Data) to confirm Campus is making that record available to their system.</li> <li>Contact your vendor's support team with any questions or issues specific to their system.</li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Look for misconfiguration in the Campus user interface.</li> <li>Confirm compliance with the OneRoster specification, as set forth by the consortium 1EdTech.</li> <li>Confirm the records in question are being made available to the Digital Learning Partner system.</li> <li>In some cases, Campus Support can confirm whether the Digital Learning Partner system has made sync requests.</li> </ul>



#### Third-Party Vendor

Your vendor's support team can:

- Support the phases of the integration that occur after Campus has successfully released data to the vendor's system.
- Support the integration phases before their system issues a sync request to your Campus site.
- Clarify what version of the OneRoster specification and OAuth security their system supports.
- Confirm when and how often the Digital Learning Partner system syncs, and whether the sync is configured to trigger automatically or manually.
- Support setup that occurs within their own system after data has been pulled in from Campus.
- Support their system's tools, like mapping tools.
- Address questions about their system's logic, like which assignment flag status their system supports syncing, and how their system uses the fields and records your Campus site makes available through the API data.
- · Address their system's error messages.

#### Non-Digital-Learning-Partner Vendor

OneRoster connections to vendors that are not

**Digital Learning Partners** 

can be set up but are offered as-is. As Campus has not vetted their Integration, the Campus Support team does not support issues.

Are you working with a OneRoster vendor who is not a Digital Learning Partner? Please share <u>this form</u> with your vendor so they can contact Campus and learn more about our Digital Learning Partner Program.

# **LTI-Powered Integrations**

(LTI)

LTI integrations can take a few forms. They can allow Infinite Campus users to do a secure launch (login) from Infinite Campus into the third party vendor's system, and/or allow embedding content from the third party vendor system to the Infinite Campus grade book to show on the Campus Student/Parent portal, and/or send scores from the third party vendor system into the Infinite Campus grade book.

#### **Options Available for LTI-Powered Integrations**



District	<ul> <li>For LTI systems that validate based on email addresses, Ensure students' and teachers' Email fields in Campus match their email addresses in the LTI system.</li> <li>For LTI systems that support score passback:         <ul> <li>Confirm that students are launching into the LTI system from Campus (from the linked assignment on the Campus Student Portal) and are not accessing the LTI system directly.</li> <li>Confirm that teachers are launching into the LTI system from Campus (from the Assignment Editor &gt; Learning Tools area) when scoring or editing the assignment and are not accessing the LTI system directly.</li> <li>In Campus, confirm the assignment's Scoring Type is set to Points and that Total Points correctly correspond to the assessment's total points in the LTI system before score passback occurs.</li> </ul> </li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Confirm compliance with the LTI specification, as set forth by the consortium 1EdTech.</li> <li>Verify an LTI launch attempt from the LTI system occurred when a specific example student/teacher/class/assignment was provided.</li> </ul>
Vendor	<ul> <li>Your vendor's support team can:</li> <li>Ensure connection credentials to their system are valid.</li> <li>Support integration phases that occur before their system successfully releases data to your Campus site.</li> <li>Support their system's own configuration, logic, tools, and error messages.</li> </ul>

# **Campus Services that Integrate with Third Parties**

#### Ed-Fi

(Getting Started With Ed-Fi)

Ed-Fi is a data interchange standard and framework created by the Dell Foundation to allow K-12 educational institutions to consolidate and analyze data, and communicate this data with each other.

#### **Options Available for Ed-Fi Integrations**



### **District** District can: · Review state documentation explaining their system's validations when available when encountering validation errors in a state system. • Ensure the ODS is configured properly to accept the data. Ensure data is entered into Campus properly according to Campus and state documentation. • Utilize the available Ed-Fi Tools. Review Ed-Fi Event Queue Statistics to confirm recent sync activity. • Coordinate with the person who manages the ODS to ensure the security certificate gets uploaded to Campus. **ODS System** The person who manages the ODS system, whether this is a state **Administrator** entity or someone in your district, can: • Clarify their system's validation errors, especially 500-level server errors. • Support the phases of the process that occur after Campus has successfully released data to the ODS. Maintain the ODS system's security certificate. **Campus Support** Please refer to the <u>Additional Ed-Fi Information</u> section of the core Ed-Fi article. Click to expand and review Support for Ed-Fi for detailed support expectations and helpful information to include when submitting a support case. Campus Support can: Check for misconfiguration within the Campus user interface. Review and investigate Campus error messages. (Be sure to review the state's documentation on their systems' validations for an explanation of validation errors coming from a state system. • Purge the event queue as needed. The Campus Support team does not access the Ed-Fi database and does not assist with ODS configuration.

# **Email Relay Services**

#### (Messenger)

Messenger can send emails from your Infinite Campus site using a third-party email relay service. For Cloud and Cloud Choice customers, Mailgun is the preferred and supported email relay partner.



If your district uses a different third-party email relay provider, your district is responsible for supporting and troubleshooting any issues related to email delivery after Infinite Campus has successfully handed off the message to the relay service.

#### **Options Available for Email Delivery Troubleshooting**

<b>District uses Mailgun as its email relay service</b> (Mailgun is Infinite Campus' partner for email relay for Cloud and Cloud Choice Customers.)	
District	<ul> <li>Proview the Mailgun Message Log, which displays email recipient statuses, including failure errors.</li> <li>Conduct a web search on these errors to yield more information, since many errors come directly from the email recipient's service provider.</li> </ul>
Campus Support	Campus Support can:  • Coordinate with Mailgun to support email relay issues.
District uses a	different third-party email relay service
District	<ul> <li>District should:</li> <li>Coordinate with the person or group in your district who manages your email relay. That person or group supports email relay issues for your district, has access to email relay logs for additional troubleshooting and can coordinate with your email relay company's support team to investigate further.</li> </ul>
Campus Support	Campus Support does not support third-party email relays and does not have access to third-party email relay error logs.  If your district decides to move to Mailgun for its email relay service, Campus Support will have more investigative resources available, like the Mailgun Message Log.

# eTranscript

(eTranscript Batch, Electronic Release Setup)

The eTranscript tools allow schools to generate and release an electronic version of student transcripts to third-party vendors (ex. Parchment).

#### **Options Available for eTranscript Release**

District	District should:
	<ul> <li>Confirm all required setup steps have been completed correctly. <u>See</u></li> </ul>
	<u>details</u>
	<ul> <li>Follow the troubleshooting steps to resolve common errors. <u>See details</u></li> </ul>



Third-Party Vendor	<ul> <li>Vendor's Support Team can:</li> <li>Support integration phases that occur after Campus has successfully released data to their system.</li> <li>Clarify their system configuration, logic, tools, and error messages.</li> <li>Investigate when the data in question is present in the XML Campus's system releases but still does not display in the vendor's system.</li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Confirm records and their contents are being released for the student in question (by viewing the XML contents).</li> <li>Confirm compliance with the PESC specification.</li> </ul>

# **File Transfer to Third-Party Server**

(Data Extract Utility, FRAM Scheduled Imports)

Tools such as the Data Extract Utility and FRAM Scheduled Imports in Infinite Campus can send or receive files via SFTP, FTPS, or SMB. While Infinite Campus facilitates the transfer, most of the setup and troubleshooting responsibilities fall to the individual or group managing the destination server—whether within your district or a third-party vendor.

#### **Server Setup Requirements**

The server administrator must provide:

- IP address or hostname
- Port number
- Username and password
- File path
- Confirmation that Campus IP ranges are allow-listed

Note: For self-hosted or in-district hosted environments, ensure your district's network administrator has allow-listed Campus IPs.

#### **Options Available for File Transfer Troubleshooting**

District	District should:
	<ul> <li>Coordinate with the person or team managing the destination server.</li> </ul>
	<ul> <li>If the server is hosted by your district, contact your internal IT</li> </ul>
	team.
	<ul> <li>If hosted by a third-party vendor, reach out to their support team.</li> </ul>



File Server Administrator	<ul> <li>Whether internal or external, the server administrator is responsible for:</li> <li>Ensuring correct credentials (username/password) are entered in Campus.</li> <li>Verifying server, port, and path values are accurate and current.</li> <li>Managing: <ul> <li>Server configuration and network setup</li> <li>Firewall and security software</li> <li>Account permissions (read/write/add/delete access)</li> <li>Any additional server requirements (e.g., public key exchange, TLS session resumption)</li> </ul> </li> <li>Investigating errors such as: <ul> <li>Connection issues: "Connection timed out,"</li> <li>"UnknownHostException"</li> <li>Permission or space issues: "Permission denied," "Access denied," "Auth fail," "Internal server error"</li> </ul> </li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Confirm that the file will be sent to a properly configured server.</li> <li>Assist in verifying that Campus-side settings are correct.</li> </ul>

#### **Server Setup**

Consultations on configuring an SFTP/FTPS server or SMB configuration are not services offered by Infinite Campus. Here are some IT-focused communities that may be helpful.

Infinite Campus does not endorse or promote any content shared by these communities. We encourage you to thoroughly review the content offered to ensure it meets your needs.

IT-Focused Communities	
<u>r/SysAdmin</u>	
SuperUser's SFTP Questions Area	
Spiceworks Community	

# Google reCaptcha

(Login Security Settings > Google reCaptcha)

After a certain number of consecutive failed login attempts, Infinite Campus presents a CAPTCHA, or login challenge, to to ensure the login attempt is coming from a real person rather than a bot or automated attack. The CAPTCHA Infinite Campus uses by default requires entering letters and numbers from a prompt, but you can configure your site to instead use the CAPTCHA offered by



Google: Google reCaptcha.

Google reCaptcha's login challenge typically requires marking an "I'm not a robot" checkbox and/or selecting images that relate to a particular subject.

#### **Options Available for Google reCaptcha**

District	<ul> <li>For initial implementation, your district should:</li> <li>Complete the initial setup, which requires configuration within google.com/recaptcha. Refer to the Google reCaptcha article for more details.</li> </ul>
	<ul> <li>For existing reCaptcha configuration, your district should:</li> <li>Coordinate with whoever at your district completed the initial setup within google.com/recaptcha. The setup is stored under that person's Google account. If that person is no longer available, the setup may need to be recreated.</li> </ul>
Google	<ul> <li>Google should:</li> <li>Support technical issues with Google reCaptcha itself. If you encounter technical issues within the google.com/recaptcha console, visit Google's reCaptcha Help page to learn about the support options Google makes available.</li> </ul>
Campus Support	Campus Support can:  • Confirm Google reCaptcha would work as expected when associated with a correctly-configured <a href="mailto:google.com/recaptcha">google.com/recaptcha</a> setup.  Campus Support does not support technical issues with Google's <a href="mailto:google.com/recaptcha">google.com/recaptcha</a> console.

# **Google Drive Integration**



#### (Google Drive)

Integrating Campus with Google Drive allows teachers and students to use Google Drive files in the classroom. Teachers can attach a Drive file to an assignment that students can open and interact with based on the teacher's sharing preferences. Teachers can also allow students to attach and submit Drive files to assignments in Campus Student.

This is different from the Google *Classroom* assignment/score sync integration. For the Google Classroom assignment/score sync integration, see <u>OneRoster-powered integrations</u>.)

#### **Options Available for the Google Drive Integration**



District	District can coordinate with your district's Google administrator, who is responsible for:  • Reviewing the Google project that was initially set up (at console.developers.google.com) to ensure the configuration is correct (using Google Drive Configuration > the "Show Me The Steps" walkthrough as a guide).  • Providing the resulting 4 values and .p12 file to the district's Infinite Campus administrator.  • Creating two test Google accounts within admin.google.com, a test student and test teacher account, for troubleshooting purposes. Provide details to the individual in charge of Infinite Campus.  Your district's Infinite Campus administrator must ensure that the 4 values and .p12 file from the console.developers.google.com Google project produced by the district's Google admin are correctly entered into Campus' Google Drive Configuration screen.
Google	Google should:  • Support technical issues within Google's <u>console.developers.google.com</u> console. Select the Support (?) button within <u>console.developers.google.com</u> to see the support options Google offers.
Campus Support	<ul> <li>Campus Support can:</li> <li>Provide a <u>setup guide</u>.</li> <li>Confirm that the values entered into Google Drive Configuration match the expected patterns.</li> </ul>

#### **LDAP Server**

#### (LDAP Configuration, LDAPS Certificates)

LDAP (Lightweight Directory Access Protocol) allows users to sign into Infinite Campus using credentials stored in your district's Active Directory (AD) server.

The majority of the LDAP authentication process occurs within your district's LDAP server. Support for this functionality is up to the individual or group at your district in charge of your district's LDAP server. The person who manages the server provides the correct IP/hostname, port, Bind User DN, Bind User Password, User Search Base, and User Search Filter when initially configuring the LDAP connection.

#### **Options Available for LDAP Connections**



#### **District**

District can coordinate with the individual or group who manages your district's LDAP server, who is responsible for:

- LDAP server configuration and maintenance
- Security certificate management (especially for LDAPS)
- Account setup and user attribute management
- Firewall and security software configuration (see details)
- LDAP server preferences (e.g., account lockout settings)

LDAP servers may lock accounts after a set number of failed login attempts. If configured, users may see the message: **"Your account is locked!"** on the Campus login screen. Campus Support does not advise on these server-side preferences.

Your district's Infinite Campus administrator is responsible for:

- Ensuring Campus user accounts are correctly configured:
  - The Authentication Type is set to the correct LDAP option.
  - The username in Campus matches the value provided by the district's AD server.
- Verifying that the Search Base, Search Filter, and Bind User credentials are valid and correctly entered.

#### Campus Support

#### Campus Support can:

- Confirm whether the LDAP server is externally accessible
- For Campus-hosted districts, verify if the Campus site is experiencing an outage
- Validate whether a user exists in the LDAP server using the provided Search Base and Search Filter

# SIF (Schools Interoperability Framework)

(<u>SIF</u>)

SIF is a standardized protocol for data exchange that enables different educational systems to communicate effectively. It defines a common messaging format and data objects frequently shared across student information systems and third-party applications.

#### **Options Available for SIF**

#### **District**

#### Districts are responsible for:

- Ensuring data is entered correctly according to Infinite Campus and state-specific documentation.
- Reviewing the Sent Message History report to monitor recent sync activity and confirm successful data transmission.



#### Third-Party Vendor

Your third-party vendor's support team is responsible for:

- Managing all integration steps after Infinite Campus has successfully released data to their system.
- Handling the initial setup and configuration before their system requests data from Infinite Campus.
- Configuring their system to properly receive and process data from Campus.
- Interpreting their system's logical requirements, including how it uses the fields and records sent by Campus.
- Troubleshooting and clarifying error messages generated by their system.

#### Campus Support

#### Campus Support can:

- Check for misconfigurations within the Infinite Campus user interface.
- Confirm that data objects comply with the SIF specification.
- Verify that records are made available to the SIF agent.
- Confirm whether the SIF agent is actively making requests to the Campus site

# **SSO Identity Provider System**

(SSO Service Provider Configuration)

Single Sign-On (SSO) allows users to log into Infinite Campus using credentials from an external Identity Provider (IdP) system. When users click the SSO login button or link, they are redirected to the IdP's login screen—unless they're already authenticated in that system.

#### **Options Available for SSO Configuration**

#### **District**

#### **District Responsibilities**

The district should coordinate with the individual or team managing the Identity Provider (IdP) system. This team is responsible for:

- Setting up and configuring the IdP integration.
- Managing certificates within the IdP system.
- Generating and maintaining Identity Provider metadata (via Metadata URL or XML file).

The district's Infinite Campus Administrator should:

- Ensure Campus user accounts are correctly configured:
  - The Authentication Type is set to the appropriate SAML option.
  - The username in Campus matches the value provided by the IdP typically the fully qualified email address.
- Confirm that metadata and certificate details are correctly entered in Campus.



Third- Party Identity Provider	<ul> <li>The identity provider's support team should:</li> <li>Assist with configuration within the IdP system.</li> <li>Support certificate renewal and metadata generation.</li> <li>Clarify system-specific requirements and error messages.</li> <li>Each Identity Provider has its own setup process—refer to your provider's documentation or support team for guidance.</li> </ul>
Campus Support	<ul> <li>Campus Support can:</li> <li>Confirm that the Campus-side configuration complies with SAML standards.</li> <li>Provide setup documentation.</li> </ul>