Connecting Every Student

My Mission as a Solutions Engineer

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Solutions Engineer

Education technology should make learning easier, not harder. My goal is to bridge the gap between complex systems and real-world classrooms by designing integrations that are reliable, secure, and effortless for teachers and students.

With experience across SIS, identity, and network management, I focus on removing technical friction so schools can focus on what truly matters — learning.

Discovery in Action

Partnering Across Teams to Understand the Whole Picture

- I collaborate with Account Executives, district IT leaders, and product teams to fully understand a customer's environment
- Who owns the data? How often does it refresh? What challenges frustrate teachers most?
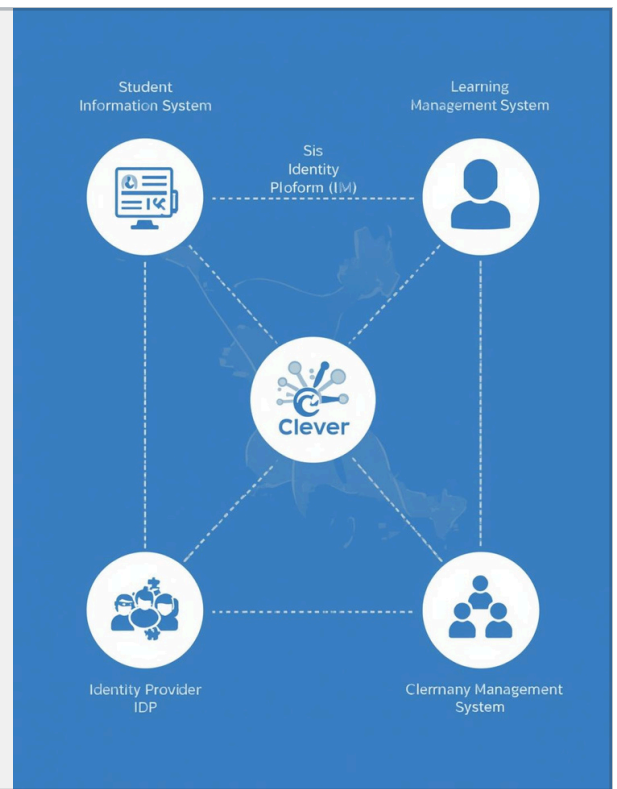
Every successful implementation begins with discovery. I collaborate with Account Executives, district IT leaders, and product teams to fully understand a customer's environment — SIS, IdP, LMS, and networking setup.

Instead of rushing into configuration, I ask: Who owns the data? How often does it refresh? What challenges frustrate teachers most?

This shared understanding prevents downstream issues and builds trust from day one.

Data Integrity: Ensuring Reliable Syncs

Whether through SQL or automated scripts, these validations prevent sync errors and save district IT teams hours of troubleshooting. Clean data means fewer support tickets and more trust from teachers and admins.

```
SELECT email, COUNT(*) AS dupes
FROM students
GROUP BY email
HAVING COUNT(*) > 1;

SELECT student_id, first_name, last_name
FROM students
WHERE school_id IS NULL OR school_id = '';

SELECT e.student_id
FROM enrollments e
LEFT JOIN students s ON s.student_id = e.student_id
WHERE s.student_id IS NULL;
```

The first query identifies duplicate email addresses that would break SSO or Clever sync. This would prevent failed logins and support tickets before go-live.

The second query finds records missing critical identifiers used in Secure Sync. This ensures that every student has a valid school record.

The third query flags enrollments tied to non-existent students. This reduces sync errors and prevents course assignment mismatches.

SSO Configuration on Made Easy

Turning Authentication into a Seamless Experience

- Configure SAML or OAuth2 connections
- Exchange metadata and certificates
- Map Attributes
- Test
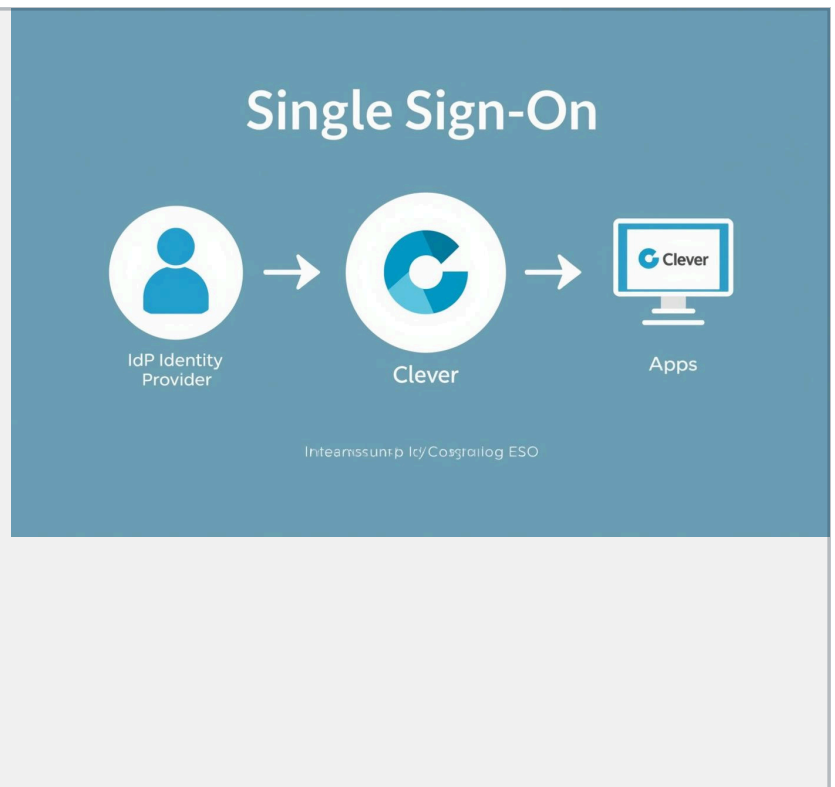
Once the data is clean, I focus on identity. Working with district administrators, I configure SAML or OAuth2 connections between the IdP and Clever.
Exchange metadata and certificates
Map attributes (e.g., email ⇔ userPrincipalName)
Test teacher and student accounts end-to-end
I communicate each step in plain language so non-technical stakeholders understand what's happening behind the scenes. The result: one-click logins that just work.

Clever's Tenets in Practice

Group Project

 I collaborate across AE, SE, Product, and IT teams to build solutions that scale.

Don't Trust a Textbook

When standard fixes fail, I design creative alternatives like gamified onboarding demos to engage customers.

Always a Student

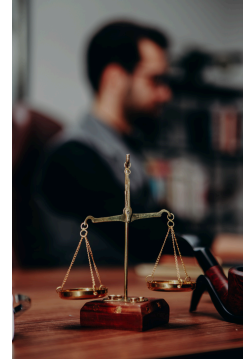I learn from every deployment, refining playbooks and documentation for future projects.

Make It Matter

I measure success by adoption, uptime, and teacher satisfaction, not just ticket closures.

Equity for All

Every configuration I deliver ensures that access is simple, secure, and universal.

Alexander Sands

Let's connect and discuss your needs today!

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