

TDLR: Transforming Student Permit Processing with Intelligent Automation

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✦ “TDLR eliminated backlogs and accelerated student licensing with automation—turning paperwork into progress.”



Executive Summary

The Texas Department of Licensing and Regulation (TDLR) carries a vital responsibility: ensuring that students entering the fields of barbering and cosmetology receive timely permits to begin their careers. Yet behind this essential service lay a challenge that was slowing down progress—an outdated, manual permit process.

Applications, often submitted as paper forms or scanned PDFs, had to be reviewed by staff, validated against the U.S. Postal Service database, and checked against TDLR's Tulip licensing system. Clerks keyed information line by line: student names, social security numbers, dates of birth, addresses, school permit numbers, and course types. If data was missing or illegible, the application was pushed back for follow-up. This repetitive and error-prone process created bottlenecks, backlogs, and frustration for both students and staff.

Recognizing the urgency, TDLR partnered with SynapOne to reimagine the student permit process through Robotic Process Automation (RPA).

The Automation Journey

SynapOne approached the project by first mapping the “as-is” process, capturing every manual validation, exception path, and data entry step. The team then designed a “to-be” model anchored by RPA bots, OCR, and system integrations.

- **Data Extraction:** Bots automatically retrieved applications placed in shared folders, whether scanned handwritten forms or digital PDFs. Using IQ Bot OCR, they extracted key fields such as name, DOB, SSN, and school permit numbers.
- **Validation:** The extracted data was checked against business rules. The bot validated addresses in real time with USPS services and reconciled student information against the Tulip system.
- **Exception Handling:** When data was incomplete or unreadable, the bot automatically generated an email to the student requesting clarification. Once corrected, the bot re-validated and updated the master record.
- **System Updates:** With validated data, the bot logged into Tulip, created new records when needed, entered license and course details, and completed fee and history postings.
- **Transparency:** Comprehensive audit logs and dashboards provided real-time visibility into transactions, error rates, and SLA adherence.

This automation was not built in isolation. SynapOne embedded Agile delivery practices, holding sprint reviews and working closely with TDLR SMEs. Security was prioritized, with bots operating in controlled environments, credentials stored in vaults, and SynapOne staff completing DIR security training.

Results That Matter

The impact of automation was immediate and measurable:

- **Faster Processing:** What once took days of manual effort was reduced to near real-time processing, with applications completed within hours.
- **Backlog Reduction:** By eliminating repetitive manual data entry, TDLR cleared application backlogs and ensured students received permits faster.
- **Improved Accuracy:** Automated validations minimized human errors, boosting data quality and compliance confidence.
- **Staff Empowerment:** Clerks previously tied up in keystrokes were repurposed to higher-value tasks like exception handling and customer service.
- **Scalability:** The RPA framework gave TDLR a reusable model that could extend beyond barbering and cosmetology permits to other licensing processes.

Lessons Along the Way

The journey was not without its challenges. OCR struggled with low-quality scans, requiring human-in-the-loop validation for certain cases. Early bot runs uncovered Tulip system idiosyncrasies, prompting adjustments in business rules. Change management was crucial; some staff were initially skeptical, but training and the creation of “Bot Champions” helped turn resistance into advocacy. Each challenge reinforced the importance of governance, testing, and communication.

From Backlogs to Breakthroughs

Today, TDLR’s student permit process stands as a model of how state agencies can embrace intelligent automation to better serve citizens. By integrating OCR, RPA, and system validations into a seamless workflow, TDLR transformed a labor-intensive process into one that is fast, accurate, and resilient.

For thousands of aspiring barbers and cosmetologists, this transformation means starting their careers sooner. For TDLR, it means meeting its mission with efficiency, transparency, and confidence.