USE CASE



Streamlining **Survey Plan Submission** and Parcel Integration

Silvacom CS partnered with **LTSA** (Land Title and Survey Authority of British Columbia) to deliver the **Survey Plan Submissions service (SPS)**, a modern, map based digital plan submission workflow that speeds surveyor submissions, improves parcel fabric currency, and reduces manual reentry across government registries.

OVERVIEW

Silvacom CS designed and implemented a Digital Plan Submissions service for provincial survey plan filing that replaces paper and file-based handoffs with an intuitive online submission portal, automated validation checks, and secure integrations to LTSA and provincial systems. The service lets surveyors upload georeferenced survey datasets, run instant checks, and submit certified datasets that PMBC (ParcelMap BC) operations can integrate into the parcel fabric quickly and seamlessly.

CHALLENGE

Legacy plan workflows required manual data reentry, delayed parcel fabric updates, and created extra work for LTSA and provincial registry teams. Surveyors used different tools and file formats, increasing errors and resubmissions during initial electronic uptake. LTSA needed a solution to:

1. **Make plan submission easy** for BC land surveyors while protecting registry data quality.
2. **Automate routine validation** so PMBC staff can focus on complex cases.
3. **Deliver fast, traceable parcel fabric updates** for government and stakeholders.

SOLUTION

Silvacom CS delivered a full Survey Plan Submissions (SPS) service as part of the ParcelMap BC program.
Key components we provided:

SPECIFICATION & SUBMISSION TEMPLATES:
A clear CAD/CSV dataset spec so surveyors submit consistent, geo-referenced datasets.

WEB SUBMISSION PORTAL:
Intuitive, map-based upload and review tools accessible through the myLTSA customer portal for surveyors and staff.

AUTOMATED VALIDATION:
Server-side checks for CAD layer structure, parcel closure, dimensions, bearings and control-point integrity; configurable rules for plan types and override governance.

Concrete Results

The SPS service was built to scale for real operational demand and to deliver measurable improvement across submission, validation, and fabric currency.

13,500

Scale handled: ~13,500 survey plans/year (approx. 11,000 LTO + 2,500 Crown plans)– roughly 50 plan dataset submissions per business day.

360

User base: Designed for ~360 BC land surveyors (≈260 frequent users) with customer portal availability aligned to LTSA hours.

100,000

Data access: Support for ~100,000 PMBC searches and ~50,000 downloads per year (design estimates used for capacity planning).

500

Performance & scale targets: Customer portal designed for up to 500 concurrent users (internal fabric operations up to 20), with responsive UI targets (90% transactions ≤ 3s).

Faster fabric currency

Working copy updates targeted by end of next business day after filing/confirmation; daily publication ensures stakeholders see changes quickly.

Operational sizing

Steady-state operations sized with proven staffing guidance (reference analysis estimated ~9.8 FTE to handle comparable plan volumes, including supervision and fabric maintenance).

> Silvacom served as the development team and build partner responsible for creating the original Survey Plan Services (SPS) platform that enabled the creation of ParcelMap BC. Their work was executed with such a high level of quality and foresight that the system has remained robust and reliable for more than a decade, continuing to run the core operational tasks essential to ParcelMap BC's success. The SPS foundation they delivered has been instrumental in the Land Title and Survey Authority's ability to mandate and operationalize digital dataset submissions, enabling ongoing updates, modernization, and the continued advancement of ParcelMap BC.

–TAYLOR MCINNES | MANAGER, GEODATA SERVICES – GEOSPATIAL SERVICES

LandSure

Why it Matters

By moving survey plan submissions into a consistent digital flow, LTSA and provincial partners gain:

Faster, auditable parcel fabric updates that improve spatial accuracy over time.

Reduced manual reentry and duplication for Crown land workflows through automated extract/ import to Tantalis.

Lower support needs by identifying surveyor errors in early stages.

TECHNICAL DIFFERENTIATORS

Delivered as a pragmatic, configurable service that balances governance and usability:

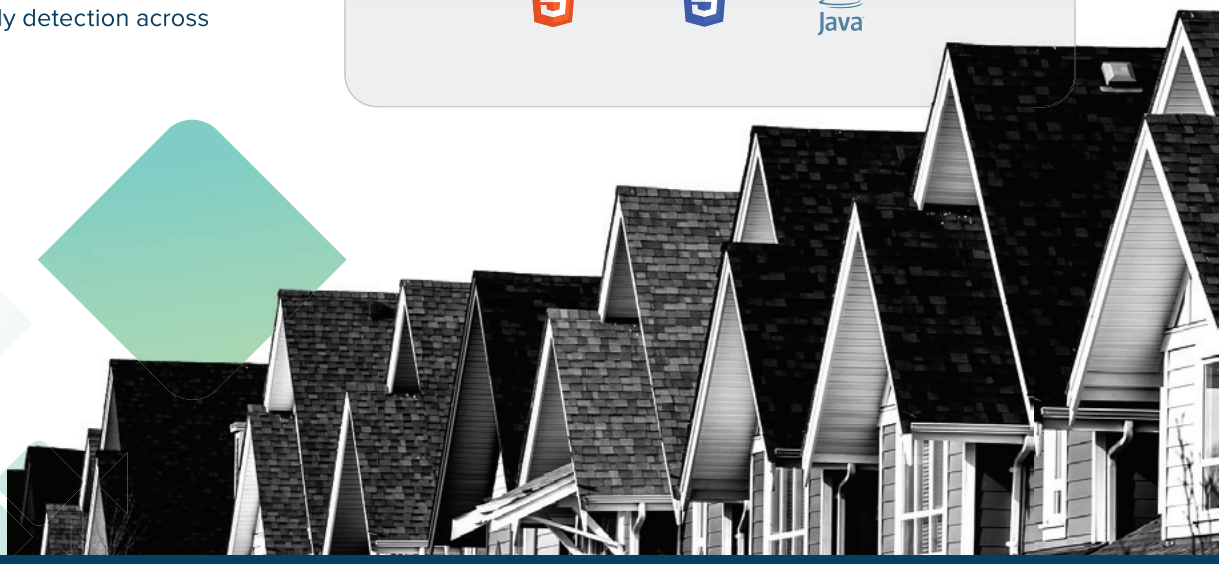
- **Validation rules and mandatory checks are configurable** without code changes. LTSA controls acceptance policy over plan types and errors.
- **FME workspaces run robust CAD/CSV checks** and produce map images for visual review.
- **Design for secure, auditable integration** with ASTRA, MASCOT and Tantalis to keep authoritative systems in sync.
- **Co-marketing partnership with MNC** amplifies reach and credibility with government clients.
- **GeoVal-AI (a Geo AI proposition)** is positioned as a next-phase capability to accelerate validation and anomaly detection across submissions.

SERVICES & TECHNOLOGY USED

- Business analysis, UX and stakeholder engagement
- Full-stack Geospatial development for SPS web application creation
- FME workspaces for CAD/CSV validation and map image generation
- ArcGIS map services for basemap and layer display

TECH INVENTORY

aws · FME by Safe Software · HTML · CSS · Java



Silvacom CS is a leader in geospatial technology and an Esri Gold Partner with 25+ years of experience supporting mission-critical systems. We specialize in GIS modernization, geospatial automation, parcel fabric transformation, Digital Plan Submission (DPS) integration, and GeoAI enablement—helping government, utility, and natural resource sectors transform spatial data into intelligent ecosystems.

From enterprise architecture and cloud migration to AI-ready workflows and predictive modeling, we provide the foundational strategy, governance, and systems required for GeoAI-driven insight. By bridging the gap between technology and domain science, Silvacom CS delivers scalable spatial intelligence and real-time insights that drive better decision making.

