PULSE

Data: Processed, Enriched, Delivered.

Product White Paper

O R B I S

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Executive Summary

Defense and intelligence organizations do not lack data sources. They lack a reliable way to acquire, integrate, and deliver data from those sources without turning their analysts into data engineers.

A typical operational team today manages a patchwork of vendor platforms, APIs, and data formats — each procured independently, each with its own contracting vehicle, each producing outputs that must be manually reconciled before analysis can begin. The result is a data supply chain that is expensive to maintain, fragile under change, and fundamentally misaligned with mission tempo.

Orbis Pulse eliminates that complexity. Pulse is a Data-as-a-Service platform that unifies multiple DIGINT data sources into a single, composable API. It handles the data engineering — ingestion, normalization, enrichment, and delivery — so that operational teams receive clean, structured, mission-ready data without managing the vendor relationships, format translations, or pipeline maintenance themselves.

The question is not whether your organization has data. It is whether that data is unified, curated, and delivered fast enough to drive decisions.

1. The Problem That Persists

Data acquisition in the defense and intelligence community follows a pattern that has remained largely unchanged for two decades. An operational requirement surfaces. A vendor is identified. A contract is negotiated. An API integration is built. Data flows — until the vendor changes its format, raises its prices, or fails to deliver at the required scale.

Multiply that pattern across the dozens of data sources a modern intelligence operation requires — news feeds, social media platforms, cybersecurity intelligence, dark web monitoring, geospatial data, identity databases — and the burden becomes clear. Organizations are not managing a data pipeline. They are managing a portfolio of bilateral vendor relationships, each with its own maintenance overhead.

The consequences are well documented. Engineering teams spend more time maintaining integrations than building analytic capability. Procurement cycles measured in months cannot keep pace with mission requirements that shift in days. When a vendor underperforms or a better alternative emerges, switching costs are prohibitive. And through all of it, analysts — the people who are supposed to be producing intelligence — are instead troubleshooting broken feeds and reconciling incompatible schemas.

AI compounds the problem. Machine learning models require consistent, well-structured inputs to produce reliable outputs. Feeding models with data from a dozen different providers, each with its own schema, update cadence, and quality standard, is a recipe for inconsistent inference. The data layer must be governed before the AI layer can perform.

2. What Pulse Is — and What It Replaces

Pulse is a managed data operations platform. Customers define what data they need — by topic, source type, geography, language, or any combination — and Pulse handles the rest: sourcing from the optimal providers, normalizing into a unified schema, enriching with complementary data where required, and delivering the finished dataset to the customer's storage environment.

It replaces the model where every data source requires its own contract, its own API integration, its own format mapping, and its own maintenance cycle. With Pulse, the customer works through a single interface — API or web — and Orbis manages everything behind it.

Eliminate the Engineering Gap

Pulse handles the data engineering that most operational teams do not have the capacity or expertise to maintain in-house. Orbis ingests, normalizes, and enriches data from across the DIGINT vendor landscape and delivers a single, schema-enforced dataset to the customer's existing storage. When vendors change their formats — and they will — Pulse absorbs the change. The customer's feed stays clean.

One Contract. One Feed. Zero Technical Debt.

Instead of managing dozens of vendor contracts and hiring dedicated pipeline engineers, Pulse customers work through a single interface with Orbis. All API subscriptions, data unification, and vendor relationships are managed behind the scenes — with the flexibility to swap sources without triggering new procurement cycles. When the mission evolves, the data supply chain evolves with it.

Mission-Critical DIGINT Coverage

Pulse provides access to an extensive network of over 140 DIGINT data providers, including API-based news feeds, social media platforms, cybersecurity intelligence, disinformation analysis, geospatial data, technical OSINT, and aggregated datasets. Coverage is not static — sources are evaluated continuously and adjusted based on operational relevance and performance.

Single API, Unified Schema

Data from multiple vendors arrives in a single, consistent format and is delivered directly to the customer's existing storage. No duplicate pipelines. No broken dashboards. No manual reconciliation between provider-specific schemas. One call to Pulse returns mission-ready data, regardless of how many underlying sources contributed to the result.

Adaptive and Scalable

Pulse adjusts data sources dynamically based on evolving needs — without the procurement delays of traditional contracts. Organizations can move from zero to operational data flow in days, not months. New sources can be added, underperforming sources replaced, and collection parameters refined without rebuilding infrastructure.

3. How It Works

Pulse provides two access paths to accommodate both programmatic and non-technical users.

API Access

Customers and Orbis agree on one or more request types — curated data categories that trigger dedicated collection and enrichment pipelines. A single API call sets the entire process in motion. Each submission returns a unique request ID that carries through the full lifecycle — pending, processing, completed, delivered — providing full traceability and audit support.

Requests can range from simple single-source retrievals to complex, multi-step enrichment processes that orchestrate calls across multiple vendor APIs in sequence. Pulse handles the orchestration, transformation, and quality assurance at every step.

Web Interface

For users who prefer a visual workflow, Pulse provides a web-based task management interface. The form-driven UI guides users through request submission with pre-populated fields, making it straightforward to configure and launch collection tasks without writing code. Tasks can be scheduled for recurring collection on any cadence the mission requires — enabling standing data feeds without manual intervention. The interface provides real-time visibility into past runs, error logs, and job status.

4. How Pulse Fits the Operational Stack

Pulse is the data acquisition and curation layer within the Orbis product family. It is designed to serve as the foundation on which the rest of the stack operates.

Orbis Discovery, the analyst-facing intelligence workbench, draws on Pulse-curated datasets to power its multi-source search, synthesis, and reporting capabilities. When an analyst queries Discovery, the data they search has already been ingested, normalized, and enriched by Pulse — ensuring consistency and currency without requiring Discovery to manage vendor integrations directly.

Orbis Catalyst, the secure infrastructure platform, governs how data flows between organizations, partners, and classification boundaries. Where Pulse delivers data into an environment, Catalyst controls who can access it, under what conditions, and with what level of trust.

The three products are complementary by design. Pulse acquires and curates the data. Catalyst governs and secures it. Discovery puts it in the hands of analysts who produce intelligence from it. An organization can adopt Pulse independently — the value of clean, unified data is immediate — and extend into Discovery or Catalyst as operational requirements grow.

5. The Strategic Case

The cost of fragmented data operations is not primarily measured in vendor fees. It is measured in the time analysts spend waiting for data, troubleshooting pipelines, and reconciling formats instead of producing intelligence. It is measured in the procurement cycles that prevent organizations from adapting their data sources when the mission shifts. It is measured in the AI initiatives that underperform because the data feeding them is inconsistent and ungoverned.

Pulse addresses each of these directly. It consolidates vendor management into a single relationship. It absorbs format changes and API disruptions so the customer never sees them. It delivers data in a schema that AI models, analytic tools, and reporting systems can consume without transformation. And it does so on a timeline measured in days, not the months that traditional data integration programs require.

Organizations that treat data acquisition as a solved problem — rather than a continuous engineering burden — free their most valuable resource: the people who know what the data means.

Conclusion

Orbis Pulse is not another data aggregator and it is not another analytics dashboard. It is a managed data operations platform that takes the engineering, vendor management, and integration burden off the customer entirely.

It delivers unified, curated DIGINT data through a single API — clean, structured, and ready for analysis. It scales with the mission, adapts to changing requirements, and ensures that when a vendor changes or a new source is needed, the customer's operations are unaffected.

The organizations that move fastest from information to action are the ones that have removed friction from their data supply chain. Pulse is how that friction is removed.

Your analysts were hired to produce intelligence, not to manage data pipelines. Pulse ensures they can do exactly that.
