

The Case for Open Insurance Data Standards

[LINK TO REVIEW DOC](#)

Why the Property and Casualty insurance Industry should create and adopt new Free and Open Standards for Information Exchange

Abstract

Wouldn't it be great if the next time you want to share data with a third party organization, you and they have already agreed on the format? And you and they already have the data in that format? And all you have to do is, "turn on the spigot" to allow that vendor to receive the data as a feed or access it through a query? Wouldn't it be great if the format you use is open and free forever? Wouldn't it be great that you could not only use this standard, but contribute to it? Read on and find out more...

The Property and Casualty (P&C) insurance industry is undergoing significant transformation as technological advancements, increased regulatory scrutiny, and market demands for efficiency drive the need for seamless data exchange. Historically, proprietary data formats have been widely used to facilitate communication between carriers, reinsurers, and regulators. However, these formats often introduce barriers such as high costs, lack of interoperability, and vendor lock-in. In contrast, free and open standards offer a compelling alternative by providing universally accessible data exchange protocols that enhance collaboration, reduce costs, improve transparency, and foster innovation. These standards are free and open and will remain that way because the project is owned and managed by The Linux Foundation. This paper explores the benefits and value proposition of adopting free and open standards in comparison to proprietary formats, highlighting key advantages in areas such as cost efficiency, scalability, regulatory compliance, and long-term adaptability. We will also discuss the *open Insurance Data Standards* (*openIDS*), an emerging standard. At the end you will find out how to participate.

Introduction

In the P&C insurance industry, the pursuit of an effective and secure data exchange among carriers, reinsurers, brokers, regulators, data providers/third-party vendors, and for cross-industry applications has not yielded a successful, trusted mechanism.

Data exchange transformation is essential to meeting the industry's requirement for smooth and efficient business functionality, operations, and insights, accuracy, risk management, and regulatory compliance. The exchange mechanism is also essential to successfully matching the rate of global emerging technology advancements and their commercialization. The success of this transformation will also have a significant impact on our economy at large.

Traditionally, proprietary data formats are used for industry data exchange. The stronghold of and reliance on proprietary systems has limited needed innovation and resulted in loss of data control and ownership, fragmented data, high integration costs, and barriers to scalability.

Non-proprietary and open industry standards present a solution to these challenges, offering a universally accepted, low-cost, secure, and flexible means of sharing data across diverse systems and stakeholders.

Open standards are publicly available specifications for data formats, communication protocols, and methodologies that promote interoperability and relieve the industry of required, ongoing licensing fees or intellectual property royalties. This paper investigates the benefits of adopting such standards in the P&C insurance industry, focusing on how an open platform addresses the drawbacks of proprietary data formats while at the same time driving innovation, cost savings and new opportunities for the industry as a whole.

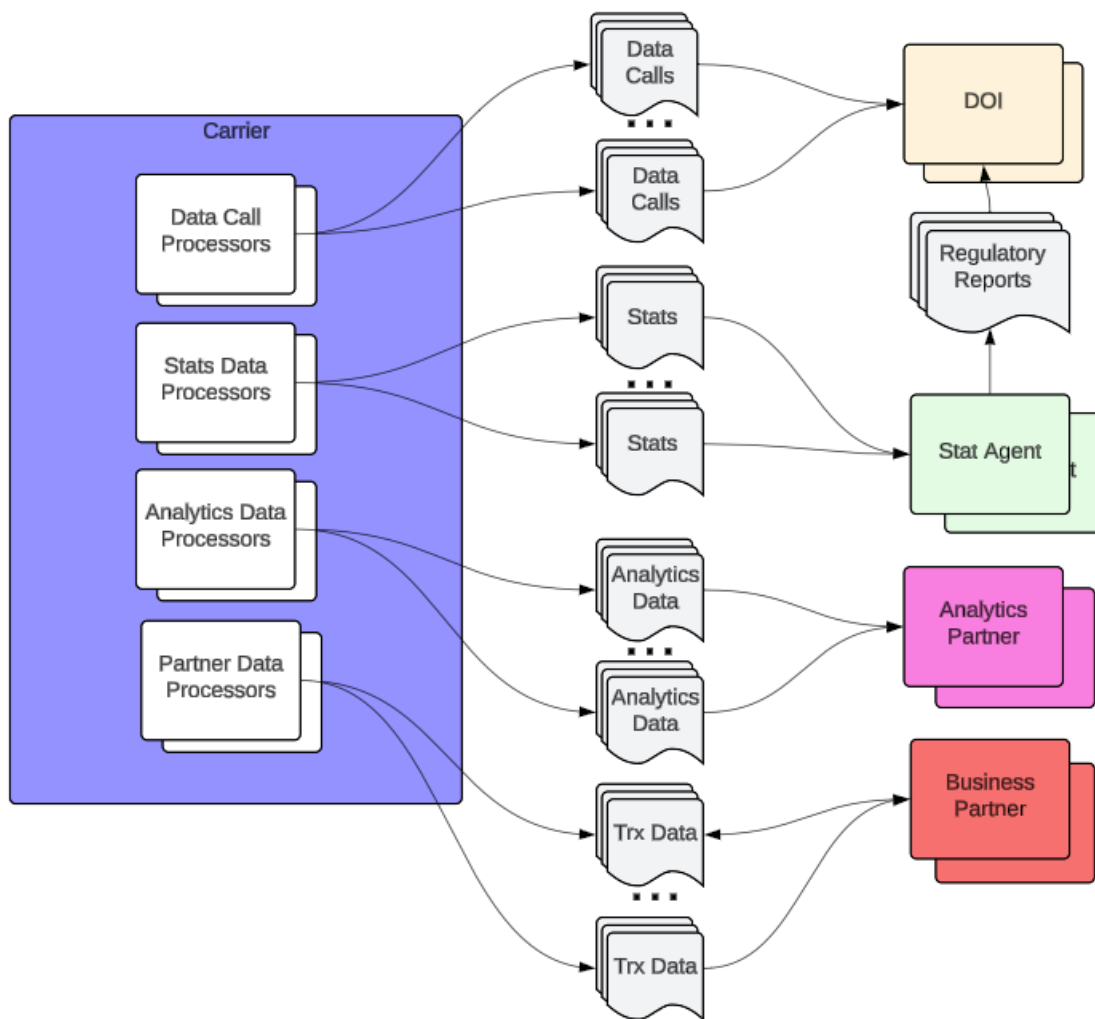
The Proprietary Data Format Problem

Each time insurance organizations need to share data, they must agree on a format. This format has a syntax and a semantic. The syntax defines the technical language used which might be JSON, Excel, CSV, Flat File. The syntax also includes data types, entity names and the field names. The semantic captures the meaning of the data. This includes the definition for codes, specific coverage names, etc. Both of these require considerable thought, time and energy to arrive at an acceptable agreement between the parties involved. Re-inventing ad hoc solutions for each multi-party exchange is costly, time-consuming, cumbersome and at best achieves a limited result.

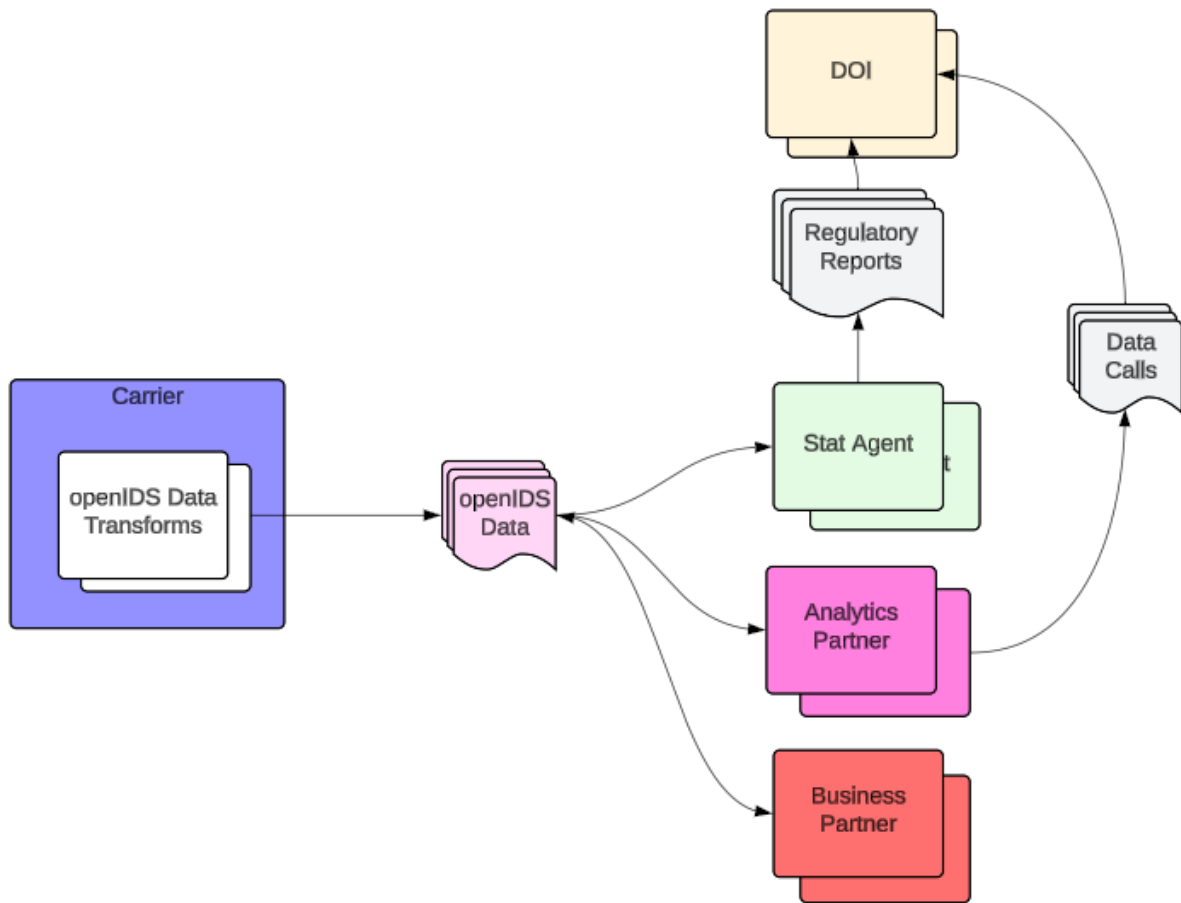
If each time a new connection is made, using a new format, we must reestablish the syntax and semantics. Here are some situations that create new connections:

- A Company submits statistical data to statistical agent A
- A Company submits statistical data to statistical agent B
- A Company reports loss data to reinsurer A
- A Company reports loss data to reinsurer B
- A Company responds to a data call for DOI A
- A Company responds to a data call for DOI B

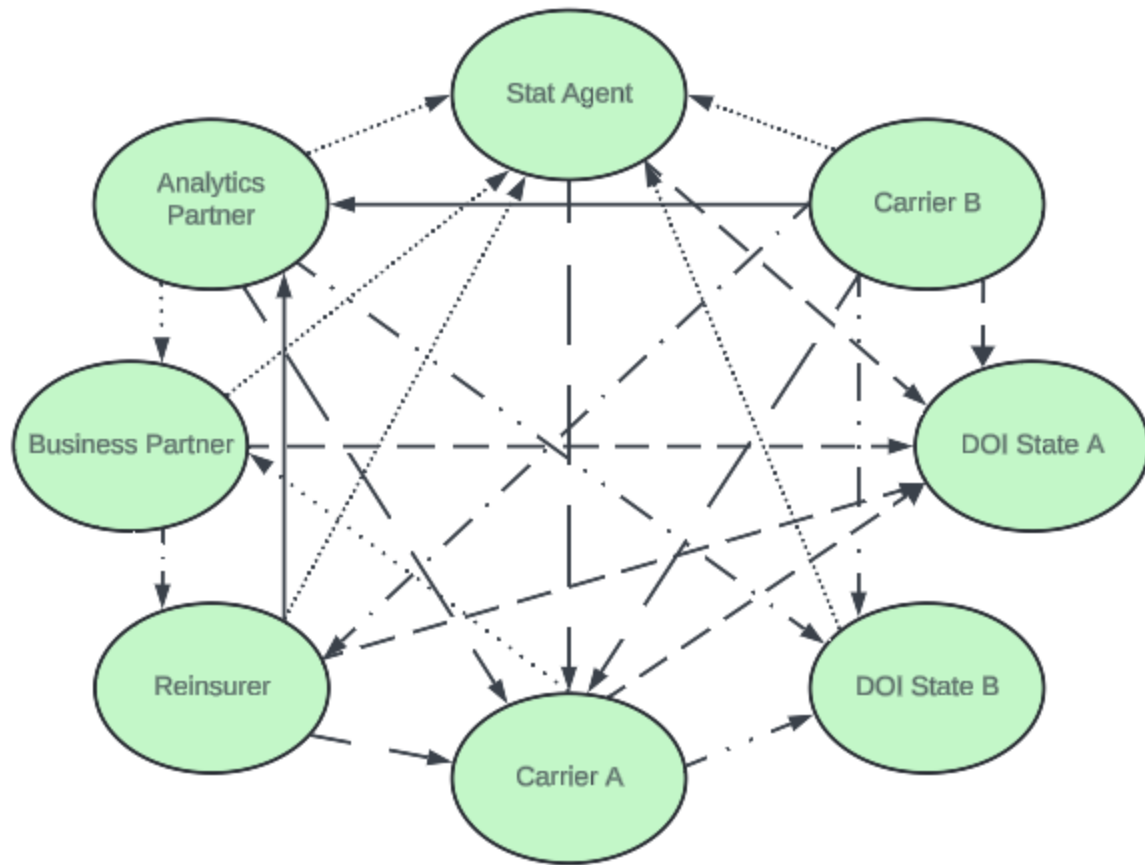
The Company must deliver data in many different formats. If we add more DOIs, more Data Calls, more Reinsurers, more Stat Agents, we see an explosion of formats as more exchanges are added. Each format requires time and effort to define both the syntax and semantics.



This diagram depicts the different kinds of data that carriers must produce when there is no standard format. Each of the document formats may be different.



This diagram shows how the carrier's world is simplified with a standard, such as openIDS. The carrier only needs to produce one format. They implement processes to convert any of their internal systems to the standard format once and it can be used for Data Calls, Regulatory Reports, Analytics and sharing with Business Partners.



This diagram illustrates the explosion of the number of different formats required for communications among organizations and firms in the P&C insurance industry.

The Limitations and Risks of Proprietary Data Formats

As the previous section illustrates, organizations in the P&C insurance industry utilize a wide variety of incompatible means to communicate and share data between multiple parties. These proprietary formats increase the cost of doing business while decreasing visibility by making data exchange complicated. It is estimated that the industry as a whole is spending \$10s of Billions annually on managing and supporting proprietary data exchange. Further, broad adoption of a commercial standard from a vendor puts the industry at risk regarding cost, data limitations and lack of control. A dominant vendor can charge higher prices, while limiting competition and innovation.

Conversely, a widely adopted, flexible, royalty-free open data standard encourages new innovation and healthy competition, resulting in a variety of vendors and capabilities for supporting data exchange. This is in addition to enabling freedom for P&C participants that wish to develop in-house solutions, ensuring they will interoperate with others.

Over the long term this approach supports flexible data exchange across the industry, dramatically improving efficiency while at the same time offering substantial reduction in costs.

While proprietary data formats have been the norm for many years, they come with a range of disadvantages:

Lack of Interoperability

Proprietary data formats often make it difficult for different stakeholders in the P&C insurance value chain to communicate effectively. Carriers, reinsurers, and regulators may use different systems that are tailored to their individual needs, but these systems may not be compatible with one another. As a result, data exchanges require complex mappings or translation tools, leading to inefficiencies and errors. Furthermore, the use of proprietary formats restricts the ability of industry participants to collaborate with newer or smaller players who may have adopted different technologies.

High Costs

Maintaining proprietary systems often involves significant upfront and ongoing costs. Insurance companies must invest in proprietary software, integration services, and data translation tools to ensure smooth data exchanges with other stakeholders. Additionally, ongoing licensing fees and vendor support costs can add financial strain. The proprietary nature of the formats also means that updates or changes to the data format typically require costly vendor negotiations and updates.

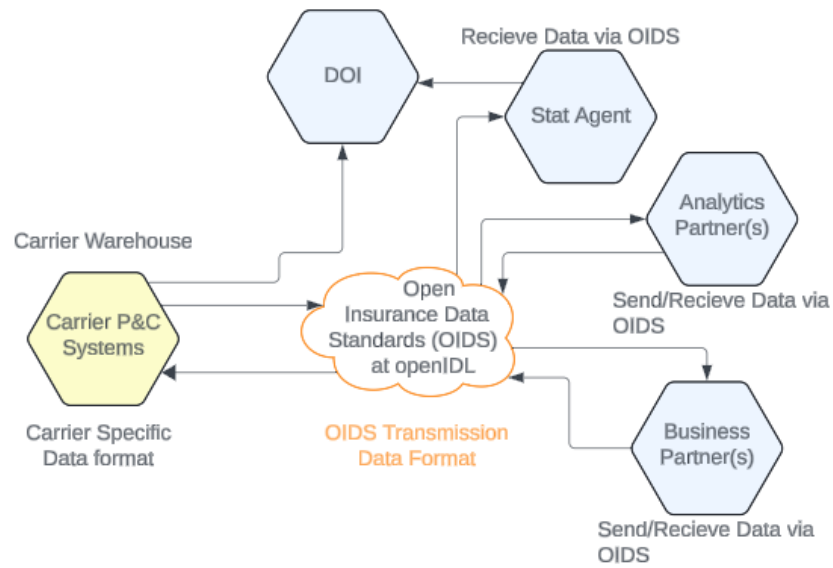
Vendor Lock-In

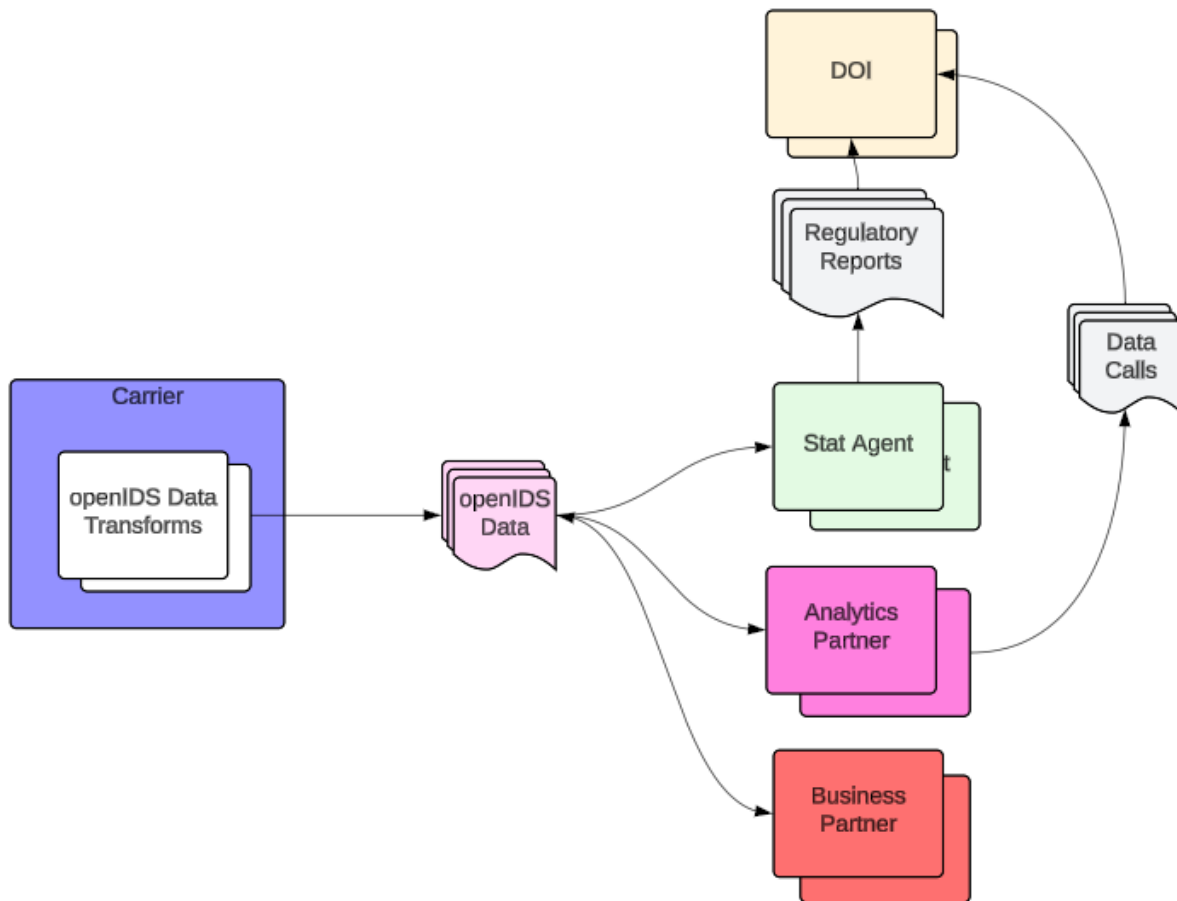
Proprietary formats tend to create vendor lock-in, where companies become dependent on a specific technology provider for continued support and system updates. This reduces flexibility, as switching to a new system or vendor often involves significant investment in both time and resources. Moreover, vendor lock-in can limit innovation, as organizations may be unable to easily adopt emerging technologies that are incompatible with proprietary systems.

Data Fragmentation

Proprietary formats contribute to data silos, where each party maintains its own isolated set of data, often in non-standardized formats. This fragmentation of information can make it difficult to generate a unified view of risk, pricing, or performance across the entire value chain. Without a common language or format for communication, efficiency is hindered, and the potential for operational improvements is limited.

Benefits of Open Standards for Data Exchange





Open standards offer a range of benefits that directly address the shortcomings of proprietary data formats. These benefits include cost reductions, improved interoperability, enhanced regulatory compliance, and scalability.

Reduced Costs Through Royalty-Free Licensing

One of the most significant advantages of free and open standards is the elimination of licensing fees or intellectual property royalties. Insurers, reinsurers, and regulators no longer need to pay for proprietary licenses or incur hidden costs associated with vendor lock-in. By using such open standards, organizations can redirect resources that would otherwise be spent on licensing and software maintenance toward innovation, digital transformation, and core business operations.

Enhanced Interoperability and Streamlined Integration

Open standards are designed to be interoperable across different systems, platforms, and technologies. This interoperability is crucial in the P&C insurance industry, where diverse stakeholders—ranging from carriers to regulators—must communicate seamlessly. With a standardized, open format for data exchange, organizations can integrate systems with far less

effort, making it easier to collaborate with partners, adopt new technologies, and expand into new markets. Open standards also support more agile and flexible integration, enabling organizations to adapt quickly to market changes, customer demands, and regulatory requirements.

Greater Transparency and Data Integrity

Open standards promote transparency by providing a uniform structure for data exchange. As these standards are publicly available, stakeholders have access to the underlying specifications, ensuring that data is processed and communicated in a consistent manner. This transparency builds trust, as all parties can review the format and ensure that the data being exchanged is accurate and reliable. Furthermore, with standardized data formats, the risk of errors due to misinterpretation or translation issues is significantly reduced, contributing to better data integrity.

Easier Regulatory Compliance

The adoption of open standards simplifies compliance with regulatory requirements, as many regulators are increasingly demanding more standardized data submissions. Open standards provide a consistent and reliable means of submitting data for regulatory reporting, reducing the administrative burden and minimizing the risk of compliance errors. Regulators also benefit from open standards, as data will be available more readily, allowing regulators to easily access timely information, analyzing data from insurers and reinsurers, enabling more effective market supervision and policy enforcement.

JH VERSION: Adopting open standards simplifies regulatory compliance by providing a consistent and reliable framework for data submission. As regulators continue to demand increasing amounts of information, having a standardized data format makes it easier for both companies and regulators to manage these requirements efficiently. Open standards ensure that regulatory reporting remains accurate, streamlined, and consistent across the industry, reducing administrative burdens and minimizing compliance risks. Regulators also benefit from these standards, as they enable faster access to timely information, improving data analysis, market supervision, and policy enforcement. By aligning data definitions across the industry, open standards create a more efficient and transparent regulatory process for all parties involved.

With Better Data Comes Better Legislation

With open standards, reporting is less expensive and more timely. This leads to better data. Regulators are empowered to request more data more often to aid in understanding the market. This leads to better legislation that is based on today's reality instead of old and vague data. Better regulation helps everyone from the carriers to the regulators to the insureds.

JH VERSION: With open standards, data reporting becomes more efficient, cost-effective, and timely, resulting in more accurate and up-to-date information. This allows regulators to request and analyze data more frequently, giving them a clearer and more current understanding of the market. As a result, regulators and policymakers can base their decisions on real-time insights rather than outdated or incomplete information,

leading to more effective and relevant legislation, statutes and bulletins. Stronger, data-driven regulation benefits everyone—insurers, regulators, and policyholders—by creating a more transparent, responsive, and well-informed regulatory environment.

Scalability and Future-Proofing

The scalability of open standards ensures that as the industry evolves, so too can the data exchange infrastructure. Because open standards are developed, maintained and updated by the openIDS community, they can accommodate future changes in technology, regulatory requirements, and market dynamics. Because these standards are community-driven, they are regularly updated to reflect the latest industry developments and best practices. This makes open standards a future-proof choice for organizations that want to avoid the risks of obsolescence associated with proprietary formats, which may become outdated or incompatible with emerging technologies.

Accelerating Innovation and Collaboration

By adopting open standards, the P&C insurance industry fosters a more collaborative environment. Insurers, reinsurers, statistical agents and third parties and regulators can more easily exchange ideas, tools, and technologies when they are operating on a common data platform. This collaborative spirit accelerates innovation, as it allows stakeholders to experiment with new technologies, such as machine learning, blockchain, and artificial intelligence, without the constraints of proprietary systems. Furthermore, open standards enable more efficient market entry for smaller players or startups, driving competition and encouraging the development of novel solutions.

Mitigating Data Silos and Fragmentation

Open standards eliminate data silos by promoting a consistent format for information exchange across the entire value chain. With a unified approach to data, insurers, reinsurers, and regulators can gain a comprehensive, real-time view of risks, claims, pricing, and market trends. This holistic view improves decision-making and fosters collaboration, ultimately enhancing the overall efficiency of the industry. Furthermore, with a common standard in place, organizations can more easily share data with other industries, such as healthcare or transportation, unlocking new opportunities for cross-sector innovation.

Managed by the Linux Foundation to be Forever Open

Open Insurance Data Standards is a project under the stewardship of the Linux Foundation. By maintaining ownership of the standard, the foundation ensures that it remains protected from malicious modifications or restrictive licensing practices that could hinder its usability for financial gain. This safeguards the standard from rent-seeking entities, aligning with our goal of keeping it open and accessible to all. The Linux Foundation meets these criteria, providing a trusted and neutral governance structure.

Open Insurance Data Standards (openIDS)

Open Insurance Data Standards is an evolving set of comprehensive data standards designed to support the Property & Casualty (P&C) insurance industry. It offers a robust core insurance model along with a flexible framework for extensibility, enabling organizations to tailor the standards to their specific needs. openIDS provides clear specifications for data transmission, covering both transactional and aggregate levels to ensure seamless communication and data consistency across the industry. It supports multiple languages and is fully extensible via schema evolution for safe, non-breaking tailored modifications. The specification also includes validations, calculations and code taxonomies.

A Brief Overview of openIDS

The openIDS core model provides a unified framework that supports all lines of business within the P&C insurance industry. This open-source model serves as a foundational data structure that enables insurers, reinsurers, regulators, and other industry participants to exchange data seamlessly, reducing inefficiencies and improving interoperability. Unlike proprietary models that often focus on specific product lines or cater to a limited set of use cases, the openIDS core model is designed with flexibility in mind, ensuring it can accommodate personal, commercial, specialty, and emerging insurance products.

Moreover, the core model is built to facilitate comprehensive data exchange across the entire insurance ecosystem, including vendors, data aggregators, risk management firms, statistical reporting entities, and actuarial analysis providers. By standardizing how data is structured and shared, openIDS minimizes the friction associated with proprietary formats, enabling faster, more accurate data exchanges.

Importance of an Extensible Standard

A critical aspect of the openIDS core model is its extensibility, which allows for industry-wide adoption while also enabling customization for specific needs. Insurance markets are constantly evolving, with new risks, regulatory requirements, and product innovations emerging regularly. A rigid data model that cannot adapt to these changes would quickly become obsolete. openIDS addresses this by providing a core structure that is stable and standardized while allowing organizations to introduce extensions that cater to unique business requirements.

By combining a robust core model with an adaptable extension mechanism, openIDS not only addresses today's data exchange challenges but also positions the insurance industry for future innovation. Whether integrating with advanced analytics,

AI-driven underwriting models, or blockchain-based contracts, an open, extensible data standard ensures that P&C insurance remains agile and capable of meeting the demands of an increasingly digital world.

Learning More and Getting Involved

The openIDS community is focused on the open source standards necessary to support and scale this industry transformation. Participation in the community is open to all and contributions to the work are encouraged.

openIDS work is centered on the openIDS Working Group (openIDS WG) meetings and continues through the development and release of this Whitepaper. Individuals and organizations interested in participating can engage with the following:

openIDS WG Call

The working group meets every two weeks on Thursdays from 10-10:45amCT / 11-11:45amET via Zoom.

The calendar for this meeting can be found at <LINK>

openIDS Call Recordings/Transcripts

These calls have agendas and recordings/transcripts available to all.

This call, [meeting agendas and recordings](https://lf-openidl.atlassian.net/wiki/spaces/HOME/pages/86376451/openIDL+-+Open+Insurance+Data+Standards+Working+Group) can be found at <https://lf-openidl.atlassian.net/wiki/spaces/HOME/pages/86376451/openIDL+-+Open+Insurance+Data+Standards+Working+Group>

openIDS Whitepaper

This [whitepaper is the work](#) product and collective effort of the openIDS community. The goal is to define the opportunity space, approach and challenges in the development of standards for the entire insurance ecosystem. The whitepaper is currently hosted at: <https://lf-openidl.atlassian.net/wiki/spaces/HOME/pages/210075649/White+Paper+Working+Group>

openIDS Wiki

The [OpenIDL Wiki](#) is a collaborative environment and information repository where openIDS participants can find information, collaborate and share. Meeting agendas, links to recordings and documentation can be found on the wiki. You can find the wiki at:

<https://lf-openidl.atlassian.net/wiki/spaces/HOME/pages/86376451/openIDL+-+Open+Insurance+Data+Standards+Working+Group>

openIDS Website

The [openIDS website](https://openidl.org/openids/) is a hub for new and existing community members and participants to learn more about the mission and work of the organization, find out how to participate and bring the work of openIDS to their own organizations. You can find out more at: <https://openidl.org/openids/>

openIDS GitHub

openIDS WG uses a GitHub repository to maintain version control and approvals for these community standards. This GitHub repository can be found at:

Conclusion

The shift from proprietary data formats to open standards is more than just an improvement—it's a game-changer for the P&C insurance industry. By eliminating inefficiencies, reducing costs, and fostering seamless interoperability, open standards provide a smarter, more sustainable way to share data. This is the path to better collaboration, stronger innovation, and long-term industry resilience.

For too long, insurers, vendors, reinsurers, regulators and the entirety of the insurance industry ecosystem have been burdened by fragmented systems and expensive integrations. A free and open standard—owned by the industry, for the industry—ensures that data exchange is efficient, transparent, and future-proof.

The opportunity is here. The industry is ready. Now is the time to build a system that works for everyone.

Join the movement. Get involved. Help shape the future of insurance data exchange. This isn't just an idea—it's happening now. We invite you to be part of it.

Unlocking the Future of Insurance Data Exchange: The Case for Open Standards

Introduction

The property and casualty (P&C) insurance industry is at a critical juncture. For decades, insurers, reinsurers, brokers, and third-party vendors have relied on proprietary data formats that create inefficiencies, increase costs, and limit agility. In an era where data is the cornerstone of competitive advantage, these legacy constraints are no longer sustainable.

A shift toward open data standards presents a transformative opportunity. By adopting a universally accepted, non-proprietary framework for data exchange, the industry can enhance interoperability, streamline operations, and accelerate innovation. This white paper explores why the adoption of open standards is not just an option—but an imperative for the future of insurance.

The Problem: A Fragmented, Costly Ecosystem

Today's insurance data landscape is marked by a patchwork of proprietary systems. Each organization often maintains its own data format, leading to significant inefficiencies:

- **High Integration Costs** – Custom-built APIs and data mappings demand continuous investment in IT resources.
- **Operational Bottlenecks** – Manual data translation and reconciliation slow down underwriting, claims processing, and analytics.
- **Limited Data Interoperability** – Fragmented data structures hinder collaboration between insurers, reinsurers, and third-party service providers.
- **Innovation Barriers** – Incompatible formats make it difficult to adopt emerging technologies such as AI, machine learning, and blockchain.

These inefficiencies don't just increase costs—they stifle agility and limit the industry's ability to respond to evolving risks and customer demands.

The Solution: Open Data Standards

Open standards provide a structured, shared framework for exchanging data across the insurance ecosystem. Unlike proprietary formats, open standards are:

- **Vendor-Agnostic** – No single entity controls the standard, ensuring a level playing field for all participants.
- **Interoperable** – Seamless integration across systems, reducing the need for costly, custom-built connectors.
- **Scalable** – Designed to evolve alongside emerging technologies and industry requirements.
- **Cost-Efficient** – Lower maintenance and integration costs, freeing up resources for strategic initiatives.

By embracing an open standard, insurers can create a more efficient, transparent, and innovation-friendly data environment.

The Business Case for Open Standards

For Insurance business and technology leaders, the adoption of open data standards is a strategic decision that yields tangible benefits:

- **Enhanced Data Accessibility** – Standardized formats ensure that data can be easily shared and utilized across internal and external systems.

- **Faster Time-to-Market** – Reduced integration complexity accelerates the deployment of new products and services.
- **Regulatory Compliance** – A common standard simplifies reporting and adherence to evolving regulatory requirements.
- **Stronger Ecosystem Collaboration** – Insurers, reinsurers, brokers, and technology providers can work more effectively together, driving industry-wide efficiencies.

These advantages collectively position insurers to thrive in a rapidly evolving digital landscape.

Overcoming Adoption Challenges

Despite the clear benefits, transitioning to open standards requires industry-wide commitment. Key challenges include:

- **Legacy System Dependencies** – Many insurers operate on outdated platforms that may not support new standards.
- **Industry Coordination** – Broad adoption requires collaboration among insurers, regulators, and technology providers.
- **Change Management** – Organizations must align internal teams and stakeholders to drive adoption successfully.

However, these challenges are not insurmountable. Industry consortia, regulatory support, and phased implementation strategies can facilitate a smooth transition.

Conclusion

The shift from proprietary data formats to open standards is not just a technical upgrade—it's a fundamental transformation that will redefine how the P&C insurance industry operates. By eliminating inefficiencies, reducing costs, and enabling seamless interoperability, open standards provide a sustainable, future-ready approach to data exchange.

For too long, insurers, reinsurers, vendors, and regulators have been constrained by fragmented systems and costly integrations. Now, the industry has an opportunity to establish a data-sharing ecosystem that is open, secure, and built to last.

The time for change is now. By embracing open standards, insurers can drive innovation, enhance efficiency, and create a more resilient industry.

Join us in shaping the future of insurance data exchange.

Removed Sections (for future use)

A key principle of the openIDS core model is its neutrality regarding technology implementation. Rather than enforcing a rigid data syntax such as XML or JSON, openIDS allows data exchange partners to determine the syntax best suited to their systems and workflows. This ensures that legacy systems, modern cloud-based platforms, and emerging technologies can all leverage the standard without requiring costly overhauls. By focusing on the underlying data relationships rather than prescribing a specific transport mechanism, openIDS ensures long-term adaptability and broad industry adoption.

Extensibility

A critical advantage of the open Insurance Data Standards framework is its ability to support seamless data interoperability and integration across the insurance ecosystem. By leveraging **extension points** off the core model, openIDS provides a flexible yet standardized approach to data exchange, ensuring that all parties can communicate using a common foundation while allowing for additional customization as needed.

Interoperability Through a Shared Core

The openIDS core model establishes a **universal data foundation** that serves as the common language for all participants—insurers, reinsurers, brokers, regulators, and service providers. By standardizing key data definitions and structures, openIDS ensures that all parties can **transmit, receive, and interpret** critical insurance data without requiring proprietary transformations.

However, while the core model defines essential insurance data elements (such as policy details, coverage terms, claims statuses, and risk factors), it is not rigid. Instead, openIDS is designed to accommodate **extension points** that allow industry participants to include additional data elements specific to their business needs without breaking interoperability.

Extension Points for Customization

The extension mechanism within openIDS enables organizations to **add data attributes, business-specific classifications, or regulatory-specific fields** while maintaining compatibility with the core model. This ensures that:

- **All parties communicate through the standardized core**, guaranteeing interoperability and reducing integration complexity.

- **Custom data elements can be appended** in a structured and predictable manner, ensuring that proprietary enhancements do not disrupt the integrity of shared data exchanges.
- **Organizations retain flexibility** to include industry-specific, regional, or business-driven data elements while still adhering to a common standard.

For example, an insurer operating in multiple regulatory jurisdictions can use the core model for **common policy and claims data** while leveraging extensions to include **jurisdiction-specific compliance fields**. Similarly, reinsurers may require additional **risk exposure metrics** that are not universally needed but can be incorporated through predefined extension structures.

Agreement on Extension Standards

To maximize adoption and usability, openIDS supports **collaboratively agreed-upon extensions** that can be standardized across subsets of industry participants. This allows insurers, brokers, and regulators to develop and adopt shared extensions without forcing proprietary modifications into the core model. These standardized extensions could cover:

- **Regulatory reporting requirements** for different markets.
- **Industry-specific risk factors** for specialized coverage lines (e.g., cyber insurance, climate risk).
- **Emerging data types** such as IoT-generated risk insights or AI-driven underwriting parameters.

By ensuring that extensions are **structured, documented, and governed within the openIDS framework**, organizations can seamlessly integrate and evolve their data models while maintaining alignment with industry-wide standards.

The extensibility framework of openIDS is designed to support both standardized extensions, which can be adopted industry-wide, and organization-specific extensions that meet proprietary needs. This ensures that as insurers develop new coverages or regulatory bodies introduce new reporting requirements, the data model can evolve without disrupting existing integrations. Additionally, by fostering a collaborative environment where industry participants contribute to the development and refinement of extensions, openIDS remains a living standard that grows in alignment with industry advancements.

Future-Proofing Data Integration

As the insurance industry evolves with **emerging technologies, new risks, and regulatory changes**, the ability to extend standardized data structures without disrupting interoperability is crucial. The openIDS extension framework provides a **future-proof foundation** by:

- Allowing **incremental adoption** of new data models without requiring full-scale rework.
- Supporting **both legacy and modern systems** by enabling phased transitions to newer integration standards.
- Facilitating **multi-party collaboration**, ensuring that insurers, reinsurers, and regulators can align on evolving data requirements efficiently.

By leveraging a **shared core with agreed-upon extension points**, openIDS strikes the balance between **standardization and flexibility**, enabling seamless data interoperability while allowing organizations to customize data structures to fit their needs. This approach fosters greater collaboration, reduces integration costs, and ensures that the insurance ecosystem remains adaptable to future innovations

An Evolving Standard

The lack of standardization in insurance data formats is not a new problem. Many previous attempts have been made to introduce a comprehensive data standard, but they have often failed for various reasons. Some standards were proprietary, closed-source solutions that required membership or fees to use. Others tried to address every possible scenario, making the model overly complex and difficult to maintain as the industry evolved.

openIDS is different by design. It is a free and open standard and available for review, use and modification under an open source ~~Apache2~~ license, so it is never controlled by a single, commercial entity or acquired by a malicious vendor. Open standards provide a blueprint for business and engineering stakeholders to implement projects in different ways across different codebases and platforms. All participants are welcome to participate and contribute to the process and standard development. Participants work together to collectively discuss, debate, define and finalize and promote these standards. As standards are put into use, the openIDS community will work together to update and maintain this critical infrastructure for the insurance ecosystem.

openIDS focuses on the common elements among different lines of insurance, ensuring that those shared elements can be exchanged according to the standard. Extensibility is critical to the standard and one of the goals of the standard development process is to include extensions to the core that can be adopted as part of the standard as the industry, technology and regulatory environments evolve.

openIDS will leverage the [Community Specification development process](#) created by the Joint Development Foundation (JDF) at the LF. This is a lightweight, efficient process for a community to develop, reach consensus on and deploy standards to the wider insurance ecosystem. The overall process includes defining:

- The Scope of the standards
- The License and how it is configured
- The Governance of the WG and the process to make edits, changes and updates
- How Contributors and Contributions will work together

The Community Specification development process will begin with the creation of a standards organizing committee within the openIDS Working Group to lead and manage the standards development process.

This Whitepaper is not the standard, but a starting point for organizing the community, generating input/issues/insights, and reaching consensus on the goals, objectives, opportunities and challenges facing the openIDS WG. As this community and the standards it develops scale, the openIDS may work directly with the JDF on a larger effort. For now, this is exactly the right size, complexity and level of effort to get things done.

Looking Forward (Future Prospects)

The prospect of a new standard opens new avenues for industry interactions. It also makes it possible to improve the efficiency of existing interactions. Here is a list of some of the opportunities made available through the openIDS.

- **Regulatory Reporting** - The standard will make it possible for multiple regulatory reporters to serve companies without the companies having to transform their statistical data into multiple formats.
- **Foster Innovation** - Allow new vendors to compete in the insurance space and make it more competitive and reduce costs. call back to 2.6
- **Data Calls** - Having the data available in a standard format makes it possible to implement common queries to access data without a need to transfer fine grained data that may contain PII or company IP.
- **Rating as a Service** - Services can be made available for use by PAS vendors and carriers to calculate premiums without costly implementations. The openIDS serves as the format for transmitting policy and claims data to the rating service.
- **Other Policy and Claims Services** - any service provider that needs policy and/or claims data can use the openIDS as the transmission format.

- ***Aggregated Data Dashboards*** - As data becomes cheaper to share and more companies share data with trusted intermediaries, those intermediaries can provide analytics platforms on the aggregated data. These can be made available to Regulators, Insurance Companies and others in the industry.
- ***Loss Cost Development*** - Advisory organizations will have access to more data and will be able to develop more accurate loss costs.

Here is a cleaned up version that we ran through ai for consistency, syntax, voice and grammar:

The Case for Open Insurance Data Standards

Emphasizing business impact and strategic opportunity to target audience:

The Case for Open Insurance Data Standards

Why the Property & Casualty Insurance Industry Must Embrace Free and Open Standards for Data Exchange

Abstract

Imagine a future where data-sharing with third-party partners is seamless—where no costly integrations, proprietary barriers, or time-consuming format negotiations stand in the way. Instead, your data is already structured in an open, universally accepted format, ready to be securely accessed or shared at the flip of a switch. This future isn't just possible—it's necessary.

The Property & Casualty (P&C) insurance industry is at a critical inflection point. As digital transformation accelerates, insurers face mounting pressure to enhance efficiency, meet evolving regulatory demands, and unlock new market opportunities. However, reliance on proprietary data formats is holding the industry back, creating silos, increasing costs, and limiting innovation.

Free and open insurance data standards present a game-changing solution. Owned and governed by The Linux Foundation, these standards eliminate vendor lock-in, improve interoperability, and future-proof your data strategy. By adopting Open Insurance Data Standards (openIDS), insurers can drive cost savings, streamline compliance, and accelerate innovation—while maintaining full control over their data.

This paper explores the strategic advantages of open data standards, offering a roadmap for industry leaders to participate in shaping the future of insurance data exchange. The time for change is now—learn how you can be part of the movement.

INTRODUCTION

Unlocking the Future of Data Exchange in P&C Insurance

In today's Property & Casualty (P&C) insurance industry, seamless and secure data exchange is critical. Carriers, reinsurers, brokers, regulators, and third-party data providers depend on reliable, real-time access to information to optimize operations, enhance risk management, and ensure regulatory compliance. Yet, despite the industry's increasing reliance on data-driven decision-making, no universally trusted, efficient, and scalable mechanism for data exchange has emerged.

To stay competitive, insurers must modernize how they share and manage data. The industry's dependence on proprietary data formats has created unnecessary complexity—resulting in siloed information, high integration costs, limited scalability, and a loss of control over critical data assets. These challenges hinder innovation and prevent insurers from capitalizing on emerging technologies that can drive efficiency, improve underwriting accuracy, and streamline claims processing.

Open data standards offer a powerful alternative. By enabling interoperability across systems, reducing costs, and eliminating vendor lock-in, open standards provide a future-proof foundation for data exchange. Unlike proprietary models, they are universally accessible, flexible, and free from licensing restrictions—empowering insurers to take full ownership of their data while fostering industry-wide collaboration.

This paper explores how open data standards can transform the P&C insurance industry, addressing the inefficiencies of legacy exchange mechanisms while unlocking new opportunities for innovation, cost savings, and long-term growth. The time for change is now.

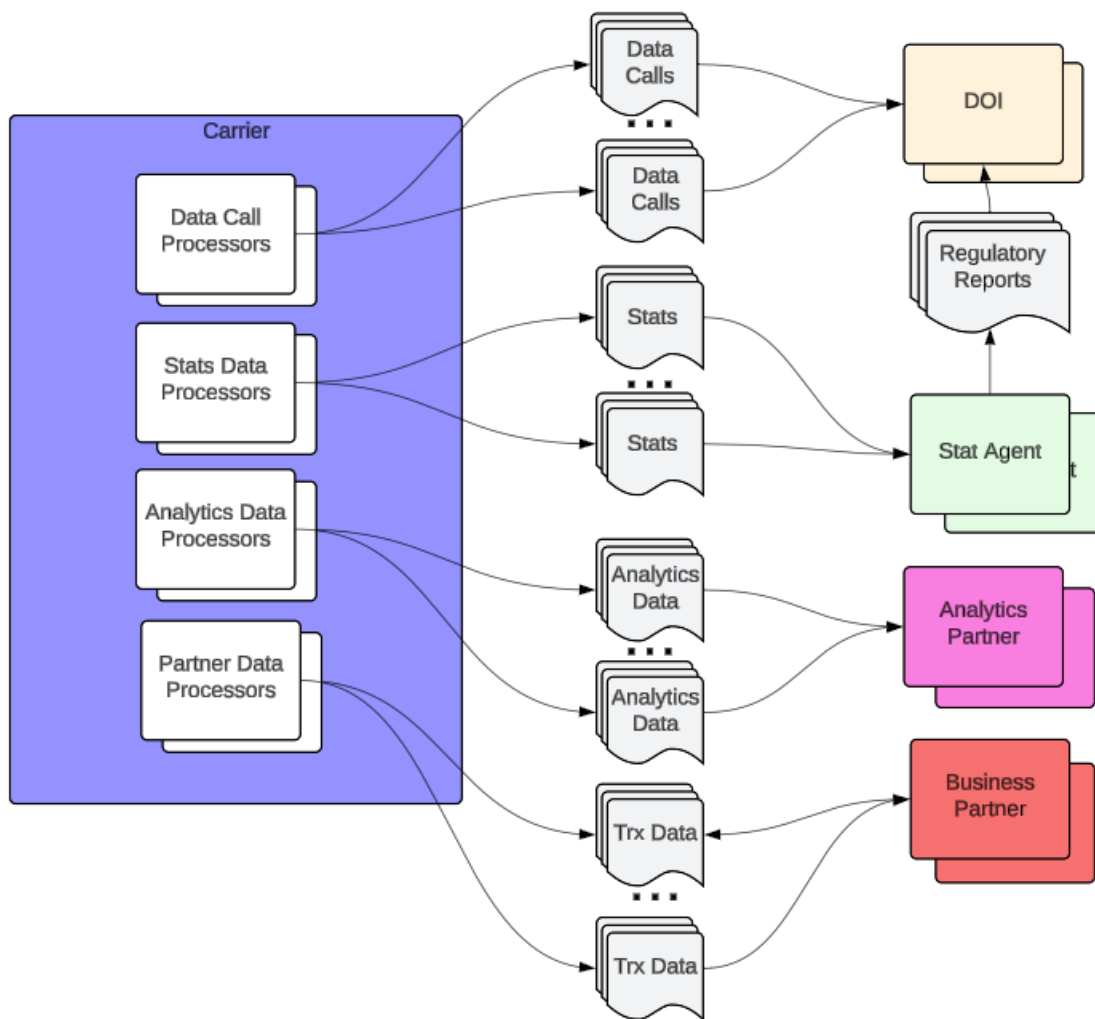
The Hidden Costs of Proprietary Data Formats

Every time an insurer needs to share data, they must first establish a format. This format consists of both **syntax** (the technical structure—JSON, Excel, CSV, Flat File—as well as data types, entity names, and field names) and **semantics** (the meaning behind the data, including definitions for codes, specific coverage names, and other business rules). Getting both elements right requires significant effort.

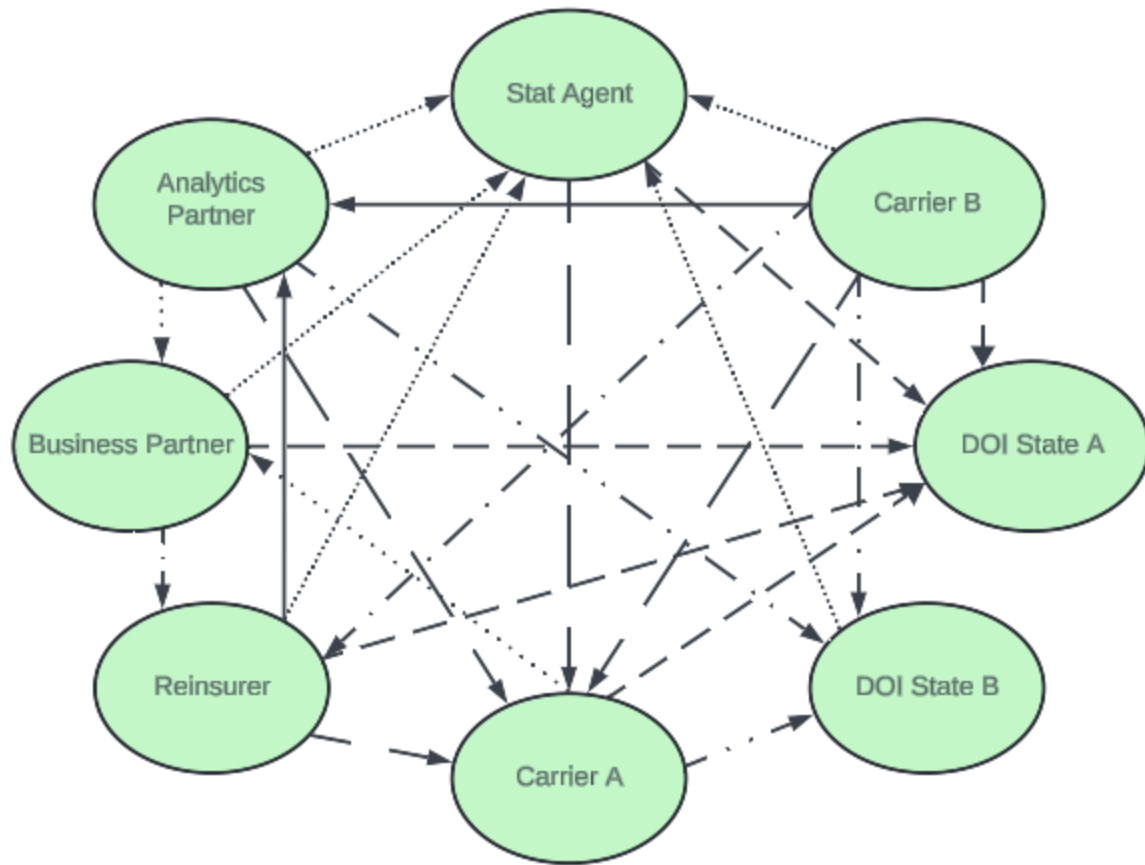
Now, imagine repeating this process every time a new connection is made. Each proprietary format forces organizations to redefine syntax and semantics for every unique data exchange. Consider the following scenarios:

- A company submits statistical data to Statistical Agent A.
- The same company submits statistical data to Statistical Agent B—but in a different format.
- The company reports loss data to Reinsurer A.
- The company reports loss data to Reinsurer B—again, in another format.
- The company responds to a data call for DOI A, then for DOI B, each requiring a different structure.

As insurers engage with more regulators, reinsurers, and third-party partners, the number of formats **grows exponentially**, creating a fragmented and inefficient ecosystem. Each new format adds **time, cost, and complexity**, draining IT resources and slowing down data-driven decision-making.



This diagram shows how the carrier's world is simplified with a standard, such as openIDS. The carrier only needs to produce one format. They implement processes to convert any of their internal systems to the standard format once and it can be used for Data Calls, Regulatory Reports, Analytics and sharing with Business Partners.



This diagram illustrates the explosion of the number of different formats required for communications among organizations and firms in the P&C insurance industry.

The Power of Standardization

The solution is clear: a single, open data standard.

Instead of developing and maintaining **dozens of proprietary formats**, insurers could adopt **one universal format** for all their reporting and data-sharing needs. By implementing **an open standard**, organizations can streamline:

- **Regulatory reporting** (DOIs, statistical agents, and compliance bodies)
- **Data calls** (ad hoc and recurring requests)
- **Reinsurance and loss reporting**
- **Advanced analytics** for underwriting, claims, and market insights
- **Data-sharing with business partners and third-party vendors**

This approach **eliminates redundant work**, improves interoperability, and significantly reduces IT overhead.

The following diagrams illustrate the difference:

- **Without standardization:** A chaotic web of different formats, each requiring unique transformations.
- **With an open standard:** A streamlined, efficient system where data is converted once and used universally.

By embracing open standards, insurers can **take control of their data, reduce operational costs, and accelerate innovation**. The time to modernize is now.

The Costly Burden of Proprietary Data Formats

As previously illustrated, the P&C insurance industry relies on a patchwork of proprietary data formats, creating inefficiencies, increasing costs, and reducing overall visibility. This fragmented approach to data exchange is not just an inconvenience—it is an **enormous financial burden**. Industry estimates suggest that **tens of billions of dollars** are spent annually on managing and supporting proprietary data exchange.

Beyond cost, widespread reliance on a **single commercial standard from a dominant vendor** poses additional risks. A proprietary vendor can **drive up prices, restrict data accessibility, and limit industry innovation**. With few alternatives, insurers are left vulnerable to increasing costs and decreased control over their own data.

The Open Standard Advantage

In contrast, a **widely adopted, flexible, royalty-free open data standard** fosters competition, spurs innovation, and provides insurers with greater freedom. By eliminating proprietary restrictions, insurers can:

- **Reduce operational costs** by eliminating expensive licensing fees and complex integration efforts.
- **Drive innovation** by enabling seamless collaboration between industry players, including insurtech startups and data service providers.

- **Retain control** by ensuring interoperability across internal and external systems, allowing organizations to develop in-house solutions without vendor constraints.

Over the long term, open standards **enhance efficiency, lower costs, and future-proof data exchange**—positioning the industry for sustainable growth.

The Challenges of Proprietary Data Formats

While proprietary data formats have been the industry norm for years, they introduce significant limitations:

1. Lack of Interoperability

Proprietary formats **prevent seamless communication** across the P&C insurance value chain. Carriers, reinsurers, brokers, and regulators often operate with systems tailored to their own needs—but these systems are rarely compatible. The result?

- **Costly and complex data mappings** are required for every integration.
- **Increased risk of errors** due to inconsistent formats and manual translations.
- **Barriers to collaboration**, especially for newer and smaller market entrants who may use different technologies.

2. Excessive Costs

Maintaining proprietary data exchange systems comes with **significant financial strain**:

- Insurers must invest in **custom software, integration services, and translation tools** to exchange data.
- **Ongoing licensing fees and vendor support costs** add to the financial burden.
- Any **format updates require expensive vendor negotiations** and system overhauls.

3. Vendor Lock-In

When insurers rely on proprietary formats, they become **dependent on a single vendor** for updates, support, and system enhancements. This dependency:

- **Limits flexibility**, making it costly and time-consuming to switch providers.
- **Restricts innovation**, as emerging technologies may be incompatible with legacy systems.

- **Reduces bargaining power**, allowing vendors to dictate pricing and functionality.

4. Data Fragmentation

Without a standard format, insurers are left with **data silos**—where each organization maintains **isolated, non-standardized** datasets. This leads to:

- **Inefficiencies in risk analysis, pricing, and performance evaluation** across the value chain.
- **Limited ability to leverage analytics and AI-driven insights** due to inconsistent data structures.
- **Slower business decision-making**, as reconciling fragmented data requires extensive effort.

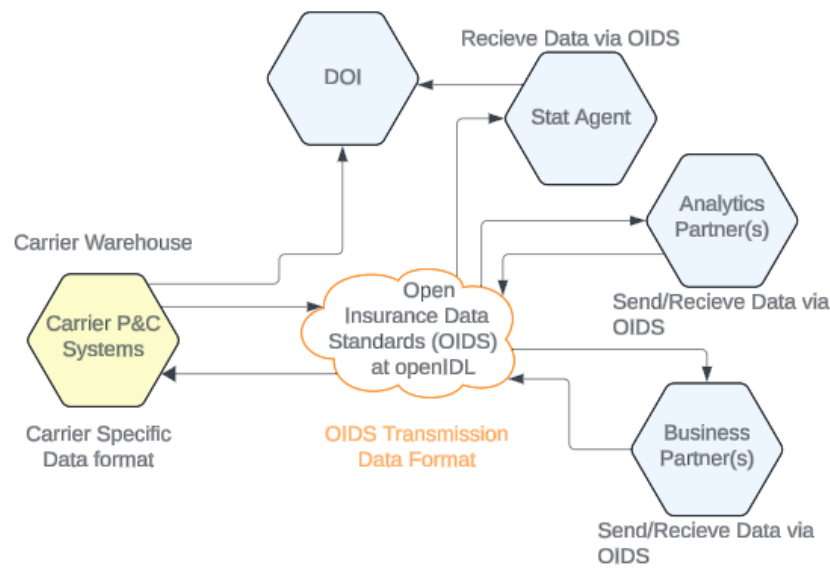
A Better Path Forward

The shift to **open data standards** is not just a technological upgrade—it's a **strategic imperative**. By eliminating proprietary barriers, insurers can:

- **Improve operational efficiency.**
- **Reduce costs associated with data exchange.**
- **Enhance agility and innovation.**
- **Gain full control over their data assets.**

The time to act is now. **Embracing open standards will enable insurers to compete more effectively, adapt to industry shifts, and unlock new opportunities for growth.**

Benefits of Open Standards for Data Exchange



Open standards provide a clear path forward for the Property & Casualty (P&C) insurance industry, addressing key challenges of proprietary data formats. The adoption of open standards unlocks significant benefits, including cost reduction, improved interoperability, enhanced regulatory compliance, and scalability. Here's how:

1. Reduced Costs Through Royalty-Free Licensing

One of the most immediate advantages of open standards is the elimination of licensing fees and intellectual property royalties. Insurers, reinsurers, and regulators are no longer burdened by costly proprietary licenses or vendor lock-in. Open standards allow organizations to redirect resources towards innovation, digital transformation, and essential business operations rather than maintaining expensive, closed ecosystems.

2. Enhanced Interoperability and Streamlined Integration

Open standards foster interoperability across diverse systems, platforms, and technologies—a critical need in the P&C insurance industry, where multiple stakeholders must exchange data efficiently. With standardized formats, integrating systems becomes simpler and faster, enabling collaboration with partners, adopting new technologies, and entering new markets. This flexibility supports agile responses to market shifts, evolving customer needs, and regulatory changes.

3. Greater Transparency and Data Integrity

Open standards promote transparency by providing a unified structure for data exchange. As these standards are publicly available, stakeholders can verify that data is

communicated consistently and accurately, fostering trust. Additionally, using standardized formats reduces the risk of errors due to misinterpretation or translation issues, ensuring better data integrity across the industry.

4. Easier Regulatory Compliance

Regulatory requirements are increasingly focused on standardized data submissions. Open standards simplify compliance by offering a consistent and reliable method for submitting data for regulatory reporting. This reduces administrative burdens, minimizes compliance errors, and enables regulators to more effectively analyze industry data. With better data availability, regulators can act on insights faster, benefiting the entire industry.

5. Better Legislation through Improved Data

Open standards lead to better, more accurate, and timely data reporting. Regulators can request more frequent data submissions, allowing for a deeper understanding of the market. This results in more informed legislative actions that are based on real-time data, ultimately benefiting insurers, regulators, and policyholders alike.

6. Scalability and Future-Proofing

Open standards are scalable, meaning they can grow with the industry's evolving needs. Managed by the openIDS community and continuously updated, open standards can adapt to technological advancements, regulatory shifts, and market changes. This ensures that your systems remain compatible with future trends, avoiding the risk of obsolescence that often comes with proprietary formats.

7. Accelerating Innovation and Collaboration

The adoption of open standards creates a more collaborative environment across the P&C insurance ecosystem. Insurers, reinsurers, and regulators can exchange ideas, tools, and technologies more easily. Open standards remove the barriers to innovation by allowing stakeholders to experiment with advanced technologies—such as machine learning, AI, and blockchain—without the constraints of proprietary systems.

8. Mitigating Data Silos and Fragmentation

Open standards help eliminate data silos by providing a unified format for information exchange across the insurance value chain. A consistent data structure enables insurers, reinsurers, and regulators to share insights and make more informed decisions, improving overall industry efficiency. Standardization also makes cross-sector collaboration easier, unlocking opportunities for innovation with industries like healthcare and transportation.

9. Managed by the Linux Foundation to Remain Free and Open

Open Insurance Data Standards (openIDS) is managed by the Linux Foundation, ensuring that it remains free from the influence of proprietary interests. This neutral governance structure prevents malicious modifications or restrictive licensing practices, preserving the openness and accessibility that openIDS promises.

10. openIDS: A Comprehensive, Extensible Standard

openIDS provides a unified framework for the P&C insurance industry, enabling seamless data exchange across all lines of business. The core model is flexible enough to support personalization and extensions without disrupting interoperability, allowing insurers, reinsurers, regulators, and service providers to adapt it to their specific needs. It ensures long-term compatibility with existing systems, including legacy technologies, while enabling innovation.

Core Model and Extensibility

The openIDS core model establishes a standardized data structure, minimizing inefficiencies associated with proprietary formats. It accommodates various insurance products and offers flexibility for future modifications. The extensibility feature allows for the addition of unique business or regulatory elements without affecting the broader industry's data exchanges.

Supporting a Future-Proof Framework

openIDS ensures scalability by allowing incremental updates and supporting both legacy and modern systems. Its open-source approach fosters collaboration, ensuring that as new risks or technologies emerge, the standard remains adaptable without requiring significant system overhauls.

An Evolving Standard

Unlike past attempts to standardize insurance data, openIDS is designed to be an open-source, community-driven initiative. It allows industry stakeholders to collaborate on the development of standards, ensuring that the model evolves in line with the latest industry developments. Open standards provide a flexible blueprint that can be implemented across different systems, fostering innovation and allowing diverse stakeholders to contribute.

Getting Involved

openIDS offers various avenues for participation, from working group calls to collaborative forums. Stakeholders are encouraged to engage, contribute, and shape the future of insurance data exchange.

- openIDS WG Call: Bi-weekly meetings for community collaboration.

- **openIDS GitHub:** Access to version-controlled standards development.
- **openIDS Wiki and Website:** Collaborative spaces for sharing insights and information.

Looking Ahead: Opportunities for Industry Transformation

The adoption of openIDS presents numerous opportunities for transformation:

- **Regulatory Reporting:** Simplifies the process by offering a single data format for reporting across multiple jurisdictions.
- **Fostering Innovation:** Lowers barriers to entry for new vendors, driving competition and reducing costs.
- **Rating as a Service:** Enables third-party services to calculate premiums without costly integrations.
- **Aggregated Data Dashboards:** Facilitates real-time analytics and insights, helping insurers, regulators, and service providers make better decisions.
- **Loss Cost Development:** Provides more accurate data for advisory organizations, improving loss cost predictions.

Conclusion

The transition from proprietary data formats to open standards is a game-changer for the P&C insurance industry. By eliminating inefficiencies, reducing costs, and fostering seamless interoperability, open standards offer a smarter, more sustainable way forward. This shift enables stronger collaboration, greater innovation, and long-term resilience for the industry.

For the insurance ecosystem—insurers, reinsurers, vendors, and regulators—open standards offer a future-proof path forward. Now is the time to adopt them and help shape the future of data exchange in the industry.

Join the movement. Contribute to the future of insurance data exchange. It's happening now—be part of it.