



WORLDWIDE FIXED INCOME

www.exchange-data.com

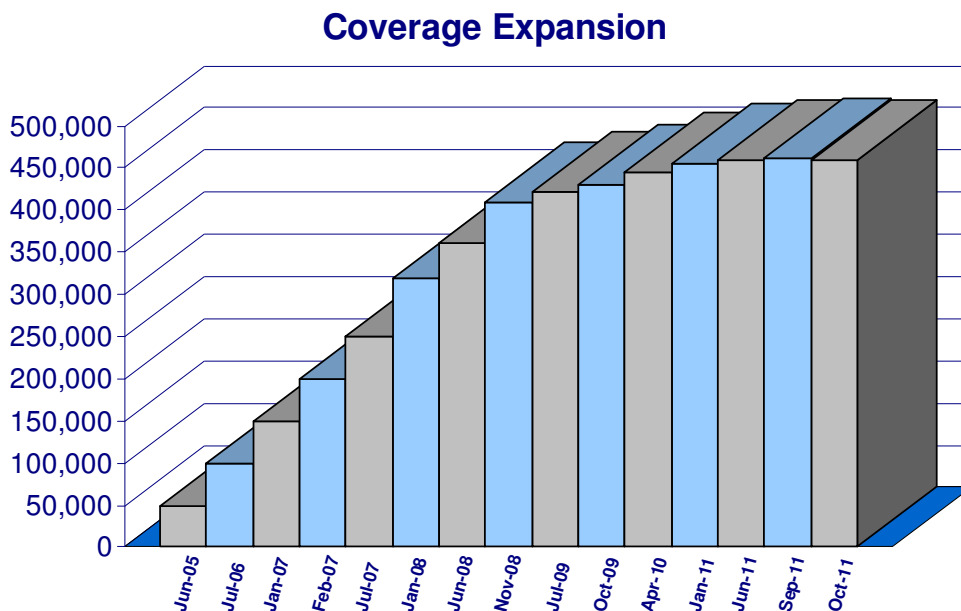
Contents

<i>Background</i>	3
<i>Introduction to WFI</i>	4
<i>Event Coverage</i>	8
Static Data Events	8
Distribution Events	10
Securities Exchange Events	10
<i>Country Coverage</i>	11
Europe	11
Africa	12
Middle East	13
Asia	14
Central America & the Caribbean	15
South America	16
Oceania	17
North America	17
<i>Support</i>	18
<i>Contact Information</i>	19

Background

For the past six years *EDI* has been developing a Worldwide Fixed Income Service. After an initial period of background research, *EDI* worked closely with consultants on the concept of its Fixed Income Corporate Actions service. In 2004, *EDI* concentrated on defining Fixed Income Reference Data and Events Tables. A year later, *EDI* was approached by a major credit rating agency to develop a customised Fixed Income service and match their specific requirements. Since 2007, *EDI* has been evaluating and cleansing client portfolios alongside incorporating relevant Quality Control and Integrity checks. The first portfolio evaluations revealed that *EDI*'s service covered 77% of their holdings. However, after research *EDI* has raised this figure to over 90%.

During this period, *EDI* has developed its global fixed income coverage and signed agreements with major stock exchanges and other sources of fixed income data. *EDI* constantly researches both new countries and new sources to enhance its geographic coverage and increase the volume of securities in the database.



Introduction to WFI

The **Worldwide Fixed Income (WFI)** service tracks corporate action events from 154 countries and 15 supranationals. As well as covering the developed markets, *EDI* specialises on emerging market countries and focuses on Latin America, Asia, Africa and the Middle East. In addition to providing details of interest payments for both fixed and floating rate issues, the service covers 90 event types designed to create a complete overview of changes.

Additionally *EDI* also provides static data outlining key terms and conditions for all securities, an invaluable reference source. This data is sourced globally from stock exchanges, central banks, ministries of finance, lead managers, paying, calculation and transfer agents. *EDI* has made a special point of obtaining pricing supplements, term sheets and prospectuses for as many securities as possible subject to availability. This coverage now extends to approximately 30.04% of the Fixed Income database.

The product has also been developed with a high degree of functionality that enables *EDI* to keep pace with the ongoing changes in the Fixed Income marketplace. All latest instrument developments can be smoothly integrated into the framework and there is a comprehensive specification to cater for all markets.

In addition there are a number of significant fields that have been incorporated into the product that do not regularly feature in feeds currently available. These include the Business Day Convention, Selling Restrictions and Tax Rules.

This level of coverage and data quality combine to provide investment firms with the necessary tools to reduce risk and maximise potential from the Fixed Income arena. We cover corporate and government bonds and non-US munis. We intend to cover Mortgage Backed Securities, Asset Backed Securities and US munis in the next year to two years.

Worldwide Fixed Income is available both as a web application and as a data feed (via FTP) both using a similar structure. This service has been developed to provide a high level of flexibility.

The feed is currently comprised of a number of table elements which can either be taken separately or combined to fulfill each client's specific need.

These broadly fall into three main categories – Reference/Terms and Condition data, Event Tables and Change Tables, a number of which are indicated below:

Reference/Terms and Conditions Data

❖ SCMST – Security Master; ISSUR - Issuer

These tables present the fundamental static data enabling the identification of a security:

- Issuer (Name, Country of incorporation)
- Exchange where the security is listed (Exchange Code, Listing Status, Minimum Trading quantity...)
- SEDOL™ (Country of Registration, Defunct status, country of Exchange)
- Security (ISIN, description, Par value, currency...)

❖ BOND - Bond

This table provides extensive reference and terms and condition information on a Security:

- | | |
|-------------------------------|------------------------------------|
| - Issue Date | - Interest Payment Frequency |
| - Type of debt instrument | - 1 st Coupon date |
| - Currency | - Minimum & Maximum Interest Rate |
| - Nominal Value | - Maturity Date |
| - Issue Price | - Domestic & Non-Resident Tax Rate |
| - Interest Accrual Convention | |

❖ CPOPT – Call/Put Option

This table provides details on Call & Put Options including:

- From/To date when the option can be exercised
- Minimum & Maximum days of notice
- Option Type (American, European...)

❖ REDMT – Redemption Terms

This comprises information on the type of redemption (Partial, Full, Amortisation) along with relevant dates, the amount redeemed and the percentage of the issue amount.

❖ CONVT – Conversion Terms

A table including details of relevant conversion terms and conditions data – From/To Dates, Conversion Price, Ratio and Resultant Security.

Event Tables

❖ REDEM - Redemption

This table covers events of redemption with detailed information relating to Redemption Price, Amount Redeemed etc...

❖ INTPY – Interest Payment

This table indicates Interest payments and contains a number of fields relating to cash flow including:

- Interest Rate
- From/To Interest Dates and Day counts
- Gross/Net Interest

❖ CONV - Conversion

This comprises an overview of any conversions which have taken place, indicating new ratios and price.

Change Tables

- ❖ FRNFX – FRN Fixings; IRCHG – Interest Rate Change; ISCHG – Issuer Name Change

There are numerous tables designed to provide information relating to changes to the terms and conditions data both at the issuer and security level. These include Issuer Name Change, amendments to the Interest Basis and Schedule along with changes to the underlying information for Floating Rate Notes.

A more detailed overview can be found in the specification.

Clients subscribing to proprietary feeds will have the possibility to take an alert service via an additional file whilst Web users will have the functionality of an email notification alerting them when one of their securities arrives at maturity or when the payment of their interest should take place.

Event Coverage

The overview of the feed gives a fair idea of WFI's high level of coverage and its easy adaptability to your specific needs. To demonstrate how detailed the information is, we have listed the events covered by WFI as well as the major fields included. Events affecting debt securities have been divided into 3 main categories:

- Static Data
- Distribution
- Securities Exchange

Static Data Events

- **NEW ISSUE: Description of basic terms and conditions of a newly issued bond.**

Issuer; Bond Type; Debt Market; Tier; **Coding** (ISIN, CUSIP...); Par Value; **Issue details** (Date, Currency, Price, Amount...); **Interest terms** (Rate, Cumulative, Accrual Convention, Frequency, First Coupon Date, Pay Dates, Payment in Kind Indicator...); **Tax details** (Rates, Rules, Governing Law...); **Regulation S/ Rule 144a**; **Coupon type** (Fixed, Floating, Step Up...); **FRN** (Index Benchmark, Interest Adjustment Frequency, Margins, Rounding...); **Maturity Terms** (Structure, Price, Date, Business Day Convention, Benchmark...); **Denomination** (Minimum, Tradable, Multiple...); **Tranche** (Number, Date, Amount...); **Conversion terms** (Dates, Resultant Security, Price, FX Rate, Ratio...); **Agency** (Name, Relationship, Address, Depository Bank...); **Paying Agent**; **Lead Manager**; **Redemption terms** (Date; Type; Price; Premium Amount; Redemption Percentage...), **Sinking Fund** (Date; Currency; Amount; Amount as Percentage); **Covered Pool indicator** (Public, Mortgage, Ship, Aircraft...); **Call/Put Option terms** (Type; Notice From/To; Minimum/Maximum Notice Days; Price; Call-Put Price, Formula Based Price, Schedule dates, characterisation*...); **Collateralized flag**; **Business Day Convention Centre (BDC)** (BDC Applied To; Centre); **Selling Restriction** (Country Code; Restriction); **Security Agency** (Agency Name; Relationship; Guarantee Type; Surety Period)

* European, Bermudian, American...

- **INTERNATIONAL CODE CHANGE**

Effective Date; Previous/Current ISIN; Previous/Current CUSIP; Previous/Current Common Code; Event Type

- **BOND STATIC CHANGE**

Effective Date; Previous/Current Bond Type; Previous/Current Currency; Previous/Current Perpetual; Previous/Current Interest Basis; Previous/Current Interest Currency; Previous/Current Maturity Currency; Previous/Current Interest; Previous/Current Maturity Business Day Convention; Event Type

- **SEDOL™ Change**

Effective Date; Previous/Current Country Code; Previous/Current Register Country; Previous/Current SEDOL™ Code

- **LOCAL CODE CHANGE**
Exchange Code; Effective Date; Previous/Current Local Code; Event Type
- **INCORPORATION CHANGE: Change in the country of incorporation of the issuer.**
Incorporation Change Date; Previous/Current Country Code; Event Type
- **ISSUER NAME CHANGE**
Name Change Date; Previous/Current Name; Event Type
- **SECURITY AGENCY CHANGE: Changes in a Security's agency and/or its relationship.**
Effective Date; Previous/Current Relationship; Previous/Current Agency Code; Previous/Current Guarantee Type; Previous/Current Surety Period Start/End
- **AGENCY CHANGE**
Security Code; Country; Effective Date; Previous/Current Agency Code
- **AGENCY DETAILS CHANGE**
Effective Date; Previous/Current Name; Previous/Current Address; Previous/Current Contacts
- **REGISTERED OFFICE CHANGE**
Effective Date; Previous/Current Head Office Details
- **SELLING RESTRICTIONS CHANGE**
Country Code; Effective Date; Previous/Current Restrictions
- **MATURITY CHANGE**
Notification Date; Previous/Current Maturity Date; Previous/Current Maturity Benchmark; Reason; Event Type
- **REDEMPTION**
Effective Date; Redemption Type; Redemption Price; Redemption Price as Percentage; Redemption Amount; Redemption Percentage; Redemption Default; Post Default Payment; Event Type
- **REDEMPTION CHANGE**
Effective Date; Previous/Current Redemption Date; Previous/Current Redemption Type; Previous/Current Currency; Previous/Current Redemption Price; Previous/Current Redemption Premium; Previous/Current Redemption Price as Percentage; Previous/Current Redemption Amount; Previous/Current Redemption Percentage; Event Type
- **CONVERSION TERMS CHANGE**
Effective Date; Previous/Current From/To Dates; Previous/Current Resultant Ratio; Previous/Current Security Ratio; Previous/Current Currency; Previous/Current Conversion Price; Previous/Current Conversion Price as Percentage; Resultant Security Type; Previous/Current Resultant Security ID; Previous/Current FX Rate; Event Type

- **INTEREST RATE CHANGE**

Effective Date; Previous/Current Interest Rate; Event Type

- **INTEREST FREQUENCY CHANGE**

Effective Date; Previous/Current Interest Payment Frequency; Previous/Current Interest Pay Dates, Previous/Current Variable Interest Payment Date; Event Type

Distribution Events

- **CURRENCY REDENOMINATION**

Effective Date; Previous/Current Currency; Previous/Current Par Value; Event Type

- **REDENOMINATION: Changes in Bonds' denomination which is due to part redemption, amortisation or Euro conversion.**

Effective Date; Previous/Current Denominations; Previous/Current Minimum Denomination; Previous/Current Denomination Multiple

- **RECONVENTION**

Effective Date; Previous/Current Interest Accrual Convention; Previous/Current Convention Method; Event Type

- **INTEREST**

Record, Ex & Pay Dates; Interest From/To Dates; Days; Interest Default; post Default Payment; FRN Fixings

- **CALL**

Call Number; Currency Code; To Face Value; To Premium; Due Date

- **LISTING STATUS CHANGE**

Exchange Code; Notification/Effective Date; Status; Event Type.

- **BOND OUTSTANDING VALUE CHANGE**

Effective Date; Previous/Current Outstanding Value; Previous/Current Outstanding Date; Event Type

- **INTEREST PAYMENT**

Option; Interest Type; Interest Rate Percentage for the period; Annual Coupon Rate; Currency; Gross/Net Interest; Interest in Percentage; Domestic/Non-Resident Tax Rate; Agency Fees; Coupon Number; Coupon ID; Step Up coupon schedule; Bond Currency; Bond Par Value; Rescind Interest; Security Type; Resultant Security Code; Previous/Current Ratio; Fractions; Rescind Stock Interest; Default Option; Option Election Date

Securities Exchange Events

- **CONVERSION**

From/To Dates; Conversion Type; Resultant Security Type; Resultant Security; Currency; Price; Conversion Price as Percentage; FX Rate; Ratio; Fractions; Mandatory / Optional Part/Final

Note: SEDOL is a registered trademark of London Stock Exchange plc.

Country Coverage

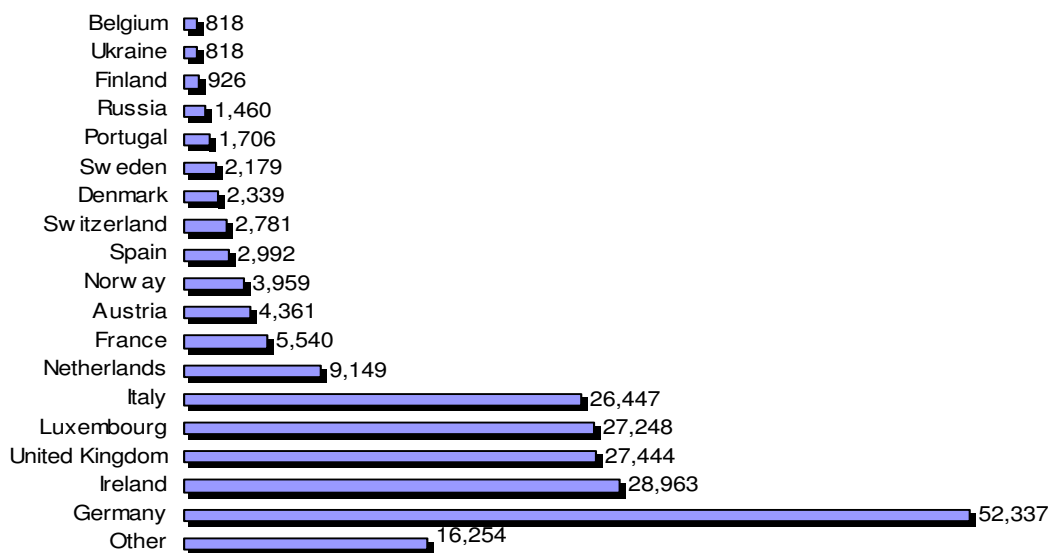
Included below is the volume of Fixed Income instruments per country as per October 2011.

Europe

Covered Countries

Albania	Armenia	Austria
Belarus	Belgium	Bosnia and Herzegovina
Bulgaria	Croatia	Cyprus
Czech Republic	Denmark	Estonia
Finland	France	Georgia
Germany	Gibraltar	Greece
Hungary	Iceland	Italy
Latvia	Lithuania	Luxembourg
Macedonia	Malta	Norway
Poland	Portugal	Romania
Russia	Slovakia	Slovenia
Spain	Sweden	Switzerland
Turkey	Ukraine	United Kingdom

Volume of Fixed Income Securities

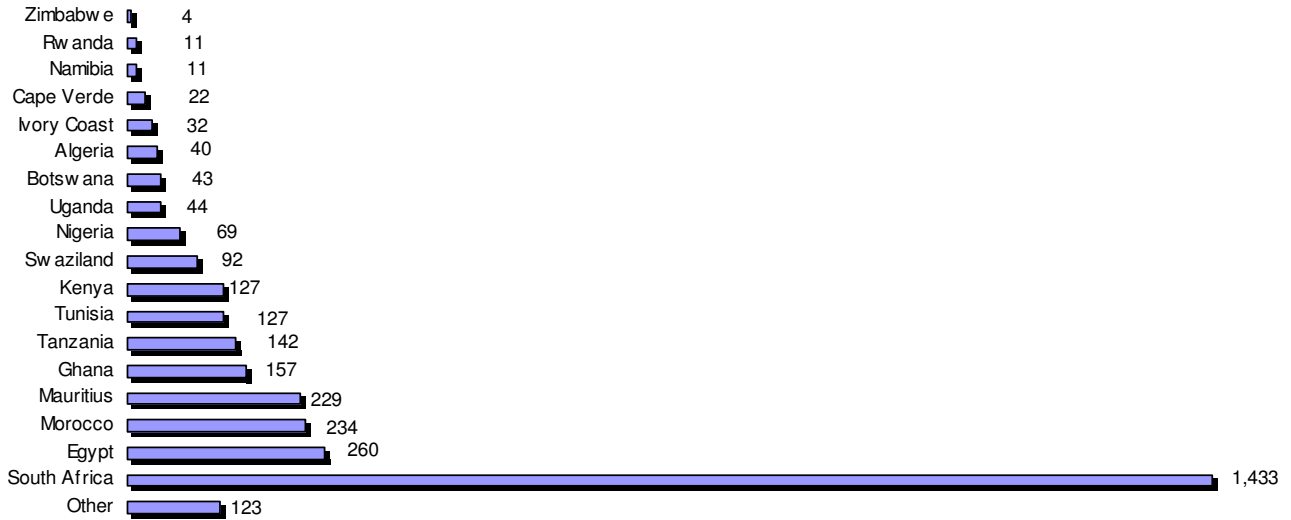


Africa

Covered Countries

Algeria	Botswana	Cape Verde	Egypt
Ghana	Ivory Coast	Kenya	Mauritius
Morocco	Namibia	Nigeria	Rwanda
South Africa	Swaziland	Tanzania	Tunisia
Uganda	Zimbabwe		

Volume of Fixed Income Securities



Middle East

Covered Countries

Bahrain	Iran	Israel	Jordan
Kuwait	Lebanon	Oman	Qatar
Saudi Arabia		United Arab Emirates	

Volume of Fixed Income Securities

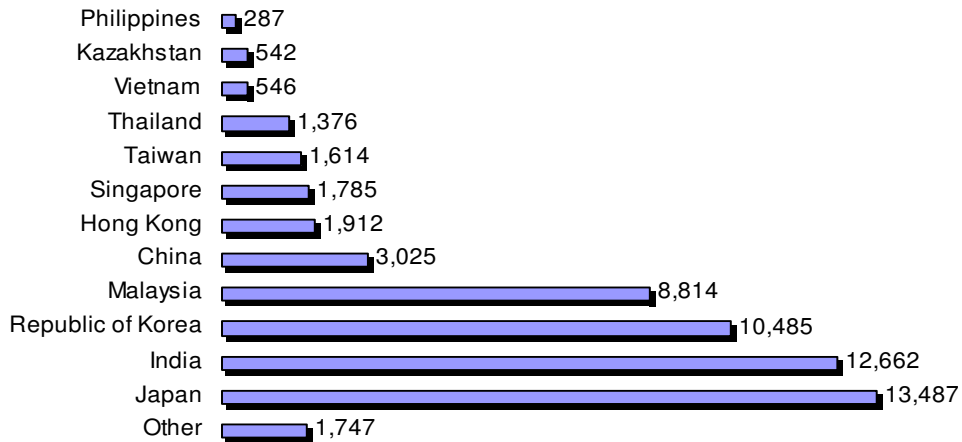


Asia

Covered Countries

Azerbaijan	Bangladesh	China
Hong Kong	India	Japan
Kazakhstan	Kyrgyzstan	Malaysia
Pakistan	Philippines	Republic of Korea
Singapore	Taiwan	Thailand
Uzbekistan	Vietnam	

Volume of Fixed Income Securities



Central America & the Caribbean

Covered Countries

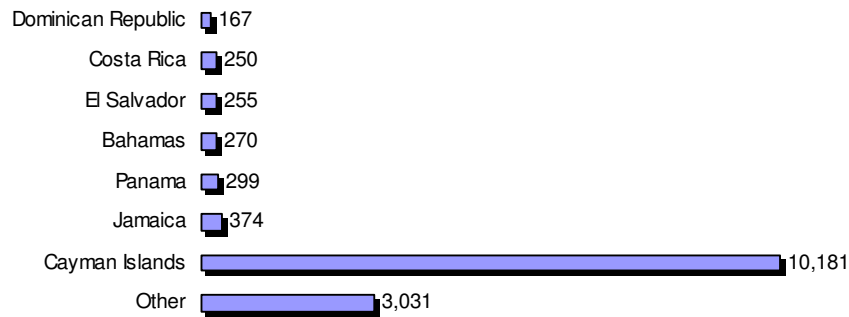
Bahamas
El Salvador

Cayman Islands
Jamaica

Costa Rica
Panama

Dominican Republic

Volume of Fixed Income Securities



South America

Covered Countries

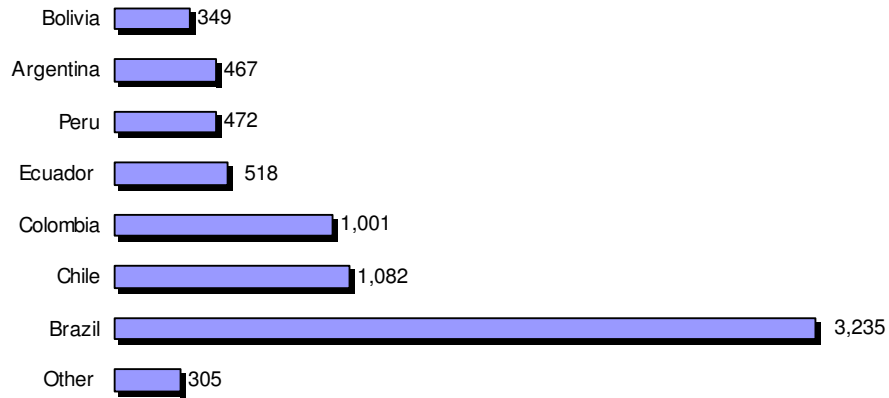
Argentina
Colombia
Venezuela

Bolivia
Ecuador

Brazil
Peru

Chile
Uruguay

Volume of Fixed Income Securities



Oceania

Volume of Fixed Income Securities

Country	N* of Securities
Australia	3,775
Fiji	645
New Zealand	278
Other	11

North America

Volume of Fixed Income Securities

Country	N* of Securities
United States Of America	63,764
Canada	41,871
Mexico	609

Support

1. Timeliness

Customer support hours:

Our regular hours are 0800-2230 UK time Monday to Friday, and 1400-2230 UK time on all UK bank holidays except Christmas and New Years Day.

How long does it take you to resolve customer queries?

We aim to acknowledge all queries within 2 hours of receipt, and answer the queries within 24 hours where possible. We will send a progress report if the query is not resolved within that timeframe.

What are the resolution rates for customers?

We resolve around 95 percent of customer queries within 24 hours. We will continue contacting data providers and the issuer until we have a satisfactory answer.

Do you provide support for both content and technical issues?

Yes we do. All queries are sent via the support department, which filters them to the appropriate team. An IT staff member is engaged in the communication process to resolve complicated technical issues.

2. Quality

What measures do you have in place to measure the quality of your data?

Typically, we have at least two providers for each country a local exchange and another local data vendor. We also undertake monthly surveys of error rates.

Our objective is to keep errors to a minimum. We have introduced a system at our processing plant to:

- Identify and solve systemic errors
- Provide more focus on sourcing issues
- Add another layer of transparency to our activities
- Build client confidence

We classify errors based on the client queries the research department sends to the processing team. We also analyse events entered or changed in our database.

How do you measure quality?

Quality is measured in terms of accuracy, completeness and timeliness. We monitor the results regularly.

How often do you do these checks, and what do they entail?

We cross check our sources for each event and raise queries where there are inconsistencies. We compare our sources against the **Security Reference File**. In addition, we examine client queries to see if there are any systemic queries. This is all done daily. Our processing team produces a weekly report of systemic queries, which are resolved by the research team.



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