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FIX TRADING COMMUNITY
Nordic Trading Conference 2025

– Update from the Global Technical Committee –
Tuesday 3rd June 2025

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Agenda

- What's new in FIX Latest?
  - FIX Business Standard for Algo Certification and Testing (EPs 292, 295, 297)
  - List of Extension Packs (EP289 – EP298)
- Interoperability of FIX and ISO 20022
- Open-Source Community for FIX Tools
- FIX Technical Standards Update

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What's new in FIX Latest?

- Algo Certification and Testing -

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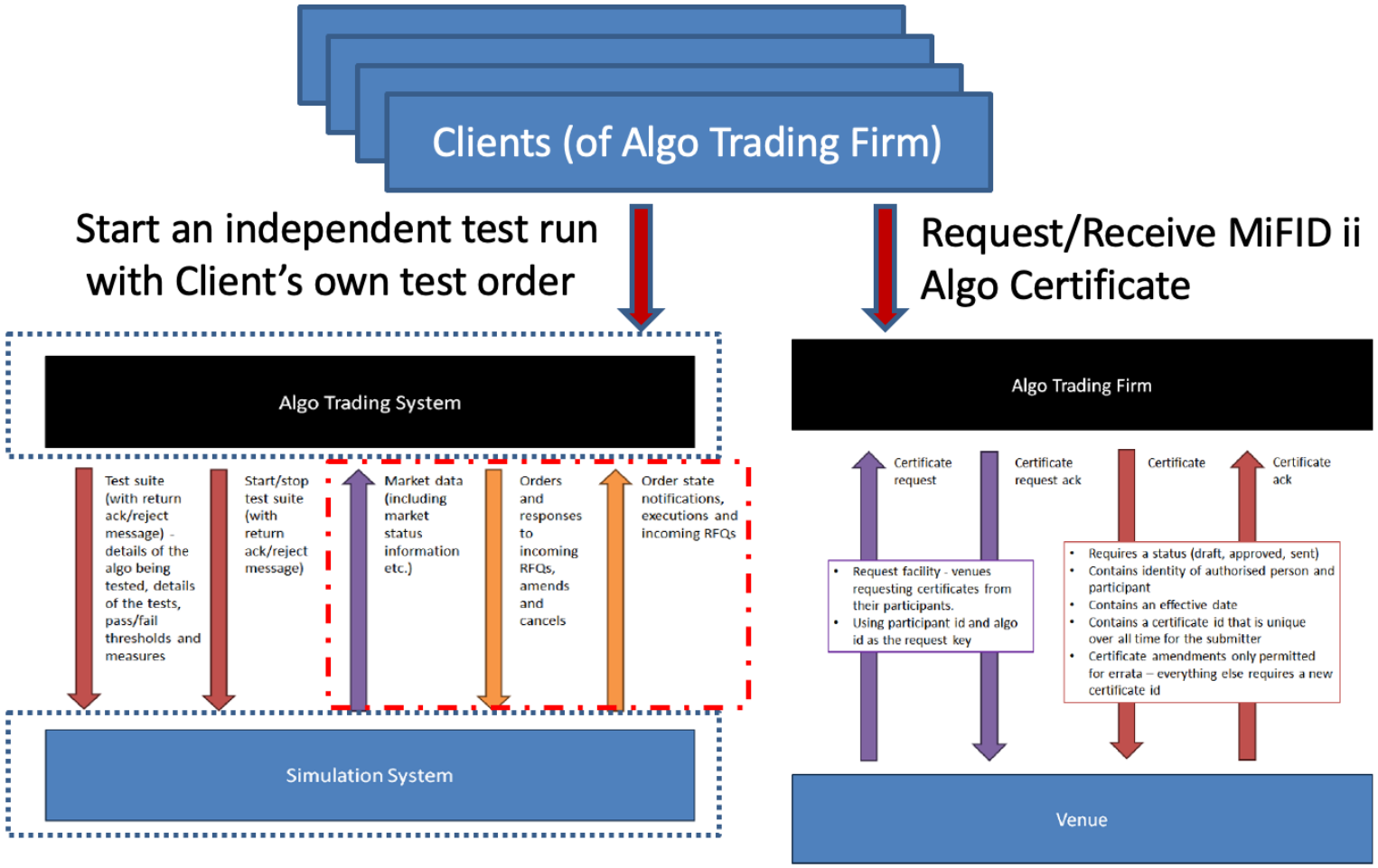
Algo Certification and Testing



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Algo Certification and Testing

- Algo certification
  - MiFIR requires investment firms engaged in algorithmic trading with venues to certify their algos towards the venue (RTS 7, Article 10(1)).
  - Firms need to identify an employee as “authorising person” who provide certifications together with detailed information related to the algorithm and how it has been tested.
  - A single algo contains a number of parameters and detailed information about the algo system.
  - EP292 added four new messages to support the certification workflow between firms and venues.

- Test suite definition
  - The testing of algorithms is based on test suites with multiple test scenarios comprising a possibly very large number of test steps.
  - A scenario further contains detailed information about the system being used for testing the algo.
  - Every step in a scenario has its own set of parameters and start/end times.
  - EP292 added two new messages to define and acknowledge test suites.

- Test suite execution
  - The execution of test suites generates results per scenario for different metrics.
  - EP292 added three new messages to support the execution of test suites.

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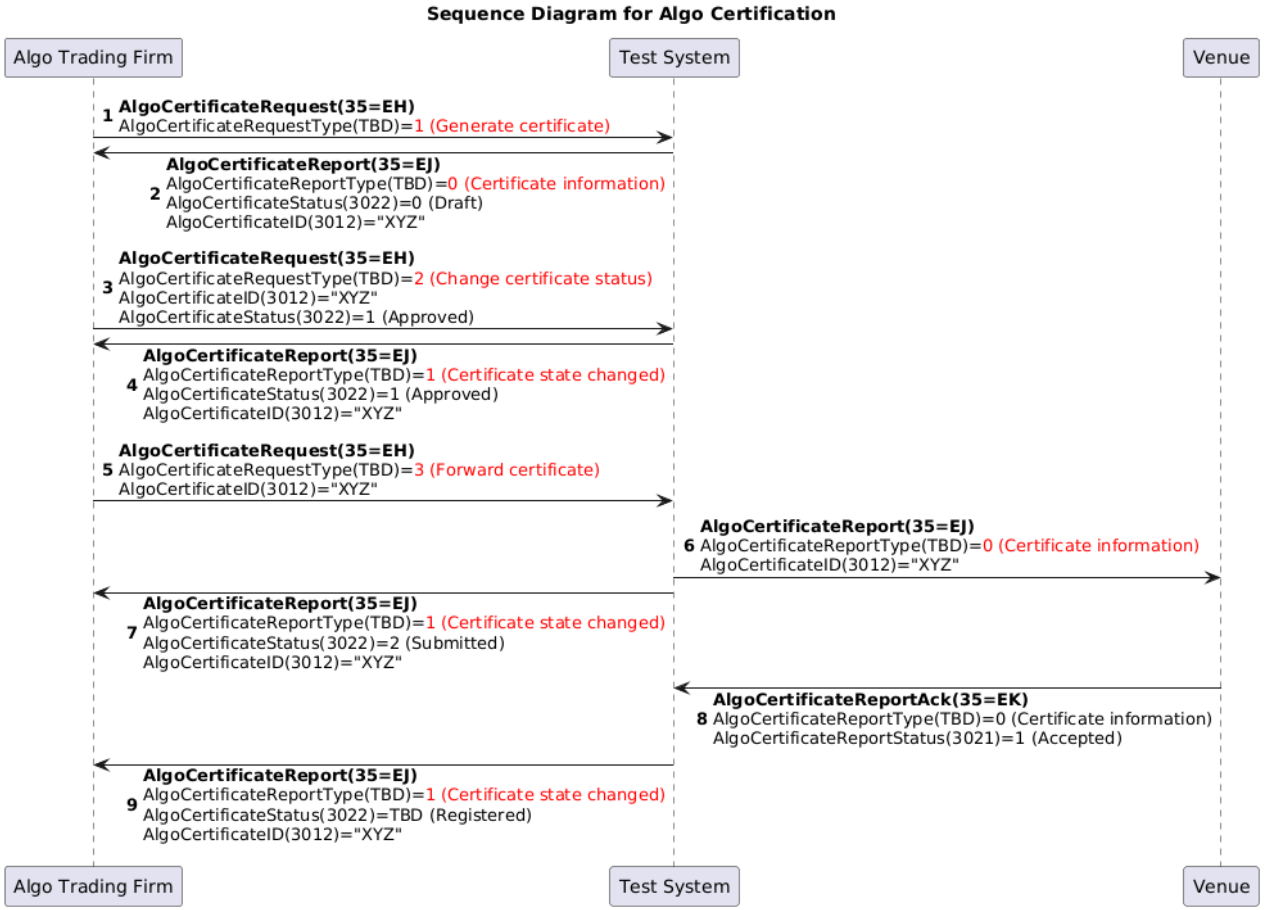
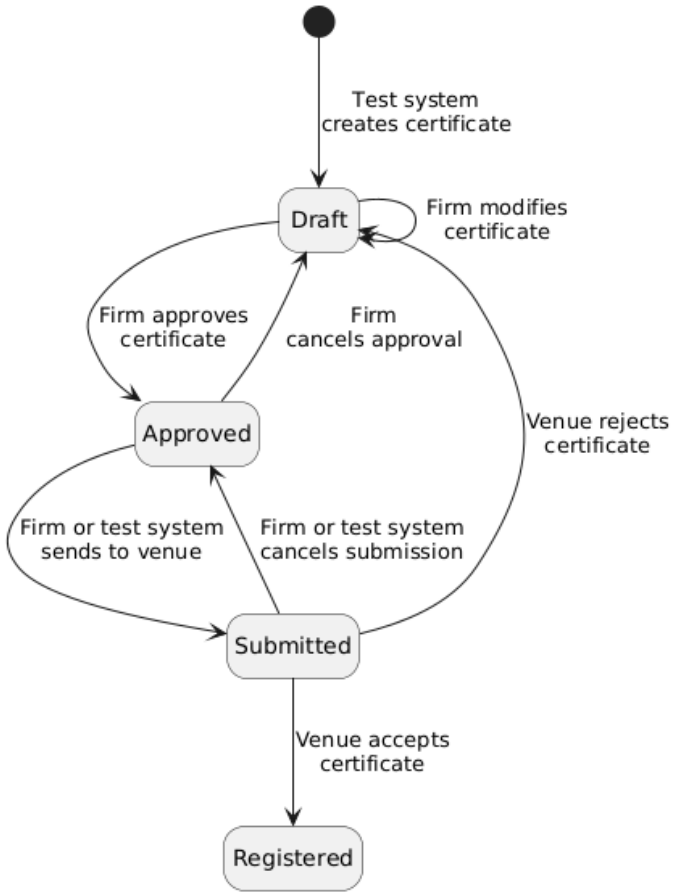
Algo Certification and Testing

- Algo certification enhancements
  - EP295 added a number of enhancements after the introduction of algo certification with EP292.
  - Extensibility from a 3-party (trading firm, simulation system, venue) to a 4-party model to include the clients of trading firms that may request and execute certificates for algos it is authorized to use.
  - Extension of the state change model for algo certificates (Draft, Approved, Submitted) by adding a “Registered” status.
  - Ability to link a test scenario to a single venue and its market data and to execute only a subset of test scenarios making up a test suite, e.g. when test scenarios span multiple venues.
  - Ability to add connection information regarding market data gateways and order entry gateways of simulation systems (emulating a series of linked markets).
  - Addition of request and report types to identify the business context of algo certificate messages.
  - Addition of timestamps to identify the latest version of an algo or test module.

- Algo identification
  - Extension of the ExecutionReport(35=8) message with additional fields
    - Identify algo used for the execution in production with LastAlgoID(3098)
    - Identify algo used as part of a randomised algo trial with AlgoTrialID(3097).
    - Identify algo certificate used for the execution with AlgoCertificateID(3012).

Algo Certification and Testing





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What's new in FIX Latest?

- List of Extension Packs -

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FIX Business Standards

- EP289 – EU/UK Post-Trade Transparency
  - New repeating group TradeTypeGrp for an unlimited number of concurrent trade flags.
  - New trade flags (CLSE, NETW, IFND, ENAV).
- EP290 – FX Reject Code Enhancements
  - Alignment of FX reject codes with Investment Association's proposed categories to meet the requirements of the FX Global Code.
- EP291 – Allocation Timestamps
  - Enhancement of allocation messages with timestamps to support SEC requirements.
- EP292 – Algo Certification and Testing
  - Support for the algorithmic trading regulatory requirements in Europe as defined by MiFIR.
- EP293 – Non-USD FX NDF Enhancements
  - Clarify the usage of the RateSource component for FX NDF fixings due to markets evolving.
- EP294 – Errors and Omissions 2023-2024
  - Resolution of errors and omissions detected during 2023 and 2024.
- See https://www.fixtrading.org/extension-packs/ for EP details

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FIX Business Standards

- EP295 – Algo Certification and Testing Enhancements
  - Enhancements of EP292.
- EP296 – Korea Schort Selling Registration Number
  - Extension of PartyIDSource(447) to accommodate regulatory requirement related to naked short selling activities. Brokers operating in Korea and interfacing with the Korean Stock Exchange (KRX) must include their client's institutional short sell identifier assigned by the FSS when submitting client's eligible orders to the exchange.
- EP297 – Algorithmic Trading Identifiers
  - Extension of the ExecutionReport(35=8) message with additional fields to identify algos (including algo trials) and their certificates when reporting executions.
- EP298 – Allocation Enhancements
  - Enhancements for the allocation of trades regarding subgroups for average pricing, group identifiers issued by firm, and an optional secondary allocation identifier for TradeCaptureReport(35=AE) messages.
- See https://www.fixtrading.org/extension-packs/ for EP details

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Interoperability of FIX and ISO 20022

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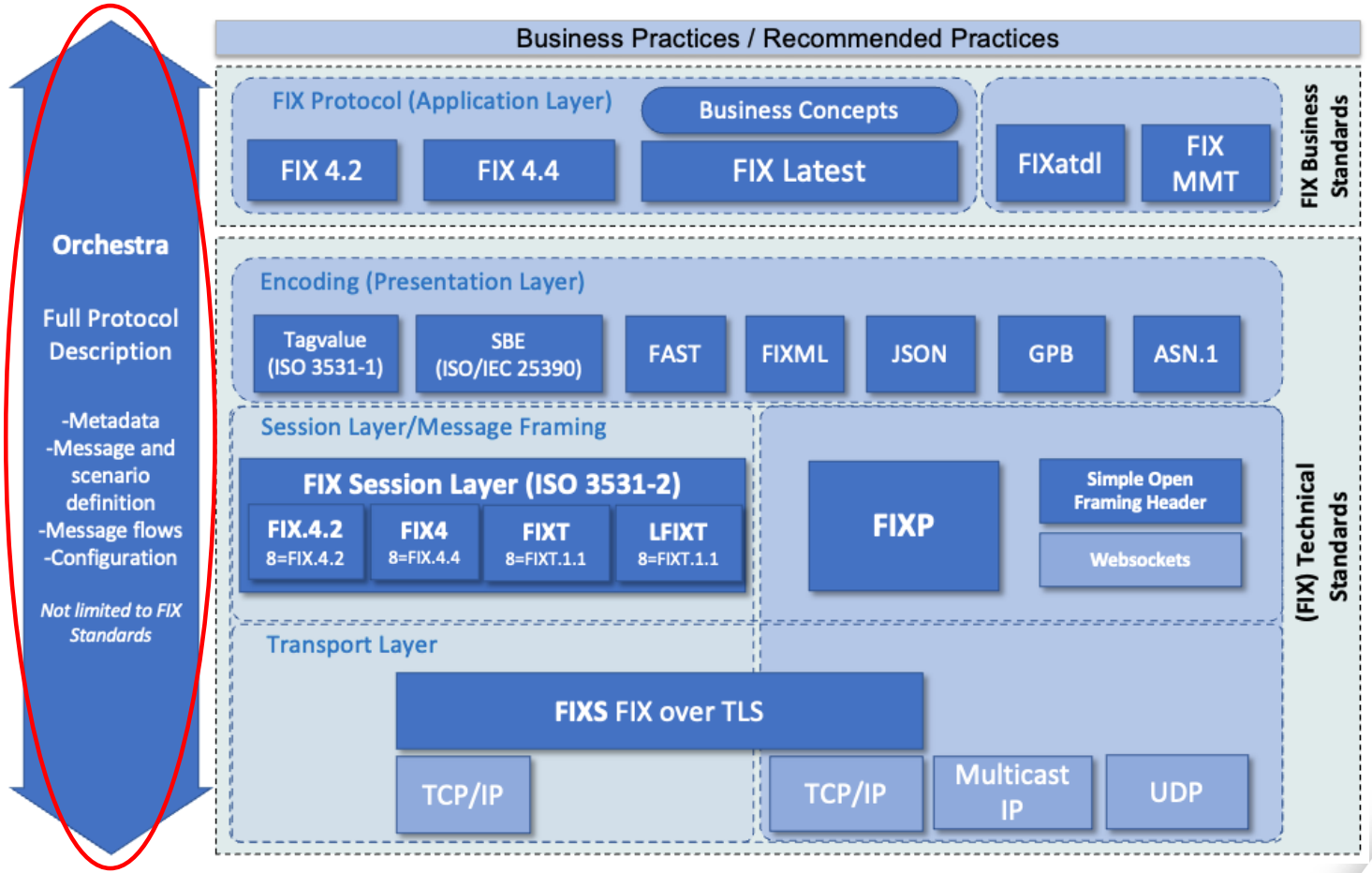
Interoperability of FIX and ISO 20022

- Background
  - Industry wants interoperability between the FIX Protocol and ISO 20022.
  - ISO 20022 RMG Practice Design working group (includes FIX and Swift) analyzed interoperability.
  - EU Consolidated Type as ideal use case for interoperability on the logical layer.
  - FIX Protocol has message types visualized by the FIXimate tool.
  - ISO 20022 has a conceptual and a logical layer to define message types.

- Use of the Orchestra Standard
  - Developed by FIX as a language with standardized keywords to express meta-data for FIX and non-FIX interfaces.
  - Able to define logical messages with datatype mappings for multiple encodings.
  - Machine-readable representation to generate software code and documentation.
  - Orchestra for payload definition, e.g. for REST APIs, Wcbsockets.

FIX Standards



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Use Case: ESMA Consolidated Tape (CT)

- ESMA regulatory reporting
  - ESMA publishes Regulatory Technical Standards (RTS) for regulatory reporting (PDF documents).
  - ESMA previously submitted ISO 20022 Message Definitions to standardize regulatory reporting.
  - ESMA plans to submit ISO 20022 Message Definitions based on the final RTS for the CT .

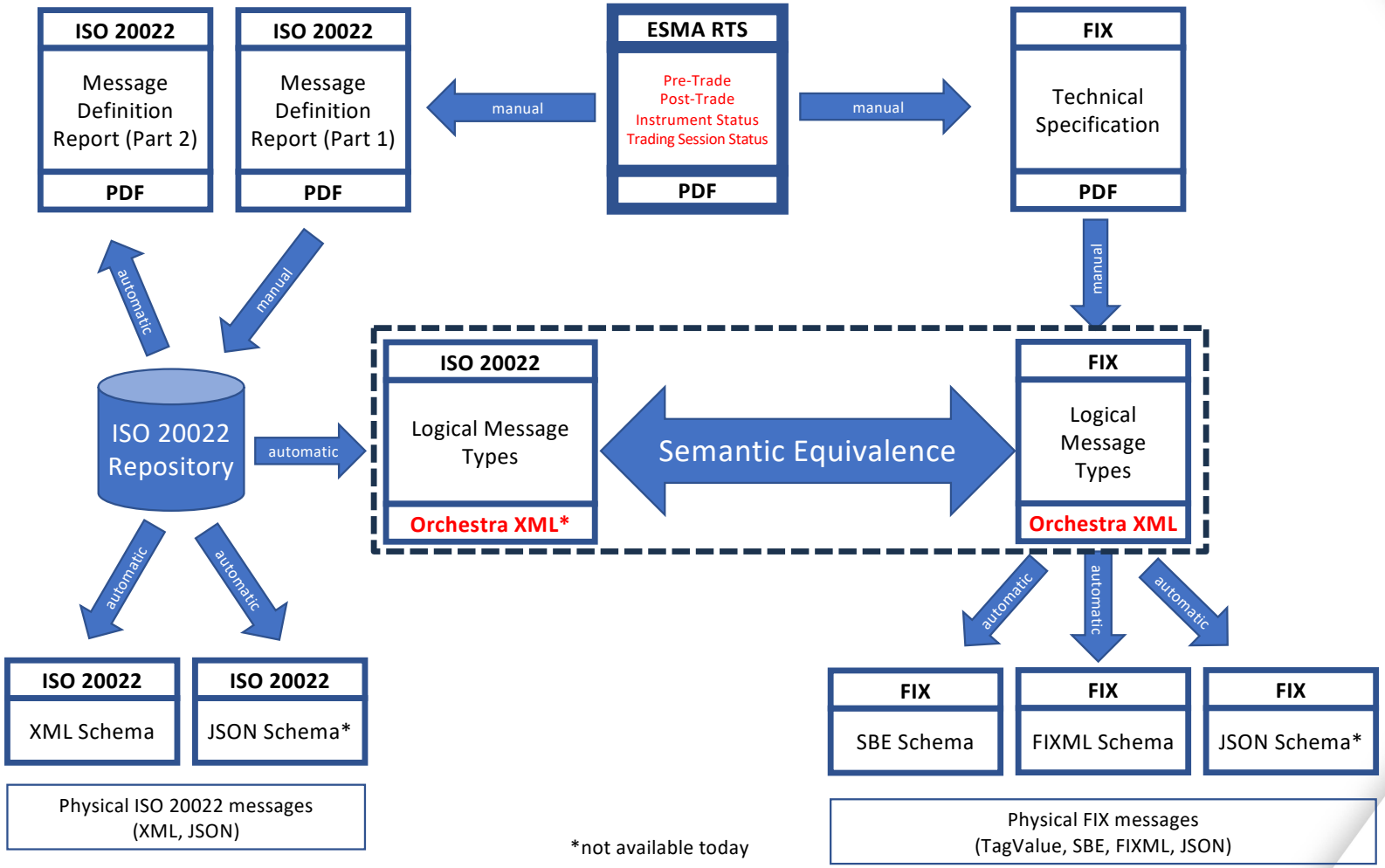
- Logical versus physical layer
  - The ISO 20022 Message Definitions for the CT will become available as a PDF document and as ISO 20022 XML schemas, its main syntax for the physical layer.
  - Transformation rules from logical messages to a syntax are defined by the ISO 20022 standard (Part 4 for XML and Part 8 for ASN.1).
  - Upcoming revision of ISO 20022 will add Part 9 to allow submission of addtitional syntaxes.
  - Orchestra standard is also a syntax that can be submitted under Part 9, requires transformation rules from ISO 20022 logical message layer to Orchestra XML.
  - The advantage of using Orchestra is that it is a single, machine-readable representation that covers both the logical and the physical layer.

Use Case: ESMA Consolidated Tape (CT)

- Approach for interoperability
  - RTS for CT has tables for pre- and post-trade market data and instrument/trading system status. Tables have names and descriptions of data elements.
  - The submission of an RTS to ISO 20022 requires mapping from RTS tables to the logical layer of ISO 20022 using the ISO 20022 methodology.
  - FIX is currently mapping the draft RTS to the logical layer of the FIX Protocol, i.e. defining messages, fields, and values from FIX Latest.
  - Orchestra standard can be used in both cases to capture the semantic mapping. Resulting Orchestra XML files represent the same semantics as defined by the RTS they are derived from. Actual implementations can be validated against Orchestra XML files to verify compliance with ISO 20022 and FIX respectively.
  - Orchestra XML file for FIX can be enhanced with meta-data for the physical layer, e.g. TagValue (ISO 3531-1) or Simple Binary Encoding (SBE, ISO/IEC 25390).

- Semantic mapping between Orchestra XML files
  - Orchestra standard does not yet include a “language” for mappings between logical representations.
  - Orchestra is a bridge technology between different logical models like ISO 20022 and FIX. Physical messages from one logical model and syntax can be converted into physical messages of another logical model and syntax, e.g. from ISO 20022 XML to FIX SBE.

Use Case: ESMA Consolidated Tape (CT)



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Open-Source Community for FIX Tools

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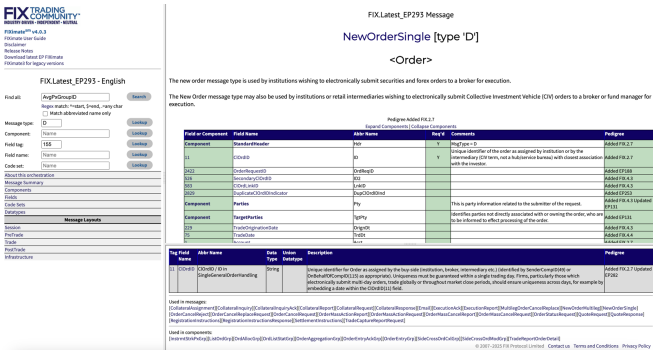
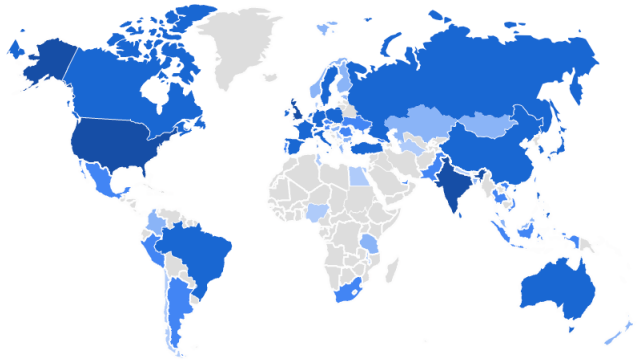
Open-Source Community for FIX Tools

- FIX hosts a number of tools for the FIX user community that it has developed over a number of years.
- The main tool is FIXimate (https://fiximate.fixtrading.org/) that uses FIX Latest (in Orchestra v1.0 format) as input.
- FIXimate is heavily used by the community around the globe (see next slide).
- Tools have been developed for Orchestra v1.0 and will require updates to work with the upcoming Orchestra v1.1.
- GTC has been made aware of tools developed by the FIX user community that are free and use state-of-the-art technology.
- Going forward, the GTC would like to involve the user community in the development and maintenance of tools related to Orchestra.
- Objective is to establish an open-source community by actively seeking engagement from the FIX membership to help maintain and advance existing FIX tools and/or contribute additional tools as either open-source or free to use.
- The next step is to develop a more detailed concept and engage with the FIX membership to identify interested parties.

Usage of FIXimate (Feb 7-14, 2025)

- 2,140 distinct users from 67 countries (US: 27%, UK: 23%, India: 8%, Germany: 4.3%, Hong Kong: 3.7%) and 430 cities.
- Average duration of visit: 38 seconds
- Favourite fields: MsgType(35), ExecType(150), OrdStatus(39), OrdType(40)
- Devices: desktop (97.6%), mobile (2.3%), tablet (0.1%)
- OS: Windows (87%), MAC (8.2%), Linux (2.8%)
- Browser: Chrome (70%), Edge (24%), Firefox (3.8%), Safari (2.2%)





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FIX Technical Standards Update

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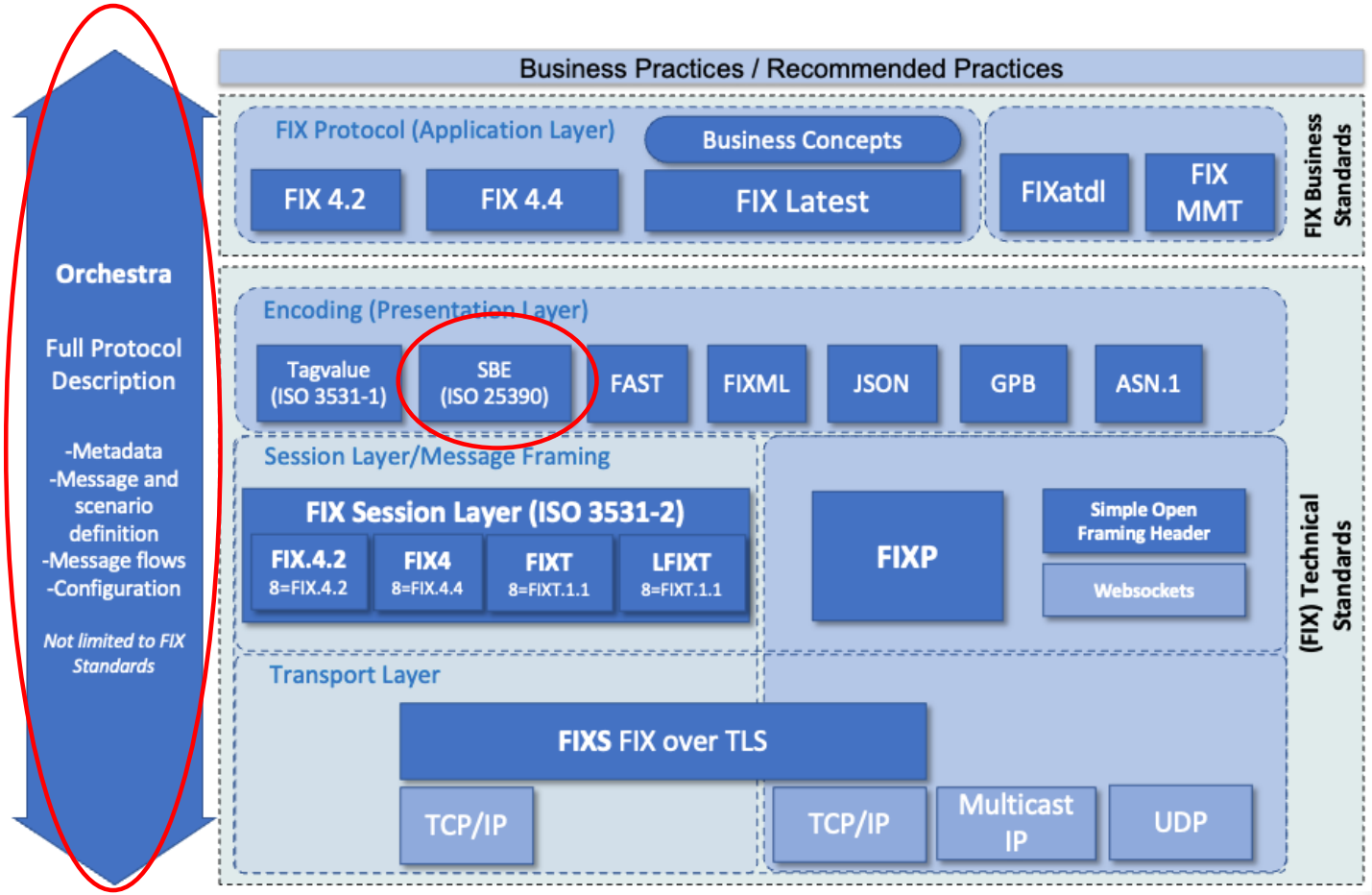
FIX Standards



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FIX Technical Standards Update

- Orchestra
  - Version 1.0 published February 2021
  - Version 1.1 Release Candidate 1 published November 2023
  - Version 1.1 Release Candidate 2 published November 2024
  - Version 1.1 Release Candidate 3 is work in progress, focus on multi-encoding support

- Simple Binary Encoding
  - Version 1.0 Errata published November 2020 and submitted to ISO/IEC JTC1 June 2024
  - Published as International Standard ISO/IEC 25390:2025 on April 23, 2025
  - Work on Version 2.0 had been ongoing during 2018 and 2019, including the publication of two Release Candidates. Continuation of the work depends on the interest in the community.

- GitHub for standards development
  - GitHub supports the FIX working groups and is open to non-members
  - Artifacts are maintained in public GitHub repositories (https://github.com/FIXTradingCommunity)
  - GitHub discussions are used to work on larger enhancements of a technical standard
  - GitHub issues and pull requests are required to propose specific changes or corrections
  - GitHub projects are used to plan versions and Release Candidates

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