

TECHNOLOGY TRANSFER PRESENTS

JOHN O'BRIEN

NEXT GENERATION

DATA ARCHITECTURE

Real-Time Unified Platforms

ONLINE LIVE STREAMING

NOVEMBER 4, 2024

DUE TO TIME ZONES, THIS CLASS WILL TAKE PLACE IN THE AFTERNOON
FROM 2 PM TO 6 PM ITALIAN TIME



info@technologytransfer.it
www.technologytransfer.it

ABOUT THIS SEMINAR

In today's fast-paced digital landscape, enterprises' demand for real-time data processing and analytics is more pronounced than ever. Enterprises seek agile, efficient, and scalable solutions to harness the power of their data assets, driving decision-making, competitive advantage, and improved user experiences.

The session will kick off with an overview of the current state of enterprise data and analytics, highlighting the challenges and opportunities that businesses face in managing vast data volumes. We will delve into the fundamentals of Real-time Unified Platforms (RUP), elucidating their significance in simplifying data architecture, enhancing data quality, and facilitating seamless data integration and real-time analytics.

This half-day education session addresses the critical role of RUP within modern data architectures and how to be well-positioned to lead their organizations toward a more integrated, efficient, and forward-looking data future.

Who Should Attend

CDOs, CIO's, IT Managers, CTOs, Business Analysts, Data Scientists, BI Managers, Data Warehousing Professionals, Enterprise Architects, Data Architects, Solution Architects, Business Intelligence Specialists, IT Strategists, Database Administrators, IT Consultants

OUTLINE

1. Introduction to Real-Time Unified Platforms

- Course Introduction and Objectives
- What are Real-Time Unified Platforms?
- Key Characteristics of Real-Time Systems
- Evolution of Data Processing: Batch to Real-Time
- Business Drivers for Real-Time Data Processing
- Benefits of Real-Time Unified Platforms
- Use Case: Financial Services
- Use Case: Retail and E-commerce
- Use Case: Healthcare
- Use Case: Manufacturing
- Use Case: Internet of Things (IoT)
- Challenges in Implementing Real-Time Systems
- High-Level Architecture of Real-Time Unified Platforms
- Key Components: Overview
- Summary and Preview of Next Module

2. Data Ingestion and Processing in Real-Time Systems

- Introduction to Data Ingestion in Real-Time Systems
- Types of Data Sources in Real-Time Scenarios
- Data Streaming Fundamentals
- Message Queue Systems: Concepts and Principles
- Stream Processing: Basic Concepts
- Stream Processing: Windowing and Time Concepts
- Batch Processing in Real-Time Systems
- Lambda and Kappa Architectures
- Event-Driven Architectures
- Data Quality and Validation in Real-Time
- Handling Late and Out-of-Order Data
- Scalability Challenges in Data Ingestion and Processing
- Fault Tolerance in Real-Time Processing
- Monitoring and Observability in Data Pipelines
- Summary and Preview of Next Module

3. Data Storage and Analytics for Real-Time Systems

- Introduction to Real-Time Data Storage
- ACID vs BASE: Tradeoffs in Real-Time Systems
- Time-Series Databases: Concepts and Use Cases
- In-Memory Databases for Real-Time Processing
- Data Modeling for Real-Time Systems
- Handling High-Velocity Data: Strategies and Challenges
- Real-Time Analytics: Overview and Use Cases
- Stream Analytics Techniques
- Complex Event Processing (CEP)
- Machine Learning in Real-Time Systems
- Data Visualization for Real-Time Insights
- Challenges in Real-Time Analytics
- Data Governance in Real-Time Environments
- Security and Privacy Considerations
- Summary and Preview of Final Module

4. Implementation, Best Practices, and Future Trends

- Implementing Real-Time Unified Platforms: Key Considerations
- Cloud vs On-Premises Deployment
- Hybrid and Multi-Cloud Strategies
- Selecting Technologies: Evaluation Criteria
- Integration Patterns in Real-Time Systems
- Performance Optimization Techniques
- Scaling Real-Time Systems: Strategies and Challenges
- Disaster Recovery and High Availability
- Monitoring and Alerting in Real-Time Systems
- DevOps and DataOps in Real-Time Environments
- Best Practices for Real-Time Data Architectures
- Case Study: Building a Real-Time Customer 360 Platform
- Emerging Trends: Edge Computing in Real-Time Architectures
- Future of Real-Time Unified Platforms
- Course Summary and Conclusion

SPEAKER

John O'Brien With 30 years of experience delivering value through data strategy, architectures, and analytics John has a unique perspective that comes from key roles as a practitioner, consultant, and vendor CTO in the data analytics industry. As a recognized thought leader, he has been publishing articles, teaching, and presenting at conferences in North America and Europe for more than 15 years.

His knowledge in designing, building, and growing enterprise data systems and teams brings real-world insights to each role and phase within a data program.

John provides research, strategic advisory services, and mentoring to guide companies in meeting the demands of next-generation data management, architecture, analytics, and emerging technologies.

INFORMATION

<p>PARTICIPATION FEE</p> <p>€ 400 The fee includes all seminar documentation.</p> <p>SEMINAR TIMETABLE</p> <p>2.00 pm - 6.00 pm (Italian time)</p>	<p>HOW TO REGISTER</p> <p>You must send the registration form with the receipt of the payment to: info@technologytransfer.it</p> <p>TECHNOLOGY TRANSFER S.r.l. Piazza Cavour, 3 - 00193 Rome (Italy) Fax +39-06-6871102</p> <p>PAYMENT</p> <p>Wire transfer to: Technology Transfer S.r.l. Banca: Cariparma Agenzia 1 di Roma IBAN Code: IT 03 W 06230 03202 000057031348 BIC/SWIFT: CRPPIT2P546</p>	<p>GENERAL CONDITIONS</p> <p>DISCOUNT</p> <p>The participants who will register 30 days before the seminar are entitled to a 5% discount.</p> <p>If a company registers 5 participants to the same seminar, it will pay only for 4.</p> <p>Those who benefit of this discount are not entitled to other discounts for the same seminar.</p> <p>CANCELLATION POLICY</p> <p>A full refund is given for any cancellation received more than 15 days before the seminar starts. Cancellations less than 15 days prior the event are liable for 50% of the fee. Cancellations less than one week prior to the event date will be liable for the full fee.</p> <p>CANCELLATION LIABILITY</p> <p>In the case of cancellation of an event for any reason, Technology Transfer's liability is limited to the return of the registration fee only.</p>
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JOHN O'BRIEN
NEXT GENERATION DATA
ARCHITECTUREREAL-TIME UNIFIED
PLATFORMS

November 4, 2024

Registration fee:
€ 400

If registered participants are unable to attend, or in case of cancellation of the seminar, the general conditions mentioned before are applicable.

first name

surname

job title

organisation

address

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Stamp and signature

Send your registration form with the receipt of the payment to:
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