



Your Trading Edge in the BHOMS Era

End of FlexTP: A New Reality for Brokers

1

The Transformation Ahead



2

Shifting of Responsibility

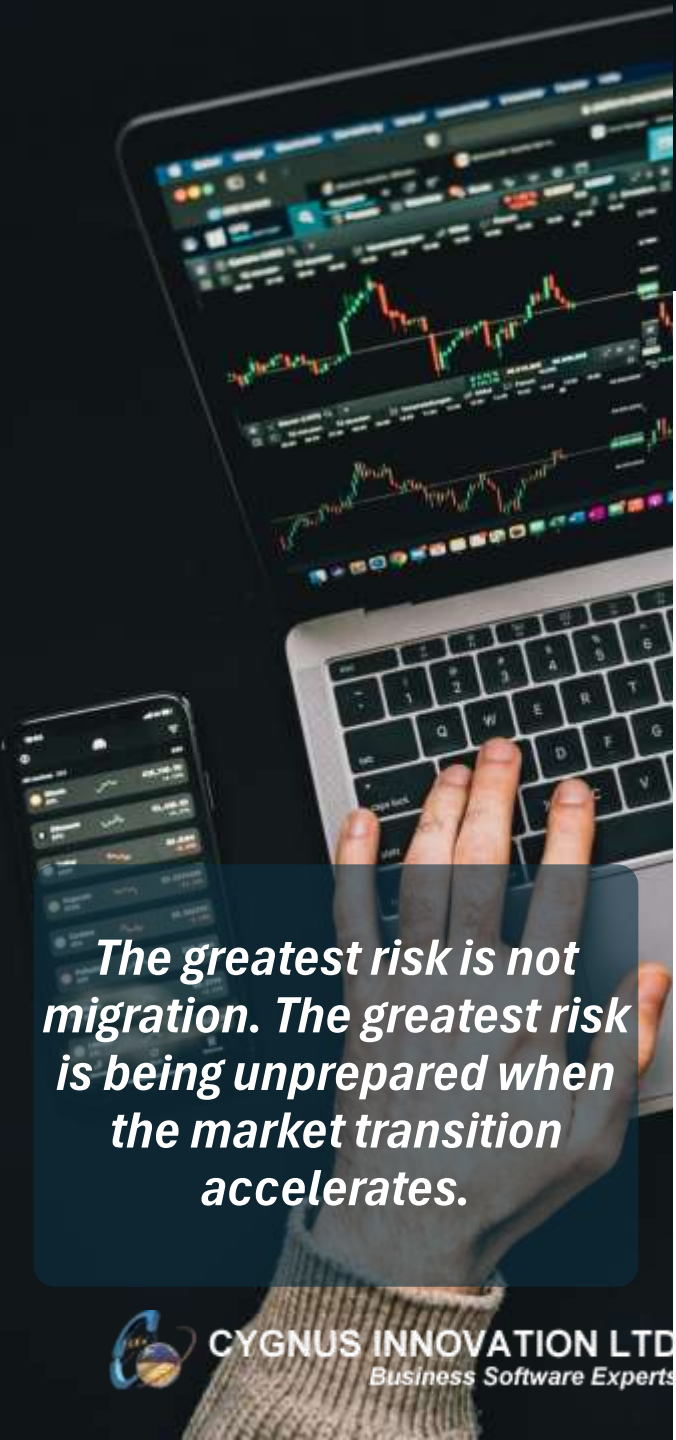
- DSE is transitioning from Exchange-hosted OMS to Broker-hosted OMS (BHOMS)
- Responsibility shifts from exchange infrastructure to brokerage infrastructure

3

Brokers Must Now Own

- Risk controls
- Client experience
- OMS availability
- Audit readiness

What Happens If You Do Nothing?



The greatest risk is not migration. The greatest risk is being unprepared when the market transition accelerates.

1

Operational Disruption

When FlexTP support eventually declines or ends:

- Compressed migration timelines
- Increased implementation pressure
- Higher probability of production issues

Impact: Trading interruptions damage client confidence immediately.

2

Competitive Disadvantage

Competitors adopting BHOMS earlier can offer:

- Mobile trading
- Advanced order types
- Faster onboarding
- Better customer experience

Impact: Clients migrate to more capable brokers.

3

Regulatory Exposure

As broker accountability increases:

- Manual controls become harder to justify
- Audit expectations increase
- Risk management gaps become visible

Impact: Greater scrutiny during inspections and audits.

4

Lost Growth Opportunity

Without BHOMS:

- Limited digital expansion
- Limited remote client acquisition
- Limited product differentiation

Impact: Growth remains tied to traditional branch expansion.



Why BHOMS Is Actually An Opportunity, Not A Burden

1

Own Your Brand

- Broker-branded applications
- Broker-branded experience
- Broker-specific services

Your clients remember your brand, not the exchange's.

2

Own Your Client Relationship

- Personalized services
- Segmented offerings
- Premium client experiences

Compete on service quality instead of brokerage commission alone.

3

Own Your Data

- Trading analytics
- Client segmentation
- Marketing insights
- Product recommendations

Data becomes a competitive asset.

4

Own Your Growth

- Nationwide onboarding
- Easier NRB acquisition
- Mobile-first trading

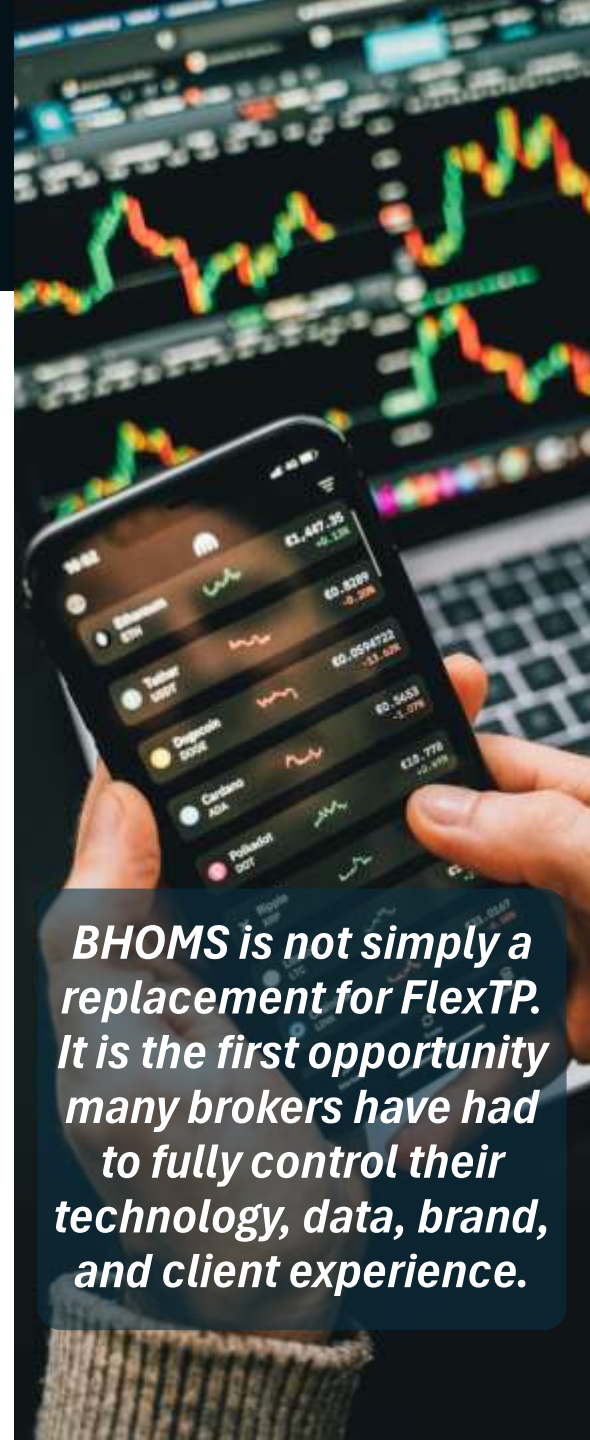
Scale without proportional increases in cost.

5

Own Your Risk

- Broker-level controls
- Margin enforcement
- Kill switches
- Real-time monitoring

Better protection of capital and reputation.



BHOMS is not simply a replacement for FlexTP. It is the first opportunity many brokers have had to fully control their technology, data, brand, and client experience.



About Us and XTrade



CYGNUS INNOVATION LTD
Business Software Experts

About Cygnus Innovation Ltd.

1

Substantial Experience

- 18+ Years of Experience in Software Development
- 17+ Years of Experience in Financial Market

2

Footprint in Capital Market

- Market leader in Merchant Bank, AMC and Brokerage House solutions
- 170+ Clients in Capital Market:
 - Brokerage House: 130
 - Merchant Bank: 20
 - Asset Management: 7
 - Order Management System (OMS): 8

3

Highly Skilled Team

- 35+ Software Professionals
- Dedicated Support team
- Deep Technology Expertise
- Focus on long-term relationships



Premium Client List



8 Clients



130 Clients



20 Clients



7 Clients

About XTrade OMS

1

Meet XTrade OMS

A cutting-edge Order Management System designed to streamline capital market trading

2

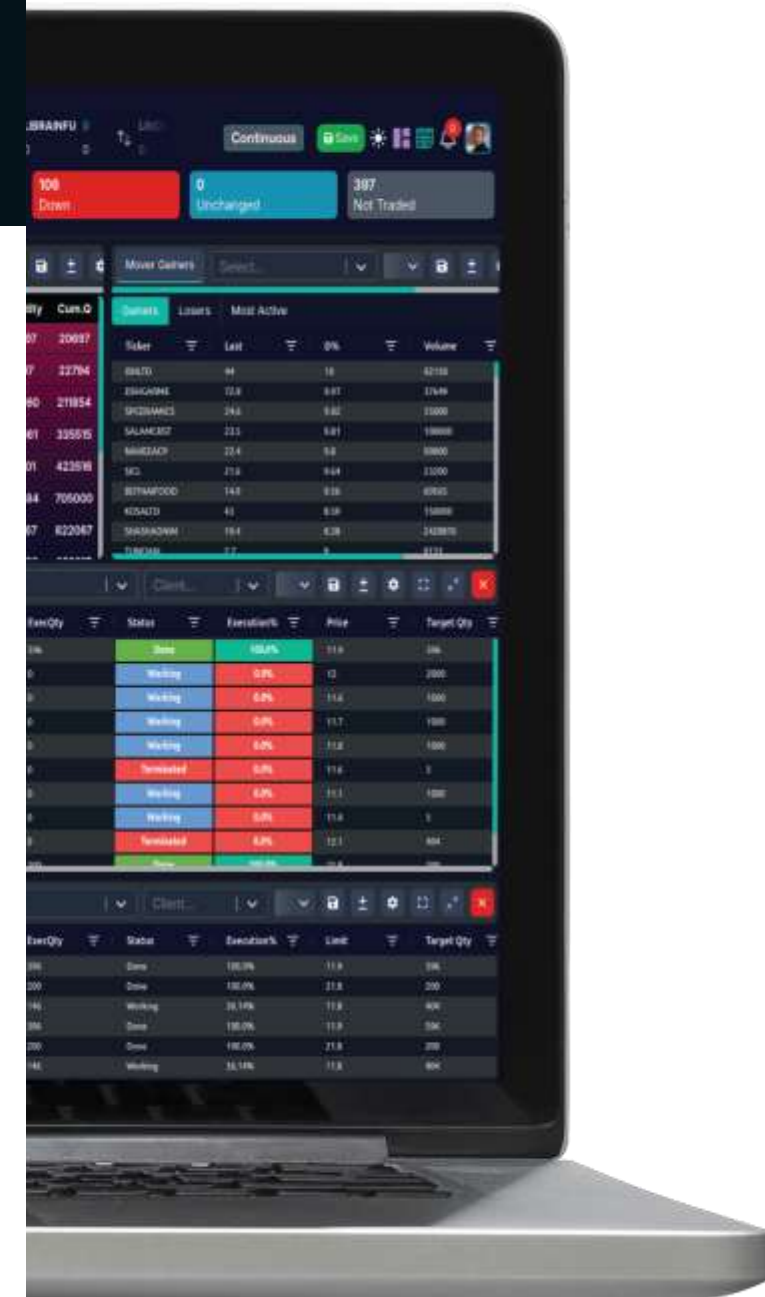
What Does It Offer?

It offers fast, secure, and reliable order processing, empowering brokers and investors to make informed decisions with confidence

3

Key Features

- Real-time trading updates with zero latency
- Multi-level risk management and compliance
- Intuitive dashboard for easy decision-making
- Seamless integration with brokerage APIs



What Makes XTrade Different?

Capability	XTrade OMS	Typical OMS
Bangladesh Capital Market Focus	✓	Partial
Mobile Included	✓	Extra Cost
Local Support	✓	Limited
Back Office Integration	✓	Limited
FlexTP Migration Assistance	✓	Limited
Data Sovereignty	✓	Limited
DSE + CSE Trading	✓	Varies



Benefits For Your Business



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Strategic Value for Management and Owners

1

Unified Trading

Attract high-net-worth clients by offering DSE & CSE access in one app

2

Direct API Control

Seamlessly integrate with your existing Back-Office (e.g., XBroker) for real-time margin checking

3

Brand Ownership

Your logo, your colors, and your unique features on the clients' smartphones

4

Data Sovereignty

Own your trade data and client behavior analytics to drive marketing and research

5

Scalability

Support thousands of concurrent mobile users without the latency of a shared system



Operational Superiority

1

Enhanced Risk Management

Set pre-trade risk limits, monitor margin balances in real-time, and prevent short-selling automatically before the order hits the engine

2

Advanced Order Types

Offer your clients Advance Order Placement with Automatic Unparking, Stop-Loss and Take-Profit to help them manage volatility—features absent for users of FlexTP and most other OMS

3

24/7 Accessibility

Provide OTP-based login (Email/SMS) for NRB (Non-Resident Bangladeshi) clients, allowing them to trade securely from any time zone





Potential Cost Savings

1

Zero-Cost Network Expansion

*Estimated Savings:
BDT 50,000 per Dealer/Trader*

2

Integrated Mobile Solutions

*Estimated Savings:
BDT 62,500 per month
(based on 500 active users)*

3

Simplified Infrastructure

*Estimated Savings:
BDT 7,000 per month, per branch*

4

Streamlined Operations (CCD & DP Departments)

*Estimated Savings:
BDT 25,000 – 50,000 per employee*

Financial Risk Reduction

Before



Manual margin monitoring



After

Automated real-time controls

1

**Reduced
operational
losses**

2

**Reduced
settlement
exceptions**

3

**Reduced
compliance
incidents**



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The Bottom Line - Limitless Business Growth

1

Remove the physical and technical constraints of traditional dealer desks and workstations

2

Expand your market presence and grow your business without the traditional "*brick-and-mortar*" costs

3

Protect your capital, reduce your monthly burn rate, and provide the digital foundation required for modern trading

4

Transform your brokerage from a "*generic service provider*" into a "*specialized service leader*"

Built For Regulatory Confidence

1

Pre-Trade Controls

- Margin validation
- Exposure checks
- Dealer authorization

2

During Trading

- Real-time monitoring
- Risk alerts
- Automated limit enforcement

3

Post-Trade Assurance

- Complete audit trail
- Investigation-ready logs
- Compliance reporting

Maintain Compliance Through Robust Audit Flow



Seamless and Compliant Transition Path



***We handle the
technical heavy lifting
so you can focus on
your clients***

1

FIX Certification

We guide you through the DSE/CSE FIX certification process

2

API Integration

Direct "plug-and-play" with major back-office providers in Bangladesh

3

UAT & Go-Live

Rigorous User Acceptance Testing (UAT) to ensure zero-day disruptions



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Core Modules



XTrade OMS – Core Modules

1

Order Management Module

Enables fast, accurate, and real-time order placement, modification, and execution across multiple markets and instruments

- Multi-asset order handling (stocks, bonds, derivatives, commodities)
- Real-time order tracking and updates
- Multi-level approval workflow for large orders
- Smart Order Routing (SOR) to find best execution venues
- Bulk and basket order execution support

0.72	3,43,...	0.00	0	0
Side	Exec...	Status	Execu...	Pri...
BUY	5	Done	100.0%	41.6
BUY	5	Done	100.0%	41.6
BUY	50	Done	100.0%	12.6
SELL	0	Terminated	0.0%	42.5
SELL	30	Done	100.0%	42.5
BUY	12	Done	100.0%	41.5
BUY	5	Done	100.0%	41.6
SELL	0	Working	0.0%	43
SELL	0	Working	0.0%	16.6
SELL	0	Working	0.0%	13.6
BUY	28	Done	100.0%	42.6
BUY	4	Done	100.0%	42.7
SELL	0	Working	0.0%	216
BUY	5	Done	100.0%	42.6
Z Financial In				

XTrade OMS – Core Modules

2

Risk Management Module

Comprehensive risk management ensures regulatory compliance and safeguards against excessive exposure

- Real-time exposure monitoring
- Margin and leverage calculations
- Alerts for breaches of pre-defined limits
- Pre-trade and post-trade risk checks
- Stress testing & scenario analysis

3

Security Module

Robust security framework protects user data and financial transactions

- Role-based access control
- Multi-factor authentication (MFA)
- End-to-end encryption
- Audit trails and activity logs
- Biometric login support (Face/Fingerprint ID)

Email

Email

Password

Password

 Login

[Forgot password](#)

[Don't Have an Account?](#)

XTrade OMS – Core Modules

4

Portfolio Management Module

A comprehensive view of investor portfolios for informed decision-making

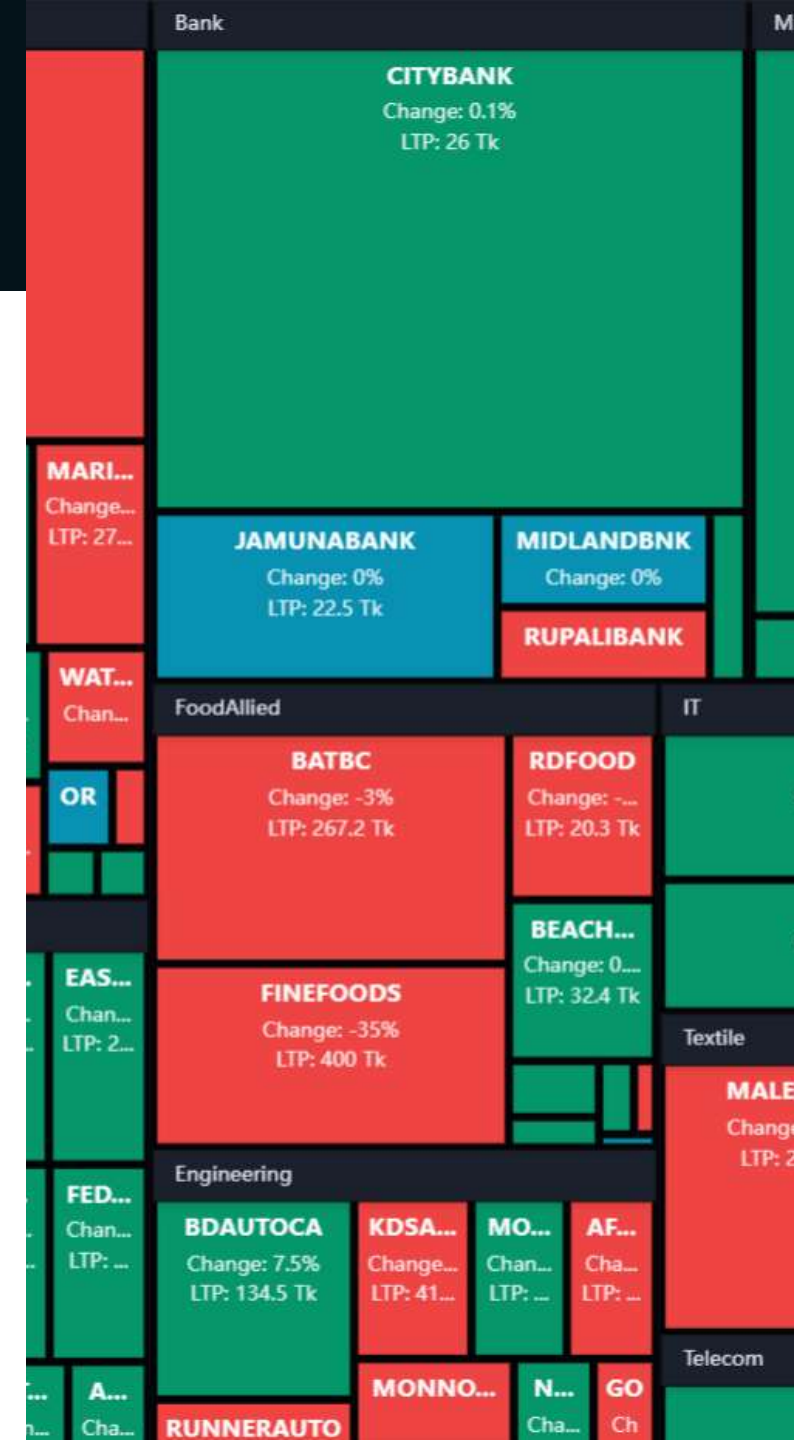
- Real-time portfolio valuation and P&L tracking
- Asset allocation and diversification insights
- Performance comparison across time periods
- Tax optimization and reporting
- Automated rebalancing tools

5

Analytics Module

AI-powered analytics provide insights from market data, trades, and portfolios

- Advanced trade analytics and reporting
- Historical data trends and visualizations
- Predictive analytics and alerts
- Heatmaps & sectoral performance





Advanced Features



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XTrade OMS - Advanced Features

1

Real-Time Dashboards

- Unified dashboards for a complete market, portfolio, and order view
- Customizable dashboard widgets
- Live updates of orders, trades, and market movements
- Quick access to critical KPIs
- Drag-and-drop visualization panels
- Cross-device synchronization (web + mobile)

2

Mobile Trading App

- Freedom of portability in your hands
- Full OMS functionality on mobile (iOS & Android)
- Biometric login
- Push notifications

3

Advanced Reporting

- Customizable reporting system for better decision-making and compliance
- Automated report generation
- Export in PDF, Excel, or CSV formats
- Scheduled and on-demand reports
- Compliance-ready audit reports
- Visual report builder

4

Interactive Charts

- Dynamic visualization tools for better insights
- Candlestick, line, bar, and depth charts
- Zoom-in, filter, and comparison tools
- Chart-based trading (trade directly from charts)
- Technical indicators (RSI, MACD, Bollinger Bands)

XTrade OMS - Advanced Features

5

Alerts & Notifications

- Price movement alerts
- Risk exposure notifications
- Trade execution confirmations
- News & event-driven alerts

6

API & Integration Layer

- Open APIs for third-party integrations
- FIX/ITCH protocol support
- Integration with market data feeds (Bloomberg, Refinitiv, DSE)

7

RegTech & Compliance

- Built-in compliance monitoring
- Automated regulatory reporting (local & global)
- AML/KYC integration

8

Cloud & Scalability

- Cloud-native deployment (AWS/Azure/GCP)
- High availability & auto-scaling
- Disaster recovery & backup solutions

The Next Phase of Brokerage Technology

1

Yesterday

Brokers relied on exchange-owned OMS

2

Today

Brokers are transitioning to BHOMS

3

Tomorrow

Competitive advantage belongs to brokers who control their technology, data, risk, and client experience



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Technology Stack



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Technology Stack

The XTrade OMS technology stack gives brokerage houses and investors confidence that they are working with the most advanced order management solution in the market by ensuring:

1



Speed

2



Security

3



Scalability

Technology Stack

1

Core Technologies

Programming Languages

- C++/Python (core engine)
- Python (data analytics)
- JavaScript / TypeScript (frontend, dashboards, interactivity)

2

Frameworks

- Django
- FastAPI (Python APIs)
- React.js (real-time trading dashboards, visualizations)
- Node.js (event-driven processing, API gateway)
- Redux (State Management)
- RTK Query
- Next.js (Admin Panel)

3

Database & Storage

- PostgreSQL (primary transactional database, ACID compliance)
- MongoDB (flexible storage for unstructured trade data, logs)
- Redis (ultra-fast caching, session management)

4

Streaming & Messaging

- Apache Kafka (real-time trade events)
- Redis (Pub-Sub)
- Redis (Stream)

Technology Stack

5

Cloud & Infrastructure

- **Cloud Providers:** Multi-cloud ready
- **Containerization:** Docker (isolation, easy deployment)
- **Orchestration:** Kubernetes (scalability, self-healing clusters)
- **Load Balancing:** Nginx / HAProxy

6

Security & Compliance

- **Data Encryption:** AES-256, TLS/SSL
- **Authentication & Authorization:** OAuth2, JWT, Role-Based Access Control (RBAC)
- **Compliance Standards:** ISO 27001, GDPR, DSE/BSEC guidelines

7

DevOps & CI/CD

- **Version Control:** Git + GitHub/GitLab
- **CI/CD Pipelines:** Jenkins / GitHub Actions
- **Monitoring:** Prometheus + Grafana (system health, alerts), Node_Explorer
- **Logging:** ELK Stack (Elasticsearch, Logstash, Kibana)
- **Automation:** Ansible / Terraform (Infrastructure as Code)

Multi-Layered, Modular System Architecture

1

Client Layer (User Access Layer)

- Web platform (React.js dashboards, trading terminals)
- Mobile apps (Android/iOS)
- Broker terminals (desktop apps)
- Secure login with MFA

2

API Gateway & Integration Layer

- API Gateway (Node.js / Kong / NGINX)
- REST & WebSocket APIs for real-time trading
- FIX Protocol adapters
- ITCH Protocol
- Third-party API integrations (banks, KYC/AML services)

3

Application Services Layer

- Order Management Module – order entry, modification, cancellation
- Risk Management Engine – exposure checks, margin limits, compliance
- Portfolio Management – holdings, P&L tracking
- Notification & Alerts – SMS, email, push notifications



Multi-Layered, Modular System Architecture

4

Data Layer

- Transactional Database – PostgreSQL (ACID compliance)
- Market Data Storage – MongoDB / Time-series DB
- Cache – Redis (low-latency execution)
- Search & Logs – Elasticsearch

5

Infrastructure Layer

- Containers – Docker for microservices
- Orchestration – Kubernetes for auto-scaling
- Load Balancers – HAProxy / NGINX
- Monitoring & Logging – Prometheus, Grafana,
- Cloud Platforms – Local Cloud

6

Security & Compliance Layer

- End-to-end encryption (TLS 1.3, AES-256)
- Role-based access control (RBAC)
- Regulatory compliance (ISO 27001, GDPR, BSEC/DSE guidelines)
- Intrusion detection & monitoring



Core Security Features

1

Data Encryption

- At Rest: AES-256 encryption for databases, logs, and backups.
- In Transit: TLS 1.3 + HTTPS for all communication.
- API Security: OAuth 2.0 / JWT tokens for secure API calls.

2

Authentication & Access Control

- Multi-Factor Authentication (MFA): Password + OTP/biometric.
- Role-Based Access Control (RBAC): Separate privileges for traders, admins, compliance officers.
- Session Monitoring: Auto time-outs, suspicious login alerts.

3

Application Security

- OWASP Top 10 Mitigation: Protection against SQL injection, XSS, CSRF
- API Rate Limiting & Throttling to prevent abuse
- Regular Penetration Testing & Vulnerability Scanning

4

Compliance Standards

- ISO 27001 – Information Security Management
- GDPR – Data privacy compliance (user consent, right to erasure)
- SOC 2 Type II – System & Organization Controls
- Capital Market Regulations:
 - BSEC & DSE guidelines
 - SEC/FINRA rules for US expansion



OMS Deployment Options



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OMS Deployment Options

1



Traditional / On-Premises OMS

2



Cloud-Based OMS

3



Hybrid OMS

Comparison of Deployment Options

Feature / OMS Type	Traditional OMS	Cloud OMS	Hybrid OMS
Deployment	On-premises	Cloud	On-prem + Cloud
Cost	High upfront	Subscription	Medium
Scalability	Limited	High	Medium-High
Maintenance	In-house	Provider-based	Shared
Accessibility	Local network	Anywhere	Mixed
Security & Compliance	High	Provider-level	Mixed
Customization	Full control	Limited	Moderate

Minimum Requirements (Pilot/Small Broker)

Component	Minimum Specification
CPU	4 Cores (Intel Xeon / AMD EPYC / equivalent)
RAM	16 GB
Storage	500 GB SSD (NVMe preferred)
Network	1 Gbps Ethernet
OS	Linux (Ubuntu 22.04 LTS / RHEL 9)
Database Server	PostgreSQL 14+ with replication enabled
Backup	Daily incremental + weekly full backup

Recommended Requirements (Mid-to-Large Broker)

Component	Recommended Specification
CPU	8–16 Cores (Intel Xeon Gold / AMD EPYC series)
RAM	32–64 GB
Storage	1–2 TB NVMe SSD + separate 1 TB backup storage
Network	Dual 10 Gbps Ethernet (with redundancy)
OS	Linux (Ubuntu LTS / RHEL / CentOS Stream)
Database Server	PostgreSQL cluster + Redis + MongoDB
High Availability	Load Balancer (HAProxy/NGINX) + Kubernetes nodes
Backup	Automated cloud backup + on-premises archive

Cloud Provider	Recommended Setup	Notes
Local Data Center	Best in Industry	Best for Scalability

On-Premise Deployment Options

1

Single Server Deployment (Small Brokerage)

All services on one high-performance server

2

Cluster Deployment (Large Brokerage)

Separate nodes for Application, Database, and Analytics

3

Disaster Recovery (DR)

Secondary server at remote site with automated replication



Additional Recommendations

1

UPS & Power Backup

Minimum 30 mins
uptime during outages.

2

Firewall & IDS/IPS

Hardware firewall +
intrusion detection

3

Redundancy

Dual power supply,
RAID storage, failover
clustering

4

Monitoring

Github Action,
Prometheus + Grafana
for real-time hardware
utilization

OMS Integration and Support

1

API Integration

- RESTful and WebSocket APIs for real-time order execution
- Integration with trading exchanges, CRM, risk, and portfolio systems
- Supports automated workflows and data synchronization

2

Third-Party System Integration

- Accounting & reporting systems
- Market data providers and news feeds
- Compliance and regulatory platforms

3

Dedicated Technical Support

- Round-the-clock technical support
- Live chat, email, and phone assistance
- Quick resolution for critical issues

4

Training and Onboarding

- Guided onboarding sessions
- User manuals, video tutorials, and webinars
- Continuous education for new features and modules

Get In Touch...

Let XTrade Handle Your Trading



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