Changing the Face of Market Infrastructure Technology
XIX Foro de Inversionistas
Panama 22 de Agosto 2018

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Nasdaq
FOCUS ON COMMERCIALIZING NEW TECHNOLOGIES
One of the first ‘exchanges’ to go beyond proof-of-concept and leverage machine intelligence, blockchain and cloud in practice

HOME OF TECHNOLOGY
Over 600 technology companies are listed on Nasdaq’s exchanges. Robust relationships with Silicon Valley and other technology centers

TECH PROVIDER TO MULTIPLE INDUSTRIES
Award-winning portfolio of market infrastructure and regulatory technology solutions for over 10,000 corporate clients

ACTIVE INVESTMENTS IN EXPERIMENTATION & INNOVATION
Established Nasdaq Ventures in 2017 to broaden & deepen portfolio. Active in think tanks & universities: MIT, Columbia, more+

A Tech Company with Capital Markets Roots
Mission critical technology provider to the capital markets and beyond

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Technology Trends Shaping Financial Services:

Innovations Advancing the FinTech Landscape
Comprehensive Steps For Catalyzing Change

**Strategic Pivot**
- Re-positioning towards technology and analytics product areas while sustaining marketplace foundation

**Resource Allocation**
- Ensuring allocation of capital, people and other resources is optimized to enable our best opportunities

**Employee Culture**
- Driving a culture of innovation and execution

**Client Focus**
- Deepen relationships and advocate on behalf of our clients
Emerging Technologies Focus: What is Nasdaq Doing?
Beyond Proof-of-Concept in All Areas

- **Cloud**
  - Our internal Revenue Management Systems in the US and Nordics
  - Nasdaq Financial Framework (NFF) Cloud-enabled and deployable at multiple cloud providers
  - Analytics Hub

- **Machine Intelligence**
  - Implemented in Nordic Surveillance Program for QA & Alert Scoring
  - Available in commercial marketplace surveillance offering

- **Behavioral Analytics**
  - Acquisition of Sybenetix
  - Used to detect market manipulation on the buy-side
  - Exploring other uses internally

- **Blockchain**
  - Nasdaq Private Market
  - eVoting
  - Exchange client’s OTC Post-Trade
  - Broker client’s Mutual Funds
  - Blockchain Matching Patent
Startup market opportunities powered by cloud
Formation new markets and asset classes

1. LOWER BARRIERS TO ENTRY
2. QUICKER TIME TO MARKET
3. SCALES FOR GROWTH
4. ONLY USE REQUIRED CAPACITY

CLOUD EARLY ADOPTERS:
Nasdaq Non-Financial Engagements

- Loyalty Points
- Crypto Assets
- Sports
- Logistics
- Advertising
- Ticketing
- Airlines
- Healthcare
- Insurance
Cloud Predictions

• Due to environmental factors and technology innovation, exchanges must adapt and differentiate to meet regulatory, efficiency and data needs
• Paradigm shift causing further re-architecture of technology and service models in market infrastructure space
• Increased operation of key systems/functions to cloud or outsourced to third-party
• Ability for market infrastructure organizations to create “Service Universes”
• Conversion of networks and infrastructures to a world of platforms

SERVICING A HYPER-CONNECTED WORLD

Networks >> World of platforms

SERVICING YOUR ECO-SYSTEM

Market Operators Service Universes

THE TECHNOLOGY FOUNDATION

Mission-critical software deployed as a service
Thank You

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