Global Florida Webinar:
Infrastructure, Economic Development and Supply Chain Innovation
March 6, 2018
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To Submit a Question

Please email
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I. **Welcome** | **Dan Tapia**, Manager, International Policy & Strategy, Florida Chamber of Commerce

II. **Guest Speakers:**
   - **Michael Morgan**, Partner, McDermott, Will & Emory
   - **Ed Mortimer**, Executive Director, Transportation Infrastructure, US Chamber of Commerce

III. **Audience Comments**

IV. **Adjourn**
MICHAEL MORGAN
Partner, McDermott, Will & Emory
Blockchain Applications for Supply Chain Management

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Introduction to Blockchain

- It is decentralized, distributed ledger technology for Internet-connected computers to keep a collective bookkeeping.
- Network notes have a complete copy of the ledger, so everyone has access.
- A transacting party only needs to update his own ledger and then the transaction details (e.g., the sender’s public key) can be broadcast to everyone.
Five Key Steps – Step One

There is some sort of a transaction, such as:

- Movement within a supply chain (e.g., any prescription drug, automobile)
- A transfer of bitcoin or other token of value
- A transfer of property (e.g., a house)
- A compilation of information (e.g., information relevant to customs)
Five Key Steps – Step Two

- The parties must validate the transaction with digital signatures to prove that the transaction was initiated by the true owner.
- This is typically done using public key infrastructure, or PKI, a secure form of encryption.
Five Key Steps – Step Three

Transactions are broadcast to the network.
Five Key Steps – Step Four

Transactions are grouped into a block:

- Miners compete in a mathematical contest to solve a math problem using the digital data in the new block (i.e., they try to generate a SHA-256 hash that starts with many zeros).

- Hard to win but easy to tell who won. The math won’t work if the ledger is changed in the slightest.
The new block is added to all prior blocks, creating a chain:

- The answer to the math problem is used as an input for the next block.

- So, any change to any prior block changes the hashes for all later blocks, i.e., has a domino effect down the chain.
Blockchain – Where the Money is Flowing

Over $2B in startup funding in past three years.

- Most large tech and financial companies fund investments. Key sectors:
  - Business Sector: supply chain management (e.g., life sciences, RFID-enabled payment mechanisms), smart contracts, medical records
  - Financial: money transfers, trading, dividend payments, remittances, escrows, speculation
  - Other Digital Assets: identity and credentials, smart property
Blockchain – Pros

- **Decentralized**
  - No trusted central entity is needed (e.g., central bank, national land registry), thus saving costs
  - Good for peer-to-peer dealings where rules/behaviors can be coded (e.g., smart contracts)

- **Distributed**
  - Contributes to security and resiliency

- **Tamper Proof/Immutable**
  - Not vulnerable to ransomware

- **Transparency advantages**
  - Auditable and available (e.g., baptism records)
Blockchain for Supply Chain

- **The Problem**
  - Inefficiencies in the global supply chain (e.g., cost of trade documentation and administering a shipment can sometimes be comparable to the shipping costs)
  - Complex web of communications between players, including manufacturers, carriers/shippers/truckers/rail, forwarders, multiple government authorities, consignees, and ports/terminals
    - Some of which are still paper based
    - Results in costly, inefficient, and often incorrect information.

- **The Promise of Blockchain**
  - Efficient communication because communication with the blockchain dramatically reduces peer-to-peer communication and lowers costs
  - Secure, fast access to documentation that cannot be changed and is a “single source of truth”
Blockchain for Supply Chain

- The Benefits
  - Companies/Shippers – Improved supply chain with greater predictability, early warning of issues/delays, transparency, and potentially reduced inventory costs.
  - Carriers – Up to date information about supply chain events, better collaboration with ports/terminals
  - Ports/Terminals - Up to date information about supply chain events that facilitates improved planning
Practical Application: Pharmaceutical Supply Chain

- **Drug Supply Chain Security Act:**
  - Creates an electronic, interoperable system to identify and trace prescription drugs
    - From manufacturer to pharmacy
  - Requires identification and tracing
  - Requires verification, detection, response, notification, and recordkeeping activities

Opportunities

Ensure Product Integrity

Create Transparency
Practical Application: Pharmaceutical Supply Chain, Con’t.

▪ Potential blockchain applications:
  – Enable serialization
  – Product and inventory management
  – Conduct targeted recalls, market withdrawals, and safety alerts

▪ Challenge:
  – The possibility that everyone has to plug-in
Financial Services Applications

Bitcoin/Cryptocurrency Applications

- Payment methods and domestic/international transfers (e.g., smart contract-enabled payments, Ripple)
- Banking in nations with unstable currencies

Other Applications

- Blockchain-enabled exchanges (e.g., NASDAQ’s Linq for digitally represented shares) and shares (e.g., Delaware’s Blockchain initiative)
- Umbrella-style blockchain collaborations involving banks and other players (e.g., R3, Hyperledger blockchain project, Ethereum Enterprise Alliance) focused on interoperability and standards-setting.
- Biggest hurdles are collaboration among players and standards for interoperability and permissioned blockchains.
Legal/Regulatory Questions

- Legal status of Blockchain (e.g., jurisdiction, applicable law, remedies for breach of smart contracts, admissibility of information on the ledger, use of ledger to prove ownership of assets)
- Inclusion in KYC, AML, and CFT directives
- Legal issues with electronic signatures
- Applicability of money transfer licensing requirements
- Privacy challenges (e.g., how to enforce EU right to be forgotten or US rights to delete, whether addition of information to Blockchain triggers cross-border data protection schemes)
- Recognition of Blockchain as a valid means to create legal instruments (e.g., derivatives or bonds)
Agenda

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II. Guest Speakers:
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Florida Trade and Logistics Studies

Phase I (2010)
- Document existing and project future trade flows
- Recommend strategies for Florida to compete globally

Phase II (2013)
- Establish the business case for trade
- Identify opportunities and provide recommendations
- Regional implementation and support

www.FlChamber.com/international
STATE OF FLORIDA VISITORS

$111.7 Billion Visitor Spending

112.4 Million Visitors

www.theFloridaScorecard.com

World's busiest cruise ports are in Florida

If you are one of the 25 million passengers expected to take a cruise this year, chances are your travels may take you to Florida. Port Miami welcomed 4.8 million passengers last year, making it the busiest port in the world.

Port Canaveral in Cape Canaveral and Port Everglades in Fort Lauderdale were the second and third busiest, with combined traffic of more than 7.5 million passengers. It's no surprise, given that the Caribbean is the top cruise destination in the world.
ED MORTIMER

Executive Director, Transportation Infrastructure
US Chamber of Commerce
Infrastructure
Modernization Outlook

Ed Mortimer, Executive Director
Transportation Infrastructure
Infrastructure Modernization

• President Trump ran on a platform of rebuilding America’s infrastructure.
• In May 2017, the Administration released six principles for infrastructure bill.
• Congress held hearings but no further action without Administration’s proposal.
Chamber’s Four Point Infrastructure Modernization Plan
http://letsrebuildamerica.com/

• Increasing the federal fuel user fee by 25 cents for surface transportation projects
• Implementing a multi-faceted approach for leveraging more public and private resources
• Streamlining the permitting process at the federal, state, and local level
• Expanding the American workforce through work-based learning and immigration reform
Administration’s Proposal

- Plan would include $200 billion in new federal investment over 10 years to leverage $1.5 trillion in projects:
  - $100 billion would be made available for an incentives program for states and municipalities
  - $50 billion would be allocated for rural projects through block grants to governors
  - $20 billion would be dedicated for a “transformative projects program” for futuristic contrivances
  - $20 billion would be used to enhance federal credit programs and broaden the use of private activity bonds
Administration’s Proposal

- $10 billion would back the creation of a Capital Financing Fund
  - USDOT Secretary Elaine Chao testifying on Capitol Hill about plan
  - President Trump and other cabinet officials will travel country to see plan.
Infrastructure Bill Outlook

• House and Senate beginning hearings
• Expect House and Senate bills drafted in late Spring.
• Bill moves through House and Senate before August Recess.
• House-Senate Conference comes to agreement on bill at year end.
Contact Information

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Questions?
Upcoming Events

• March 27th, 2018- Trade & Logistics Institute Meeting- Miami, FL
• May 1st, 2018- Global Florida Webinar
• May 2nd, 2018- Less Poverty, Through More Prosperity Summit- Orlando, FL
• May 14-16- Board of Director’s Washington D.C. Fly-In
• June 12, 2018- Education Summit- Tampa, FL
• September 26, 2018- Future of Florida Forum- Orlando, FL

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CONTACT US

Get in touch

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