Trust My Identity

solving Track 1 – Identity Management and APIs
while dabbling in Track 3 – Data Aggregation and Linkage
brought to you by Team TMI
Credentialing is costly and time-consuming ...

... it is re-documented and re-verified at each step of a provider’s career.
**inaccurate information**

Payer have non-standard provider data structures-Legacy systems store data in multiple disconnected databases

**cumbersome processes**

Latency in updates
Complex and dynamic data

**limited sharing**

Multiple versions of data
Need based siloed data

@TCS  @BurstIQ  #DCblockchain
What did we use?
- IPFS
- Monax Blockchain (Ethereum + Tendermint)
- BigChain DB (BFT + NoSQL DB)

How do we manage identity?
- Manage attestation by running a smart contract system based on DOUG
- Enforce digital signatures for persistent Primary Source Verification

How do we link data?
- Consensus-controlled authority
- Linked payloads in BigChain DB
- Split data from the blockchain with pointers

@TCS  @BurstIQ  #DCblockchain
1 Physician creates a profile

Register to the Blockchain Ledger

- **Primary Specialty**: Anesthesiology
- **Secondary Specialty**: 
- **Tertiary Specialty**: 

**Network**
- Network Name: Carefast BCBS
- Network Name: 
- Network Name: 

**Credentialed**
- Credential Type: Board Certification
- Credential Type: 
- Credential Type: 

**Affiliation**
- Affiliation Entity: 
- Affiliation Entity: 
- Affiliation Entity: 

Email: Linda.Myers@gmail.com
NPI: 999001234
LastName: Myers
FirstName: Linda
Phone Number: (855)234-1234
Address: 5255 Loughboro Road N W, Washington DC 20016

@TCS @BurstIQ #DCblockchain
Payer receives a **trigger** to verify network affiliation

<table>
<thead>
<tr>
<th>From</th>
<th>Subject</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:linda.myers@gmail.com">linda.myers@gmail.com</a></td>
<td>Add to Care First DCBS network</td>
<td>✔</td>
<td>✗</td>
</tr>
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Payer certifies network affiliation
4. Board receives a **trigger** to verify clinical specialty

<table>
<thead>
<tr>
<th>From</th>
<th>Subject</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:linda.myers@gmail.com">linda.myers@gmail.com</a></td>
<td>Board certification from The American Board of Anesthesiology</td>
<td>✔️</td>
<td>✗</td>
</tr>
</tbody>
</table>
Board rejects clinical specialty
Physician profile is updated + Physician is notified of attestations

6

Register to the Blockchain Ledger

Email
Linda.Myers@gmail.com

Primary Specialty
Anesthesiology

NPI
999001234

Secondary Specialty

LastName
Myers

Tertiary Specialty

FirstName
Linda

Address
5255 Loughboro Road N W. Washington DC 20016

Network
- Network Name
Carefest BCBS

Credentialed

Credentialed Entity
The American B

Affiliation

Affiliation Entity

Credential Type
Board Certification

Team

Next Up
<table>
<thead>
<tr>
<th>Distributed Provider Directory drives</th>
<th>[patient]</th>
<th>[physician]</th>
<th>[practices]</th>
<th>[payer]</th>
<th>[licensing]</th>
<th>[regulatory]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate provider information</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Faster credential verification</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Asynchronous + real-time updates by multiple entities</td>
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<td>Patient-centered care options</td>
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<td>✓</td>
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<tr>
<td>Interoperability at scale, on steroids</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

... and facilitates

| Transition to value-based payment models              | ✓         | ✓          | ✓          | ✓      | ✓          | ✓           |
| Improved care coordination                           | ✓         | ✓          | ✓          | ✓      | ✓          | ✓           |
| Easier population health analytics + reporting        | ✓         | ✓          | ✓          | ✓      | ✓          | ✓           |
$1-2B

@TCS  @BurstIQ  #DCblockchain
1. Include blockchain as a recommended tech in the design + implementation of distributed provider directories

2. Encourage recipients of CMS funding to invest in developing distributed provider directories

3. Provide education on use cases + advantages of blockchain
Uppi Reddy  
Andreas Freund  
Venky Raghunathan  
Shane Giehll  
Lily Bragg

TATA CONSULTANCY SERVICES + burstIQ

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