



idea



problem



solution



opportunity



team



next up

# 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**

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Credentialing is costly and time-consuming ...



... it is re-documented and re-verified at each step of a provider's career.

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## 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

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## What did we use?

- IPFS
- Monax Blockchain (Ethereum + Tendermint)
- BigChain DB (BFT + NoSQL DB)

## How do we manage identity?

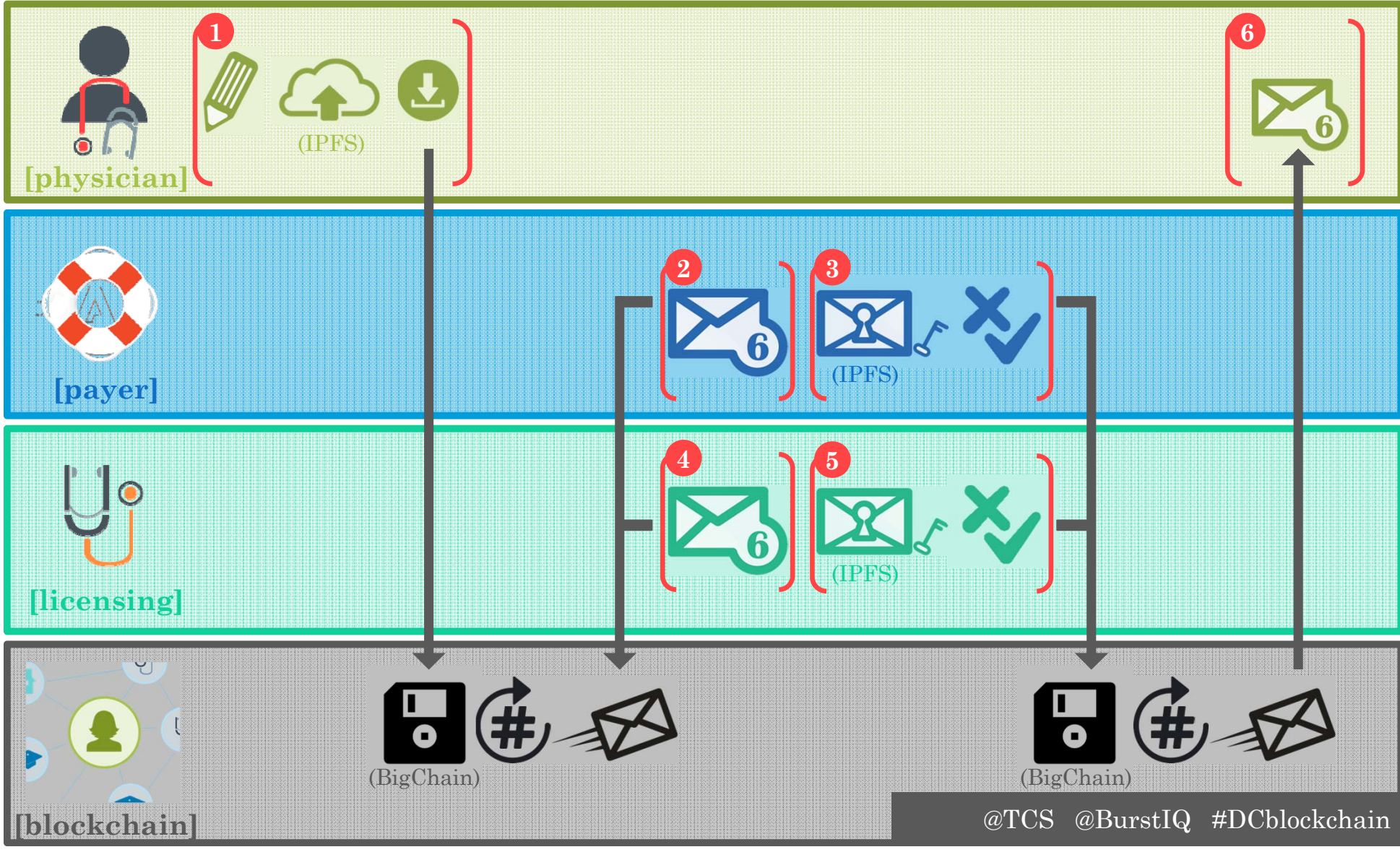
- Manage attestation by running a smart contract system based on DOUG
- Enforce digital signatures for persistent Primary Source Verification

## How do we link data?

- Consensus-controlled authority
- Linked payloads in BigChain DB
- Split data from the blockchain with pointers

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# 1 Physician creates a profile

Foundation | Welcome x Foundation | Welcome x venkatesh

localhost/blockchain/#/register

## Register to the Blockchain Ledger

<p>Email Linda.Myers@gmail.com</p> <p>NPI 999001234</p> <p>LastName Myers</p> <p>FirstName Linda</p>	<p>Primary Speciality Anesthesiology</p> <p>Secondary Speciality</p> <p>Tertiary Speciality</p> <p>Phone Number (855)-234-1234</p> <p>Address 5255 Loughboro Road N W, Washington DC 20016</p>
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Network	Credentialing	Affiliation
<p>Network Name Carefirst BCBS</p>	<p>Credential Type Board Certificati</p> <p>Credential Entity The American Bc</p>	<p>Affiliation Entity</p>
<p>Network Name</p>	<p>Credential Type</p> <p>Credential Entity</p>	<p>Affiliation Entity</p>
<p>Network Name</p>	<p>Credential Type</p> <p>Credential Entity</p>	<p>Affiliation Entity</p>
<p>Add More...</p>	<p>Add More...</p>	<p>Add More...</p>

## 2 Payer receives a trigger to verify network affiliation

The screenshot shows a web browser window with the URL `localhost/blockchain/#/profile`. The page title is "Actions or Notifications". At the top, there are two buttons: "Pending 1" (circled in red) and "Completed 10". Below this is a table with the following data:

From	Subject	Accept	Reject
<code>linda.myers@gmail.com</code>	Add to Care First BCBS network	✓	✗

The left sidebar contains the following menu items: Home, Upload Keys, Vote, Notifications, Name Registry, Core Identity, Assets, My Documents, and My Gatekeeper. The bottom of the page features a dark blue sidebar with icons and labels: idea, problem, solution, opportunity, team, and next up.

### 3 Payer certifies network affiliation

The screenshot shows a web browser window with the URL `localhost/blockchain/#/profile`. The browser's address bar and tabs are visible at the top. The page content includes a sidebar on the left with navigation options: Home, Upload Keys, Vote, Notifications, Name Registry, Core Identity, Assets, My Documents, and My Gatekeeper. The main content area is titled "Actions or Notifications" and features a summary bar with two segments: "Pending 0" (circled in red) and "Completed 11". Below this bar is a table with the following structure:

From	Subject	Accept	Reject
------	---------	--------	--------



## 4 Board receives a trigger to verify clinical specialty

The screenshot shows a web browser window with the URL `localhost/blockchain/#/profile`. The page displays a notification titled "Actions or Notifications" with a summary bar showing "Pending 1" and "Completed 5". Below this is a table with the following data:

From	Subject	Accept	Reject
<code>linda.myers@gmail.com</code>	Board certification from The American Board of Anesthesiology	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The left sidebar contains navigation links: Home, Upload Keys, Vote, Notifications, Name Registry, Core Identity, Assets, My Documents, and My Gatekeeper. The bottom of the page features a dark blue sidebar with icons and labels: idea, problem, solution, opportunity, team, and next up.

# 5 Board rejects clinical specialty

The screenshot shows a web browser window with the URL localhost/blockchain/#/profile. The page has a dark sidebar on the left with navigation items: Home, Upload Keys, Vote, Notifications, Name Registry, Core Identity, Assets, My Documents, and My Gatekeeper. The main content area features a blue notification bar titled 'Actions or Notifications' with two segments: 'Pending 0' (circled in red) and 'Completed 6'. Below this is a table with the following structure:

From	Subject	Accept	Reject
------	---------	--------	--------

# 6 Physician profile is update + Physician is notified of attestations

Foundation | Welcome x Foundation | Welcome x venkatesh

localhost/blockchain/#/register

### Register to the Blockchain Ledger

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

Network	Credentialing	Affiliation
Network Name Carefirst BCBS	Credential Type Board Certificati	Credential Entity The American B
Network Name	Credential Type	Credential Entity
Network Name	Credential Type	Credential Entity

Affiliation Entity
Affiliation Entity
Affiliation Entity

Buttons: Add More... (under each table)



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[patient]



[physician]



[practices]



[payer]



[licensing]



[regulatory]

### Distributed Provider Directory drives

Accurate provider information	✓	✓	✓	✓	✓	✓
Faster credential verification		✓	✓	✓	✓	✓
Asynchronous + real-time updates by multiple entities		✓	✓	✓		
Patient-centered care options	✓	✓	✓	✓		
Interoperability at scale, on steroids	✓	✓	✓	✓	✓	✓

### ... and facilitates

Transition to value-based payment models	✓	✓	✓	✓		✓
Improved care coordination	✓	✓	✓	✓		✓
Easier population health analytics + reporting	✓	✓	✓	✓		✓

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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

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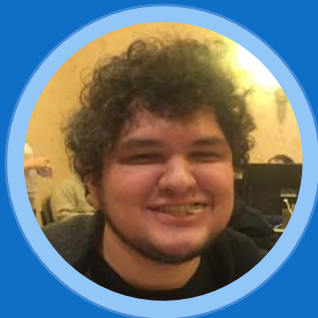
**Uppi Reddy**



**Andreas Freund**



**Venky Raghunathan**



**Shane Giehl**



**Lily Bragg**



**TATA CONSULTANCY SERVICES**



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**Uppi  
Reddy**



**Andreas  
Freund**



**Venky  
Raghunathan**



**Shane  
Giehl**



**Lily  
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