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Technology Specific to Payment Bundling including Blockchain

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Bundled Payment Programs

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Bundled Payment Program

Increased Quality

- Align payment incentives with quality metrics
- Increased coordination of care
- Reduce avoidable complications

Enhance Patient Experience

- Better patient outcomes
- Better patient experience

Reduce Medical Costs

- Redirect care from fee for volume to fee for value
- Reduce unwarranted variations in care
- Attention to costs associated with episode of care

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Bundled Payment Design

Episode Window

How to trigger the episode? Notification Process

Number of Days: Pre-, post- and during trigger

Supplemental Data? Quality metrics, readmissions

Inclusion vs. Exclusion

Patients – Exclude for age or co-morbidities

Services – line or claim level?

Providers – leakage? Track or price differently?

Payment Methodology

Prospective or Retrospective? Both!

Risk Level – Any Outliers/Stop Loss?

Prospective or Retrospective?

TYPE	Benefits	Challenges
Prospective	- Transference of Risk - Faster Results - Levels medical costs for Payer - No shared savings distribution - Included in claims adjudication workflow	- Must achieve efficiency quickly - Conductor needs infrastructure to pay providers - Regulatory issues
Retrospective	- Providers more willing - Learning environment - Easier to administer - Easier for providers to receive FFS payments	- Moves the needle slower - Lengthy shared savings reconciliation - ASO settlement payments

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Did your pilot have lackluster results?

Are the conductors including only the healthiest patients?

What is the cost vs. benefit?

Initial Analysis does not match claims data?

What about the leakage payments?

?

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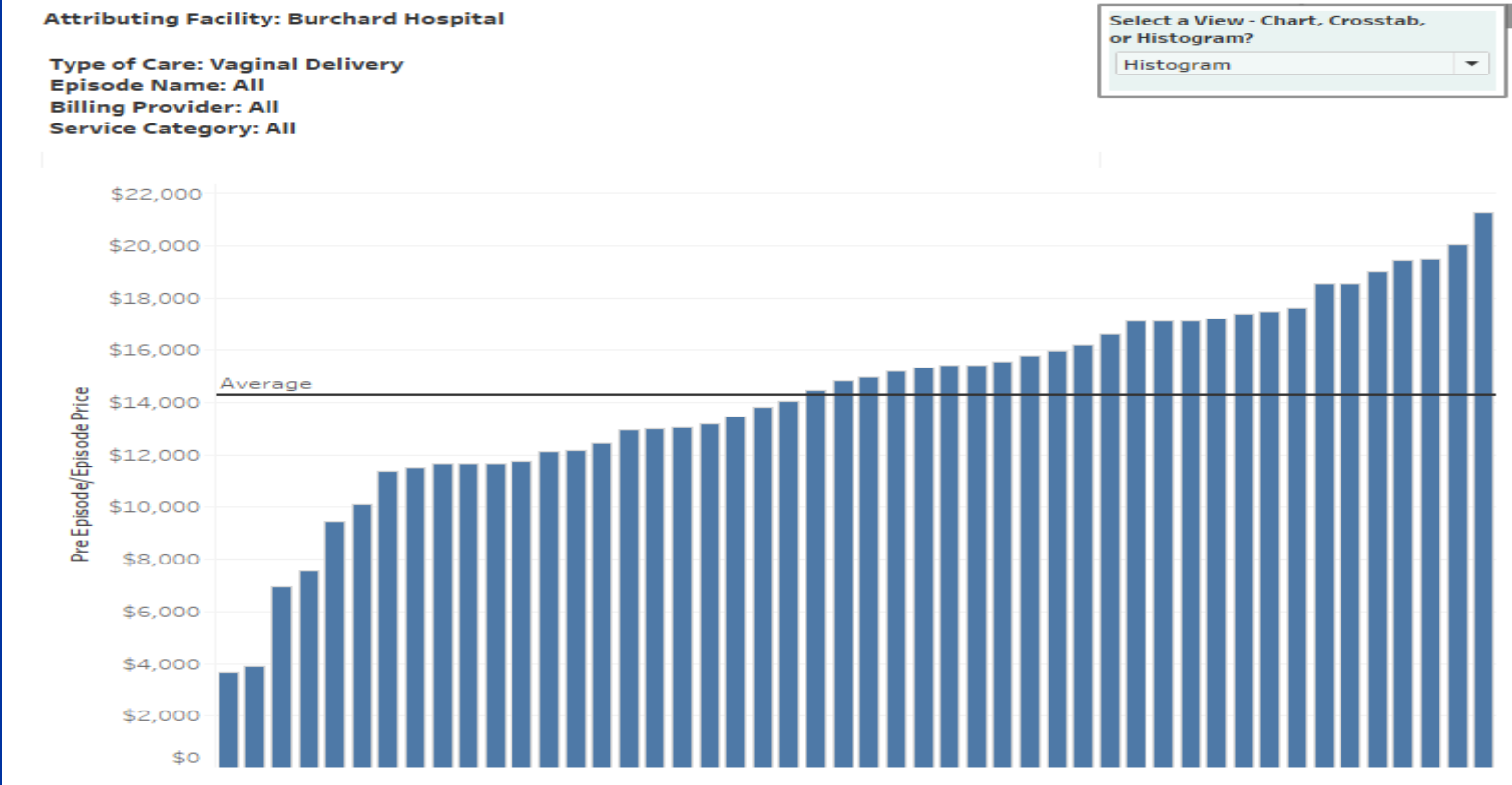# Current Technology Available

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Analytics

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Analytics at each stage

✓ During the opportunity assessment

✓ During ROI projection & program approval

✓ Contracting Strategy

✓ Ongoing monitoring of current contracts

✓ Expansion initiatives

Visualization is key to understanding trends.
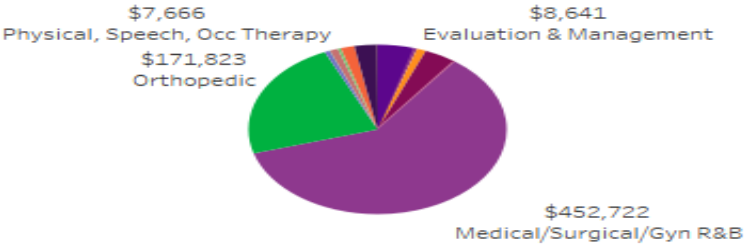
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Opportunity Assessment

Understanding Trends

Type of Care: Knee Replacement & Knee Revision

Episode: (TZ_PROM) KNEE REPLACEMENT AND KNEE REVISION (KNRPL) 5.3.001

Attributing Facility: Mayaguez Hospital

Bundle Count: 15   ;   **Complication %:**   3.47%   ;   **Average Bundle Price:** $50,114

Service Category	Episode Name	
Medical/Surgical/Gyn R&B	(TZ_PROM) KNEE REPLACEMENT AND KNEE..	$452,722
Orthopedic	(TZ_PROM) KNEE REPLACEMENT AND KNEE..	$171,823
Anesthesia	(TZ_PROM) KNEE REPLACEMENT AND KNEE..	$33,396
General Medical	(TZ_PROM) KNEE REPLACEMENT AND KNEE..	$30,337
Subacute Care	(TZ_PROM) KNEE REPLACEMENT AND KNEE..	$21,177

Legend:
- Medical/Surgical/Gyn R..
- Orthopedic
- Anesthesia
- General Medical
- Subacute Care
- Rehabilitation R&B
- Evaluation & Managem..
- Physical, Speech, Occ T..
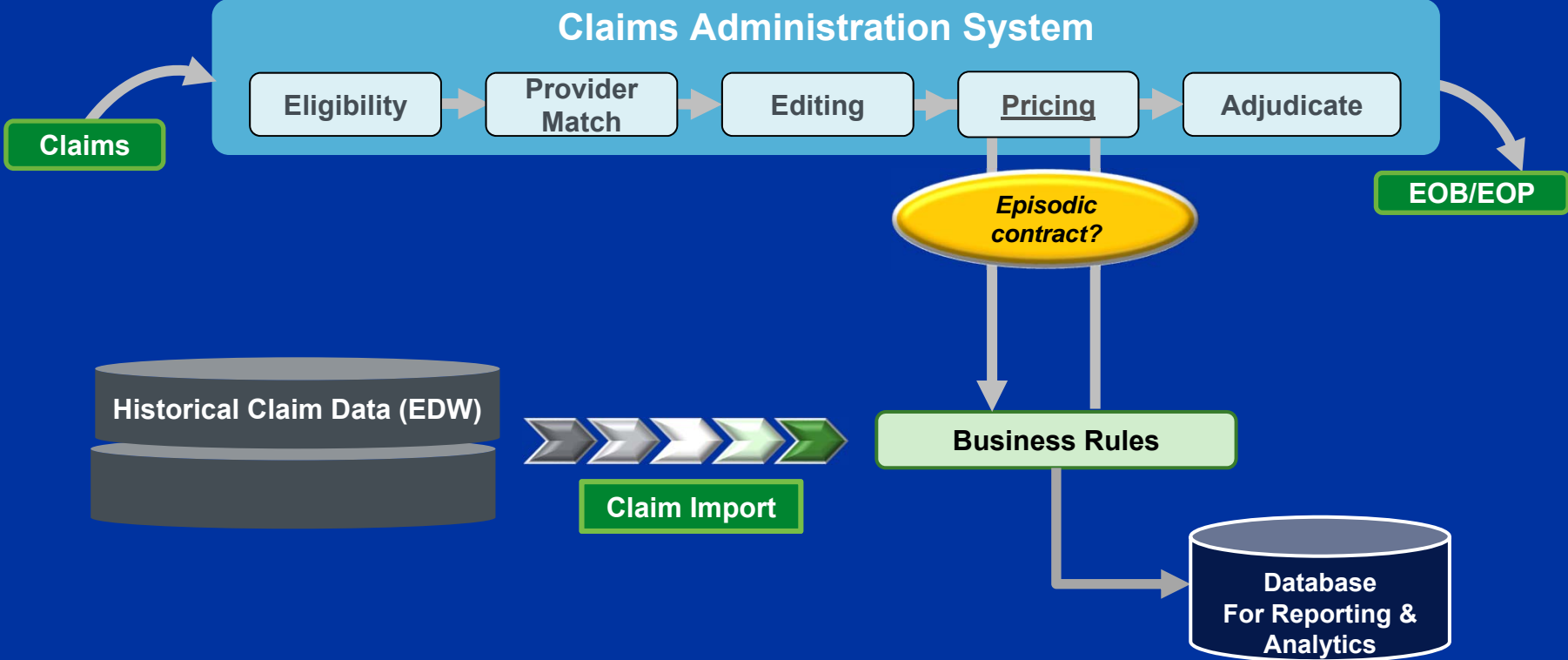- Pathology-Laboratory
- DME
- Radiology
- Pharmacy

$7,666 Physical, Speech, Occ Therapy
$8,641 Evaluation & Management
$171,823 Orthopedic
$452,722 Medical/Surgical/Gyn R&B

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Automation

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Technology Requirements

➤ Assess multiple claims, multiple providers and multiple dates of service for inclusion in an episode of care

➤ Systematically codify the clinical criteria of an episode

➤ Automate the patient and claim inclusion criteria

➤ Issue a single bundled payment for multiple claims within an episode

➤ Identify quality metrics and monitor providers

➤ Identify attributing providers and assess their participation

➤ Provide claim repository for retrospective reconciliation and shared savings payments

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Cognizant's Technology Solution

Payment Bundling can be invoked during adjudication process in real time

Claims Administration System

| Eligibility | Provider Match | Editing | Pricing | Adjudicate |

Claims

EOB/EOP

Episodic contract?

Historical Claim Data (EDW)

Claim Import

Business Rules

Database For Reporting & Analytics

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Analytics vs. Fully Automated Solution

Analytics Only

✓ Retrospective Only
✓ Ongoing Data Verification
✓ Extensive Reconciliation
✓ Lower TCO
✓ Slower Savings Realized

VS.
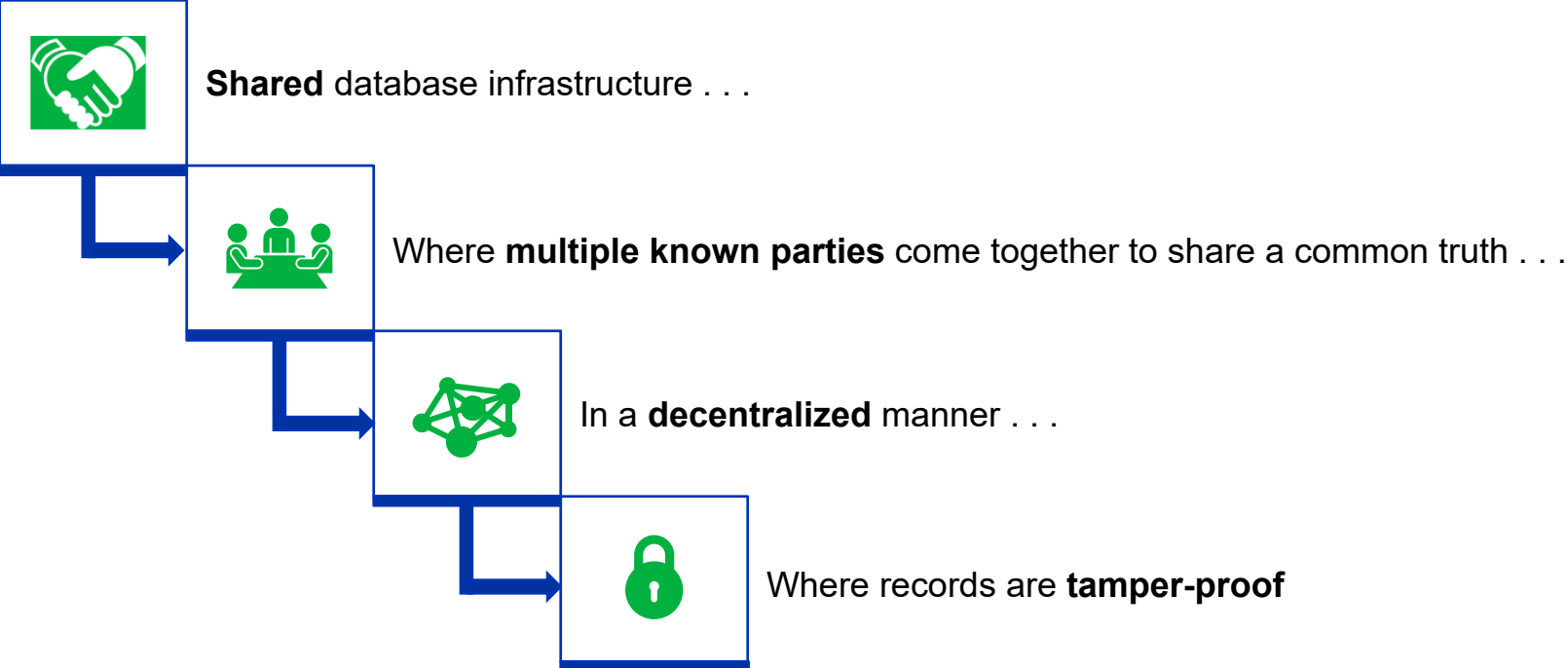
Automated Solution

✓ Retrospective & Prospective Contracts
✓ Consistent Results
✓ Minimal Reconciliation
✓ Increased TCO
✓ Increased Savings and Faster

Blockchain is the solution….but for which problem?

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Definition for Permissioned Blockchain Technology

Shared database infrastructure . . .

Where **multiple known parties** come together to share a common truth . . .

In a **decentralized** manner . . .

Where records are **tamper-proof**
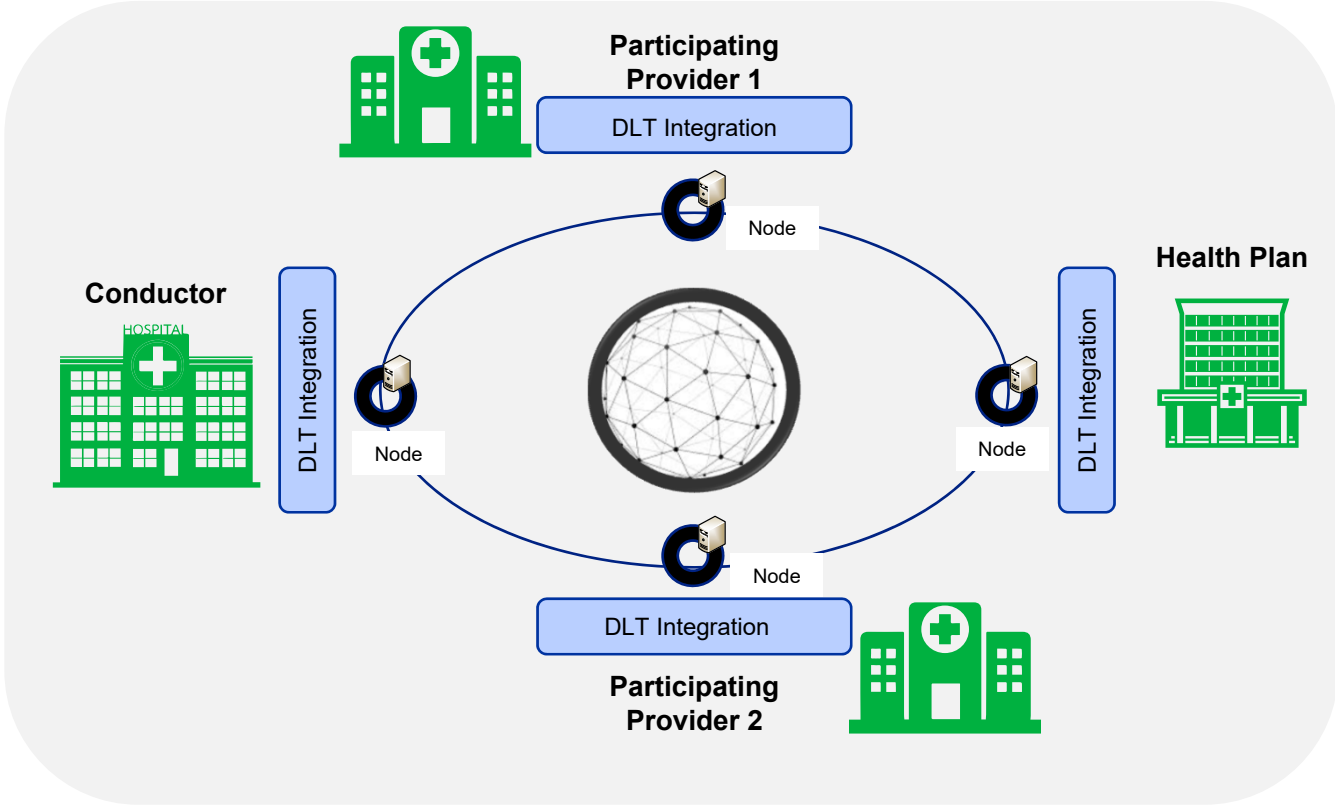
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Bundled Payments Network Enabled by Blockchain

Frictionless Episode Data Sharing

Medical Claims
Care Coordination
Documentation & Charges
Payments

Transparent Episode Tracking

Cost Tracking
Claw-backs
Seepage
Distributions

Participating Provider 1

DLT Integration

Node

Conductor

HOSPITAL

DLT Integration

Node

Health Plan

DLT Integration

Node

Node

DLT Integration

Participating Provider 2
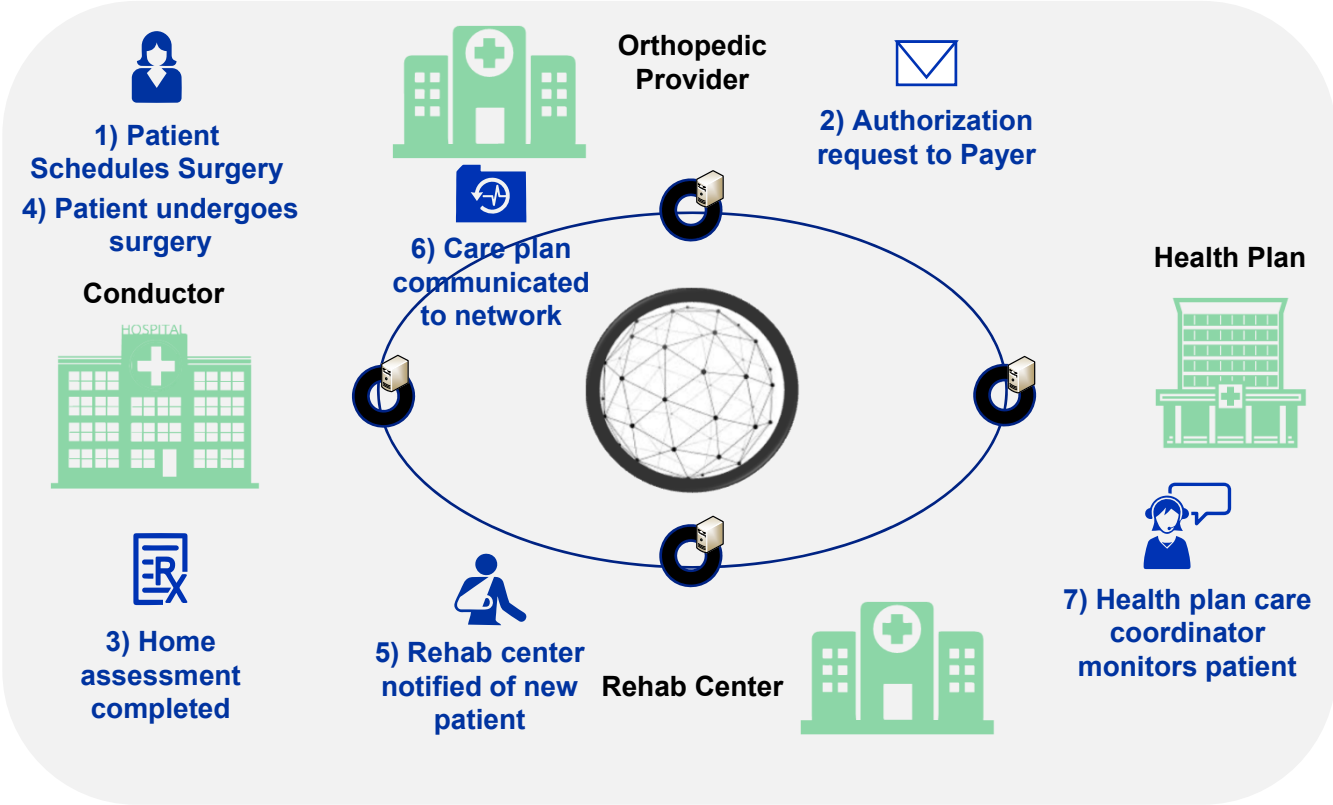
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Example Application – Improving Care Coordination

Problem Statement

- Multiple stakeholders with different IT systems

- Secure method to communicate this type of data

Solution

- Digital platform for care coordination messages

- Blockchain authenticated identity of messaging for security

1) Patient Schedules Surgery
4) Patient undergoes surgery

Conductor

6) Care plan communicated to network

Orthopedic Provider

2) Authorization request to Payer

Health Plan

3) Home assessment completed

5) Rehab center notified of new patient

Rehab Center

7) Health plan care coordinator monitors patient

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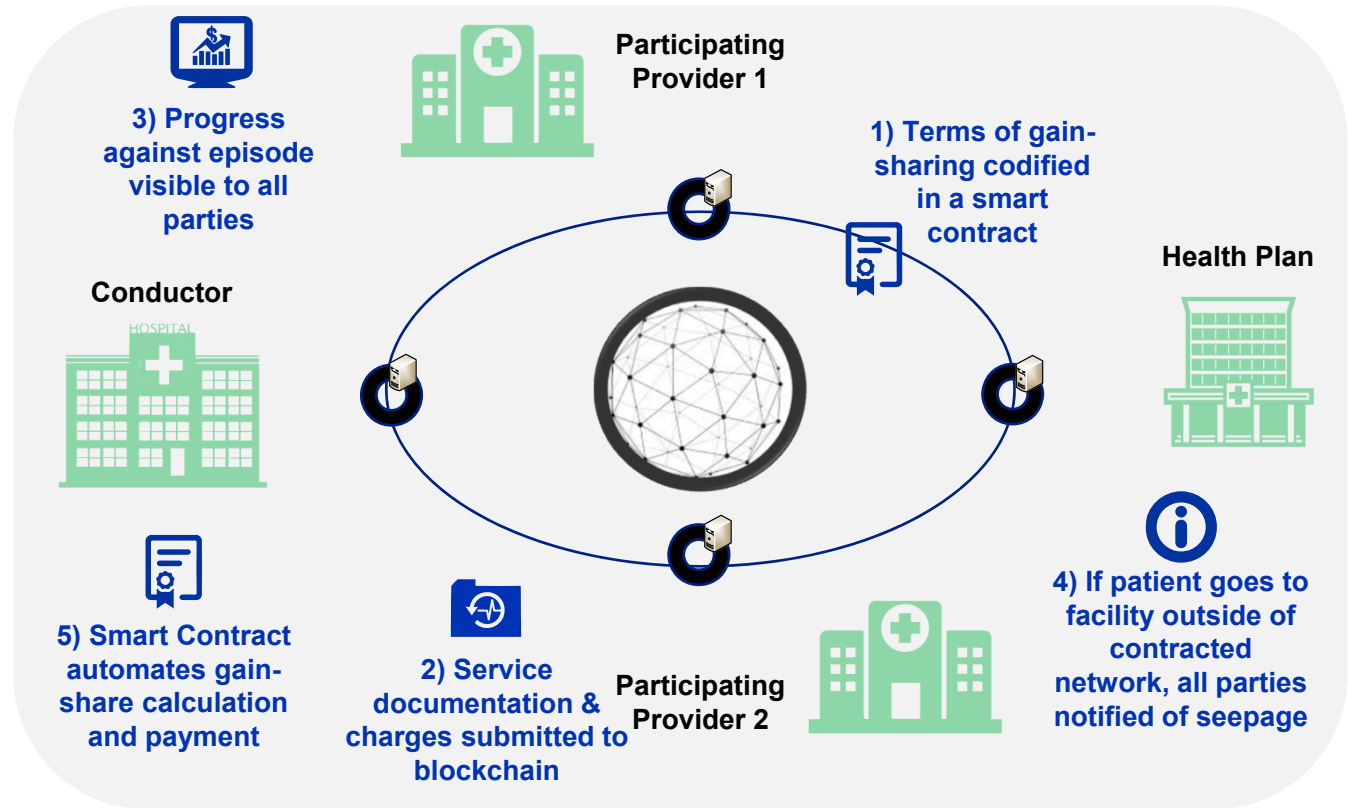# Example Application – Episode Gainsharing Transparency

Care Coordination

Problem Statement

- Participating providers lack visibility of trend against bundle cost

- Health Plan has to manage claw-backs due to seepage

Solution

- Blockchain transparency of episode costs and evens

- Smart contract automates gain-share calculation and payments

3) Progress against episode visible to all parties

Participating Provider 1

1) Terms of gain-sharing codified in a smart contract

Health Plan

Conductor

5) Smart Contract automates gain-share calculation and payment

2) Service documentation & charges submitted to blockchain

Participating Provider 2

4) If patient goes to facility outside of contracted network, all parties notified of seepage

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Real World Examples in Healthcare

synaptic ™
Health Alliance

- Launched February 2017
- 250+ enterprise members forming open source enterprise blockchain based on Ethereum
- Initiated with JPM's Quorum blockchain project

- Short for the Blockchain Insurance Industry Initiative launched in October 2016
- Aimed at providing a way for insurers to swap information and collaboratively test prototypes and use cases

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Thank you

Jennifer Mann – Value-based Products & Services

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