



# Smart Contracts in Commodities Transportation

*The Data Gumbo Perspective*

April 2020

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## INTRODUCTION

In commodities transportation, counterparties move a commodity from one place to the other through a complex web of intermediaries. At the end of the day, regardless of the resource, companies must reconcile payments with volume measurements and movements. Whether water, sand, production chemicals or crude oil, the current processes in place rely on convoluted paper-based workflows—handwritten tickets and Excel spreadsheets—that result in errors, discrepancies and mass inefficiencies that can total millions of dollars.

Smart contracts powered by blockchain provide an innovative approach to streamline operations, garner visibility and transparency with accurate data, and empower counterparties to reduce inefficiencies to capture significant cost savings. As the interface between different companies—a verifiable, auditable record of truth that correlates with real-world physical events—blockchain offers a secure way to leverage existing systems and operational data sources to ensure end-to-end reconciliation of any commodity.

Operating in near real-time, smart contracts use operational field data to digest real-world events; then apply agreed pricing rules to generate pre-reconciled payments, potentially as often as daily. These payments—and backup data, including underlying volume and cost data—are shared between counterparties, joint interest partners, royalty owners and state governments. From extraction to haulage, transfer to storage, complete visibility and transparency into the movement and measurements of commodities can be achieved.

Smart contracts take the relationship a step further, incentivizing data sharing to facilitate the automation of payments at speed. This means that vendors get paid faster for services and owner (operators) pay only for what is actually delivered thus freeing up working capital.

## WHY NOW?

All operators, service providers and vendors are focused on conserving cash and reducing expenses in the current oil environment. With capital expenditures evaporating and every head count in question, it's a business imperative to improve cash flow now. Furthermore, current payments processes for commodity transportation are rife with miscalculations, lack of accurate data, contract fraud, long DSOs and volume shrinkage among other issues. Over time, and in large quantities, these frequent losses and payment delays can end up costing tens of millions of dollars.

“Companies can rely on blockchain's shared truth, leveraging existing sensors, meters and digital reporting tools.”

At Data Gumbo, our blockchain-based network, GumboNet™, brings companies, customers and suppliers together to transact through a trusted network that can be used to automate smart contracts. Instead of relying on siloed legacy systems, manual spreadsheets and paper tickets to

track volume measurements and commodities' movements, companies can instead rely on blockchain's shared truth, leveraging existing sensors, meters and digital reporting tools.

With transportation, haulage and logistics costs expected to increase in the current market, the time to adopt smart contracts is now. It is one of the simplest, most efficient ways to reduce contract leakage, free up working capital, improve cash and financial management, and deliver materials provenance across commodities transportation.





## ARE YOU A CANDIDATE?

Right now, oil & gas companies must reduce operating expenses and save cash. GumboNet enables operators to take a 14-step, expensive, error-prone manual system and reduce it to a 2-step automated process with early results showing multimillion dollar savings for operators.

Deploying smart contracts to manage commodity movement results in savings of 10%+ from reduction in SG&A, reduction in overbilling and fast-pay discounts. These savings are not at some hypothetical date in the future—

savings begin to accrue 90 days from when you subscribe to GumboNet.

Available as a subscription with no additional out of pocket expenses or installation necessary, GumboNet yields savings in interest charges, allows operators to only pay for what is actually received, and contractors to receive prompt payments for the actual value delivered. Anyone with commodity hauling as part of their operations is a candidate.

## FIELD SERVICES PAYMENT COMPARISON

### MANUAL



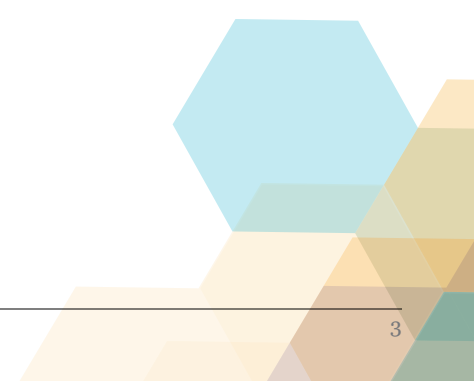
### ECOMMERCE



### DATA GUMBO — TARGET CASE



### DATA GUMBO — BEST CASE



## GET STARTED

Even as drilling and completions operations cut back, production operations continue. The first step in unlocking the benefits of a smart contract is to select a commodity as a use case. Key commodities that produce swift savings include pipe or trucked crude production, produced or recycled water, production chemicals and natural gas production. Other commodities that can be smart contracted include diesel fuel for rigs and frac spreads, proppants or fresh water piped or trucked.

The second step is to select which assets will be involved in the first deployment of GumboNet. When weighing options, consider if an asset already has meters or other relevant sensors; is data already available in a cloud or real-time operations center (RTOC) system; is the asset high enough value that it will not be shut in; and does the asset have a higher or lower than average number of disputes with vendors or royalty owners based on volumes and costs?

“ *These savings are not at some hypothetical date in the future—savings begin to accrue 90 days from when you subscribe to GumboNet.* ”

Next, select the counterparties to automate contracts with. Selecting the right partner means looking for a vendor or group of vendors more forward-thinking and open to change. If a vendor already does digital ticketing and is willing to share data, that is an ideal scenario. Looking for vendors that are most likely to gain mutual benefit from fast-pay discounts or those clamoring for more transparency.

Act now—sign up for a subscription with Data Gumbo and start saving in 90 days.



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