







Stop by The Home Depot or visit them online and you'll find literally everything needed to repair, replace or remodel something in your home — or build a new one from the ground up.

Central to your shopping experience are the thousands of products they offer. What makes that massive array possible are the deep relationships the retailer and its merchants have cultivated with vendors through the years.

The foundation of those relationships is built on mutual trust: that vendors will ship items when needed, and The Home Depot will pay them on time in exchange. While the vast majority of transactions go through without issue, there are times when there are discrepancies on what's been shipped, what's been received — and how much should be paid.

These breakdowns of trust cost time and money, and drag important personnel on both sides away from crucial business-building activities. So The Home Depot and its vendors have turned to IBM and blockchain technology for help.

We sat down with Dave Richa, Senior Director of Financial Operations for The Home Depot, and Brian Quartel, Director of Financial Operations, as they described the blockchain solution that's helping communication between the retailer and its vendors — and build the culture of collaboration at the heart of the project.

Portions of this interview have been edited for clarity and length.

■ Suppliers: the key to success

Dave Richa: Supplier relationships with The Home Depot are really one of the keys to our business. They're delivering the innovation that we need to deliver on our promise to our customers.

Brian Quartel: We have to trust our supply chain, that everything's being received appropriately. We have to trust what the vendor is telling us is accurate. When any of that is off, it creates a problem for us.

Dave Richa: Vendor disputes happen with any retailer that has volume of transactions that we do. Our main goal is to resolve them as efficiently as possible for both us and our vendors.

Brian Quartel: Ninety-eight percent of our billing process is fine. The issues we're dealing with here are two percent. But when you're talking about a company of our size, that's still significant.

■ Blind spots, manual interventions

Brian Quartel: If you think about our supply chain, you have a warehouse that vendors are stocking full of product. That product will be shipped; the vendors have an idea of what they say they shipped, and we have an idea of what we received. Sometimes those two don't match.

Well, the people that are in charge of the money — either on the receiving side or the paying side — neither of us were in the room when either of those transactions happened, but now we're trying to guess what the difference is.

If a vendor has a dispute — and their terms of agreement dictate they dispute any inaccuracies after 60 days — they go into our system two months after the issue happened. So when the vendor and I start looking at it, we're trying to solve an issue that happened two months ago.

We have to take that information and start working with the vendor's accounts receivable teams to come up with what potentially is causing the problem. If we can't, we then start working with their sales people and our merchants, taking them away from the things they do as they try to figure out what people are owed. And on top of that, we're not doing it on a real-time basis. We're doing it as we aggregate six month's worth of bad information, trying to solve six month's worth of issues at once.

Dave Richa: Human error plays as much a part of this as anything. Any time that we have to manually touch something in the process or take something offline, it really delays the payment process. It also distracts both our vendors and our merchants from what they should be focusing on.

Brian Quartel: It's digging into what happened at the distribution center. Digging into what happened at the vendor. Did we have any system issues? Did I have any unit of measure or item data master issues? Did the vendor come to some agreement with some discount that we didn't know about? Any of those things could potentially be causing our issue.





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■ Real-time blockchain visibility

Brian Quartel: The blockchain model itself is one where we're actually taking information from different points within the supply chain and sending that information to the cloud so that it's exposed to both The Home Depot and the vendor.

Each one of those points is basically a touch point that we're looking at the variances between what the vendor says they shipped versus what we say we received. If there's a stop point, it will basically tell us that, "Hey, we've got a variance." We can actually see that at that point in time to start identifying, "Why do we have an issue?"

It doesn't stop anything operationally. The product is still going to make it all the way to the store, but we now have a record of a variance that we can start dealing with instead of waiting that 60 days. That allows us so much more flexibility in how we handle the situation versus when we get to the point where nobody remembers what happened.

We're also given the opportunity to start solving issues through the system, identifying what may be causing it. We start running through the different smart contracts. Is it a unit of measure issue? Is it "I received it in one location, but for whatever reason, I'm not receiving it in the second location?" Each one of those is a stop point where we can potentially make the call as to whether there was an issue with the vendor or an issue with us. And we're making that call in real-time.

■ Trusted, shared data

Dave Richa: What really appealed to me is a real-time interaction with the vendor where we're both looking at the same thing. It allowed us to really speak the same language when we're going through disputes. It also puts data at our fingertips to determine what's really causing the dispute in the beginning. The more that we can do that in a seamless fashion, it takes manual intervention out from both us and our suppliers.

Brian Quartel: We're essentially allowing vendors to have visibility into our receiving. They're allowing us visibility into what they've shipped. It's almost like a settlement is happening with every single transaction versus waiting six, nine, twelve months down the road, hopefully improving the efficiencies on their team and on our team so that we can focus on things that will help the customer experience at our stores.

There is no administrator that's going to take information away. And then the level of security that we have is such that I can only see what I need to see. The vendor can only see what they need to see. No other vendor is going to see some other vendor's information. Everybody should feel very confident with the information that they're getting.



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- Brian Quartel

■ Designing the network together

Dave Richa: One of the great things about our partnership with IBM is that they were able to come in and really show us how this would work. We looked at other instances where they had partnered with other businesses to help with similar processes.

Brian Quartel: We had a few design thinking sessions, and we actually invited our vendors to them. Without even really realizing it, you're laying out how you want this thing to work. You've laid out your issues and your possibilities. And you take all that information and consolidate it so that you can better understand exactly what your solution really looks like.

It's so important that when we go through these design thinking sessions — it's IBM, it's The Home Depot, it's our vendors — it's all of us together coming up with what that solution looks like. And we're going through different exercises to pull out the things that we need and want in this tool.

On top of that, our user experience sessions identified how I want this to look; so that it's user friendly, something that people would want to come back to because it's better than the tools that they have today. They can easily point and click and better understand the issue at hand.

IBM helped us understand how this can work for us. They were able to take our information and really put it into something that I could actually find attainable and tangible, that I could actually take hold of and run with. I think our leadership has also been pretty pleased with how results have happened, and they've done it on a timeline that's realistic.

■ Even stronger vendor relationships

Dave Richa: So far the feedback has been excellent. Being able to see the data in real-time, work it, and try to get to the core of what the issue is has been super helpful for both us and our vendors. And it's win-win.

Brian Quartel: The vendors that have come onboard have been a nice start to bridging the gap as far as improved visibility, improved communication and more of that true collaboration between us and them. It's almost like a membership, a true conglomerate of different companies and organizations solving the big problems that we have and need to get fixed.

This is the beginning for our journey with blockchain. When you think about the vendors that are coming onboard, the way that blockchain is going to be able to help us with those relationships is truly tremendous. We're here to make everybody better. We can actually start helping them solve their issues, and in turn, helping us solve ours.



IBM Blockchain

What will we solve together? ibm.com/blockchain



