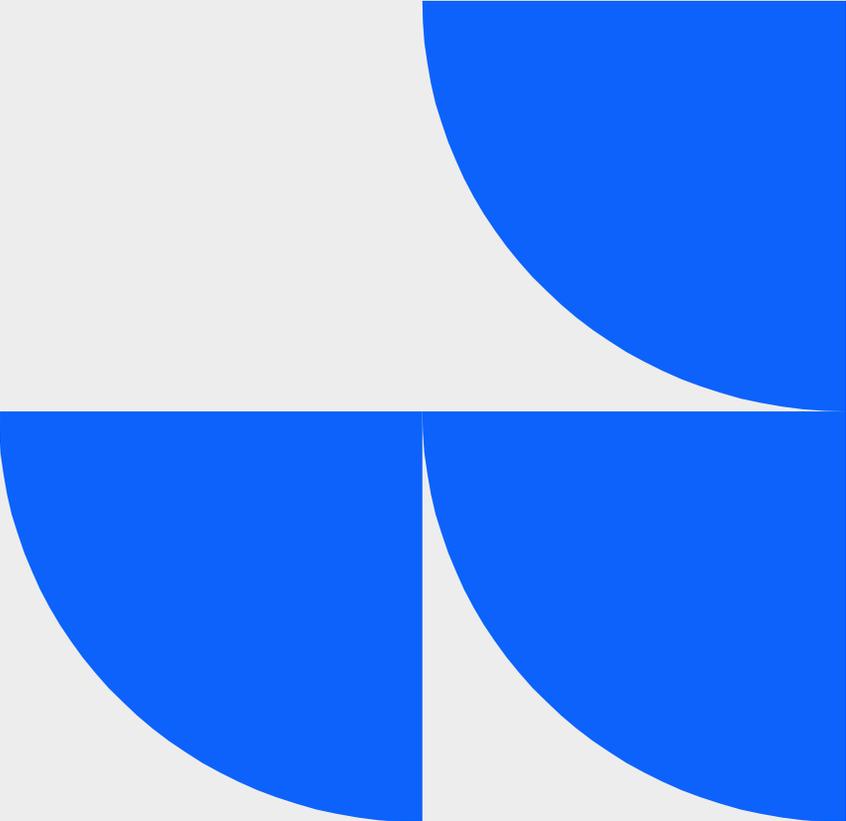


Blockchain Feasibility Workshop

Wedge Service Offering
Audience: CSX & Sales

April 2020



slalom

Table of Contents

- Executive Summary
- Why Blockchain?
- Client Audience Ideas
- Workshop Offering Summary
- Call to Action
- Client Success Stories
- Appendix (Client-Facing & Non)

Why Blockchain?

Enterprise Adoption

Blockchain in the Market

Common Challenges by Business Function

Blockchain + Enterprise

Blockchain is beyond Bitcoin and the cryptocurrency craze of 2017. As the technology has matured, **enterprise adoption is picking up** – and seeing a real inflection point in 2020.

Blockchain is reimagining supply chains, powering peer-to-peer customer platforms and “digitizing” all kinds of assets – opening new markets.

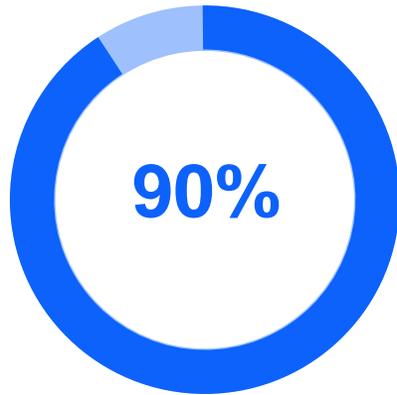
We're here to help you harness this technology to improve business outcomes, and to help you understand how it might disrupt your industry.

[Source:](#) Forbes – “How Strong Enterprise Interest in 2020 is Pushing Blockchain Technology Further”



Blockchain in the Market

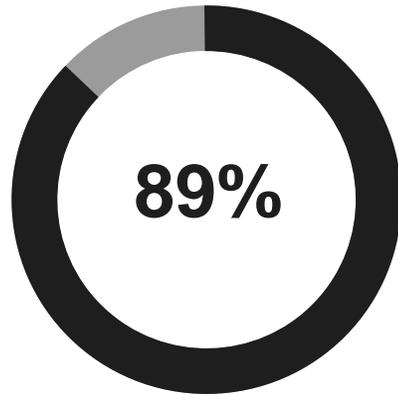
Enterprise adoption success rates are inconsistent, as companies struggle to realize investment to value ratios.



Replacement Story

By 2021, 90% of current enterprise blockchain platform implementations will require replacement within 18 months to remain competitive, secure, and avoid obsolescence.

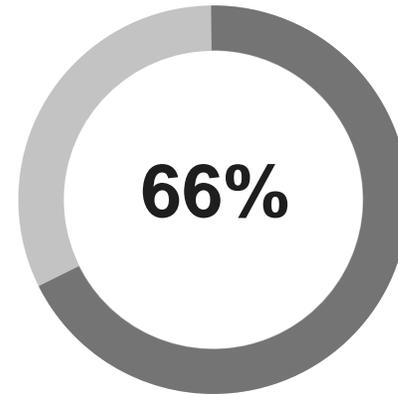
Gartner (June 2019)



Blockchain Spend

Total corporate and government spending on blockchain should hit \$2.9B in 2019, an increase of 89% over the previous year, and reach \$12.4B by 2022.

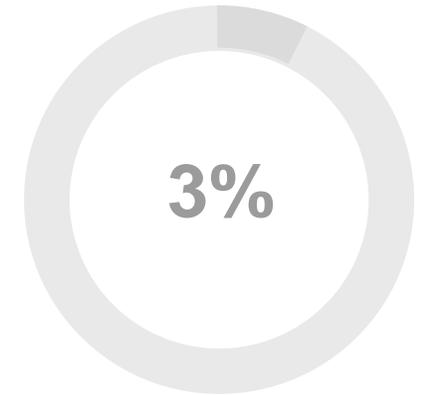
International Data Corp (April 2019)



Blockchain Interest

Around 66% of global organizations have some level of interest in blockchain.

Statista (March 2020)



Operational Gap

Only 3% of CIOs have a form of live and operational blockchain for their business, and those solutions that do exist focus mostly on [existing processes].

Gartner (September 2019)

Client Challenges

Irrespective of industry or firm, these functions have specific challenges that can be addressed via blockchain.



Finance

- I want to have a **unique identifier** for all counterparties, so that I can comply with regulatory requirements to save money.
- I want to **lower the payment settlement costs** I incur in doing business, so that I can mitigate operational costs.
- I want to **digitize physical assets**, so that I can raise capital and broaden my customer base.



Customer Experience

- I want to enable **peer-to-peer** customer trading, so that I can improve my customer's experience with our products.
- I want to create a **loyalty points program with multipliers**, so that I can increase customer loyalty and improve branding.
- I want to create a **voting mechanism** for customers, so that I can incent participation and strengthen customer engagement.



Supply Chain & Logistics

- I want **increased visibility into my network of suppliers and distributors**, so that I can better manage my supply chain.
- I want **point-in-time insights** to the product lifecycle, so that I can improve operational efficiencies in my supply chain.
- I want **self-executing agreements**, so that I can negotiate better terms with suppliers and mitigate lost/damaged product.



Sourcing & Inventory

- I want to **pool inventory purchases** with other large suppliers, so that I may increase my purchasing power.
- I want to know the **provenance of my goods**, so that I can ensure my firm and customers are getting what we ordered.
- I want to **improve material traceability and audit capabilities**, so that I can mitigate my regulatory overhead.

Workshop Offering

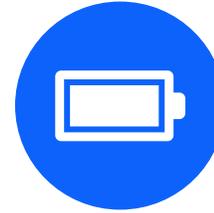
Content Summary

Tools & Approach

Expected Outcomes

Workshop Delivery

Slalom has delivered a Blockchain Feasibility Workshop to 3 clients in distinct industries.



Client	Chemical & Plastic Industrial	Battery Manufacturer	Airline Financial Settlement
Use Case	Sustainability & Provenance	Sustainability & Provenance	Replace Existing Blockchain Platform
Details	Client purchases recycled materials which are broken down to create plastics or other chemical product requested by customer. Goal was to trace materials provenance to determine what percent of product was truly made by recycled materials. Expected benefits for sustainability, margin, and marketing purposes.	Client purchases raw materials (tin, cobalt, etc.) to produce its household battery products. Goal was to trace materials provenance to eliminate conflict minerals and to ensure fair trade practices by suppliers. Expected benefits for sustainability, margin, and marketing purposes.	Client processes corporate payments from firms to airlines. Airline writes transaction to blockchain and saves credit card transaction fee, while corporate clients receive benefit of removing manual expense reporting process and gains better auditability.
Workshop	Futurism & Emerging Tech workshop focused on Sustainability. Blockchain was a feature, along with IoT, AI/ML, etc. – not explicitly proposed as the solution.	Sustainability & Supply Chain workshop focused primarily on blockchain as the core solution components.	Use Case Assessment & Roadmap to understand current state and propose platform enhancements and replacement approach, culminating in blockchain platform selection process, to scale into the future.
Outcome	Due to physical nature of processing plants, provenance cannot be determined. Proposed “mass balance registry system” based on credits to allocate “recyclability” to specific products, to meet the need.	Ongoing discussions on use case development and applicability of blockchain and other relevant technologies to solve. This is an ongoing discussion, where Slalom remains engaged.	Currently in commercial blockchain platform vendor selection process to determine which enterprise blockchain solution would best meet the needs. Slalom actively engaged and driving this selection process.
Co-Delivered?	No	Yes	Yes

Workshop Options Summary

Highlights content and expected deliverables per option.

Half-Day

Summary: Lunch & Learn style, starts with Blockchain 101 and industry-specific use case examples. Ends with **scored use cases** on impact and ease of implementation.

Result: List of scored use cases.

Deliverables:

- Blockchain 101 Deck
- Industry-Specific Use Case Example Deck
- Use Case Scorecard

Full-Day

Summary: Starts with Blockchain 101 and industry-specific use case examples. Ends with top 1-2 scored use cases and **high-level solution**.

Result: 1-2 vetted use cases with high-level solution design.

Deliverables:

- Blockchain 101 Deck
- Industry-Specific Use Case Example Deck
- Use Case Scorecard
- Use Case Solution One-Pager

Two-Day

Summary: Starts with Blockchain 101 and industry-specific use case examples. Ends with 1 well-solutioned use case, **POC build-ready**.

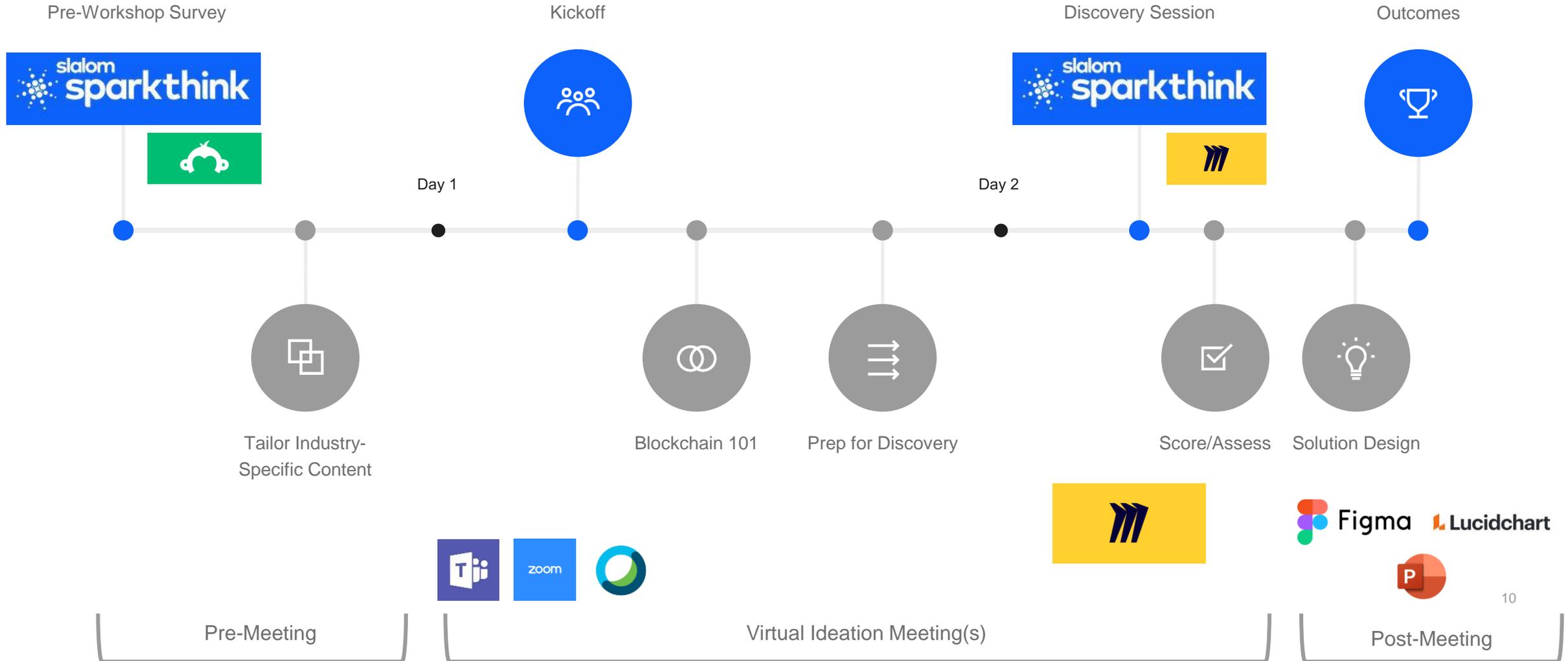
Result: 1 “best” use case with workable solution architecture/roadmap.

Deliverables:

- Blockchain 101 Deck
- Industry-Specific Use Case Example Deck
- Use Case Scorecard
- Use Case Solution One-Pager

Blockchain Feasibility Workshop

A collaborative and outcome-driven workshop delivered remotely.



Blockchain Workshop – Virtual

Sum: Traditional workshops must be tweaked to keep a similar level of engagement in our virtual workstations. By breaking out the content into consumable blocks of time and leveraging digital collaboration tools, we can ensure we're still delivering the value and outcomes our clients expect – virtual whiteboard and all.

Day 1: Blockchain 101 & Industry-Specific Use Cases – delivered in 60 minutes.

Day 2: Use Case Brainstorm & Scoring – delivered in 90 minutes (45+15+30).

Day 3: Solution Design & Next Steps – delivered in 60 minutes.

Total: 3 hour, 30 minutes.



Half-Day Offering

Blockchain 101 | Brief Use Case Assessment

Summary

Ideally starts with a “Lunch and Learn” style session on Blockchain 101 – content ready off-the-shelf. This can involve a larger initial audience.

This also includes industry-specific use cases, focusing on how contemporaries and competitors are thinking of, and using, blockchain to solve relatable business challenges. These can be the sparks to start client-specific use case brainstorming.

Second half of Workshop centers around a smaller group brainstorming session on potential candidate use cases, specific to our client.

Day ends with a brief scoring exercise on use cases – highlighting which ones may be worth exploring blockchain feasibility further – solution design and possible POC build (post-workshop).

Deliverables

- Blockchain 101 Deck
- Industry-Specific Blockchain Use Case Example Deck
- Use Case Scorecard

Topic	Duration	Detail
Intros & Agenda	20 min.	Client Team, Slalom Team, Agenda
Blockchain 101	60 min.	Blockchain Basics, Industry Ex, Q&A
Blockchain Demo	30 min.	Components, App, Insights
Break	10 min.	N/A
Use Case Brainstorm	30 min.	Initial List, Pick Best Few
Use Case Scoring	45 min.	Assess Value, Feasibility, 2x2
Wrap	15 min.	Identify Best Use Case, Next Steps
Total	3 hr. 30 min.	

Content Summary

Agenda Topic	Half-Day	Full-Day	Two-Day
Intros & Agenda	✓	✓	✓
Blockchain 101	✓	✓	✓
Use Case Examples	✓	✓	✓
Blockchain Demo	✓	✓	✓
Use Case Futurism			✓
Use Case Breakout			✓
Use Case Scoring	✓	✓	✓
Use Case 1 Deep Dive		✓	✓
Use Case 2 Deep Dive			✓
Use Case Decision			✓
Process to Reference Architecture			✓
Next Steps & Future State Planning	✓	✓	✓

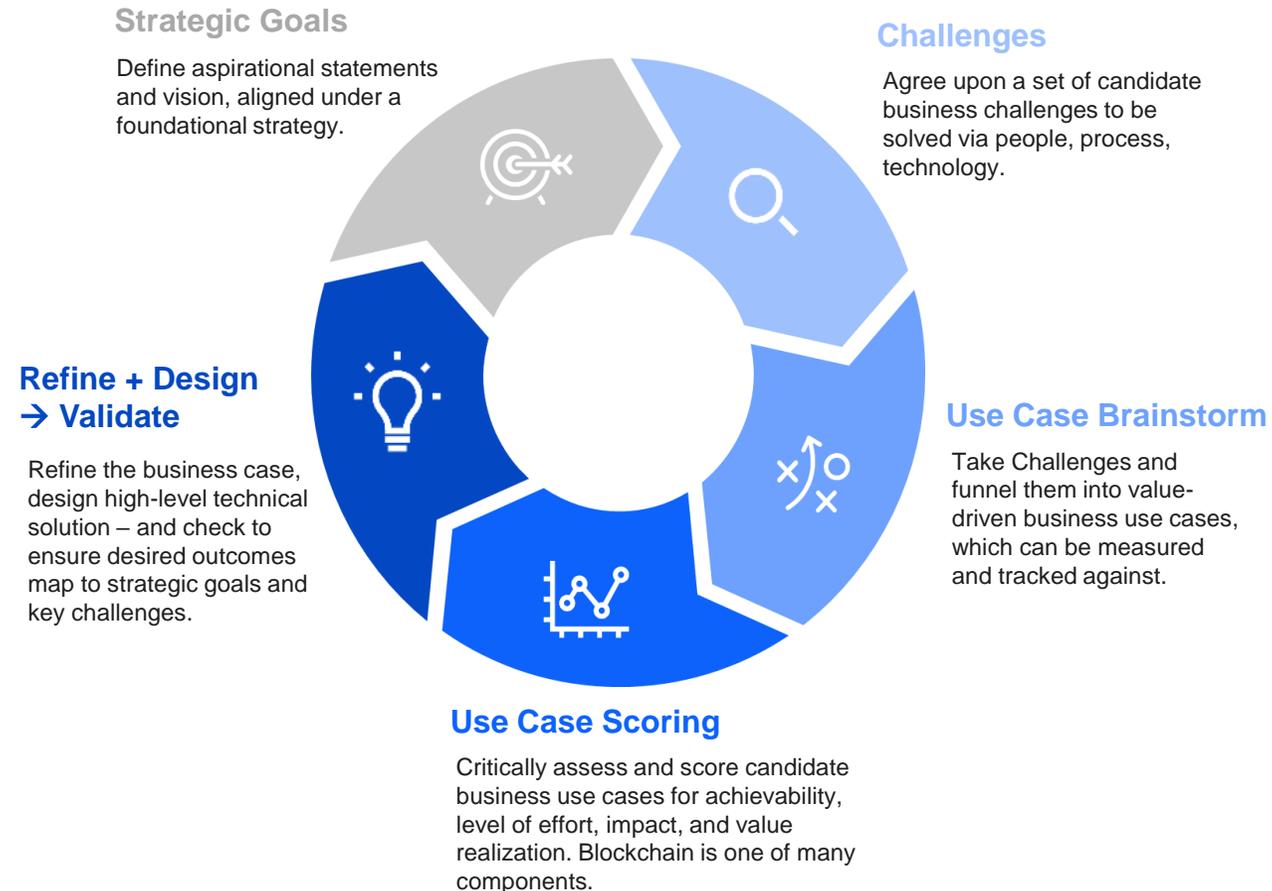


Blockchain Feasibility Workshop

Slalom will partner with your team to discern where blockchain may positively impact your business.

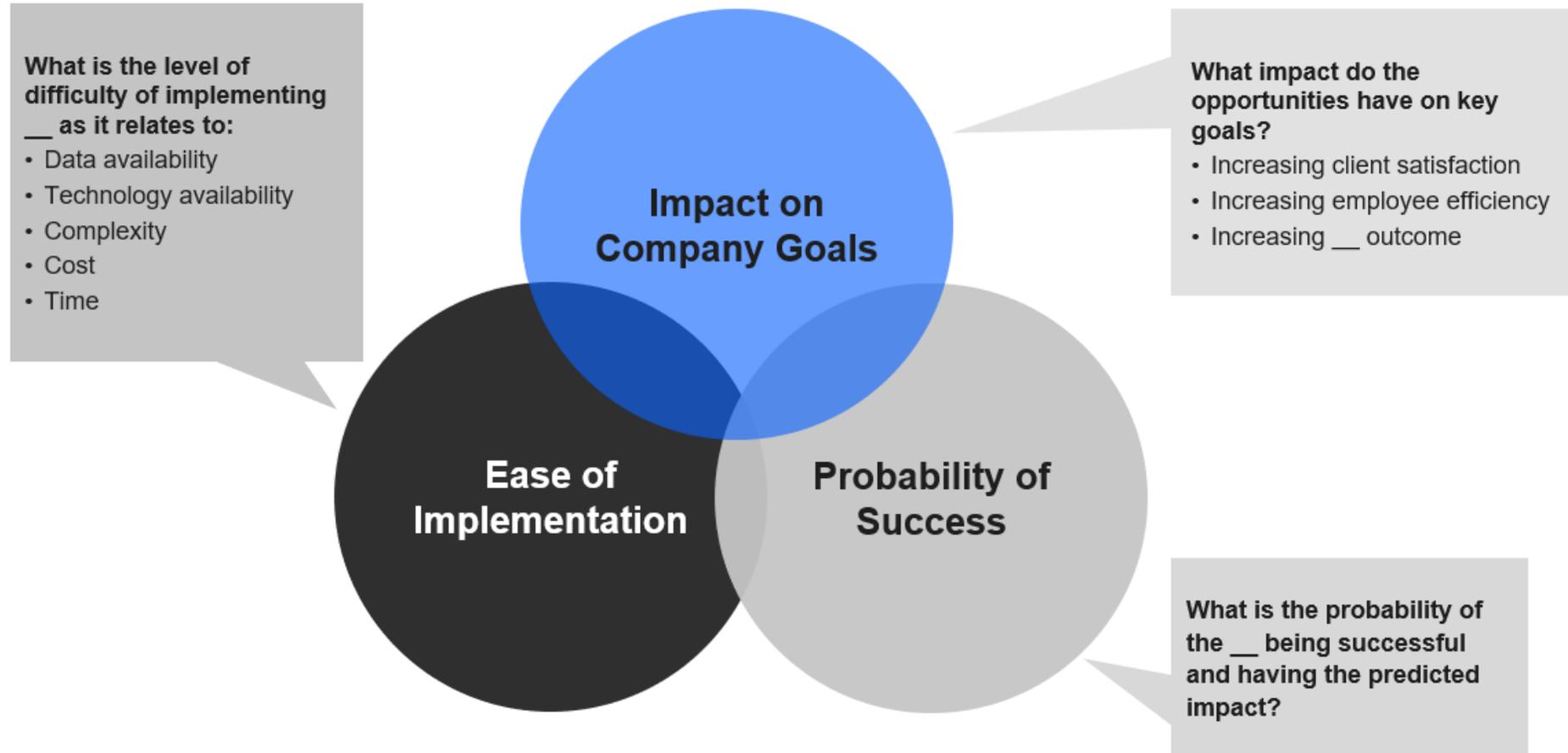
-  Business
-  Executive
-  Process Expert
-  Process Expert
-  Technical
-  Executive
-  Architect
-  Developer*

*Optional Attendee



“Do You Need a Blockchain?”

Let’s brainstorm various use cases with clear success criteria and measurable outcomes to drive your business forward.



Self-Evaluate and Score

For each use case, we'll assess and score, based on the following criteria – this exercise should be conducted as technology agnostic and will not include blockchain as a consideration.

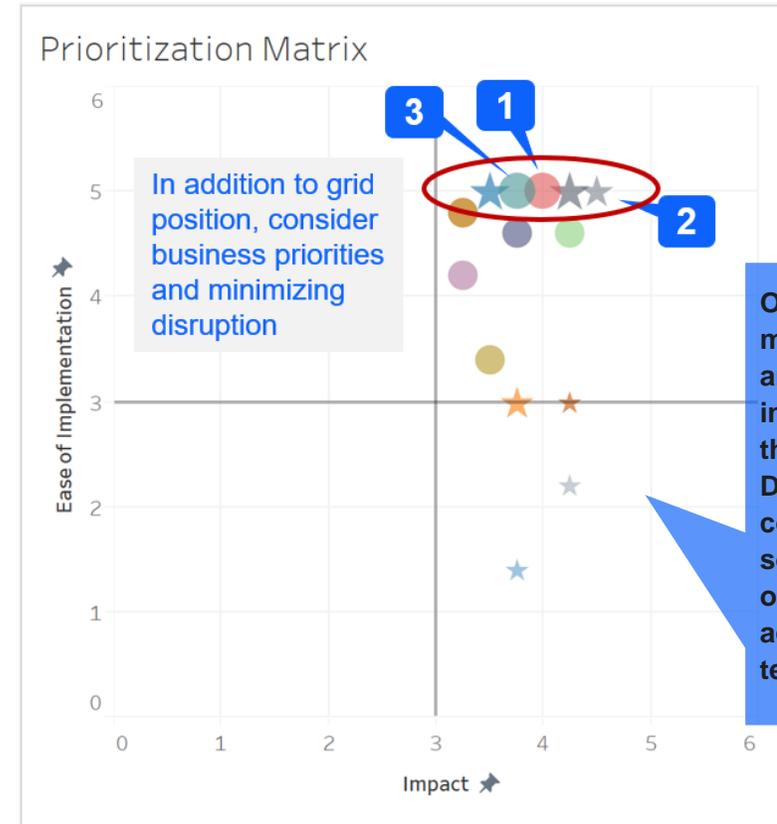
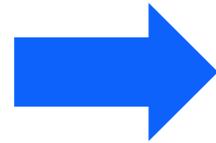
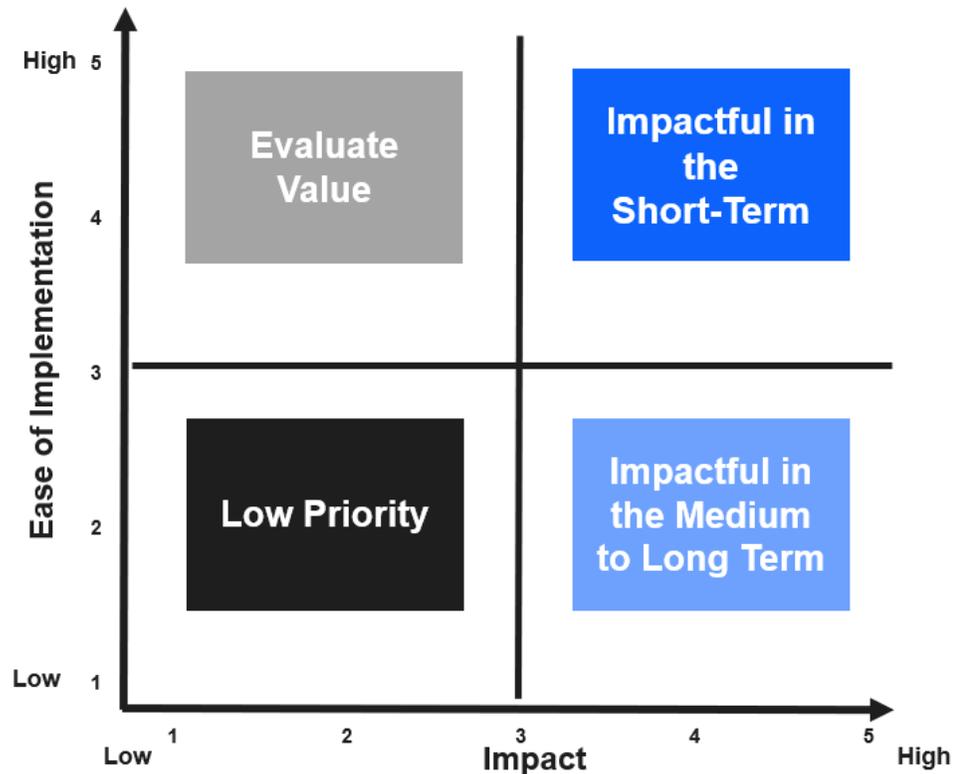
Level of Impact (x axis)	Calculation: <i>Average (Increase Revenue, Decrease Cost, Increase Efficiency, Increase Client Satisfaction)*</i> Scale: 1 (Low) – 5 (High)
Ease of Implementation (y axis)	Calculation: <i>Average (Data Availability, Technology Availability, Complexity, Cost to Get Data, Time)*</i> Scale: 1 (Low) – 5 (High)
Probability of Success (circle size)	Low 1 2 3 4 5 High 

The prioritization matrix is a tool to guide prioritization decisions. Business priorities, alignment with strategy, and other company dynamics should be considered when prioritizing opportunities

* Note: The evaluation used a simple (non-weighted) average in the calculation of impact and ease of implementation

Quantify the Results

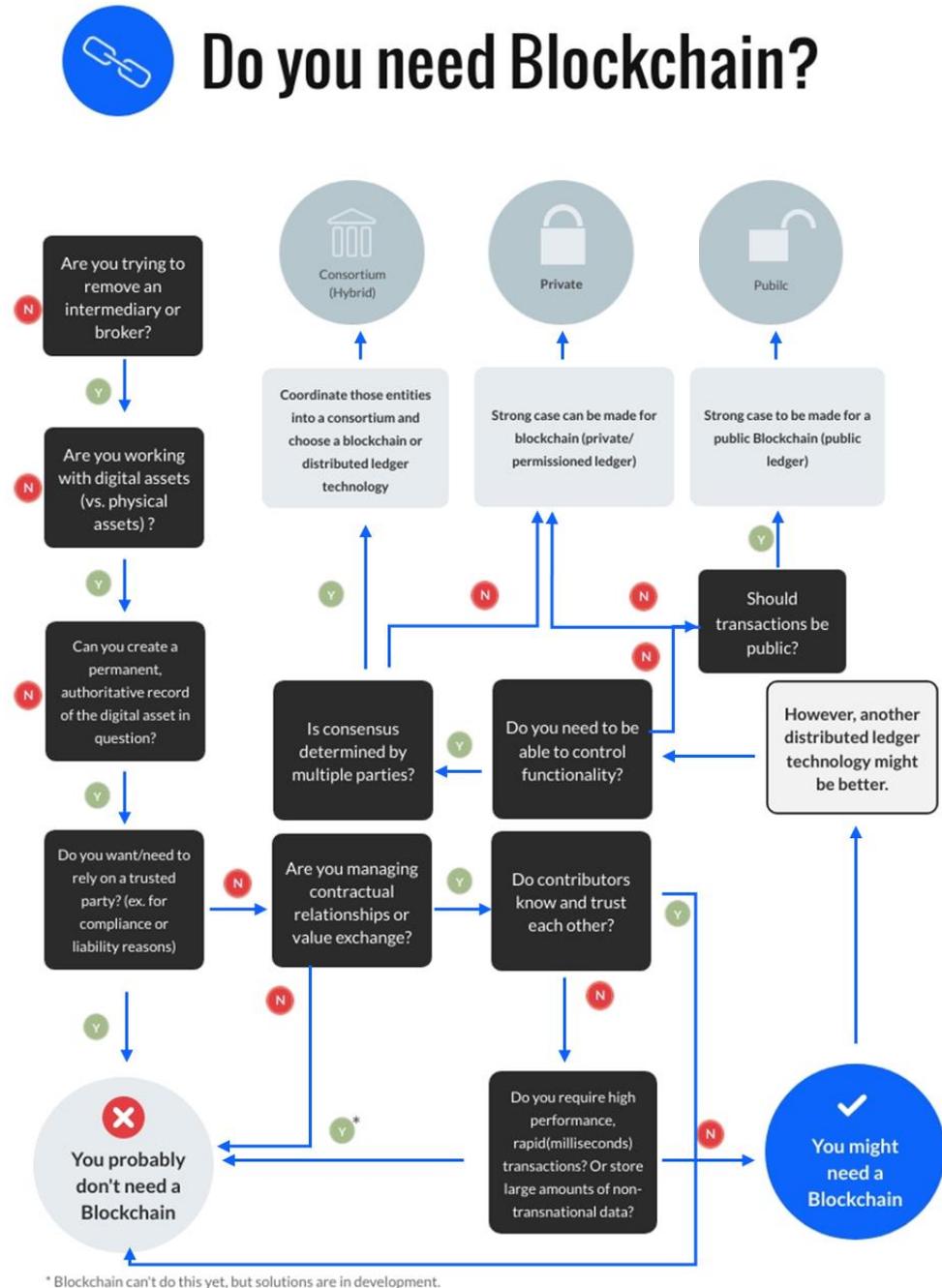
After each use case is scored, we'll plot and review results – this exercise should be conducted as technology agnostic and will not be include blockchain as a consideration.



Once the highest value and most achievable use cases are identified, then we will introduce blockchain into the equation – Is it needed? Does it make sense to consider as part of the solution? Can a more optimal outcome be achieved using another technology?

Do you need blockchain?

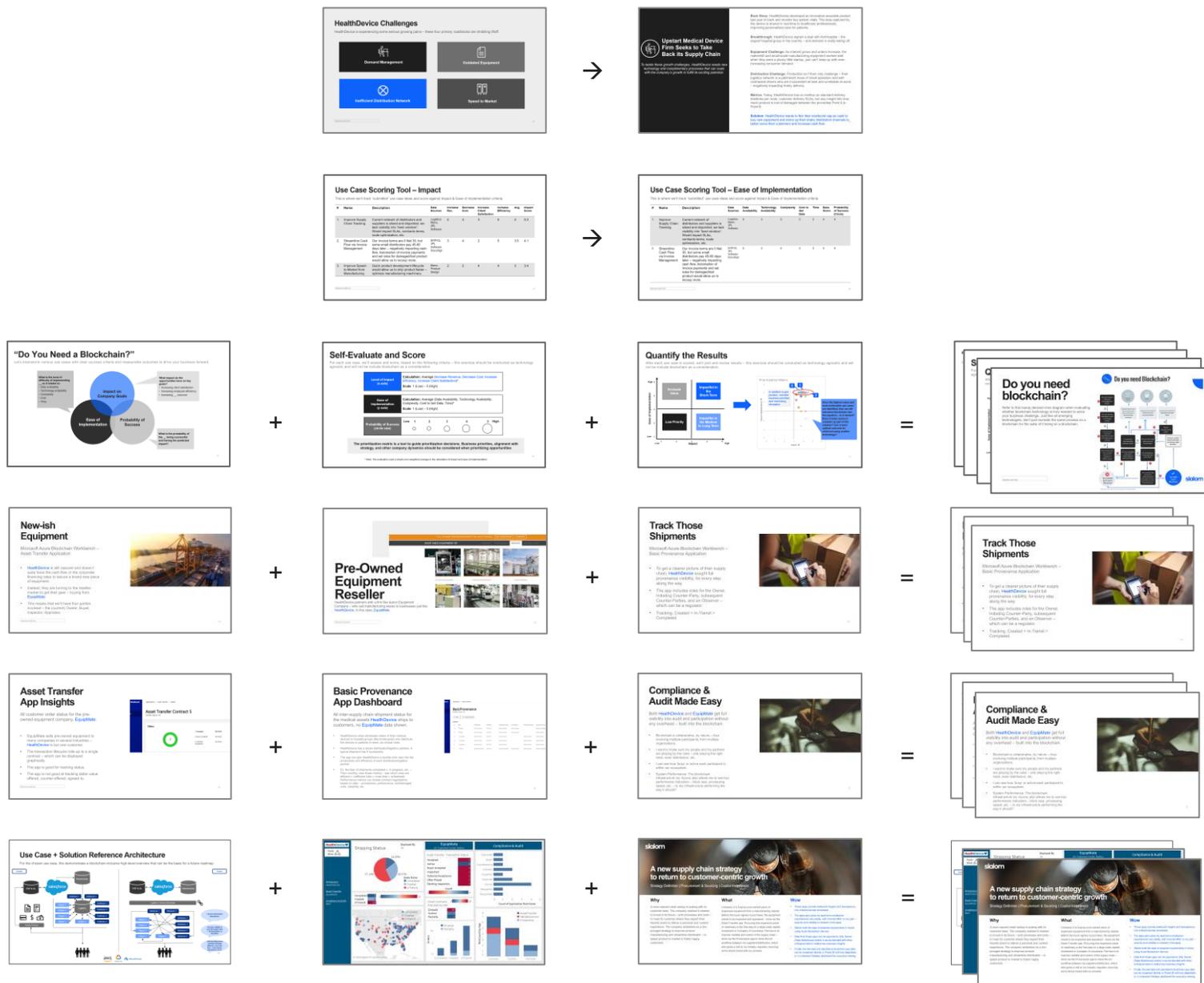
Refer to this handy decision-tree diagram when evaluating whether blockchain technology is truly needed to solve your business challenge. Just like all emerging technologies, don't just recreate the same process on a blockchain for the sake of it being on a blockchain.



* Blockchain can't do this yet, but solutions are in development.

Workshop process + approach

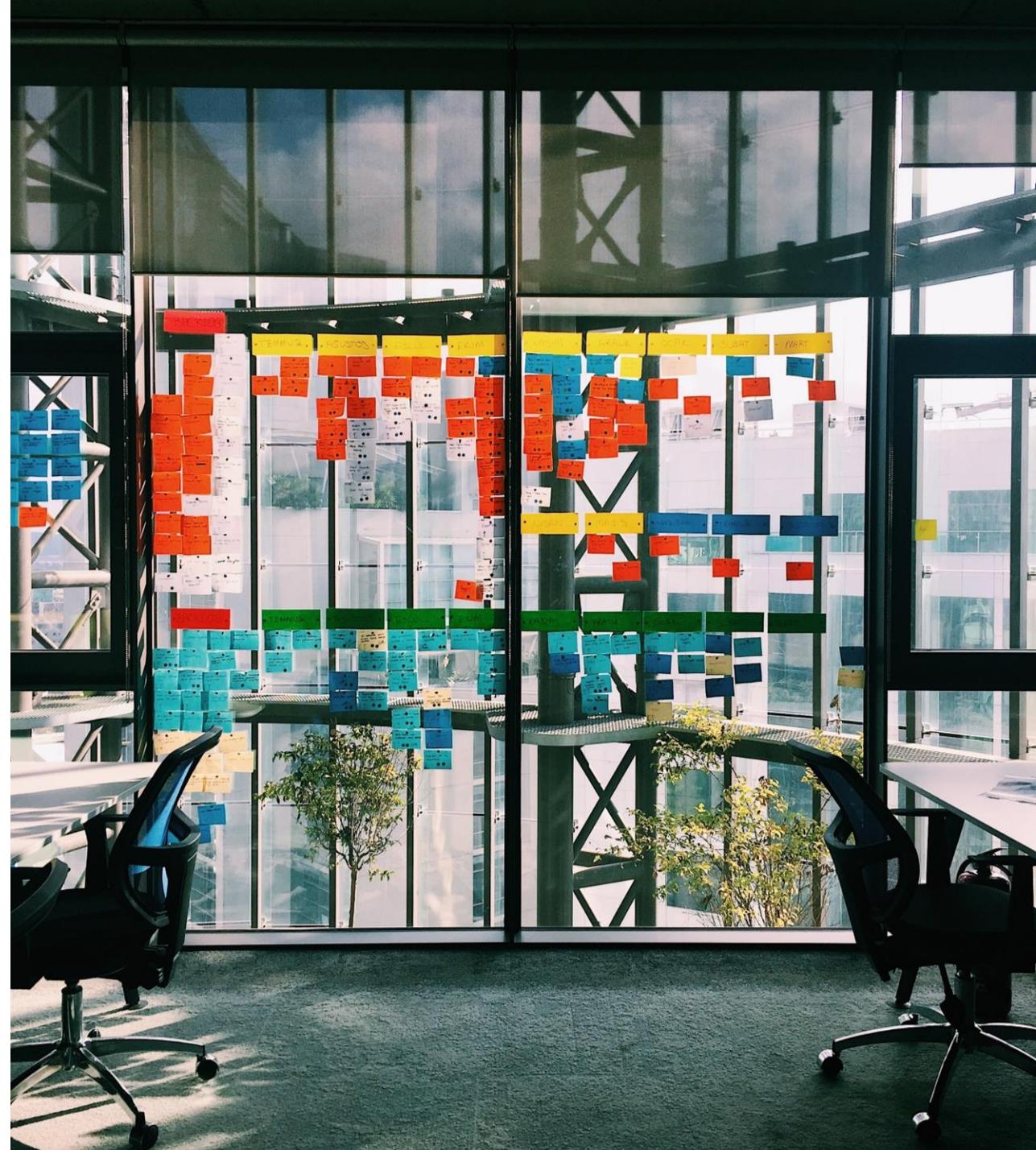
Start with aspirational statements and business challenges. Each component rolls-up to the far-right stack. Assess and score the use cases, picking the best one and building out the story. Finally, translate the story to the high-level solution architecture. Down the line, measure success and tell your story to the market.



Outcome

At the end of the workshop, your team will have –

- **Foundational knowledge of blockchain** and its application to solve enterprise problems.
- **A well-vetted use case and high-level design**, setting you on your journey to solve actionable business challenges with blockchain.
- Deliverables:
 - Option 1: Blockchain 101, Industry-Specific Blockchain Use Case Guide, Use Case Scorecard
 - Option 2: Blockchain 101, Industry-Specific Blockchain Use Case Guide, Use Case Scorecard, Solution Overview
 - Option 3: Blockchain 101, Industry-Specific Blockchain Use Case Guide, Use Case Scorecard, Solution Overview



Appendix



Microsoft + Blockchain

Platform Solution Tools

Blockchain Architectural Considerations



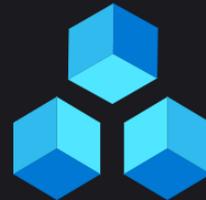
Microsoft Azure + Blockchain

Microsoft Azure offers several tools to bring your blockchain ideas to realized applications.



Azure Blockchain Service

A great starting point for blockchain—easily prototype apps and simplify development with prebuilt networks and infrastructure.



Azure Blockchain Workbench

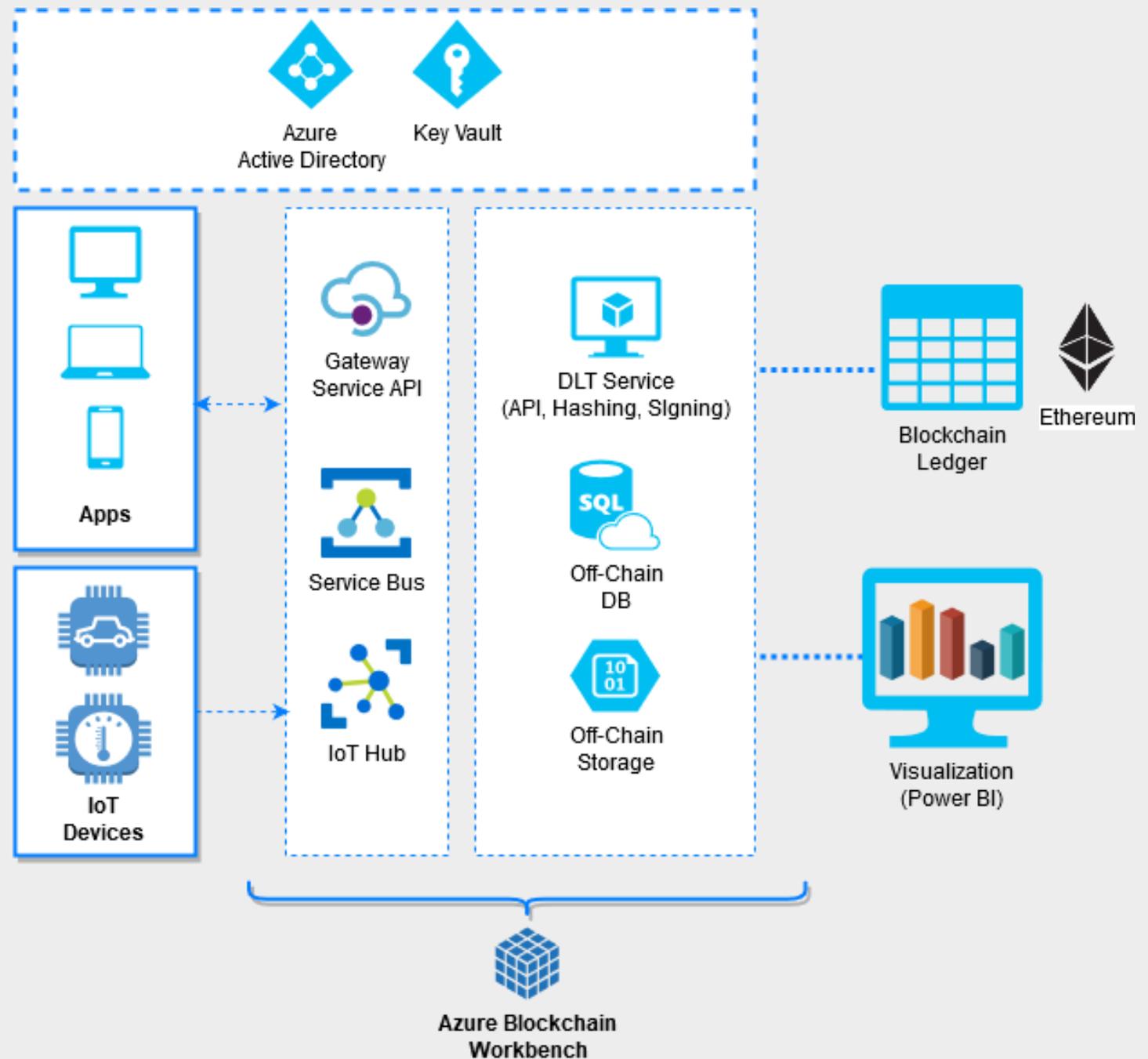
The foundation for building, governing, and deploying fully managed blockchain networks and apps at scale.



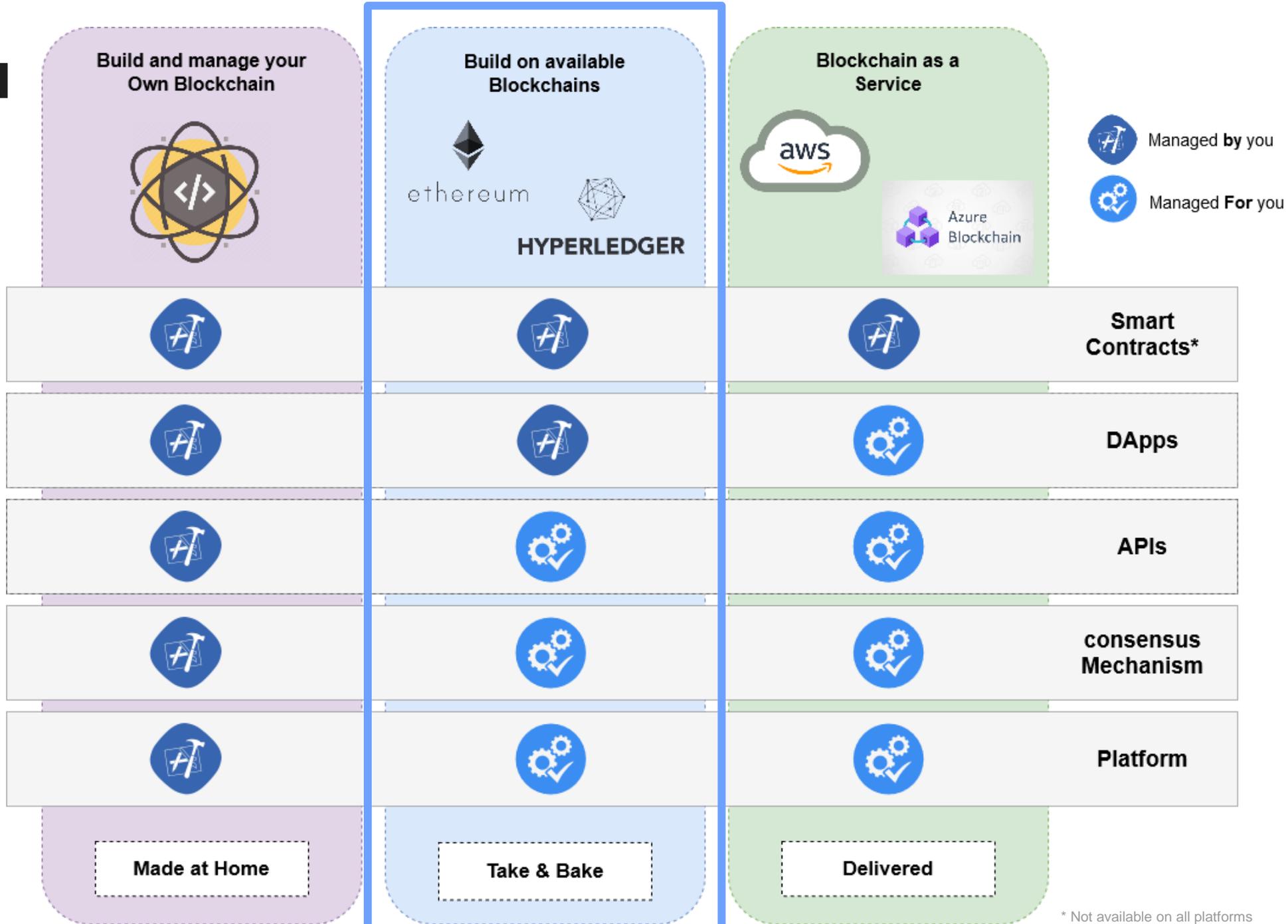
Azure Blockchain Development Kit

Comprehensive GitHub repository of developer blockchain content, including code samples and accelerators.

Blockchain Solution Architecture



How Do You Like Your Pizza?



* Not available on all platforms

Supply Chain Use Case

A pre-owned industrial equipment reseller.

A medical device manufacturer taking back its supply chain.

HealthDevice Challenges

HealthDevice is experiencing some serious growing pains – these four primary roadblocks are inhibiting liftoff.



Demand Management



Outdated Equipment



Inefficient Distribution Network



Speed to Market



Upstart Medical Device Firm Seeks to Take Back its Supply Chain

To tackle these growth challenges, HealthDevice needs new technology and complimentary processes that can scale with the company's growth to fulfill its exciting potential.

Back Story: HealthDevice developed an innovative wearable product last year to track and monitor key patient vitals. The data captured by the device is shared in real-time to healthcare professionals, improving personalized care for patients.

Breakthrough: HealthDevice signed a deal with AmHospital – the largest hospital group in the country – and demand is really taking off.

Equipment Challenge: As interest grows and orders increase, the makeshift and small-scale manufacturing equipment worked well when they were a plucky little startup, just can't keep up with ever-increasing consumer demand.

Distribution Challenge: Production isn't their only challenge – their logistics network is a patchwork mess of small operators and self-contracted drivers who are inconsistent at best and unreliable at worst – negatively impacting timely delivery.

Metrics: Today, HealthDevice has no metrics on standard delivery timelines per route, customer delivery SLAs, nor any insight into how much product is lost or damaged between the proverbial Point A to Point B.

Solution: HealthDevice wants to flex their newfound cap-ex cash to buy new equipment and shore up their shaky distribution channels to better serve their customers and increase cash flow.

New-ish Equipment

Microsoft Azure Blockchain Workbench –
Asset Transfer Application

- [HealthDevice](#) is still nascent and doesn't quite have the cash flow or the corporate financing rates to secure a brand-new piece of equipment.
- Instead, they are turning to the reseller market to get their gear – buying from [EquipMate](#).
- This means that we'll have four parties involved – the (current) Owner, Buyer, Inspector, Appraiser.



Pre-Owned Equipment Reseller

HealthDevice partners with a firm like Aaron Equipment Company – who sell manufacturing wares to businesses just like [HealthDevice](#). In this case, [EquipMate](#).

TELL US WHAT PROCESS EQUIPMENT YOU HAVE FOR SALE [SELL YOUR EQUIPMENT](#) [MORE INFO](#)

SHOP USED EQUIPMENT BY [CATEGORY](#) [SUBCATEGORY](#) **[INDUSTRY](#)** [MANUFACTURER](#)



Press and Sealant Equipment



Cannabis Industry Equipment



Chemical Equipment



Track Those Shipments

Microsoft Azure Blockchain Workbench –
Basic Provenance Application

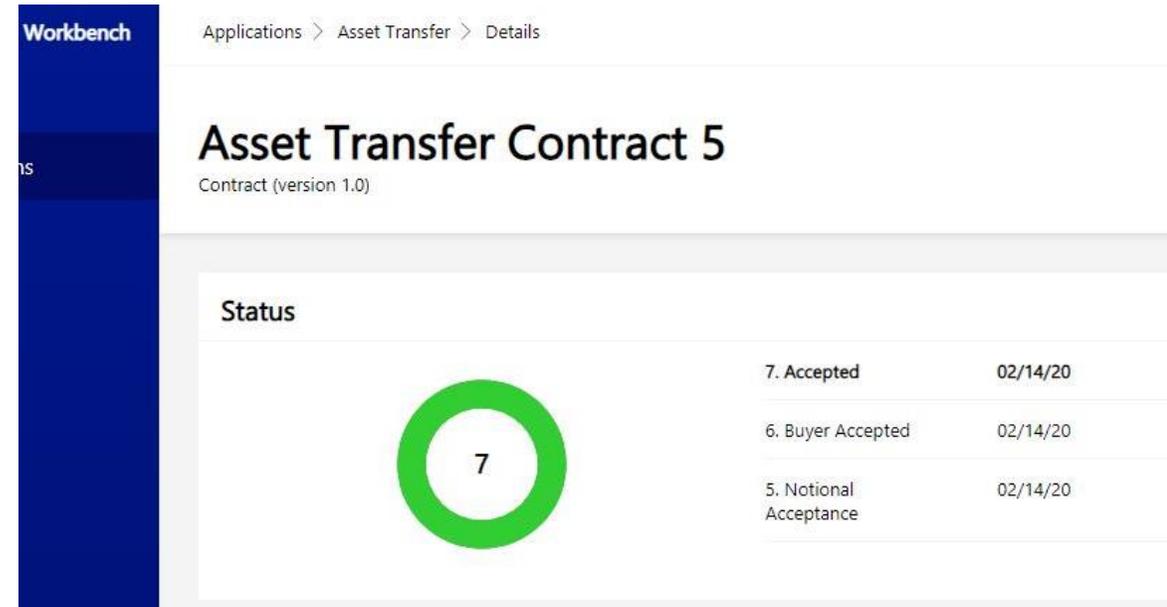
- To get a clearer picture of their supply chain, [HealthDevice](#) sought full provenance visibility, for every step along the way.
- The app includes roles for the Owner, Initiating Counter-Party, subsequent Counter-Parties, and an Observer – which can be a regulator.
- Tracking: Created > In-Transit > Completed.



Asset Transfer App Insights

All customer order status for the pre-owned equipment company, [EquipMate](#).

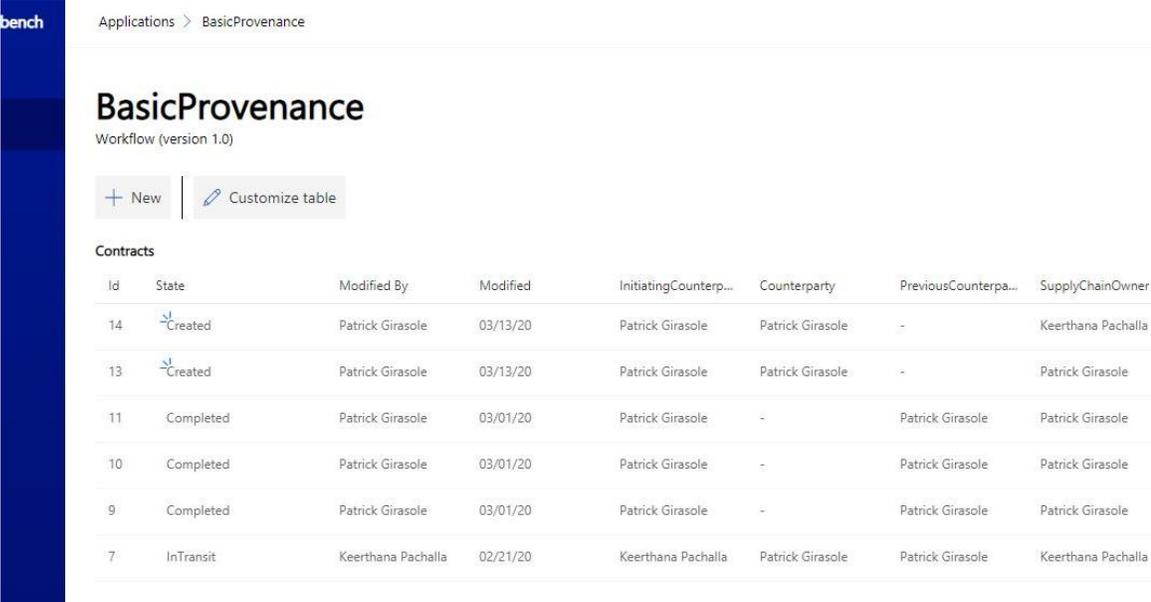
- EquipMate sells pre-owned equipment to many companies in several industries – [HealthDevice](#) is but one customer.
- The transaction lifecycle rolls-up to a single contract – which can be displayed graphically.
- The app is good for tracking status.
- The app is not good at tracking dollar value offered, counter-offered, agreed to.



Basic Provenance App Dashboard

All inter-supply chain shipment status for the medical assets **HealthDevice** ships to customers, no **EquipMate** data shown.

- HealthDevice ships wholesale orders of their medical devices to hospital groups (like AmHospital) who distribute the devices to patients in need, via clinical visits.
- HealthDevice has a dozen distribution/logistics partners. A typical shipment has 4 touchpoints.
- The app can give HealthDevice a double-click view into the productivity and efficiency of each distributors/logistics partner.
- Ex: Number of shipments completed v. in progress, etc. – Then monthly, view those metrics – see which ones are efficient v. inefficient (idle v. route time v. scheduled). Performance metrics can dictate contract negotiations based on data – promptness, performance, lost/damaged units, reliability, etc.

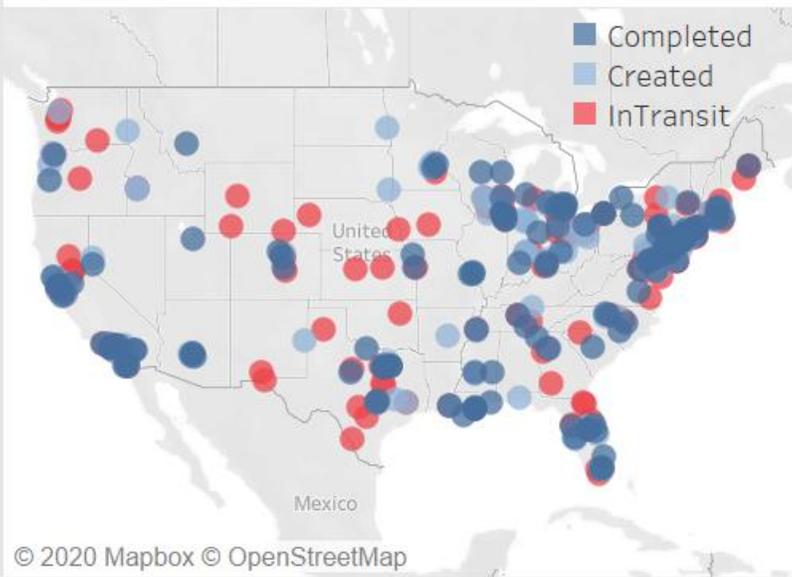
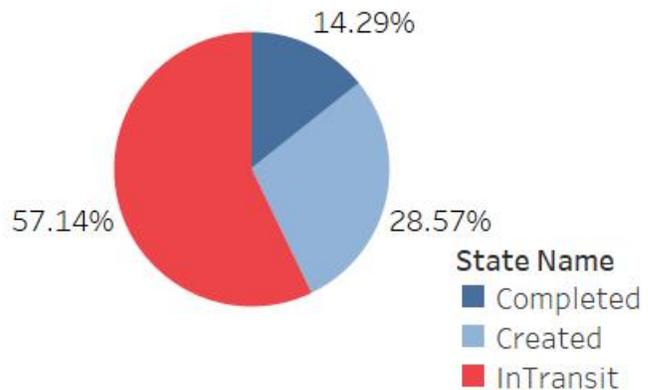


The screenshot shows the 'Basic Provenance' app dashboard. At the top, it says 'Applications > BasicProvenance'. Below that is the title 'BasicProvenance' and 'Workflow (version 1.0)'. There are two buttons: '+ New' and 'Customize table'. Below the buttons is a table titled 'Contracts' with the following columns: Id, State, Modified By, Modified, InitiatingCounterp..., Counterparty, PreviousCounterpa..., and SupplyChainOwner. The table contains 7 rows of data.

Id	State	Modified By	Modified	InitiatingCounterp...	Counterparty	PreviousCounterpa...	SupplyChainOwner
14	Created	Patrick Girasole	03/13/20	Patrick Girasole	Patrick Girasole	-	Keerthana Pachalla
13	Created	Patrick Girasole	03/13/20	Patrick Girasole	Patrick Girasole	-	Patrick Girasole
11	Completed	Patrick Girasole	03/01/20	Patrick Girasole	-	Patrick Girasole	Patrick Girasole
10	Completed	Patrick Girasole	03/01/20	Patrick Girasole	-	Patrick Girasole	Patrick Girasole
9	Completed	Patrick Girasole	03/01/20	Patrick Girasole	-	Patrick Girasole	Patrick Girasole
7	InTransit	Keerthana Pachalla	02/21/20	Keerthana Pachalla	Patrick Girasole	Patrick Girasole	Keerthana Pachalla

Shipping Status

Deployed By All



© 2020 Mapbox © OpenStreetMap

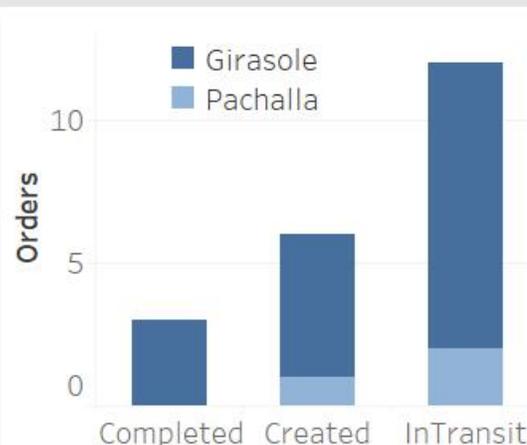
EquipMate

All Customer Order Status

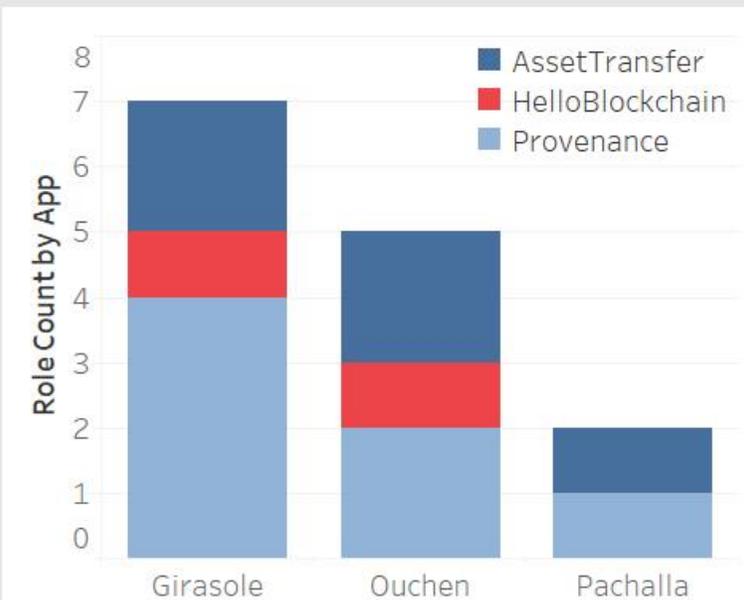
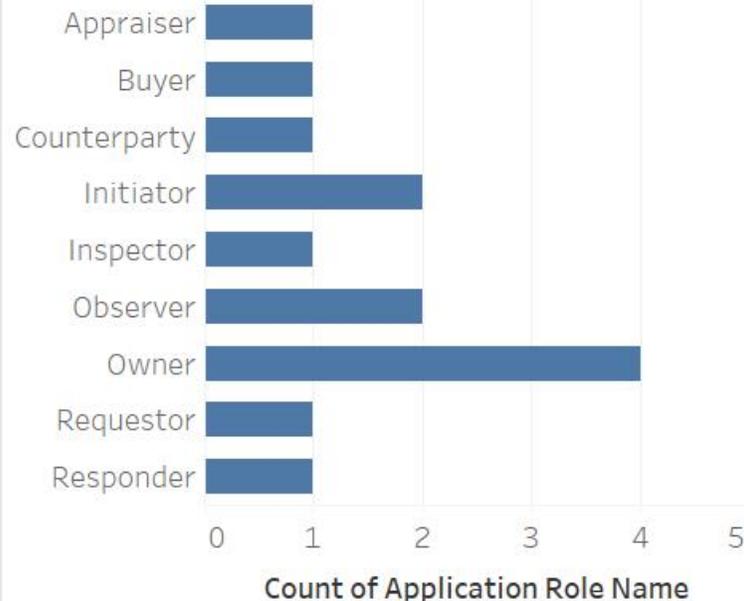
Asset Transfer - Transaction Status



Smart Contracts Executed by User



Compliance & Audit



Provenance: HealthDevice

Asset Transfer: EquipMate

Compliance & Audit: Both

A new supply chain strategy to return to customer-centric growth

Strategy Definition | Procurement & Sourcing | Capital Investment

Why

A once nascent retail startup is scaling with its customer base. The company realized it needed to invest in its future – both processes and tools – to meet its customer where they expect their favorite brand to deliver a personal and curated experience. The company embarked on a two-pronged strategy to improve product manufacturing and streamline distribution – to speed product to market to foster happy customers.

What

Company is buying a pre-owned piece of expensive equipment from a manufacturing reseller. Before the buyer agrees to purchase, the equipment needs to be inspected and appraised – done via the Asset Transfer app. Procuring this expensive piece of machinery is the first step on a large-scale capital investment in Company's business. Part two is to improve visibility and control of the supply chain – done via the Provenance app to show the full workflow between my suppliers/distributors, which also gives a role to my industry regulator, ensuring we're above board with our process.

Wow

- These apps provide newfound insights and transparency into critical business processes.
- The apps also solve my audit and compliance requirements very easily, with minimal effort on my part – security and visibility is inherent in the apps.
- Slalom built the apps to bespoke requirements in Azure, using Azure Blockchain Service.
- Data from these apps can be exported to SQL Server (Data Warehouse) where it can be blended with other enterprise data to realize key business insights.
- Finally, the blended and standalone blockchain app data can be visualized directly in Power BI with live data feeds, or in a blended Tableau dashboard for executive viewing.

“Regardless of how blockchain is implemented, the lion’s share of the cost and legwork for rolling it out is garnering business **partner participation in the network and involves hammering out business **agreements** and **governance rules**”.**



Workshop Offering Options

A complete breakdown of each workshop offering – covering content and output materials for Half-Day, Full-Day, Two-Day – a double click on the breadth and variation offered.

Half-Day Offering

Blockchain 101 | Brief Use Case Assessment

Summary

Ideally starts with a “Lunch and Learn” style session on Blockchain 101 – content ready off-the-shelf. This can involve a larger initial audience.

This also includes industry-specific use cases, focusing on how contemporaries and competitors are thinking of, and using, blockchain to solve relatable business challenges. These can be the sparks to start client-specific use case brainstorming.

Second half of Workshop centers around a smaller group brainstorming session on potential candidate use cases, specific to our client.

Day ends with a brief scoring exercise on use cases – highlighting which ones may be worth exploring blockchain feasibility further – solution design and possible POC build (post-workshop).

Deliverables

- Blockchain 101 Deck
- Industry-Specific Blockchain Use Case Example Deck
- Use Case Scorecard

Topic	Duration	Detail
Intros & Agenda	20 min.	Client Team, Slalom Team, Agenda
Blockchain 101	60 min.	Blockchain Basics, Industry Ex, Q&A
Blockchain Demo	30 min.	Components, App, Insights
Break	10 min.	N/A
Use Case Brainstorm	30 min.	Initial List, Pick Best Few
Use Case Scoring	45 min.	Assess Value, Feasibility, 2x2
Wrap	15 min.	Identify Best Use Case, Next Steps
Total	3 hr. 30 min.	

Full-Day Offering

Blockchain 101 | Use Case Assessment | Solution Summary

Summary

Starts with a Blockchain 101 session – content ready off-the-shelf. This can involve a larger initial audience.

Bulk of Workshop centers around in-depth use case assessment and scoring – can involve breakout sessions or completed as group.

This also includes industry-specific use cases, focusing on how contemporaries and competitors are thinking of, and using, blockchain to solve relatable business challenges. These can be the sparks to start client-specific use case brainstorming.

Day ends with picking best 1-2 use cases from scoring exercise, conducting deeper dive into solution architecture and high-level roadmap.

Note: Executives likely to leave at lunch, use case and solutioning likely to be pursued by manager, analysts, architect, etc.

Deliverables

- Blockchain 101 Deck
- Industry-Specific Blockchain Use Case Example Deck
- Use Case Scorecard
- Use Case Solution One-Pager

Topic	Duration	Detail
Intros & Agenda	20 min.	Client Team, Slalom Team, Agenda
Blockchain 101	60 min.	Blockchain Basics, Industry Ex, Q&A
Blockchain Demo	30 min.	Components, App, Insights
Break	10 min.	N/A
Use Case Brainstorm	30 min.	Initial List, Pick Best Few
Lunch	60 min.	N/A
Use Case Scoring	45 min.	Assess Value, Feasibility, 2x2
Use Case #1 Solution	60 min.	Deep Dive into Best Use Case
Solution Sum & Wrap	30 min.	Recap Proposed Solution & Next Steps
Total	6 hr.	

Two-Day Offering



Blockchain 101 | Use Case Assessment | Solution Summary

Summary

Starts with a Blockchain 101 session – content ready off-the-shelf. This version involved in-depth industry use case examples (may involve additional prep). Demo is more technical, highlighting architecture and back-end feature analysis.

Bulk of Workshop centers around in-depth use case assessment and scoring – can involve breakout sessions or completed as group.

Day 1 ends with a robust set of candidate use case assessments – vetted and built-out much more thoroughly than the single day session allows.

Day 2 is focused on in-depth solutioning of best 1-2 use cases from scoring exercise, culminating with workable solution architecture and roadmap.

Result: A POC build-ready design.

Note: Executives likely to leave at Day 1 lunch, use case and solutioning likely to be pursued by manager, analysts, architect, etc.

Deliverables

- Blockchain 101 Deck
- Industry-Specific Blockchain Use Case Example Deck
- Use Case Scorecard
- Use Case Solution One-Pager

Day 1 Topic	Duration	Day 2 Topic	Duration
Breakfast & Intros	30 min.	Use Case Re-Group & Scoring	90 min.
Workshop Kickoff	30 min.	Break	30 min.
Blockchain 101	90 min.	Use Case 1 Deep Dive	60 min.
Use Case Examples	30 min.	Lunch	60 min.
Recap + Q&A	30 min.	Use Case 2 Deep Dive	60 min.
Lunch	60 min.	Use Case Decision	30 min.
Blockchain Demo	60 min.	Break	30 min.
Use Case Futurism	60 min.	Process to Reference Architecture	90 min.
Break	30 min.	Next Steps & Future State Planning	30 min.
Use Case Breakout	90 min.	Wrap & Lessons Learned	30 min.
Total	8 hr. 30 min.	Total	8 hr. 30 min.