David Starr:	Welcome to the Microsoft Industry Experiences Team podcast. I'm your host David Starr, and in this series you will hear from leaders across various industries discussing the impact of digital disruption and innovation. Sharing how they've use Azure to transform their business. You can find our team online at also known aka.ms/indxp, or on Twitter at Industryxp.
	Howard Bush is the Principal Industry Lead for Azure for banking and capital markets for the Microsoft Industry Experiences Team. He advocates for Micosoft Azure within the banking and capital markets industries. Howard, welcome to the show.
Howard Bush:	Thanks David, it's great to be here, I appreciate it.
David Starr:	Today we're talking about adopting Azure for real time payments. Could you talk to us a little bit about real time payments so that we're all on the same page?
Howard Bush:	Sure, no problem, be glad to. One of the challenges that banks have globally is that they've had a lot of mergers and acquisition activity over the past decades. One of the challenges is when acquiring those other companies when Bank A acquires Bank B, they typically leave the legacy systems alone, they keep them siloed by division. There can be 20 to 40 of them depending on the types of payment systems. The challenge is, you have all these different standardized approaches across these payment platforms and when it's time to think about real time payments, which is typically being driven through the regulatory compliance wave in the UK and Europe with PSD2, which is the payment service directive to as well as open banking, it's really having an effect on banks to rethink how they do payments.
David Starr:	What are they doing today primarily?
Howard Bush:	Today, they are using a batch process. That batch process is typically taking, it could be a certain number of hours worth of payment transactions, and they're batching these into large runs that they will run these big mainframe systems on a periodic basis to clear out those payments. Those payments would then go through the Clearance System, Federal Reserve, or whatever exchanges there are to clear out those payments. The interesting part of this is that there is a delay, it's not real time, and it makes it difficult for the recipients of the money that are managing their cash positions to see their liquidity on a real time basis.
David Starr:	That latency in payment does sound like a major problem. How does Azure fit into this picture, so that we can get better than the status quo?
Howard Bush:	One of the things, the requirements that is being imposed by regulatory agencies that there is a less than 10 second end to end, payment completion process. That requirement really is requiring a lot of compute power, a lot of

	processing power and ability to handle a lot of data at one time. [crosstalk 00:03:32]
David Starr:	But we're moving away from batch right?
Howard Bush:	Correct. Correct. With Azure, especially our database management and our ability to do hyper-compute, we now have the capabilities to be able to do real time payments so that you have an almost instant view of the transaction because of that large capacity and through-put cross border.
David Starr:	Cross border, could you say a little bit more about that?
Howard Bush:	Sure. If you think about the institutions that are making large payments, a lot of it's around trade finance and credit card payments, you name it, any type of backbone payment process, they're actually making payments across borders, so, from one continent to the next one and one country to the next. It's really important that there is a line of sight on how to process those payments in a real time in currencies that are the right currency with the right types of transaction data, and then getting there to the right recipient. A lot of that has to do with highly automated, highly sophisticated capabilities and cloud capability allows us now to make that even faster.
David Starr:	Yeah, there's definitely some complexity in what you just described there for sure.
Howard Bush:	Yeah. You know, the regulations compliment the situation a little bit. It's complicated because those older systems, they're hard to update. Where banks are starting to have a decision point is, do we put more money, effort, time, labor into the current existing legacy systems, or do we actually build born in the cloud systems, or bring onboard third party syntax that provide those payment services in the cloud so that they don't have to keep up with something that continuing to age.
David Starr:	I understand that many banks have trouble getting their single reporting system in place, due to the many data sources or databases that we find in the bank itself. Does Azure help bring that together and if so, how do we see it?
Howard Bush:	Sure, absolutely. You're absolutely right David. Banks have some difficulty having that central point. One thing that Azure does is the data that's been previously siloed in those solutions, can be collected to a central point. In order to do that, you have to be able to manage the data well. There is a strategy that's in place to help with that migration, or I say the cloud adoption process to get to real time payments. The first step is to migrate those work loads and the data. What we say, that strategy is discover, migrate, and manage.

David Starr: I'm thinking about moving my current resources into Azure what order I might do that in. Is it a big bang? Is it a gradual movement over time of my different components in my system?

Howard Bush: Well yeah, I don't think it's big bang wholistically, although we do have the capabilities to dump all the data into data lakes, and to be able to start there but, at the end of the day, you have to first determine and assess what are those work loads, where are they coming from, what types of en prentice constraints do you have, because compliance is number one and security. If they're contemplating a lifted shift migration, then those early assessments are even more important. But to reduce that complexity of the cloud migration, we would use what was called a Single Comprehensive Service, the Azure Database Migration service, which is designed as a seamless end to end solution for moving on premise sequel server databases to the cloud.

David Starr: Into sequel server databases in the managed cloud services?

Howard Bush: In order to reduce the complexity of their cloud migration, they have to use a single comprehensive service instead of having multiple tools. Azure database migration service, is designed as a seamless end to end solution for moving on premise sequel server databases that the cloud. Once in Azure, then those real time payments become possible with data available from every system at a single view with single reporting and processing capability.

David Starr: Are there any compliance issues around this data that we're pooling together into the same store?

Howard Bush: We work very closely with about 70 regulatory agencies across the world and we are the highest certified cloud capability for financial services. We take the requirements that we get from those regulators, and we build those into our solution so that the banks that are actually migrating their data, they don't have to worry about the compliance because we're already up to date on all the compliance measures.

David Starr: One other thing I wanted to ask about in moving my resources into Azure, is about Virtual Machines. I want to just mention that we have Azure Migrate, which is a tool for moving Virtual Machines into Azure. Presumably however, we could take an on premise, bare metal machine, turn it into a VM, and then upload that rather, into Azure.

Howard Bush: Absolutely. Absolutely, I'm glad you brought that up. You get the CPU and memory utilization included. We have all the disk details and we can create those virtual networks. You could group those machines into a way that you can have easy configuration capability and visualize those dependencies across those VM's, so it is a great service.

David Starr:	Coming away from this podcast Howard, what are you hoping that people do to follow up to take some action?
Howard Bush:	I think one of the first things they can do is come to our marketplace, Azure marketplace, which is our premier destination for our industry partner needs as well as customer needs. They are certified optimized to run on Azure. You can find these solutions across finance and banking. It's a place where, you can one, find the listings, but then there's also opportunities where you can do a trial and you can actually procure and transact on the particular marketplace, so it's a great place to go to start to determine where to get some of these great solutions.
David Starr:	In addition, we have some use case documents that are specifically built for the problems that we're talking about here. One for example, for adopting Azure for real time payments which, hopefully that use case document can be even more informative to people.
Howard Bush:	Absolutely. What it does, it really talks through the problem, what the solutions are, the benefits about using Azure to help with real time payments as a platform of choice for financial services, it provides a strategy for migration, gives you a view for what those key solution components are, and even some select partners that they can consider for real time payments. It's a great document to get started with.
David Starr:	We'll include links to these documents that we're talking about and these resources in the show notes. I think we've come down to the end of our time. Howard, thank you so much for being on the show and talking to us about this particular problem.
Howard Bush:	No problem at all. I just stuck the end with saying that, digital transformation enables new capabilities and real time payments is one of those examples. We want to make sure that the financial industry, banking, capital markets, they consider Azure as their platform of choice.
David Starr:	Well thank you very much.
Howard Bush:	Thank you David.
David Starr:	Thank you for joining us for this episode of the Microsoft Industry Experiences Team podcast. The show the explorers how industry experts are transforming businesses with Azure. Visit our team at aka.ms/indxp. Don't forget to join us for our next episode.